# Ministry of Natural Resources

# Confirmation Letter

December 14, 2012

**Ministry of**
**Natural Resources**

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**Ministère des**
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Ontario

December 14, 2012

Windlectric Inc.
2845 Bristol Circle
Oakville Ontario
L6H 7H8

Attention: Mr. Sean Fairfield

Dear Mr. Fairfield,

In accordance with the Ministry of the Environment's (MOE's) Renewable Energy Approvals regulation (O.Reg.359/09), applicants are required to prepare a natural heritage assessment and environmental impact study using evaluation criteria or procedures established or accepted by the Ministry of Natural Resources (MNR). The regulation requires MNR to confirm that the natural heritage assessment and environmental impact study, including mitigation measures, were prepared using established procedures acceptable to MNR. The MNR's confirmation letter, along with other required project documentation, must be submitted to MOE as part of an application for a Renewable Energy Approval for consideration by MOE in making their Renewable Energy Approval decision.

The Ministry of Natural Resources (MNR) has reviewed the natural heritage assessment and environmental impact study for Windlectric Inc., Amherst Island Wind Energy Project, submitted December 3, 2012. Based on our review and understanding the aforementioned project is located at Amherst Island, Township of Loyalist.

In accordance with sections 28(2) and 38(2)(b) of the Renewable Energy Approvals regulation, MNR provides the following confirmations following review of the natural heritage assessment reports:

1. The MNR confirms that the determination of the existence of natural features and the boundaries of natural features was made using applicable evaluation criteria or procedures established or accepted by MNR.
2. The MNR confirms that the site investigation and records review were conducted using applicable evaluation criteria or procedures established or accepted by MNR.
3. The MNR confirms that the evaluation of the significance or provincial significance of the natural features was conducted using applicable evaluation criteria or procedures established or accepted by MNR.
4. The MNR confirms that the project location is not in a provincial park or conservation reserve.
5. The MNR confirms that the environmental impact study report has been prepared in accordance with procedures established by the MNR.

In accordance with Section 28(3)(c) and 38(2)(c) of the Renewable Energy Approvals regulation, MNR offers the following comments in respect of the project:

1) The potential for ongoing risk of negative environmental effects has been identified in the natural heritage assessment (NHA). The project and potential effects will be monitored as outlined with the Environmental Impact Study Report to ensure that proposed mitigation strategies are effective and contingency measures have been included for instances where performance objectives are not met.
2) As part of the Environmental Impact Study Report, comprehensive post construction monitoring has been identified to determine if disturbance effects are occurring for Late Winter Raptor Wildlife Habitats. Should disturbance effects be identified, MNR will be consulted, and mitigation techniques will be employed in accordance with commitments outlined in the Environmental Impact Study Report. MNR, in cooperation with Windelectric Inc., and any relevant agencies, will review the post construction monitoring reports in conjunction with relevant science to develop approaches to minimizing impacts should they occur.

MNR is providing this confirmation letter based on the review of the information provided in your natural heritage assessment reports. Applicants should be aware of the transition provisions under section 62 of the amended Renewable Energy Approvals regulation and fulfill natural heritage assessment requirements accordingly.

Where specific commitments have been made by the applicant in the natural heritage assessment with respect to project design, construction, rehabilitation, operation, mitigation, or monitoring, MNR expects that these commitments will be considered in MOE's Renewable Energy Approval decision and, if approved, be implemented by the applicant.

This confirmation letter is valid for the project as proposed in the natural heritage assessment and environmental impact study, including those sections describing the environmental effects monitoring plan and construction plan report. Should any changes be made to the proposed project that would alter the natural heritage assessment, MNR may need to undertake additional review of the natural heritage assessment.

In accordance with section 12(1) of the Renewable Energy Approvals Regulation, this letter must be included as part of your application submitted to the MOE for a Renewable Energy Approval.

If you wish to discuss any part of the confirmation or additional comments provided, please contact Eric R. Prevost, Renewable Energy Planning Ecologist, at (705) 755-3134.

Sincerely,

Karen Bellamy

Karen Bellamy
District Manager
Peterborough District, MNR

cc. Vic Schroter, Environmental Assessment and Approvals Branch, MOE
Jim Beal, Southern Region Planning Unit, MNR

# Natural Heritage Assessment & Environmental Impact Study

# AMHERST ISLAND WIND ENERGY PROJECT
## NATURAL HERITAGE ASSESSMENT & ENVIRONMENTAL IMPACT STUDY

File No.: 160960595
November 2012

Prepared for:

**Windlectric Inc. (c/o Algonquin Power Co)**
2845 Bristol Circle
Oakville, ON L6H 7H7

*Prepared by:*

**Stantec Consulting Ltd.**
Suite 1 – 70 Southgate Drive
Guelph, Ontario N1G 4P5

## Executive Summary

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Windlectric Inc. (Windlectric) is proposing to develop, construct, and operate the 56 - 75 megawatt (MW) Amherst Island Wind Energy Project (the Project) within Loyalist Township (the Township) in the County of Lennox and Addington (the County) in eastern Ontario, in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province.

The Project Study Area includes Amherst Island, an approximately 3 - 15 kilometre wide corridor stretching between the Island and the mainland where the submarine cable is proposed. The mainland portion of the Project Study Area stretches from the mainland shoreline, north of the Invista Transformer Station and is generally bounded by i) County Road 4 to the West; ii) the Canadian National Railway line to the North; and iii) approximately 500 m East of Jim Snow Drive to the East.

The basic components of the proposed Project include up to 36 Siemens wind turbines. The turbine model proposed utilizes the same 36 turbine pad locations that have been subject to the assessment required under REA. The layout includes 34 Siemens SWT-2.3-113 2300 kW and two (2) Siemens SWT-2.3-113 2221 kW model wind turbines. The final layout will result in a total installed nameplate capacity of approximately 56 - 75 MW. The number of wind turbines will be dependent upon final selection of the model of the wind turbine most appropriate to the proposed Project. The proposed Project will also include a 34.5 kilovolt (kV) underground and/or overhead electrical power line collector system, fibre optic data lines from each turbine and/or wireless technology for the communication of data, a transmission line, truck turnaround areas, a submarine cable, an operations and maintenance building, permanent dock, a substation, a switching station, an un-serviced storage shed, one connection point to the existing electrical system, cable vault areas, meteorological tower(s) (met tower(s)), access road(s) to the met tower site(s), and turbine access roads with culvert installations, as required, at associated watercourse crossings.

Temporary components during construction may include staging areas for the turbines, access roads, met tower(s), collector lines and transmission lineas well as crane paths, a temporary dock, site office(s), batch plant, central staging areas, and associated watercourse crossings. The electrical power line collector system would transport the electricity generated from each turbine to the substation, along the submarine cable to the mainland and then to a switching station located near to an existing Hydro One Networks Inc. (HONI) 115 kV transmission line.

Windlectric Inc. has retained Stantec Consulting Ltd. (Stantec) to prepare a Renewable Energy Approval (REA) application, as required under Ontario Regulation 359/09 - Renewable Energy Approvals under Part V.0.1 of the Act of the *Environmental Protection Act* (O. Reg. 359/09). This Natural Heritage Assessment and Environmental Impact Study report has been prepared in accordance with O. Reg. 359/09 and *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNR 2011a). The Natural Heritage Assessment (NHA) report is provided to the Ministry of Natural Resources (MNR) for confirmation in advance of submission as part of the Renewable Energy Approval (REA) application to the Ministry of Environment (MOE).

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# 1.0 Introduction

## 1.1 PROJECT OVERVIEW

Windlectric Inc. (Windlectric) is proposing to develop, construct, and operate the 56 - 75 megawatt (MW) Amherst Island Wind Energy Project (the Project) within Loyalist Township (the Township) in the County of Lennox and Addington (the County) in eastern Ontario, in response to the Government of Ontario’s initiative to promote the development of renewable electricity in the province.

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The Proponent has elected to assess and seek approval for some alternative Project configurations. The Renewable Energy Approval (REA) application process will consider:

- two alternative mainland transmission line routes;
- two alternative switching station locations and corresponding point of common coupling with the HONI line;
- three alternative mainland temporary dock locations along the mainland;
- a submarine cable with three alternative submarine cable routes near the mainland;
- three alternative mainland submarine cable landing locations and corresponding cable vault locations;
- up to three alternative met tower locations; and,
- up to four potential locations for an operations and maintenance building.

Final selection of the sites to be used would be based on the results of consultation activities, detailed design / engineering work, and the conditions experienced during construction.

## 1.2 REPORT REQUIREMENTS

This Natural Heritage Assessment and Environmental Impact Study (NHA/EIS) report has been prepared in accordance with Ontario Regulation 359/09 (O. Reg. 359/09) and *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNR 2011a). The NHA/EIS report is provided to the Ministry of Natural Resources (MNR) for confirmation in advance of submission as part of the Renewable Energy Approval (REA) application to the Ministry of Environment (MOE).

This NHA utilizes the definition of Project Location as provided in Section 2.3 of the *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNR 2011a). As per the definition in the REA regulation, a renewable energy Project Location includes: "…*a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the Project and any airspace in which a person is engaging in or proposes to engage in the Project".*

A renewable energy Project includes all activities associated with the construction, installation, use, operation, maintenance, changing or retiring of the renewable energy generation facility. Therefore, for the purposes of measuring the distance from the Project Location to a natural feature, a Project Location boundary is considered to be the outer limit where site preparation and construction activities will occur and where infrastructure will be located (e.g. temporary structures, lay down areas, storage facilities, generation equipment, access roads, etc.).

In addition, for consultation purposes a 'Study Area' has also been defined (**Figure 1A, Appendix A**). The Study Area is an area that encompasses the Project Location and uses existing roadways to define the spatial limit of the boundary. The Project Study Area includes

Amherst Island and an approximately 3 - 15 kilometre wide corridor stretching between the Island and the mainland where the submarine cable is proposed. The mainland portion of the Project Study Area stretches from the mainland shoreline, north of the Invista Transformer Station and is generally bounded by i) County Road 4 to the West; ii) the Canadian National Railway line to the North; and iii) approximately 500 m East of Jim Snow Drive to the East.

An NHA is required to determine whether any of the following natural heritage features exist in and/or within 120 m of the Project Location:

- Wetlands and Coastal Wetlands
- Woodlands;
- Valleylands;
- Wildlife habitat;
- Life Science Areas of Natural and Scientific Interest (ANSIs), or within 50 m of an Earth Science ANSI;
- Natural features in specified provincial plan areas; and,
- Provincial parks and conservation reserves.

In accordance with O. Reg. 359/09, the Project Location includes all land and buildings/structures associated with the Project and any air space in which the Project will occupy. This includes structures such as turbines, access roads and power lines as well as any temporary work areas (the ‘constructible area’ for the Project) which are required to be utilized during the construction of the Project.

This report identifies the presence and boundaries of all natural features in and within 120 m of the Project Location based on a review of background records (Section 2) and on-site field investigations (Section 3). An Evaluation of Significance was then completed for each identified feature based on either an existing MNR designation of the feature or by using evaluation criteria or procedures established or accepted by the MNR (Section 4). Where the Project Location is in or within 120 m of a significant or provincially significant natural feature based on the evaluations of significance, an environmental impact study was completed which identifies and addresses, through mitigation, any potential negative environmental effects of the Project (Section 5).

For the purposes of verifying the accuracy of the Records Review and to identify any additional natural features, a ‘Zone of Investigation’ has been identified based on the requirements of O. Reg. 359/09 and the NHA Guide for Renewable Energy Projects (MNR 2011a).

The Zone of Investigation encompasses the Project Location plus an additional 120 m surrounding the Project Location (**Figure 1A, Appendix A**) and is the area within which site-specific field investigations were completed to:

- Verify whether the analysis of the Project Location undertaken through the Records Review is accurate, and make any necessary corrections to the determinations in the Records Review report;
- Determine whether any additional natural features exist in or in or within 120 m of the Project Location, other than those identified in the Records Review report;
- Determine the boundaries of any natural feature located in or in or within 120 m of the Project Location (identified through the Records Review report or during Site Investigation); and,
- Determine the distance from the Project Location to the boundaries of any natural features.

This ensures that any negative environmental effects that may result from construction, operation, and decommissioning of the Project will be assessed within this report as per the requirements of O. Reg. 359/09.

The results of the NHA/EIS are consolidated into this report, which is being submitted to MNR for confirmation in advance of submission of the REA application to the MOE. Written confirmation from the MNR, as well as any written comments received from the MNR, must be submitted along with the NHA/EIS to the MOE as part of the REA application.

## 1.3 GUIDANCE DOCUMENTS

During the preparation of this report, several guidance documents were referenced to ensure compliance with current standards and agency requirements. These documents include:

- NHA Guide for Renewable Energy Projects (MNR 2011a)
- Bats and Bat Habitats Guidelines for Wind Power Projects (MNR 2011b)
- Birds and Bird Habitats Guidelines for Wind Power Projects (MNR 2011c)
- Significant Wildlife Habitat Technical Guide (SWHTG) and Appendices (MNR 2000)
- Ontario Wetland Evaluation System, Southern Manual (MNR 2002)
- Draft Significant Wildlife Habitat Ecoregion 6E Criterion Schedule (MNR 2012)

# 2.0 Records Review

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## 2.1 METHODS

This Records Review report was prepared in accordance with O. Reg. 359/09, s. 25 (3).

Background data were collected and reviewed to identify natural features located in, or within, 120 metres of the Project Location (i.e., the Zone of Investigation). Documents reviewed and agencies contacted as part of the Records Review included but were not limited to:

- Ontario Ministry of Natural Resources (MNR). Natural heritage data request and proposed Site Investigation work program submitted May 12, 2011. MNR provided a written response on natural heritage features and Provincially Significant Wetlands (PSW) for the Project Study Area on May 30, 2011 (including Provincially Significant Wetland Evaluations for Wemps Bay Marsh, Nut Island Duck Club Marsh and Long Point Marsh) and during a teleconference on June 3, 2011. Stantec has been in correspondence with the Renewable Energy Planning Ecologist for this region on an on-going basis;
- Natural Heritage Information Centre (NHIC 2010) database. February 2012. Natural Areas and Species records search. Biodiversity explorer, http:/nhic.mnr.gov.on.ca. OMNR, Peterborough. Accessed February 2012;
- Land Information Ontario (LIO). 2012. LIO digital mapping of natural heritage features;
- Renewable Energy Atlas: bat hibernacula mapping (LIO 2012);
- Ontario Parks Planning and Management Information (http://www.ontarioparks.com/english/plan-res.html).
- Historic air photos of Amherst Island (Northway-Photomap Remote Sensing Ltd 1948)

**Conservation Authority**

- Cataraqui Region Conservation Authority/Loyalist Township. Letter sent to Planner/Chief Building Official of Loyalist Township and copied to General Manager of CRCA on September 16, 2008. Response and screening maps received from Development Officer of CRCA September 26, 2008;
- Letter from Cataraqui Region Conservation Authority (CRCA) to Windlectric Inc. dated March 28, 2011;
- Background information request sent to the General Manager at CRCA on August 17, 2011;
- Windlectric and Stantec met with CRCA representatives on October 6, 2011;
- Cataraqui Region Conservation Authority mapping (2011);

- Cataraqui Region Conservation Authority. Natural Heritage Study Final Report. August 2006.
- Owl Woods Management Strategy (Ecological Services 2011)

**Local Municipal Government**

- Letter sent to Planner/Chief Building Official of Loyalist Township;
- Windlectric and Stantec met with Loyalist Township representatives on October 6, 2011;
- Loyalist Township Official Plan (2010) and associated Schedules A and B.

**Other data sources**

- Important Bird Areas (IBA) database (Bird Studies Canada and BirdLife International, undated);
- Ontbirds Archives;
- eBird Canada Checklist;
- Various wildlife atlases (birds, mammals, amphibians and reptiles);
- Kingston Field Naturalists (KFN). Meeting and site walk with Kurt Hennige and Erwin Batalla on May 20, 2011, to visit KFN property and discuss on-island bird communities. Request for bird nesting data sent to Kurt Hennige on June 2, 2011. Bird nesting data received June 24, 2011;
- Geographic and Habitat Fidelity in the Short-eared Owl (*Asio flammeus*) (Keyes 2011); including specific information regarding Short-eared Owls breeding on Amherst Island;
- Amherst Island Beacon Archives;
- Discussion with local bird expert Janet Scott regarding owl populations on Amherst Island;
- Golder and Associates. Report on Fall Migration Bird Monitoring on Amherst Island, Ontario. October 2008. Addendum to Fall Migration Bird Monitoring on Amherst Island, Ontario. December 2008.

A summary of agencies contacted, information requested and responses received is provided in **Table 1B, Appendix B**.

The information received from each source and the manner in which it was used to identify natural features, provincial parks or conservation reserves that exist in or within 120 m of the Project Location (50 m for Earth Science ANSIs) is presented in **Section 2.2.5 to 2.2.7**.

## 2.2 RESULTS

A review of available background information has indicated the presence of known natural features occurring within the Study Area. The results of the Records Review search were used to determine whether the Project Location is in a natural feature, within 50 m of an Earth Science ANSI, or within 120 m of other natural features (as defined in Section 1.2). The locations of these features, including the boundaries of all natural features relative to the Project Location, are provided in **Figure 1B, Appendix A**, and described in the following sections.

### 2.2.1 Wetlands

#### 2.2.1.1 Provincially Significant and Coastal Wetlands

A review of the NHIC database, LIO mapping and CRCA mapping identified three Provincially Significant Coastal Wetlands within the study area on Amherst Island (MNR 2011a; LIO 2012; CRCA 2006). Each is depicted on **Figure 1B, Appendix A**. These include:

- Nut Island Duck Club Marsh: this is a 114 ha coastal wetland composed of two wetland types including 60% swamp and 40% marsh (CRCA 2006). This wetland is within 120 m but does not overlap with the Project Location.

- Wemps Bay Marsh: this is a 43 ha coastal wetland composed of two wetland types including 19% swamp and 81% marsh (CRCA 2006). Wemps Bay Marsh is within 300 m of the Project Location, but does not occur within the 120 m Zone of Investigation.

- Long Point Marsh: this is a 315 ha coastal wetland complex composed of three separate wetlands and three different wetland communities (CRCA 2006). It is associated with the Long Point Marsh Provincially-Significant Life Science ANSI (as discussed in Section 2.2.5). This wetland is within 120 m but does not overlap with the Project Location.

#### 2.2.1.2 Locally-Significant Wetlands

The known wetlands (both Provincially Significant and unevaluated wetlands) and watercourses within the Study Area have been identified as ‘Environmentally Sensitive’ according to Schedule B of the Loyalist Township Official Plan (Loyalist Township 2010). However, the Township, nor the CRCA or MNR, has identified any wetlands within the Study Area as locally significant.

#### 2.2.1.3 Unevaluated Wetlands

The data review also identified numerous unevaluated wetlands within the Amherst Island and one unevaluated wetland in the mainland study areas (LIO 2012) that are located within 120 m of the Project Location. Unevaluated wetlands identified through the Records Review are shown in Figure 1B, Appendix A.

#### 2.2.1.4 Summary

The Project Location does not overlap with any unevaluated wetlands or PSWs identified in the Records Review. Several unevaluated wetlands have been identified within 120 m of the Project Location, and the Project is located within 120 m of two Provincially Significant Coastal Wetlands (Nut Island Club Marsh and Long Point Marsh). One additional Provincially Significant Coastal Wetlands (Wemps Bay Marsh) is located within the Study Area, but outside of the 120 m Zone of investigation (**Figure 1B, Appendix A**). The wetlands located within 120 m of the Project Location will be carried forward to the site Investigation. Site investigations will be undertaken to also identify any previously unknown wetland features in or within 120 m of the Project Location.

### 2.2.2 Woodlands

Woodlands are defined as treed areas, woodlots or forested areas other than cultivated fruit or nut orchards or Christmas tree plantations that are located east and south of the Canadian Shield (MNR 2011a).

A review of aerial photos and the Loyalist Township Official Plan (Loyalist Township 2010) of the Study Area indicate that it is predominantly agricultural. However, the CRCA has mapped woodlands and significant woodlands throughout Loyalist Township including the Study Area (CRCA 2006). For woodlands on Amherst Island, the CRCA study utilized a 4-hectare minimum threshold when determining significance based on size. This 4-hectare threshold was determined based on the 5–15% total percent woodland cover on Amherst Island alone as opposed to the total woodland cover within Loyalist Township. Most of the woodlands within the Study Area were determined to be significant based on size. Fewer woodlands met other significance criteria including presence of interior habitat, connectivity and age (CRCA 2006).

Historical air photos of Amherst Island indicate that in 1948 the island had significantly less woodland cover, and many of the woodlands on the island are younger than 64 years old (Northway-Photomap Remote Sensing Ltd. 1948). Agriculture was the predominant land use on the island. Woodland cover has increased since this time on the island likely due to changes in property ownership and management.

Based on the data review, several significant woodlands are located within the Study Area and with multiple significant and non-significant woodlands located in or within 120 m of the Project Location.

Woodlands and significant woodlands, as identified through the Records Review, are shown in **Figure 1B, Appendix A**.

The boundaries of the known woodlands as well as any additional woodlands will be verified during the Site Investigation.

### 2.2.3 Valleylands

Valleylands are linear natural areas that occur in a valley or other landform depression that have water flowing through or standing for some period of the year (MNR 2011a).

The identification and evaluation of significant valleylands based on the recommended criteria from MNR (i.e. surface and groundwater functions, landform prominence, ecological features and functions) is typically the responsibility of municipal planning authorities. Under O. Reg 359/09 proponents engaging in a renewable energy project must identify the presence and boundaries of valleylands that occur in or within 120 m of the Project Location.

For the purposes of this report, criteria as outlined in the NHA Guide were applied to assist in the identification of valleylands (MNR 2011a). For well-defined valleys, the physical boundary of the valleyland is defined by the stable top-of-bank or predicted top-of-bank. For less well-defined valley or stream corridor, the physical boundary may be defined in a number of ways including the consideration of riparian vegetation, the flooding hazard limit, the meander belt, or the highest general level of seasonal inundation.

Based on the data review, there are no known significant valleylands within the Project Location or Study Area (CRCA 2006). However, the presence of many watercourses within the Study Area suggests that valleylands may be present. These areas in or within 120 m of the Project Location will be considered during the Site Investigation.

### 2.2.4 Wildlife Habitat

Wildlife habitat is defined as an area where plants, animals and other organisms live, including areas where species concentrate at a vulnerable point in their life cycle and that are important to migratory and non-migratory species. The Draft Significant Wildlife Habitat Ecoregion 6E Criterion Schedule groups wildlife habitat into four categories:

- Seasonal concentration areas of animals;
- Rare vegetation communities or specialized habitat for wildlife;
- Habitat for species of conservation concern; and
- Animal movement corridors.

Air photo interpretation indicates that the Project Location is largely comprised of cultural meadow and agricultural land consistent with the dominant landscape condition of Amherst Island. Natural wildlife habitat found in or within 120 m of the Project Location primarily includes two limited areas around Long Point Marsh Provincially Significant Coastal Wetland and Nut Island Duck Club Provincially Significant Coastal Wetland (LIO 2012; NHIC 2010). Outside of these features, potential natural wildlife habitat may occur within the periphery of several wooded areas in the western and eastern portion of the island containing, in part, unevaluated wetlands (**Figure 2, Appendix A**). In addition to natural areas, several areas of cultural origin (e.g. meadows) are also likely to provide wildlife habitat.

The Amherst Island Important Bird Area (IBA) encompasses the entire island and adjacent off-shore areas. It has been designated as globally and continentally significant for congregating species, including spring and fall staging waterfowl. Although IBA designation is not recognized from a provincial or federal regulatory perspective, special attention has been given to the IBA in this assessment. Specifically, the IBA has been designated for the high numbers of Brant Geese recorded in off-shore waters surrounding the island during their fall migration (IBA Canada undated). Large numbers of shorebirds, specifically Dunlin, have also been recorded along the Amherst Island shorelines. The IBA report also makes mention of the large concentration of wintering raptors and owls on Amherst Island, including Short-eared Owls, a species of Special Concern (IBA Canada undated). Owl Woods is a well-known area for congregations of wintering owls on Amherst Island.

An additional known area of particularly high landbird concentration is located approximately 18 km southwest of the Study Area, at the Prince Edward Point Bird Observatory, located within the Prince Edward Point IBA. Wolfe Island is also an IBA, located approximately 6 km east of the Study Area, and it is known for high landbird and waterfowl concentrations.

Secondary source data were used to determine potential wildlife use of the Study Area. Inventories of wildlife that have been recorded as occurring within the range of the Amherst Island Wind Study Area were compiled from available literature and resources including the Atlas of the Mammals of Ontario (Dobbyn 1994), the Ontario Herpetofaunal Summary (Oldham and Weller 2000), the Ontario Breeding Bird Atlas (Cadman et al. 2007), and Birds of the Kingston Region (Weir 2008). The potential for species to be present within the Study Area will be limited by the habitat suitability and availability supported by the Study Area. Therefore the identified species recorded from these databases may not occur within the Amherst Island Wind Study Area.

#### 2.2.4.1 Seasonal Concentration Areas

Seasonal concentration areas are those sites where large numbers of a species gather together at one time of the year, or where several species congregate. The Draft Significant Wildlife Habitat Ecoregion 6E Criterion Schedule identifies 16 potential types of seasonal concentration areas (MNR 2012).

As defined in the MNR guidance, the 16 types of seasonal concentrations are:

- waterfowl stopover and staging areas (terrestrial);
- waterfowl stopover and staging areas (aquatic);
- shorebird migratory stopover areas;

- raptor wintering areas;
- bat hibernacula;
- bat maternity colonies;
- bat migratory stopover areas;
- turtle wintering areas;
- snake hibernacula;
- colonially-nesting bird breeding habitat (bank and cliff, tree/shrubs, and ground);
- migratory butterfly stopover areas;
- landbird migratory stopover areas;
- deer yarding areas; and
- deer winter congregation areas.

A review of background information to assess the potential for seasonal concentration areas associated with southern Ontario to be supported in the Study Area is provided below.

**Waterfowl Stopover and Staging Areas**

Areas generally considered candidate significant wildlife habitat for waterfowl staging areas are very large wetlands, associated with lakes that generally have a diversity of vegetation communities interspersed with open water (MNR 2000). Marshes along Great Lakes shorelines are considered particularly valuable (MNR 2000). Amherst Island is noted in Appendix K of the Significant Wildlife Habitat Technical Guide (MNR 2000) as being significant for waterfowl migration.

<u>Terrestrial</u>

The Records Review did not identify known occurrences of waterfowl concentrations in terrestrial habitat on the island. However, a review of aerial photography suggests meadow habitat which may flood in the spring, suitable for foraging geese or dabbling ducks, is present.

Site investigations were conducted to determine whether this type of seasonal concentration area is supported in or within 120 m of the Study Area (see Section 3.0).

<u>Aquatic</u>

The Amherst Island IBA report lists Atlantic Brant Staging in large numbers (~2000-5000) in the area north of Amherst Island (IBA Canada undated). Cataraqui Region Natural Heritage Study of Loyalist Township shows migratory waterfowl sites surrounding Amherst Island, with two shown in the North Channel Bay of Quinte between Amherst Island and the mainland (CRCA 2006).

Christmas Bird Count (National Audubon Society 2010) data indicate 25 waterfowl species observed over 16 non-consecutive years of counts. Brant and King Eider were not observed within the past ten years, resulting in a total of 23 species observed in the last ten consecutive years (2000 through 2010). Count data show large numbers of Canada Geese (average count per hour 43.1, 10 year average number observed 868) and Common Goldeneye (average count per hour 39.3, 10-year average number observed 966).

### Shorebird Migratory Stopover Areas

Relatively undisturbed shorelines along the Great Lakes that produce abundant food (clams, insects, snails and worms) are used by shorebirds during migration (MNR 2000). The Amherst Island Wind Study Area is located along a Great Lakes shoreline and is considered to be located in an area that may include candidate significant wildlife habitat for a shorebird stopover area.

The KFN (pers comm 2011) have regularly recorded shorebirds staging on the Amherst Bar at the eastern tip of the island, and this is likely the most significant habitat on the island (**Figure 1B, Appendix A**). The IBA report (undated) cites up to 1000 Dunlin which were recorded on the island in 1997. The Amherst Bar is located over 500 m east of the Project Location.

### Raptor Wintering Area

Hay fields, pastures and open meadows that support large and productive small mammal populations can provide critical winter feeding areas (MNR 2000). The best roosting sites are typically found in relatively mature mixed or coniferous woodlands that abut windswept fields, with scattered trees and fence posts providing perches for hunting (MNR 2000).

According to the Important Bird Area (IBA) report (IBA Canada undated), Amherst Island has gained international recognition for concentrations of wintering hawks and owls that are often present. Up to 10 species of owls have been recorded during a single winter. Some peak numbers include: 34 Great Gray Owls (February 1979), 27 Great Gray Owls (March 1996), 3 Boreal Owls (November 1996), 21 Snowy Owls (1980s), 50 Long-eared Owls (1979) and 86 Rough-legged Hawks (1985). In the 1970s and 1980s, over 70 Short-eared Owls were seen in many winters. This species of conservation concern has also bred on Amherst Island in July 1973, when 30 individuals were counted.

The Owl Woods, an undefined area on the eastern end of Amherst Island, is a known winter owl concentration area (**Figure 1B, Appendix A**). Although Owl Woods itself has no defined boundary, the wooded area is owned by CRCA and four private landowners. There is a trail system through the woods that allows public access, with visitor numbers peaking during the winter months. The 120 m Zone of Investigation includes portions of deciduous forest and thicket. The pine plantation, where the majority of roosting owls can be observed, is located outside of the 120 m Zone of Investigation, approximately 500 m from the closest turbine location; however, the deciduous forest in the north section of the Owl Woods is located within 120 m of the Project Location.

The KFN have been studying Owl Woods for many years, primarily through Bird Counts and it has been the subject of numerous articles in The Blue Bill, the periodical produced by the KFN. The base ecology of Owl Woods had not been reported on until the Owl Woods Management Strategy was produced in 2011. The general ecology is described as having small habitat types which are fragmented, heavily disturbed, lack biodiversity and attractive to invasive species. The management plan states that most of the Ecological Land Classification (ELC) types are cultural ones, and the natural vegetation class (which was identified as Dry-Fresh Sugar maple – White Ash Forest Type, FOD5-8) is very common in Ontario.

Generally the Owl Woods consists of three vegetation types; deciduous forest, a jack pine plantation and surrounding meadow and thicket habitat with scattered red cedars. Roosting owls are most commonly associated with the pine plantation and surrounding scattered red cedar. The Owl Woods is particularly known for its concentrations of Saw-whet Owls (*Aegolius acadicus*) and Long-eared Owls (*Asio otus*) during the winter. In some years, Boreal Owls are regularly observed in the woods. Barred Owls can occasionally be observed in the woods as well. These hunt for voles in the nearby fields, and use the conifers for thermal regulation and cover during the day, where they may be visible to visitors. Less frequently seen, or seen nearby are the Short-eared Owl, Great Horned Owl (*Bubo virginianus*), Snowy Owl (*Bubo scandiacus*), Great Gray Owl (*Strix nebulosa*) and most rarely, the Northern Hawk Owl (*Surnia ulula*). As reported in the Owl Woods Management Plan (Ecological Services 2011), population trends of Saw-whet and Great Gray numbers were stable. Numbers of Long-eared Owls and Barred Owls were increasing moderately, and Great Horned and Boreal were in moderate decline. Short–eared Owls are listed as a species of Special Concern, federally and provincially, but do not appear as dependent on Owl Woods as other species of owl (Ecological Services 2011).

Christmas Bird Count data show 19 species of raptor (including owl species) recorded in the last ten years of count data. The three most commonly observed raptors were Rough-legged Hawk (*Buteo lagopus*) with a 10-year average of 1.30 birds per hour, Red-tailed Hawk (*Buteo jamaicensis*) with a 10-year average of 1.02 birds per hour, and Northern Harrier (*Circus cyaneus*) with a 10-year average of 0.41 birds per hour. The most abundant owl species observed over the last ten years of CBC data was Long-eared Owl with a 10-year average of 0.45 birds per hour. Short-eared Owl was second with 0.32 birds per hour and Snowy Owl was third at 0.24 birds per hour (National Audubon Society 2010).

Environment Canada has compiled the results of winter bird surveys in 2006 from 17 sites in southern Ontario and concluded that only a few sites across southern Ontario provide the necessary conditions to support high numbers of wintering raptors. Amherst Island supported the highest number of raptors (3.14 raptors/kilometre) followed by Fisherville (2.14 raptors/kilometre) and then Wolfe Island (1.4 raptors/kilometre). The remainder of the sites supported raptor densities that were an order of magnitude less than these three sites (Environment Canada 2007).

### Bat Hibernacula

Bats require specific environmental conditions for hibernating. These conditions are provided by features such as caves or abandoned mines (MNR 2000). Karst topography and areas of exposed bedrock can be indicators of potentially suitable hibernacula habitat for bats.

No known bat hibernacula have been identified within 1 km of the Study Area (LIO 2012). The nearest known bat hibernacula are located approximately 26 km to the northeast and 38 km to the northwest of the Study Area.

### Bat Maternity Colonies

Depending on the species, maternity roosting colonies for bats can include tree foliage, tree cavities and crevices under loose bark, or buildings. There are no known maternity roosts in the Study Area.

### Bat Migratory Stopover Areas

Stopover areas for long distance migrant bats, including Hoary Bat, Eastern Red Bat and Silver-haired Bat, are important during fall migration. Long distance migratory bats typically migrate during late summer and early fall from summer breeding habitats throughout Ontario to southern wintering areas. Their annual fall migrations concentrate these species of bats at stopover areas. The location and characteristics of stopover habitats are generally unknown.

No known migratory stopover areas occur within the Study Area. Because criteria have not been developed for this habitat in this Ecoregion to date, it is not possible to further assess this habitat (MNR 2012). Therefore this feature will not be carried forward into the Site Investigation.

### Turtle Wintering Areas

Wintering areas for turtles are generally the same general area as their core habitat: water that is deep enough not to freeze, with soft mud substrate (MNR 2012). Candidate turtle overwintering habitat is defined as permanent water bodies, large wetlands, and bogs or fens with adequate dissolved oxygen (MNR 2012).No known turtle wintering areas occur within the Study Area.

### Snake Hibernacula

Potential hibernacula are overwintering areas that include features such as animal burrows, rock crevices, fractured rocks at the base of cliffs or karst areas that provide an access for reptiles to hibernate below the frost line (MNR 2000). These areas are often associated with water to prevent desiccation of the species.

Many of Ontario's reptile species only occur in the southern most parts of the province and the Project is located within the ranges of several common species of snakes (Oldham and Weller 2000). The Records Review did not identify any known reptile hibernacula in or within 120 m of the Project Location.

### Colonial Bird Nesting Sites (bank/cliff, tree/shrub and ground)

Colonial bird nesting sites can be located in swamps and along large bodies of water for herons, islands for gulls and cliffs, and in banks and artificial structures for swallows (MNR 2000).

The Central Cataraqui Region Natural Heritage Study of Loyalist Township shows two colonial water birds sites on Amherst Island, one of which is a heronry used by Great Blue Herons located in the Long Point Marsh, and the second of which is located in the Nut Island Club Wetland at the southwest corner of the island. These wetlands are identified on **Figure 1B, Appendix A**. There are records of Black-crowned Night Herons on Amherst during the breeding season (KFN pers comm 2011); these individuals may nest on the bar at the eastern tip of the island (the Amherst Bar), or on the Brother Islands, a small group of islands, to the northeast.

The MNR confirms that there is a known nesting site/colony used by Herring Gulls, Common Terns, and Double-crested Cormorants located on the Brother Islands (which is approximately 2 km off the northeast shore of Amherst Island; **Figure 1B, Appendix A**).

The Breeding Bird Atlas of Ontario (Cadman et al. 2007) has records of colonial swallow species on Amherst Island, suggesting swallow colonies may occur within the Study Area.

### Migratory Butterfly Stopover Areas

During fall migration, monarchs tend to move along the north shore of the Great Lakes (Calvert 2001). Fields and other open areas with a variety of habitat types that are found within 5 km of the Lake Erie or Lake Ontario shoreline are considered candidate significant wildlife habitat for migratory butterfly stopover areas (MNR 2000).

The Study Area is located along the northern shoreline of Lake Ontario and therefore may contain candidate significant wildlife habitat for migratory butterflies; however, no known records of significant migratory butterfly stopover areas were found.

### Landbird Migratory Stopover Areas

Migratory passerines are known to use forested landscapes along Great Lakes shorelines as stopover sites during spring and fall migration (Potter et al. 2007; MNR 2000). Landbirds tend to concentrate at tips of peninsulas, congregating in significant numbers at known significant stopover sites including Point Pelee and Long Point in Lake Erie, while raptors and shorebirds concentrate along the Great Lakes during migration. Areas that provide a diversity of habitat types ranging from open grasslands to large woodlands within 5 km of the Lake Erie or Lake Ontario shorelines are considered potential candidate significant wildlife habitat for migrating landbird stopover areas (MNR 2000).

The Amherst Island Project is located adjacent and along the Lake Ontario shoreline and as such, the Study Area may include areas that would constitute candidate significant wildlife habitat for a migratory landbird stopover.

### Deer Yarding Areas

Deer yards are areas of key winter habitat for White-Tailed Deer. They usually consist of a core area of coniferous forest, which provides shelter from snow and wind, adjacent to an area of deciduous forest or other foraging habitat (MNR 2012).

MNR undertakes the identification and delineation of deer yards. Given the absence of designated deer yards, no candidate significant wildlife habitat for deer yards occurs in or within 120 m of the Project Location. Therefore, this habitat will not be carried forward to the Site Investigation.

### Deer Winter Congregation Areas

Deer winter congregation areas are applicable in the southern areas of Ecoregion 6E where deer movement in the winter is not constrained by snow depth, but where deer congregate in suitable woodlands to reduce or avoid winter conditions. Forested or treed swamp ecosites >100 ha in size or smaller conifer plantations are considered candidate significant wildlife habitat (MNR 2012).

MNR undertakes the identification and delineation of significant deer winter congregation areas. None were found in or within 120 m of the Project Location. Therefore, this habitat will not be carried forward to the Site Investigation.

### Seasonal Concentration Areas Summary

Site investigations are required to determine whether the above features (with the exception of bat migratory stopover areas, deer yarding areas and deer winter congregation areas) exist in or within 120 m of the Project Location, and whether additional features exist other than those identified. This includes determining whether the critical habitat features required to support these concentration areas are present in the Study Area. Results of these further investigations are provided in the Site Investigation (Section 3.0).

#### 2.2.4.2 Rare Vegetation Communities or Specialized Habitats

**Rare Vegetation Communities**

The Significant Wildlife Habitat (SWH) Ecoregion 6E Criterion Schedule identifies the following features as rare vegetation communities:

- Cliffs and talus slopes;
- Sand barren;
- Alvar;
- Old growth forests;
- Savannah;
- Tallgrass prairie; and
- Other rare vegetation communities listed in Appendix M of the SWHTG.

The rolling, poorly drained topography of Amherst Island is not conducive to rare vegetation communities such as alvar, prairie, savannah, rock barren and sand barren; there are no records of these community types from within the Study Area.

A review of aerial photography suggests great lake dunes may occur along the western shore of Amherst Island. However, potential dunes do not occur within 120 m of the Project Location.

Several woodlands occurred within 120 m of the Project Location.

Old growth forests are characterized by having a large proportion of trees in older age classes, many of them over 120 to 140 years old (MNR 2000). These forest stands are rare throughout Ontario, particularly in southern Ontario, largely due to past logging practices. Old (i.e. more than 120 years old) undisturbed forest stands that have experienced little or no forestry management would be considered candidate significant wildlife habitat. The Central Cataraqui Region Natural Heritage Study (2006) maps woodlands estimated to be greater than 100 years old (**Figure 1B, Appendix A**). There are three woodlands greater than 100 years old found within 120 m of the Project Location.

Results of the site investigations will determine the presence of rare vegetation communities within 120 m of the Project Location.

### Specialized Habitats

Specialized habitats are microhabitats that are critical to some wildlife species. The Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012) identify the following potential specialized habitats:

- waterfowl nesting areas;
- bald eagle and osprey nesting, foraging, and perching habitat;
- woodland raptor nesting habitat;
- turtle nesting areas;
- seeps and springs; and
- amphibian breeding habitat (woodland and wetland).

A review of background information to assess the potential for specialized habitats that are associated with southern Ontario to be supported in the Study Area is provided below.

### Waterfowl Nesting Areas

Waterfowl nesting habitat typically includes upland habitat that is located near marshes, ponds or lakes. Sites considered candidate significant wildlife habitat for waterfowl nesting typically contain a high density of small and medium sized ponds, or are single wetlands that are large and diverse (MNR 2000). Nesting waterfowl may be present in or adjacent to the three Provincially Significant Coastal Wetlands (PSW) and additional unevaluated wetlands located on Amherst Island.

### Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat

The SWHTG indicates that some raptors require somewhat specialized habitats. Under the criteria and guidelines outlined in Appendix Q of the SWHTG, critical habitat features that would support specialized Bald Eagle and Osprey nesting habitat are identified as waterbodies with fish populations and trees with good visibility and flight lines.

Although not identified by the MNR or LIO, osprey nesting platforms on Amherst Island have attracted nesting osprey in the past (Weir 2008). The shoreline habitat on Amherst Island would provide foraging habitat for eagles and osprey.

The report *Conserving Lake Ontario and Upper St. Lawrence Bald Eagle Habitats* (St. Lawrence Bald Eagle Working Group 2008) was used to identify priority areas for Bald Eagle conservation on Amherst Island. Two areas were identified in this report: the Nut Island Duck Club Marsh and the large woodland in the northwest corner of the island. An additional historical bald eagle nesting site was identified in this report, located near the centre of the island, outside of the 120 m Zone of Investigation.

This nest was last observed in use in May 1955 (Bird Studies Canada, email correspondence, pers comm, Sept 4, 2012). The two priority areas have been identified in **Figure 1B, Appendix A**.

### Woodland Raptor Nesting Habitat

The Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012) indicates that some raptors require somewhat specialized habitats. All natural or conifer plantation, woodland or forest stands greater than 30 ha with greater than 10 ha of interior habitat are considered candidate significant woodland raptor nesting habitat. During Ontario Breeding Bird Atlas field surveys, Red-tailed Hawk and Cooper's Hawk nesting was confirmed on Amherst Island (Cadman et al. 2007).

### Turtle Nesting Habitat

Sandy or fine gravel soils in an open landscape setting with sparse vegetation are a requirement for turtle nesting (MNR 2000). Areas that would be considered candidate significant wildlife habitat for turtle nesting include areas containing sandy or fine gravel soils (e.g. shoreline beaches) in proximity or adjacent to wetland habitat occupied by turtles (MNR 2012).

The NHIC database included records for Northern Map Turtles on or near Amherst Island. Other turtles, not addressed through the Species at Risk Report, likely to occur on the island include Common Snapping Turtle and Midland Painted Turtle. Turtle nesting habitat was not identified through the Records Review.

### Seeps and Springs

Seepage areas and springs provide habitat for numerous uncommon species and may support a high diversity of plant species (MNR 2000). In winter, these areas provide foraging opportunities for Wild Turkey and White-tailed Deer (MNR 2000). Those that occur within forested areas where the canopy maintains cool, shaded conditions are most important (MNR 2000). No seeps or springs were identified through the Records Review.

### Amphibian Breeding Habitat (Woodland)

Woodland ponds may provide important habitat for local amphibian populations. Ponds that contain a variety of vegetation structure in and around the edge of the pond, are undisturbed and are found adjacent to closed canopy woodlands with dense undergrowth that maintain a damp environment typically provide the best ponds for breeding (MNR 2012).

The Ontario Herpetofaunal Summary (Oldham and Weller 2000) indicates the Project Study Area falls within the range of a number of common amphibian species, including Spotted Salamander, American Toad, Western Chorus Frog, Spring Peeper, Bullfrog, Northern Green

Frog, Northern Leopard Frog, and Mink Frog. Woodlands are present within the Study Area and may provide amphibian habitat.

**Amphibian Breeding Habitat (Wetland)**

Wetlands and pools >500 $m^2$ and isolated from woodlands are considered candidate significant wetland amphibian breeding habitat. Several common amphibian species are known to occur on Amherst Island (Oldham and Weller 2000) and suitable wetland breeding habitat is likely to occur within the Study Area.

Bullfrogs are found in deep, permanent water with abundant emergent plants and are considered area-sensitive, requiring at least 1 ha of suitable habitat (MNR 2000). No known bullfrog concentration areas were identified during the Records Review; however, potential habitat occurs in the coastal wetlands.

**Rare Vegetation Communities and Specialized Wildlife Habitats Summary**

Site investigations are required to determine whether the above features exist in or within 120 m of the Project Location, and whether additional features exist other than those identified above. This includes determining whether the critical habitat features required to support these areas are present in the Study Area. Results of these further investigations are provided in the Site Investigation (Section 3.0).

#### 2.2.4.3 Habitat for Species of Conservation Concern

Species of conservation concern include four types of species: those that are rare, those whose populations are significantly declining, those that have been identified as being at risk from certain common activities, and those with relatively large populations in Ontario compared to the remainder of the globe.

Rare species are considered at five levels: globally rare, nationally rare (with designations by COSEWIC), provincially rare, regionally rare (at the Site Region level), and locally rare (in the municipality or Site District). This is also the order of priority that should be assigned to the importance of maintaining species. Some species have been identified as being susceptible to certain practices, and their presence may result in an area being designated significant wildlife habitat. Examples include species vulnerable to habitat loss and species such as woodland raptors that may be vulnerable to forest management or human disturbance. The final group of species of conservation concern includes species that have a high proportion of their global population in Ontario. Although they may be common in Ontario, they are found in low numbers in other jurisdictions.

The Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012) identifies the following features as habitat for species of conservation concern:

- Marsh bird breeding habitat;
- Woodland area-sensitive bird breeding habitat;
- Open country bird breeding habitat;
- Shrub/early successional bird breeding habitat;
- Terrestrial crayfish; and
- Special concern and rare wildlife species;

### Marsh Bird Breeding Habitat

Marsh breeding bird nesting occurs in wetlands with emergent aquatic vegetation (MNR 2012). During Ontario Breeding Bird Atlas field surveys, Pied-billed Grebe, American Bittern, Virginia Rail, Sora, Common Moorhen, American Coot, Wilson Phalarope and Black Tern nesting was identified on Amherst Island (Cadman et al. 2007).

### Bird Breeding Habitat (woodland area-sensitive, open country, and shrub/early successional)

Woodlands and grasslands of at least 30 ha are considered to have the potential to host populations of area-sensitive species (MNR 2012). Appendix C of the SWHTG (MNR 2000) contains a list of area-sensitive wildlife. Ontario Breeding Bird Atlas information indicates that the 10x10 km atlas squares that encompass the Study Area contain records of woodland, shrub/early successional, and grassland area sensitive breeding birds.

Information on the breeding birds of the Kingston Region has also been published by Ron D. Weir through the Kingston Field Naturalists (2008). Data provided in this book has been incorporated into the background information available for this report.

### Woodland Interior Breeding Birds

Mature forests stands or woodlots greater than 30 ha with 4 ha of interior habitat are considered candidate woodland interior breeding bird habitat (MNR 2012). Several large woodlands occur within the Study Area that could meet the criteria to host populations of area-sensitive species.

### Open Country Breeding Birds

Large, contiguous undisturbed grasslands of at least 30 ha (and preferably 50 ha or more) are considered likely to support and sustain a diversity of grassland species (MNR 2012). Agricultural habitat is found in the Study Area that could support grassland breeding bird species. Open country habitat contained in and within 120 m of the Study Area is generally composed of actively hayed fields and grazed pasture; however, there are some cultural meadows. The farming practice of hay field cutting before the end of the breeding cycle for grassland birds can reduce breeding success for these species up to 94% and hayfields are not considered to support viable populations of grassland breeding bird species (COSSARO 2010); however, due to the importance of Amherst Island for bird migration and grassland species such as the Short-eared Owl, all hayfields, pastures, and cultural meadows have been assessed as candidate significant wildlife habitat.

Keyes (2011) in conjunction with the Kingston Field Naturalists has confirmed breeding Short-eared Owls on Amherst Island in the 2009 and 2010 (**Figure 1B, Appendix A**). Locations of the breeding territories described in this report were used to target Short-eared Owl surveys in 2011. Other grassland raptors likely be nest in the Study Area include the Northern Harrier.

The IBA account cites Amherst Island as a staging area for migrating swallows, citing numbers up to 15,000 individuals (IBA Canada undated). Swallows forage in open country areas, and although open country breeding bird habitat is related to breeding, the ecological function of this habitat supports swallow staging.

Shrub/Early Successional Breeding Birds

Shrub thicket habitats greater than 10 ha are most likely to support and sustain a diversity of shrub /early successional bird breeding species (MNR 2012). The background wildlife list (**Table 2B, Appendix B**) contains all eight bird species that are listed as indicator, common, and special concern shrub /early successional birds (i.e., Brown Thrasher, Clay-coloured Sparrow, Black-billed Cuckoo, Willow Flycatcher, Eastern Towhee, Field Sparrow, Yellow-breasted Chat, and Golden-winged Warbler) as per the Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012).

### Terrestrial Crayfish

Terrestrial crayfish use meadow and the edges of shallow marshes to construct burrows (MNR 2012). The Canadian range of terrestrial crayfish is restricted to southwestern Ontario (MNR 2012). Amherst Island occurs outside of this known range. As such, they are not expected to occur within the Study Area, and this habitat will not be carried forward to the Site Investigation.

### Rare Species

NHIC, wildlife atlases and information provided by MNR (personal communication 2011) was used to identify historic records of species of conservation concern that occur in the vicinity of the Study Area. Wildlife species that would be considered species of conservation concern and whose presence would be assessed within an evaluation of candidate significant wildlife habitat in the Study Area are listed in **Table 2B (Appendix B)**. This list of potential species of conservation concern and their habitat requirements was cross referenced with habitat mapping, aerial photography and vegetation classifications to determine the suitability of the Study Area to support them.

Within the context of O. Reg 359/09, endangered and threatened species are addressed as part of MNR's *Approval and Permitting Requirements Document for Renewable Energy Projects* (APRD) requirements. Information required as part of these requirements is being submitted to MNR as part of the Amherst Island APRD Report (separate cover). Where this information indicates that approvals or permits are required, these will be addressed separately through the applicable statute and its permitting process.

#### 2.2.4.4 Animal Movement Corridors

Animal movement corridors are elongated, naturally vegetated parts of the landscape used by animals to move from one habitat to another (MNR 2000).

The Central Cataraqui Region Natural Heritage Study (2006) maps linkages between areas of core habitat that would act as wildlife corridors. These corridors may be used by a variety of wildlife, in particular deer movement. However, no deer yarding areas or deer winter congregation areas were identified by the MNR on Amherst Island. Therefore, there can be no deer movement corridors identified based on the criteria provided in the Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012). These movement corridors also do not necessarily correspond to amphibian movement corridors between breeding wetlands and terrestrial habitats.

### 2.2.5 Areas of Natural and Scientific Interest (ANSIs)

MNR identifies two types of ANSIs; Life Science and Earth Science. Life Science ANSIs are significant representative areas of Ontario's biodiversity and natural landscapes, while Earth Science ANSIs are geological in nature and consist of some of the more significant representative examples of bedrock, fossils and landforms in Ontario.

Based on a review of the MNR data, Amherst Bay Life Science ANSI is located in the southern portion of the Study Area (LIO 2012; CRCA 2006). This 360 ha ANSI includes a large and undisturbed Coastal Wetland (Long Point Marsh) and shoreline complex with a large marsh, forested swamp and aquatic vegetation. The ANSI also includes coastal sand bar barrier features (CRCA 2006). The Project Location is not in this feature; however, a small portion of this ANSI is located within 120 m to the Study Area (**Figure 1A, Appendix A**).

### 2.2.6 Natural Features in Specified Provincial Plan Areas

The Project is not located within the Niagara Escarpment Plan Area, the Oak Ridges Moraine Conservation Plan Area or the Protected Countryside of the Greenbelt Plan. These will not be carried forward through to Site Investigation.

### 2.2.7 Provincial Parks and Conservation Reserves

There were no provincial parks or conservation reserves identified within 120 m of the Project Location through the Records Review (NHIC 2010). These will not be carried forward through to Site Investigation.

## 2.3 SUMMARY OF NATURAL FEATURES AND BOUNDARIES IDENTIFIED

**Table 2.1** provides a summary of the natural features that will be carried forward to Site Investigation.

**Table 2.1: Summary of Natural Features Identified in Records Review**

| Feature | Carried Forward to Site Investigation (Y/N) | Known Recorded Information |
|---|---|---|
| Wetlands | Y | Two provincially-significant coastal wetlands: Nut Island Duck Club Marsh and Long Point Marsh and several unevaluated wetlands located within 120 m of the Project Location. |
| Woodlands | Y | Numerous woodlands greater than 4 ha are located within 120 m of the Project Location. Site investigations are required to confirm the presence and boundaries of these woodlands. |
| Valleylands | Y | No records |
| Wildlife Habitat | | |
| **Seasonal Concentration Area** | | |
| • Waterfowl stopover and staging areas (terrestrial) | Y | No records |
| • Waterfowl stopover and staging areas (aquatic) | Y | Amherst Island IBA |
| • Shorebird migratory stopover areas | Y | Amherst IBA and KFN: shorebirds staging on the Amherst Bar at the eastern tip of the island |
| • Raptor wintering areas | Y | Amherst Island IBA and KFN: Amherst Island is known for large concentrations of wintering raptors, including owl. Owl Woods is a known roost |
| • Bat hibernacula | Y | No records |
| • Bat maternity colonies | Y | No records |
| • Bat migratory stopover areas | N | No records |
| • Turtle wintering areas | Y | No records |
| • Snake hibernaculum | Y | No records |
| • Colonial bird nesting sites (bank and cliff) | Y | No records |
| • Colonial bird nesting sites (tree/shrub) | Y | Heron nesting: Long Point Marsh, Nut Island Duck Club Marsh, Amherst Bar and Brother Islands |
| • Colonial bird nesting sites (ground) | Y | Herring Gulls, Common Terns, and Cormorants: nests located on the Brother Islands |
| • Migratory butterfly stopover areas | Y | No records |
| • Landbird migratory | Y | No records |

**Table 2.1: Summary of Natural Features Identified in Records Review**

| Feature | Carried Forward to Site Investigation (Y/N) | Known Recorded Information |
|---|---|---|
| stopover areas | | |
| • Deer yarding areas | N | No records |
| • Deer winter congregation areas | N | No records |
| Rare Vegetation Communities or Specialized Habitat for Wildlife | | |
| **Rare Vegetation Communities** | | |
| • Cliffs and talus slopes<br>• Sand barren<br>• Alvar<br>• Old growth forests<br>• Savannah<br>• Tallgrass prairie<br>• Other rare vegetation communities listed in Appendix M of the SWHTG | Y | No records |
| **Specialized Habitat for Wildlife** | | |
| • Waterfowl nesting area | Y | No records |
| • Bald Eagle and Osprey nesting, foraging, and perching habitat | Y | St Lawrence Bald Eagle Working Group: woodland in northwest and Nut Island Duck Club Marsh |
| • Woodland raptor nesting habitat | Y | Red-tailed Hawk and Cooper's Hawk nesting on Amherst Island |
| • Turtle nesting habitat | Y | No records |
| • Seeps and springs | Y | No records |
| • Amphibian breeding habitat (woodland) | Y | No records |
| • Amphibian breeding habitat (wetland) | Y | No records |
| Habitat for Species of Conservation Concern | | |
| • Marsh Bird Breeding Habitat | Y | No records |
| • Bird Breeding Habitat (woodland area-sensitive) | Y | No records |
| • Bird Breeding Habitat (open country) | Y | Short-eared Owl breeding in grassland areas; significant swallow migration |
| • Bird Breeding Habitat (shrub/early successional) | Y | No records |
| • Terrestrial Crayfish | N | No records |
| • Special Concern and Rare Wildlife Species | Y | No records |
| Animal Movement Corridors | | No records |
| • Amphibian Movement | Y | |
| • Deer Movement | N | |

**Table 2.1: Summary of Natural Features Identified in Records Review**

| Feature | Carried Forward to Site Investigation (Y/N) | Known Recorded Information |
|---|---|---|
| Areas of Natural and Scientific Interest (ANSI)<br>• Life Science ANSI<br>• Earth Science ANSI | Y | Amherst Bay Life Science ANSI |
| Specified Provincial Plan Areas | N | None present in the Study Area |
| Provincial Parks and Conservation Reserves | N | None present in the Study Area |

# 3.0 Site Investigation

Site investigations were conducted in accordance with O. Reg 359/09, s. 26 (1), Natural Heritage Site Investigation. This report is prepared in accordance with s. 26 (3) with guidance provided from the *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNR 2011a).

Site investigations in support of this report were completed with the purpose of confirming the status and boundaries of natural features identified through the Records Review and identifying any additional features (**Section 3.1**). Data collected during the Records Review concerning natural features and species occurrences were used to guide the scope and direction of site investigations. The extent of the site investigation program and type of field surveys included in the program is directly reflective of the extent of natural features and triggers for significant wildlife habitat that are identified within the Study Area. The Project is primarily sited within actively farmed agricultural fields and has been sited outside of the majority of natural features in the Study Area.

Natural features that have the potential to occur in or within 120 m of the Project Location, as identified through the Records Review, are listed in **Table 2.1**. Site investigations are required to confirm the presence and delineate the boundaries of candidate significant wildlife habitat features within 120 m of the Project Location.

## 3.1 METHODS

The site investigations undertaken detailed the current conditions in and within 120 m of the Project Location, and were based on the information about the Project Location and siting that was current at the time of the respective survey. Survey dates, times, duration, field personnel and weather conditions are presented in **Table 4B, Appendix B**. All surveys conducted within the Study Area were completed by qualified personnel. Field notes from all Site Investigations are provided in **Appendix C**. Staff summaries and qualifications for personnel involved in conducting the site investigations are provided in **Appendix D**. Land access was available for all land parcels where Project components are proposed, and areas within 120 m of the Project Location were traversed on foot during site investigations where land access was available.

All site investigations were carried out in accordance with O. Reg. 359/09 and the NHA Guide for Renewable Energy Projects (MNR 2011a), using guidance provided in the SWHTG and the Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012).

### 3.1.1 Alternative Site Investigation Methods

Alternative site investigations consisted of assessments conducted from roadsides and property boundaries in locations within 120 m of the Project Location where access was not required. This occurred in locations where underground transmission lines are proposed within the road right-of-way and the adjacent property is active agriculture or residential property. Alternative site investigations, comprised of visual scans from roadsides and/or property boundaries in combination with air photos, were undertaken in these locations.

### 3.1.2 Vegetation Community and Vascular Plants Assessment

Ecological Land Classification (ELC) and preliminary botanical inventories of the vegetation communities in and within 120 m of the Project Location were conducted by Stantec on July 26-29, August 2-5, August 17-19, November 11, 2011 and March 27-28, May 18, and August 15, 2012.

Vegetation communities were delineated on aerial photographs and checked in the field. Vascular plant species lists were recorded separately for each community. Community characterizations were then based on the ELC system (Lee et al., 1998). English colloquial names and scientific binominals of plant species generally follow Newmaster et al. (1998). Specific emphasis was placed on searching for plant species of conservation concern identified through the records review with historical occurrences within the study area.

Plant species were considered rare if designated provincially as S1 (critically imperiled), S2 (imperiled) or S3 (vulnerable). Species having a high coefficient of conservatism (9 or 10) as designated by Oldham et al. (1995) were also considered species of note.

### 3.1.3 Wetland Confirmation and Delineation

Wetlands are defined in the REA regulation as features that are swamp, marsh, bog, or fen that are seasonally or permanently covered by shallow water or has the water table close to the surface, and have hydric soils and vegetation dominated by hydrophytic or water-tolerant plants (OMNR 2011a). Wetlands are identified during ELC surveys and are further evaluated using the Ontario Wetland Evaluation System (OWES).

Previously unidentified wetlands within 120 m of the Project Location identified during the course of the site investigations were delineated during the vegetation community assessment and vascular plant surveys described in **Section 3.1.2**. The wetland boundaries were mapped through reconciling aerial photographs and observations made during the site investigations in accordance with the methods outlined in the OWES Southern Manual (MNR 2002). James Leslie oversaw the wetland delineation and assessments (**Appendix D**).

### 3.1.4 Woodlands

Woodlands include treed areas, woodlots, or forested areas, other than cultivated fruit or nut orchards or plantations established for the purpose of producing Christmas trees (OMNR 2011a).

The limits of all woodlands that occur, or partially occur, in or within 120 m of the Project Location were delineated through aerial photo interpretation and confirmed during site investigations. Woodlands were delineated using the driplines of the trees. Information regarding woodland size, ecological function and uncommon characteristics was collected during ELC surveys and through GIS analysis. Historical air photos were used to determine the age and history of woodlands (Northway-Photomap Remote Sensing Ltd. 1948). Treed areas identified during vegetation surveys were compared to the definition of woodlands provided in O.Reg. 359/09 to delineate the limits of woodlands.

### 3.1.5 Valleylands

Valleylands are natural areas south and east of the Canadian Shield that have flowing or standing water for some period of the year. They are linear systems stretching across the landscape from headwater areas into other aquatic features such as lakes and wetlands. The boundaries of valleylands are defined based on their geomorphology, either by the stable top-of-bank, the flooding hazard limit, or limits of riparian vegetation. Conservation Authorities can provide regulated mapping and ELC surveys can provide further detail on these natural features. (OMNR 2011a)

Areas in and within 120 m of the Project Location were searched for the presence of characteristics of valleylands as defined within O. Reg. 359/09.

### 3.1.6 Areas of Natural and Scientific Interest (ANSI)

The Amherst Bay Life Science ANSI is located within 120 m of the Project Location and was identified in the Records Review.

### 3.1.7 Wildlife and Wildlife Habitat

Site investigations to determine the presence of candidate significant wildlife habitat were conducted by Stantec on July 26- 29, August 2-5, August 17-19, November 11, 2011 and March 27-28, May 18, and August 15, 2012. Survey information (i.e., survey times, weather conditions and field personnel) is summarized in **Table 4B, Appendix B**.

Site investigations focused on determining whether candidate significant wildlife habitats, as identified during the Records Review, have the potential to occur in or within 120 m of the Project Location. Criteria used to identify candidate significant wildlife habitat were derived from the Significant Wildlife Habitat Technical Guide (MNR 2000) and the Draft SWH Ecoregion 6E

Criterion Schedule. Specific emphasis was placed on determining whether the critical habitat features required to support significant wildlife habitat were present in natural features in or within 120 m of the Project Location.

### 3.1.7.1 Seasonal Concentration Areas of Animals

Seasonal concentration areas are areas where wildlife species occur in aggregations at certain times of the year, on an annual basis. Such areas are sometimes highly concentrated with members of a given species, or several species, within relatively small areas. In spring and autumn, migratory wildlife species will concentrate where they can rest and feed. Other wildlife species require habitats where they can survive winter. Seasonal concentration area habitats have been identified by using the habitat criteria found in the SWHTG (MNR 2000) and Draft Significant Wildlife Habitat: Ecoregion 6E Criteria Schedules (MNR 2012). The habitat criteria for each potential seasonal concentration area, and methods employed to identify them in and within 120 m of the Project Location, have been summarized in **Table 3.1**.

**Table 3.1: Characteristics Used to Identify Candidate Seasonal Concentration Areas**

| Candidate Seasonal Concentration Area | Criteria | Methods |
|---|---|---|
| Waterfowl Stopover and Staging Area (Terrestrial) | • Fields with sheet water during Spring (mid-March to May) or annual spring melt water flooding found in any of the following Community Types: Meadow (CUM1), Thicket (CUT1).<br>• Agricultural fields with waste grains are commonly used by waterfowl, and these are not considered SWH. | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support waterfowl stopover and staging areas (terrestrial).<br>• ELC surveys and GIS analysis of the landscape were used to identify large wetlands or marshes with a diversity of vegetation communities interspersed with cultural meadows that flood each spring (terrestrial staging areas).<br>• All potential waterfowl stopover and staging areas (including CUM, CUT, and hay and pasture agricultural fields) were searched in early spring 2011 for evidence of spring flooding. Subsequent transects and points counts were conducted in those areas with spring flooding.<br>• Areas with no evidence of spring flooding were not considered candidate waterfowl stopover and staging habitat. |
| Waterfowl Stopover and Staging Area (Aquatic) | • The following Community Types: Meadow Marsh (MAM), Shallow Marsh (MAS), Shallow Aquatic (SA), Deciduous Swamp (SWD).<br>• Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration<br>• These habitats have an abundant food | • Vegetation community classifications were utilized to assess features within 220 m of the Project Location that would support waterfowl stopover and staging areas (aquatic).<br>• ELC surveys and GIS analysis of the landscape were used to identify large |

**Table 3.1: Characteristics Used to Identify Candidate Seasonal Concentration Areas**

| Candidate Seasonal Concentration Area | Criteria | Methods |
|---|---|---|
| | supply (mostly aquatic invertebrates and vegetation in shallow water)<br>• The combined area of the ELC ecosites and a 100 m radius area is the SWH.<br>• Sewage treatment ponds and storm water ponds do not qualify as a SWH, however a reservoir managed as a large wetland or pond/lake does qualify. | wetlands or marshes with a diversity of vegetation communities interspersed with open water (aquatic staging areas).<br>• Only those communities that contain standing water for a portion of the year were considered candidate SWH. |
| Shorebird Migratory Stopover Area | • Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats.<br>• Great Lakes coastal shorelines, including groynes and other forms of amour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October.<br>• Sewage treatment ponds and storm water ponds do not qualify as a significant wildlife habitat.<br>• The following community types: Meadow Marsh (MAM), Beach/Bar (BB), or Sand Dune (SD) | • The shoreline of Lake Ontario, apart from residential areas, was considered candidate habitat.<br>• The presence of shorebird migratory stopover areas within suitable ELC communities was assessed. |
| Raptor Wintering Area | • Presence of fields and woodlands. i.e. at least one of the following Community Types: Deciduous Forest (FOD), Mixed Forest (FOM) or Coniferous Forest (FOC), in addition to one of the following Upland Community Types: Meadow (CUM), Thicket (CUT), Savannah (CUS), Woodland (CUW) (<60% cover) that are >20 ha and provide roosting, foraging and resting habitats for wintering raptors.<br>• The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors.<br>• Raptor wintering sites need to be > 20 ha with a combination of forest and upland,<br>• Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15 ha) with adjacent woodlands.<br>• Upland habitat (CUM, CUT, CUS, CUW), must represent at least 15 ha of the 20 ha minimum size. | • Vegetation community classifications and size calculations were utilized to assess features within 120 m of the Project Location that would support raptor wintering areas. |
| Bat Hibernacula | • Hibernacula may be found in caves, mine shafts, underground foundations and karsts.<br>• May be found in these Community Types: Crevice (CCR), Cave (CCA). | • Specialized site investigations were conducted to identify potential bat hibernacula.<br>• A search of karst features and abandoned mines found within 1120 m of the Project Location was conducted |

**Table 3.1: Characteristics Used to Identify Candidate Seasonal Concentration Areas**

| Candidate Seasonal Concentration Area | Criteria | Methods |
|---|---|---|
| | | with data obtained through Ministry of Northern Development and Mines. |
| Bat Maternity Colonies | • Maternity colonies considered significant wildlife habitat are found in forested ecosites.<br>• Any of the following Community Types: Deciduous Forest (FOD), Mixed Forest (FOM), or Deciduous Swamp (SWD) that have>10/ha wildlife trees >25cm diameter at breast height (dbh).<br>• Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH).<br>• Female Bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2.<br>• Northern Myotis prefer contiguous tracts of older forest cover for foraging and roosting in snags and trees<br>• Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred. | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support bat maternity colonies.<br>• Specialized site investigations were conducted to identify potential bat maternity colonies.<br>• Wooded areas were traversed and the presence and frequency of features that may support maternity colonies of bats were recorded. |
| Turtle Wintering Areas | • Snapping and Midland Painted turtles utilize ELC community classes: Swamp (SW), Marsh (MA) and Open Water (OA). Shallow water (SA), Open Fen (FEO) and Open Bog (BOO).<br>• Northern Map turtle- open water areas such as deeper rivers or streams and lakes can also be used as over-wintering habitat.<br>• For most turtles, wintering areas area in the same general area as their core habitat.<br>• Water has to be deep enough not to freeze and have soft mud substrate.<br>• Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate dissolved oxygen. | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support turtle wintering areas.<br>• Specialized site investigations were conducted to identify potential turtle wintering areas. |
| Snake Hibernacula | • Hibernation occurs in sites located below frost lines in burrows, rock crevices, broken and fissured rock and other natural features.<br>• Wetlands such as conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover can be important over-wintering habitat.<br>• Any ecosite in southern Ontario other than very wet ones may provide habitat. The following Community Types may be directly related to snake hibernacula: Talus (TA), | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support snake hibernacula.<br>• Specialized site investigations were conducted to identify potential snake hibernacula. Surveys for snakes and associated hibernacula features were conducted throughout natural feature communities and hedgerows.<br>• Habitat features that would provide an underground route, act as a potential hibernacula including exposed rock |

**Table 3.1: Characteristics Used to Identify Candidate Seasonal Concentration Areas**

| Candidate Seasonal Concentration Area | Criteria | Methods |
|---|---|---|
| | Rock Barren (RB), Crevice (CCR), Cave (CCA), and Alvar (RBOA1, RBSA1, RBTA1). | crevices or inactive animal borrows were recorded. |
| Colonial-Nesting Bird Breeding Habitat (Bank and Cliff) | • Eroding banks, sandy hills, borrow pits, steep slopes, sand piles, cliff faces, bridge abutments, silos, or barns found in any of the following Community Types: Meadow (CUM), Thicket (CUT), Bluff (BL), Cliff (CL).<br>• A colony identified as SWH will include a 50 m radius habitat area from the peripheral nests.<br>• Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles.<br>• Does not include a licensed/permitted Mineral Aggregate Operation. | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support colonial bird breeding habitat.<br>• Open habitats near bodies of water were scanned man-made structures (e.g. concrete bridges, buildings, nesting boxes) suitable for and with evidence of previous use by nesting swallows. Hills with exposed substrate, including river banks, were also scanned for holes indicative of a Bank Swallow nesting colony. |
| Colonial-Nesting Bird Breeding Habitat (Tree/Shrubs) | • Any of the following Community Types: Mixed Swamp (SWM), Deciduous Swamp (SWD), Treed Fen (FET).<br>• The edge of the colony and a minimum 300 m area of habitat or extent of the Forest Ecosite containing the colony or any island <15.0 ha with a colony is the SWH.<br>• Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used.<br>• Most nests in trees are 11 to 15 m from ground, near the top of the tree. | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support colonial bird breeding habitat.<br>• Large areas of marsh or swamp habitat with live or an abundance of dead trees, within 420 m of the Project Location (300 m plus the 120 m Zone of Investigation) were searched for the presence of large stick nests to assess the presence of colonially-nesting bird species within suitable ELC communities.<br>• Known locations at the Nut Island Duck Club Marsh and the Long Point Marsh. |
| Colonial-Nesting Bird Breeding Habitat (Ground) | • Any rocky island or peninsula within a lake or large river, close proximity to watercourses in open fields or pastures with scattered trees or shrubs found in any of the following Community Types: Meadow Marsh (MAM1-6), Shallow Marsh (MAS1-3), Meadow (CUM), Thicket (CUT), Savannah (CUS).<br>• Nesting colonies of gulls and terns on islands or peninsulas associated with open water or in marshy areas<br>• Brewers Blackbird colonies are found loosely on the ground or in low bushes in close proximity to streams and irrigation ditches within farmlands.<br>• The edge of the colony and a minimum 150 m area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0 ha with a colony is the SWH. | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support colonial bird breeding habitat.<br>• The presence of appropriate habitat for colonially-nesting bird species within suitable ELC communities was assessed. |

**Table 3.1: Characteristics Used to Identify Candidate Seasonal Concentration Areas**

| Candidate Seasonal Concentration Area | Criteria | Methods |
|---|---|---|
| Migratory Butterfly Stopover Areas | • A combination of ELC communities, one from each land class is required: Field (CUM, CUT, CUS) and Forest (FOC, FOM, FOD, CUP)<br>• Minimum of 10 ha in size with a combination of field and forest habitat present<br>• Located within 5 km of Lake Ontario<br>• Habitat should not be disturbed, and it should contain an abundance of preferred nectar plants and woodland edge for shelter | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support migratory butterfly stopover areas.<br>• The presence of suitable ELC communities was assessed for migratory butterfly stopover areas. |
| Landbird Migratory Stopover Areas | • The following community types: Forest (FOD, FOM, FOC) or Swamp (SWC, SWM, SWD)<br>• Woodlots must be >10 ha in size and within 5 km of Lake Ontario – woodlands within 2 km of Lake Ontario are more significant | • Vegetation community classifications were utilized to assess features within 120 m of the Project Location that would support landbird migratory stopover areas.<br>• The presence of suitable ELC communities was assessed for migratory landbird stopover areas. |

### 3.1.7.2 Rare Vegetation Communities or Specialized Habitats

Rare vegetation communities often contain rare species, particularly plants and small invertebrates, which depend on such habitats for their survival and cannot readily move to or find alternative habitats. Some wildlife species require large areas of suitable habitat for their long-term survival. Many wildlife species require substantial areas of suitable habitat for successful breeding. Their populations decline when habitat becomes fragmented and reduced in size. Specialized habitat for wildlife is a community or diversity-based category, therefore, the more wildlife species a habitat contains, the more significant the habitat becomes to the planning area. The largest and least fragmented habitats within a planning area will support the most significant populations of wildlife.

Rare Vegetation Communities and Candidate Specialized Wildlife Habitat have been identified by using the habitat criteria found in the SWHTG (MNR 2000) and Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012). The habitat criteria for each potential rare vegetation community and candidate specialized wildlife habitat, and methods employed to identify them in and within 120 m of the Project Location, has been summarized in **Table 3.2**.

**Table 3.2: Characteristics Used to Identify Rare Vegetation Communities and Candidate Specialized Wildlife Habitat**

| Candidate Specialized Wildlife Habitat | Criteria | Methods |
|---|---|---|
| Cliffs and Talus Slopes | • A Cliff is vertical to near vertical bedrock >3 m in height.<br>• A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris<br>• Any ELC Ecosite within Community Series: TAO, TAS, TAT, CLO, CLS, CLT<br>• Most cliff and talus slopes occur along the Niagara Escarpment | • As discussed in Section 2.2.4.2 of the Records Review, there are no known rare vegetation communities apart from old growth forests within 120 m of the Project Location.<br>• ELC and preliminary botanical inventories conducted by Stantec in 2011 were used to assess the presence of rare vegetation communities. |
| Sand Barrens | • Sand barrens typically are exposed sand, generally sparsely vegetated and cause by lack of moisture, periodic fires and erosion.<br>• They have little or no soil and the underlying rock protrudes through the surface.<br>• Usually located within other types of natural habitat such as forest or savannah.<br>• Vegetation can vary from patchy and barren to tree covered but less than 60%.<br>• Any of the following Community Types: SBO1 (Open Sand Barren Ecosite), SBS1 (Shrub Sand Barren Ecosite), SBT1 (Treed Sand Barren Ecosite).<br>• Tree cover always < 60%.<br>• No minimum size for sand barren area.<br>• Sand Barrens support rare species such as provincially Endangered Forked Three-awned Grass and American Badger. By extension, sand barren sites that could support these rare species (close proximity to other populations), historically or currently should be considered for higher priority conservation. | • As discussed in Section 2.2.4.2 of the Records Review, there are no known rare vegetation communities apart from old growth forests within 120 m of the Project Location.<br>• ELC and preliminary botanical inventories conducted by Stantec in 2011 were used to assess the presence of rare vegetation communities. |
| Alvars | • An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil.<br>• The hydrology of alvars is complex, with alternating periods of inundation and drought.<br>• Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator | • As discussed in Section 2.2.4.2 of the Records Review, there are no known rare vegetation communities apart from old growth forests within 120 m of the Project Location.<br>• ELC and botanical inventories conducted by Stantec in 2011 were used to assess the presence of rare vegetation communities. |

**Table 3.2: Characteristics Used to Identify Rare Vegetation Communities and Candidate Specialized Wildlife Habitat**

| Candidate Specialized Wildlife Habitat | Criteria | Methods |
|---|---|---|
| | plant.<br>• Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animal species.<br>• Vegetation cover varies from patchy to barren with a less than 60% tree cover.<br>• Any of the following Community Types: ALO1(Open Alvar Rock Barren Ecosite), ALS1 (Alvar Shrub Rock Barren Ecosite), ALT1 (Treed Alvar Rock Barren Ecosite), FOC1 (Dry-Fresh Pine Coniferous Forest), FOC2 (Dry-Fresh Cedar Coniferous Forest), CUM2 (Bedrock Cultural Meadow), CUS2 (Bedrock Cultural Savannah), CUT2-1 (Common Juniper Cultural Alvar Thicket), or CUW2 (Bedrock Cultural Woodland)<br>• An Alvar site > 0.5 ha in size<br>• Alvar is particularly rare in Ecoregion 6E where the only known sites are found in the western islands of Lake Erie | |
| Old-growth Forest | • Old-growth forests tend to be relatively undisturbed, structurally complex, and contain a wide variety of trees and shrubs in various age classes. These habitats usually support a high diversity of wildlife species.<br>• No minimum size criteria t in any of the following Community Types: FOD (Deciduous Forest), FOM (Mixed Forest), FOC (Coniferous Forest) | • ELC and preliminary botanical inventories conducted in 2011 were used to further assess the presence of old growth forests.<br>• Forests greater than 120 years old and with no historical forestry management was the main criteria when surveying for old-growth forests. |
| Savannahs | • A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60%.<br>• Tallgrass Prairie (TGP) and savannah were historically common in the near-shore areas of the Great Lakes.<br>• In Ecoregion 6E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario).<br>• Any of the following Community Types: TPS1 (Dry-Fresh Tallgrass Mixed Savannah Ecosite), TPS2 (Fresh-Moist Tallgrass Deciduous Savannah | • As discussed in Section 2.2.4.2 of the Records Review, there are no known rare vegetation communities apart from old growth forests within 120 m of the Project Location.<br>• ELC and preliminary botanical inventories conducted by Stantec in 2011 were used to assess the presence of rare vegetation communities. |

**Table 3.2: Characteristics Used to Identify Rare Vegetation Communities and Candidate Specialized Wildlife Habitat**

| Candidate Specialized Wildlife Habitat | Criteria | Methods |
|---|---|---|
| | Ecosite), TPW1 (Dry-Fresh Black Oak Tallgrass Deciduous Woodland Ecosite), TPW2 (Fresh-Moist Tallgrass Deciduous Woodland Ecosite), CUS2 (Bedrock Cultural Savannah Ecosite).<br>• No minimum size to site<br>• Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH | |
| Tall-grass Prairies | • A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover.<br>• Tallgrass Prairie (TGP) and savannah were historically common in the near-shore areas of the Great Lakes<br>• In Ecoregion 6E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario).<br>• Any of the following Community Types: TPO1 (Dry Tallgrass Prairie Ecosite), TPO2 (Fresh-Moist Tallgrass Prairie Ecosite).<br>• No minimum size to site<br>• Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH | • As discussed in Section 2.2.4.2 of the Records Review, there are no known rare vegetation communities apart from old growth forests within 120 m of the Project Location.<br>• ELC and preliminary botanical inventories conducted by Stantec in 2011 were used to assess the presence of rare vegetation communities. |
| Other Rare Vegetation Communities | • Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.<br>• Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG<br>• Any ELC Ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.<br>• ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in Appendix M<br>• The OMNR/NHIC will have up to date listing for rare vegetation communities. | • As discussed in Section 2.2.4.2 of the Records Review, there are no known rare vegetation communities apart from old growth forests within 120 m of the Project Location.<br>• ELC and preliminary botanical inventories conducted by Stantec in 2011 were used to assess the presence of rare vegetation communities. |
| Waterfowl Nesting Area | • All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH:<br>• MAS1, MAS2, MAS3, SAS1, SAM1, SAF1, MAM1, MAM2, MAM3, MAM4, | • The results of ELC surveys and GIS analysis of the landscape were used to identify upland areas of open habitat >120 m wide that occurred adjacent to a large marsh, pond, swamp or swamp |

**Table 3.2: Characteristics Used to Identify Rare Vegetation Communities and Candidate Specialized Wildlife Habitat**

| Candidate Specialized Wildlife Habitat | Criteria | Methods |
|---|---|---|
| | MAM5, MAM6, SWT1, SWT2, SWD1, SWD2, SWD3, SWD4<br>• Note: includes adjacency to Provincially Significant Wetlands | thicket communities or clusters of these vegetation communities within 120 m of the Project Location.<br>• Habitats adjacent to wetlands without standing water were not considered candidate SWH. |
| Bald Eagle and Osprey nesting, Foraging, and Perching Habitat | • Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water.<br>• Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy.<br>• Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms).<br>• ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands | • Searches for stick nests (active or not) as well as a general habitat assessment were conducted during wildlife habitat assessment surveys in the fall of 2011 and spring of 2012. |
| Woodland Raptor Nesting Habitat | • All natural or conifer plantation woodland/forest stands combined >30 ha or with >4 ha of interior habitat. Interior habitat determined with a 200 m buffer.<br>• Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore islands.<br>• In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest.<br>• May be found in all forested ELC Ecosites.<br>• May also be found in SWC, SWM, SWD and CUP3 | • Searches for stick nests (active or not) as well as a general habitat assessment were conducted during wildlife habitat assessment surveys in the fall of 2011 and spring of 2012. |
| Turtle Nesting Areas | • Exposed mineral soil (sand or gravel) areas adjacent (<100 m) cxlviii or within the following ELC Ecosites: MAM1<br>• MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, SAS1, SAM1, SAF1, BOO1, FEO1<br>• Best nesting habitat for turtles is close to water, away from roads and sites | • As lands within the Study Area consisted primarily of cultivated agricultural cropland, the search for turtle nesting habitat focused on watercourses and any marshy wetlands within 120 m of the Project Location. |

**Table 3.2: Characteristics Used to Identify Rare Vegetation Communities and Candidate Specialized Wildlife Habitat**

| Candidate Specialized Wildlife Habitat | Criteria | Methods |
|---|---|---|
| | less prone to loss of eggs by predation from skunks, raccoons or other animals.<br>• For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH.<br>• Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used. | |
| Seeps and Springs | • Seeps/Springs are areas where ground water comes to the surface. Often they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.<br>• Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system<br>• Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species | • As the Study Area consisted primarily of cultivated agricultural cropland, the search for seeps or springs focused on the natural features within 120 m of the Project Location. |
| Amphibian Breeding Habitat (Woodland) | • All Ecosites associated with these ELC Community Series; FOC, FOM, FOD, SWC, SWM, SWD<br>• Breeding pools within the woodland or the shortest distance from forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians<br>• Presence of a wetland, lake, or pond within or adjacent (within 120 m) to a woodland (no minimum size). Some small wetlands may not be mapped and may be important breeding pools for amphibians.<br>• Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat | • Natural vegetation communities with the potential to support amphibian breeding habitat (woodland) were assessed by Stantec during vegetation assessment surveys. Each feature was visited, and areas of standing water or areas which showed evidence of holding water through the spring (based on topography and vegetation) were identified. Size of pools, presence and depth of standing water, surrounding vegetation community, emergent and submergent vegetation and canopy cover were recorded. |
| Amphibian Breeding Habitat (Wetland) | • ELC Community Classes SW, MA, FE, BO, OA and SA.<br>• Wetland areas >120 m from woodland habitats.<br>• Wetlands and pools (including vernal | • Vegetation community classification surveys were used to identify habitat features within 120 m of the Project Location including those that may support bullfrogs (i.e., natural open |

**Table 3.2: Characteristics Used to Identify Rare Vegetation Communities and Candidate Specialized Wildlife Habitat**

| Candidate Specialized Wildlife Habitat | Criteria | Methods |
|---|---|---|
| | pools) >500 $m^2$ (about 25 m diameter) supporting high species diversity are significant; some small or ephemeral habitats may not be identified on MNR mapping and could be important amphibian breeding habitats.<br>• Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators.<br>• Bullfrogs require permanent water bodies with abundant emergent vegetation. | aquatic and marsh habitats greater than 1 ha in size).<br>• Each feature was visited, and areas of standing water or areas which showed evidence of holding water through the spring (based on topography and vegetation) were identified. |

### 3.1.7.3 Species of Conservation Concern

Habitats in and within 120 m of the Project Location were assessed for their suitability to support historic species of conservation concern that are known to occur or have the potential to occur within the vicinity of the Study Area (**Table 8B, Appendix B**). Assessments were carried out for the following categories of species of conservation concern:

- Marsh breeding bird habitat;
- Breeding bird habitat (area-sensitive, open country, and shrub/early successional); and
- Special Concern and rare wildlife species.

Site investigations were carried out through a combination of vegetation surveys for plant species of conservation concern, and ELC-based habitat assessments for both plant and wildlife species of conservation concern as described in the Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012). Additional survey information for specific categories is discussed in **Table 3.3**.

**Table 3.3: Characteristics Used to Identify Candidate Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Criteria | Methods |
|---|---|---|
| Marsh Bird Breeding Habitat | • Nesting occurs in wetlands. For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently it may be found in upland shrubs or forest at a considerable distance from water.<br>• All wetland habitats with shallow water and emergent aquatic vegetation.<br>• May include any of the following Community Types: Meadow Marsh (MAM), Shallow Aquatic (SA), Open Bog (BOO), Open Fen (FEO), or for Green Heron: Swamp (SW), Marsh (MA) and Meadow (CUM) Community Types. | • Site investigations were conducted to assess the potential for this habitat using ELC to delineate previously unidentified wetland communities within 120 m of the Project Location. |
| Woodland Area-sensitive Bird Breeding Habitat | • Habitats where interior forest is >4 ha (at least 200 m from the forest edge) breeding birds are breeding.<br>• These include any of the following Community Types: Forest (FO), Treed Swamp (SW) that are mature (>60 years old) and >30 ha.<br>• Condition of existing habitat at site<br>• Size and location of habitat<br>• Potential for long-term protection of the habitat<br>• Representation of species/habitat within the municipality. | • Site investigations were conducted to assess the potential for woodlots within 120 m of the Project Location >30 ha in size with the potential to host populations of area-sensitive species, through the delineation and verification of forest communities by ELC. |
| Open Country Bird Breeding Habitat | • Grassland areas > 30 ha, not Class 1 or Class 2 agricultural lands, with no row-cropping or intensive hay or livestock pasturing in the last 5 years, in the following Community Type: Meadow (CUM).<br>• Condition of existing habitat at site (level of disturbance) is an important consideration. For example, fields with intensive agriculture are not considered candidate habitat. Fields with light grazing are considered candidate habitat)<br>• Size and location of habitat<br>• Potential for long-term protection of the habitat<br>• Representation of species/habitat within the municipality. | • Site investigations were conducted to assess the potential for grassland communities in and within 120 m of the Project Location to support area-sensitive bird species, through the delineation and verification of grassland communities by ELC.<br>• Swallow migratory staging was also included in this type of habitat for Amherst Island because these species use this habitat for foraging during fall migration. More information is provided in Section 4.2.3.<br>• The farming practice of hay field cutting before the end of the breeding cycle for grassland birds can reduce breeding success for these species up to 94% and hayfields are not considered to support viable populations of grassland breeding bird species (COSSARO 2010); however, due to the importance of Amherst Island for bird migration and grassland species such as the Short-eared Owl, all hayfields, |

**Table 3.3: Characteristics Used to Identify Candidate Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Criteria | Methods |
|---|---|---|
| | | pastures, and cultural meadows have been identified as candidate significant wildlife habitat. |
| Shrub/Early Successional Bird Breeding Habitat | • Oldfield areas succeeding to shrub and thicket habitats >10 ha, not Class 1 or Class 2 agricultural lands, with no row-cropping or intensive hay or livestock pasturing in the last 5 years, in the following Community Types: Thickets (CUT), Savannahs (CUS), or Woodlands (CUW).<br>• Condition of existing habitat at site.<br>• Size and location of habitat.<br>• Potential for long-term protection of the habitat – should have a history of longevity, either abandoned fields or pasturelands.<br>• Representation of species/habitat within the municipality. | • Site investigations were conducted to assess the potential for this habitat type using ELC to delineate thicket and savannah type communities. |
| S1-S3, Special Concern and SH Species and Communities | • All Species Concern or provincial rare plant and animal species element occurrences within a 1 or 10km grid. | • Site investigations were carried out through a combination of vegetation surveys for plant species of conservation concern, and ELC-based habitat assessments for both plant and wildlife species of conservation concern as described in the Draft SWH Ecoregion 6E Criterion Schedule.<br>• **Table 3B, Appendix B** provides a description of each species of conservation concern and their associated habitat. |

#### 3.1.7.4 Animal Movement Corridors

Habitats within 120 m of the Project Location were assessed for their suitability to support animal movement corridors that are known to occur or have the potential to occur within the vicinity of the Study Area. Assessments were carried out for amphibian movement corridors.

Amphibian movement corridors have been identified by using the habitat criteria found in the SWHTG (MNR 2000) and Draft Significant Wildlife Habitat: Ecoregion 6E Criteria Schedules (MNR 2012). Habitat criteria and methods employed to identify them in and within 120 m of the Project Location, have been summarized in **Table 3.4**.

**Table 3.4: Characteristics Used to Identify Candidate Habitat for Animal Movement Corridors**

| Candidate Animal Movement Corridor | Criteria | Methods |
|---|---|---|
| Amphibian Movement Corridor | • Corridors may be found in all ecosites associated with water<br>• Determined based on identifying significant amphibian breeding habitat (wetland). | • Identified after Amphibian Breeding Habitat - Wetland (see Section 3.1.7.2) is confirmed.<br>• Site investigations will be conducted after this confirmation to identify potential movement corridors |

## 3.2 RESULTS

The Project Location, and areas within 120 m of it, was comprised primarily of actively cultivated cropland and pasture. Natural vegetation consisted of deciduous forest, swamp, cultural woodland and hedgerows and is described in **Section 3.2.1**.

Field notes for the site investigations are provided in **Appendix C.**

A summary of the corrections to the features identified through the Records Review, including new features or functions identified as a result of site investigations, is provided in **Table 5B, Appendix B** and discussed in the following sections. A summary of all natural features within 120 m of the Project Location is provided in **Tables 6B and 7B (Appendix B)**.

### 3.2.1 Vegetation Community and Vascular Plants Assessment

Site investigations identified discrete naturally-vegetated features in or within 120 m of the Project Location. Each feature was delineated and assigned a unique identification number (**Figures 2.1-2.5, Appendix A**), an appropriate ELC vegetation community code (as per Lee et al. 1998) and is summarized in **Tables 6B and 7B (Appendix B)**, which serves as a point of reference. This table describes the type, attributes, composition, function, and significance (if known) of each natural feature. Delineated ELC communities are shown on **Figures 2.1-2.5, Appendix A**. A memo describing the ELC communities in included with the field notes in **Appendix C**.

### 3.2.2 Wetlands

Wetlands within the Study Area are typically swamp maple or green ash mineral swamps with scattered meadow marshes and swamp thickets. A total of 22 wetlands were identified through the Records Review and field investigations as occurring in and within 120 m of the Project Location. Descriptions of these features can be found in **Table 6B, Appendix B** and boundaries shown on **Figures 2.1-2.5, Appendix A.**

#### 3.2.2.1 Provincially Significant Wetlands

A total of two PSWs were identified within 120 m of the Project Location through the records review. No PSWs have been identified in the Project Location. Based on the results of the ELC and OWES investigations of Nut Island Duck Club Marsh and Long Point Marsh, the boundaries are recommended to be increased to include adjacent wetland communities. The revised PSW boundaries are shown on **Figures 2.4 and 2.5, Appendix A** and the corrections to the Records Review are described in **Table 5B, Appendix B.**

#### 3.2.2.2 Unevaluated Wetlands

Nineteen additional wetlands, not previously identified by MNR, were identified within 120 m of the Project Location. These wetlands consisted primarily of Swamp Maple and Green Ash deciduous swamps with scattered Reed Canary Grass meadow marshes.

Potential wetland communities that were beyond 120 m of the Project Location and were not contiguous with identified features, as determined through air photo interpretation, were not included as part of the feature.

Corrections made to the Records Review for wetlands as a result of the site investigations are summarized in **Table 5B** (**Appendix B**). **Table 6B (Appendix B)** lists all wetlands identified and describes their attributes, composition, and function. An Evaluation of Significance is required for unevaluated wetlands and wetlands identified through field verification.

The Project Location is located in Wetland Features 6 and 7 and within 120 m of the remaining 18 wetlands.

### 3.2.3 Woodlands

Thirty-six woodlands were identified within 120 m of the Project Location during the Site Investigation. These woodlands are associated with Features 1 through 36, shown on **Figures 2.1-2.5, Appendix A**. Corrections made to the Records Review for the number of identified woodlands as a result of site investigations are summarized in **Table 5B (Appendix B)**. **Table 7B (Appendix B)** lists all woodlands identified and describes their attributes, composition, and function. An Evaluation of Significance is required for these woodlands.

The Project Location is located in Woodlands 4, 9, and 36, and within 120 m of the other 33 woodlands.

Potential woodland communities that were beyond 120 m of the Project Location and were not contiguous with identified features, as determined through air photo interpretation, were not included as part of the feature mapping.

### 3.2.4 Valleylands

Valleylands are natural areas south and east of the Canadian Shield that have flowing or standing water for some period of the year. They are linear systems stretching across the landscape from headwater areas into other aquatic features such as lakes and wetlands.

Site investigations confirmed that the Project Location predominately consists of gently rolling topography with no linear systems that meet the definition of a valleyland.

No valleylands were identified during field investigations. No corrections are required to the Records Review (**Table 5B, Appendix B**). No Evaluation of Significance is required.

### 3.2.5 ANSIs

The boundaries and characteristics of the Amherst Bay Life Science ANSI as described by the OMNR were confirmed during ELC surveys completed by Stantec biologists. No changes are proposed to the boundaries of the Amherst Bay Life Science ANSI. No corrections are required to the Records Review (**Table 5B, Appendix B**). No Evaluation of Significance is required.

### 3.2.6 Wildlife and Wildlife Habitat

Results of the site investigations for wildlife habitat are summarized in the following sections. The results are considered within the context of criteria for significant wildlife habitat as outlined within the SWHTG (MNR 2000) and Draft Significant Wildlife Habitat Ecoregion 6E Criterion schedule (MNR 2012) in order to determine whether natural communities within 120 m of the Project Location support candidate or confirmed significant wildlife habitat. Features associated with candidate significant wildlife habitat are identified in the following sections, and illustrated in **Figures 3.1-3.5, Appendix A** and **Figures 4.1-4.5, Appendix A**. **Table 8B (Appendix B)** lists all candidate significant wildlife habitats identified and describes their attributes, composition, and function. Corrections to the Records Review are shown in **Table 3.9**.

#### 3.2.6.1 Seasonal Concentration Areas of Animals

Site Investigations involved a thorough assessment of natural areas for seasonal concentration areas for wildlife habitat. Potential habitat for seasonal concentration areas was examined during the Site Investigation phase, and is discussed in **Table 3.5**. Seasonal concentration areas that did not have any candidate significant wildlife habitat will not be carried forward to the Evaluation of Significance phase.

**Table 3.5: Summary of Site Investigation Results for Seasonal Concentration Areas**

| Candidate Seasonal Concentration Areas | Present within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to Summary and EOS (Y/N) |
|---|---|---|---|---|
| Waterfowl Stopover and Staging Area (Terrestrial) | Yes (WT3) | Yes (WT1, WT2, and WT4) | Areas of cultural meadows and agricultural pastures with flooding in the spring are present in and within 120 m of the Project Location. | Yes |
| Waterfowl Stopover and Staging Area (Aquatic) | Yes (WA1) | No | Waterfowl stopover and staging habitat was identified in the IBA report between the island and the mainland. Shallow marsh habitat is found within 120 m of the Project Location in Long Point Marsh. The Project Location is not in these features. | Yes |
| Shorebird Migratory Stopover Area | Yes (SM1) | No | The shoreline of Lake Ontario is present within 120 m of the Project Location. Much of the Amherst Island shoreline is naturalized, with the exception of portions of the shoreline through the village or adjacent to residences. The shoreline predominate consists of rocky shelf, with sandy beach habitat along the western end of the island. The Amherst Bar on the east end of the island, which forms part of this candidate habitat feature, is a known shorebird stopover area.. The Project Location is not in the candidate shorebird migratory stopover area, but is located within 120 m. | Yes |
| Raptor Wintering Area | Yes (RWA9) | Yes (RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7, RWA8, RWA10) | There are pastures, hayfields, and meadows >15 ha located adjacent to >5 ha of forest found in the Project Location. | Yes |
| Bat Hibernacula | No | No | There are no caves, abandoned mine shafts, underground foundations, and karst features or crevice/cave communities within 1120 m of the Project Location. | No |
| Bat Maternity Colonies | No | No | No snags or trees capable of supporting bat maternity roosts were found in numbers greater than 10 per hectare within 120 m of the Project Location. | No |
| Turtle Wintering Areas | Yes (TO1) | No | The Long Point Marsh is a large coastal marsh which could provide habitat for overwintering Midland Painted Turtles or Snapping Turtles. Lake Ontario provides habitat for Northern Map Turtles. These habitats are located within 120 m of the Project Location. The Project Location is not in this feature.<br>Snapping Turtle and Northern Map Turtle (species of conservation concern) are considered under this habitat type. | Yes |

**Table 3.5: Summary of Site Investigation Results for Seasonal Concentration Areas**

| Candidate Seasonal Concentration Areas | Present within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to Summary and EOS (Y/N) |
|---|---|---|---|---|
| Snake Hibernacula | Yes (SN1) | No | Snake hibernacula features such as buried concrete or rock (e.g. building foundations, culverts, rock crevices or abandoned animal burrows) were found within 120 m of the Project Location.<br>One feature was found; however, this feature was found in the vicinity of Front Road in the east end of Amherst Island, within 120 m of underground cabling only. This type of Project component would not have an operational impact on this type of habitat. It will therefore be treated as generalized significant wildlife habitat. The Project Location is not in this feature. | Yes; treated as significant |
| Colonial-Nesting Bird Breeding Habitat (bank/cliff) | No | No | Results of the vegetation community surveys determined that there are no eroding banks, sandy hills, borrow pits, steep slopes and sand piles present within 120 m of the Project Location. Although colonial-nesting species (e.g. cliff swallow) were recorded breeding within 120 m of the Project Location, they were using anthropogenic structures (e.g. barns) as nesting structures, which do not constitute candidate significant wildlife habitat. | No |
| Colonial-Nesting Bird Breeding Habitat (tree/shrub) | No | No | There is a known Black-crowned Night Heron colony located in the Nut Island Duck Club Marsh and a Great Blue Heron colony in the Long Point Marsh. These colonies were found o be greater than 120 m plus a 300 m radius from the Project Location. No additional colonial-nesting bird breeding habitat features were found during the site investigation.<br>Black-crowned Night Heron (a species of conservation concern) is considered under this habitat type. | No |
| Colonial-Nesting Bird Breeding Habitat (ground) | No | No | There is a known nesting site/colony used by Herring Gulls, Common Terns, and Cormorants located on the Brother Islands. No rocky islands or peninsulas are located within 120 m of the Project Location, and the Brother Islands would be the most significant in the region, which are located over 2km from the Project Location.<br>Greater Black-backed Gull and Caspian Tern (species of conservation concern) are considered under this habitat type. | No |
| Migratory Butterfly Stopover Areas | Yes (MB2, MB3) | No | There are undisturbed fields with mixed habitat (forest, thicket, plantation, and/or edge) | Yes |

**Table 3.5: Summary of Site Investigation Results for Seasonal Concentration Areas**

| Candidate Seasonal Concentration Areas | Present within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to Summary and EOS (Y/N) |
|---|---|---|---|---|
| | | | located along the shoreline of Lake Ontario within 120 m of the Project Location. The Project Location is not in these features.<br>Monarch butterflies (a species of conservation concern) are considered under this habitat type. | |
| Landbird Migratory Stopover Areas | Yes (ML1, ML2, ML3, ML4, ML5) | No | There are woodlands >10 ha located within 2 km of Lake Ontario with a variety of habitats. These are also located within 120 m of the Project Location. The Project Location is not in these features. | Yes |

### 3.2.6.2 Rare Vegetation Communities or Specialized Habitats for Wildlife

Site Investigation results pertaining to rare vegetation communities and specialized habitats in and within 120 m of the Project Location are summarized in **Table 3.6**. Rare vegetation community types or specialized habitats for wildlife that did not have any candidate significant wildlife habitat will not be carried forward to the Evaluation of Significance phase.

**Table 3.6: Summary of Site Investigation Results for Rare Vegetation Communities and Specialized Wildlife Habitat**

| Candidate Rare Vegetation Community/Specialized Wildlife Habitat | Present within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to Summary and EOS (Y/N) |
|---|---|---|---|---|
| Cliffs and Talus Slopes | No | No | Rare vegetation communities (cliffs and talus slopes) were not observed during ELC and vegetation surveys in and within 120 m of the Project Location. | No |
| Sand Barrens | No | No | Rare vegetation communities (sand barrens) were not observed during ELC and vegetation surveys in and within 120 m of the Project Location. | No |
| Alvars | No | No | Rare vegetation communities (alvars) were not observed during ELC and vegetation surveys in and within 120 m of the Project Location. | No |
| Old-growth Forest | Yes (OGF1, OGF2, OGF3) | No | Old-growth forests identified by the CRCA are present within 120 m of the Project Location. The Project Location is not in these features.<br>ELC surveys and woodland assessments of all other woodlands within 120 m of the Project Location | Yes |

**Table 3.6: Summary of Site Investigation Results for Rare Vegetation Communities and Specialized Wildlife Habitat**

| Candidate Rare Vegetation Community/Specialized Wildlife Habitat | Present within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to Summary and EOS (Y/N) |
|---|---|---|---|---|
| | | | did not have suitable characteristics of old-growth forests. All mature woodlands within 120 m of the Project Location contained historical forestry management. | |
| Savannahs | No | No | Rare vegetation communities (savannahs) were not observed during ELC and vegetation surveys in and within 120 m of the Project Location. | No |
| Tall-grass Prairies | No | No | Rare vegetation communities (tall-grass prairie) were not observed during ELC and vegetation surveys in and within 120 m of the Project Location. | No |
| Other Rare Vegetation Communities | No | No | Other rare vegetation communities were not observed during ELC and vegetation surveys in and within 120 m of the Project Location. | No |
| Waterfowl Nesting Area | Yes (WN1) | Yes (WN2) | Long Point Marsh represents a large open aquatic habitat in proximity to the Project Location. Upland habitats adjacent to the Long Point Marsh provide candidate habitat for nesting waterfowl. The Project Location is not in these features.<br>Other wetlands adjacent to the Project Location do not provide the standing water that would support breeding waterfowl. | Yes |
| Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat | Yes (BE1, BE2) | No | Two priority areas for Bald Eagle nesting conservation were identified in the report *Conserving Lake Ontario and Upper St. Lawrence Bald Eagle* Habitats (St. Lawrence Bald Eagle Working Group 2008). The Project Location is not in these features.<br>ELC and habitat assessments of all woodlands and vegetated watercourses within 120 m of the Project Location did not detect any potential nests of Osprey and Bald Eagle.<br>Osprey are nesting on a constructed platform 50 m south of the ferry dock; however, constructed platforms are not considered significant wildlife | No |

**Table 3.6: Summary of Site Investigation Results for Rare Vegetation Communities and Specialized Wildlife Habitat**

| Candidate Rare Vegetation Community/Specialized Wildlife Habitat | Present within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to Summary and EOS (Y/N) |
|---|---|---|---|---|
| | | | habitat.<br>Because no active nests were found for either of these species, no candidate significant wildlife habitat is present in or within 120 m of the Project Location for Bald Eagle or Osprey. | |
| Woodland Raptor Nesting Habitat | Yes (WR1, WR2) | No | Two candidate habitats for woodland raptor nesting are available in woodlands that are >30 ha in size, composed of swamp (SW) and forest (FO). These are associated with Woodlands 4 and 21. The Project Location is not in these features. | Yes |
| Turtle Nesting Areas | No | No | ELC and habitat assessment surveys undertaken in all woodlands and watercourses within 120 m of the Project Location did not locate any exposed mineral soil (sand or gravel) or contain suitable habitat to support turtle nesting habitat.<br>No candidate significant wildlife habitat was present in or within 120 m of the Project Location for turtle nesting habitat.<br>Snapping Turtle and Northern Map Turtle (species of conservation concern) are considered under this habitat type. | No |
| Seeps and Springs | No | No | ELC and woodland habitat assessment surveys of all woodlands within 120 m of the Project Location did not identify seeps or springs. | No |
| Amphibian Breeding Habitat (Woodland) | Yes (ABWO1, ABWO2, ABWO3) | No | Candidate amphibian breeding habitat is present within 120 m of the Project Location and within 120 m of woodlands. The Project Location is not in these features.<br>Western Chorus Frog (a species of conservation concern) is considered under this habitat type. | Yes |
| Amphibian Breeding Habitat (Wetland) | Yes (ABWE1, ABWE2) | No | Candidate amphibian breeding habitat is present within 120 m of the Project Location which is >500 m$^2$ and not located within 120 m of woodlands. | Yes |

**Table 3.6: Summary of Site Investigation Results for Rare Vegetation Communities and Specialized Wildlife Habitat**

| Candidate Rare Vegetation Community/Specialized Wildlife Habitat | Present within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to Summary and EOS (Y/N) |
|---|---|---|---|---|
| | | | The Project Location is not in these features.<br>Western Chorus Frog (a species of conservation concern) is considered under this habitat type. | |

### 3.2.6.3 Species of Conservation Concern

Site Investigation results pertaining to habitats for species of conservation concern in and within 120 m of the Project Location are summarized in **Table 3.7**. Species of conservation concern that did not have any candidate significant wildlife habitat will not be carried forward to the Evaluation of Significance phase.

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| Marsh Bird Breeding Habitat | Yes (MBB1) | No | Marsh habitats identified in the Site Investigation are all along small agricultural drains and do not provide adequate nesting habitat for marsh breeding birds.<br>The Long Point Marsh provides the best habitat for marsh breeding birds in the region. The Project Location is not in this feature.<br>Black Tern and Black-crowned Night Heron (species of conservation concern) are considered under this habitat. | Yes |
| Woodland Area-sensitive Bird Breeding Habitat | Yes (ABB1, ABB2) | No | Two candidate habitats for woodland area-sensitive bird breeding are available in woodlands that are >30 ha in size with >4 ha of interior habitat, composed of swamp (SW) and forest (FO). These are associated with Woodlands 4 and 21. The Project Location is not in these features.<br>Red-headed Woodpecker and Canada Warbler (species of | Yes |

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| | | | conservation concern) are considered under this habitat type. | |
| Open Country Bird Breeding Habitat | Yes | Yes (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8, OCB9) | Site investigations confirmed that open country habitat exceeding 30 ha was present within 120 m of the Project Location.<br>Swallow migratory staging was also included under this habitat, which provides the ecological functions required for swallow foraging.<br>Red-headed Woodpecker and Common Nighthawk (species of conservation concern) are considered under this habitat type. | Yes |
| Shrub/Early Successional Bird Breeding Habitat | Yes (SSB1, SSB2, SSB3, SSB4, SSB5) | No | Site investigations confirmed that thicket or woodland habitat exceeding 10 ha was present within 120 m of the Project Location. The Project Location is not in these features.<br>Red-headed Woodpecker, Common Nighthawk, Golden-winged Warbler, and Yellow-breasted Chat (species of conservation concern) are considered under this habitat type. | Yes |
| Special Concern and Rare Wildlife Species (3 species of plants, 1 species of Lepidoptera, 1 species of amphibian, 3 species of reptiles, 3 species of mammal, and 14 species of birds as per **Table 3B, Appendix B** | | | | |
| Monarch | Yes | No | This species prefers abandoned farmland and roadsides, but also in city gardens and parks. The host plant is milkweed. The Project Location is not in these features.<br>Habitat for this species has been determined through the consideration of Migratory Butterfly Stopover Areas. | Yes; considered through Migratory Butterfly Stopover Areas |
| Western Chorus Frog | Yes | No | This species prefers roadside ditches or temporary ponds in fields; swamps or wet meadows; woodland | Yes; considered through Amphibian Breeding Habitat |

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| | | | or open country with cover and moisture; small ponds and temporary pools. The Project Location is not in these features.<br>Habitat for this species has been determined through the consideration of Amphibian Breeding Habitat (Woodland and Wetland). | (Woodland and Wetland) |
| Eastern Milksnake | Yes | No | This species prefers farmlands, meadows, hardwood or aspen stands; pine forest with brushy or woody cover; river bottoms or bog woods; hides under logs, stones, or boards or in outbuildings; often uses communal nest sites (MNR 2000).<br>Habitat for this species has been determined through the consideration of Snake Hibernacula (Section 3.2.6.1). The Project Location is not in these features. Due to the generalist nature of this species, special mitigation measures will be provided in the Environmental Impact Study report (Section 5.5.5). | Yes; considered through Snake Hibernacula |
| Northern Map Turtle | Yes | No | This species prefers large bodies of water with soft bottoms, and aquatic vegetation; basks on logs or rocks or on beaches and grassy edges, will bask in groups; uses soft soil or clean dry sand for nest sites (MNR 2000).<br>Habitat for this species has been determined through the consideration of Turtle Overwintering Habitat (Section 3.2.6.1). The Project Location is not in this feature. | Yes; considered through Turtle Overwintering Habitat and Nesting Habitat |
| Snapping Turtle | Yes | No | This species prefers permanent, semi-permanent fresh water; marshes, swamps or bogs; rivers and streams with soft muddy banks or bottoms (MNR 2000).<br>Habitat for this species has been determined through the consideration of Turtle | Yes; considered through Turtle Overwintering Habitat and Nesting Habitat |

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| | | | Overwintering Habitat (Section 3.2.6.1). The Project Location is not in this feature. | |
| Black Tern | Yes | No | This species prefers wetlands, coastal or inland marshes; large cattail marshes, marshy edges of rivers, lakes or ponds, wet open fens, wet meadows; returns to same area to nest each year in loose colonies; must have shallow (0.5 to 1 m deep) water and areas of open water near nests; requires marshes >20 ha in size (MNR 2000).<br>Habitat for this species has been determined through the consideration of Marsh Breeding Bird Habitat. The Project Location is not in these features. | Yes; considered under Marsh Breeding Bird Habitat |
| Redhead | Yes | No | This species prefers shallow cattail/bulrush marshes, lakes and ponds and fens; preferred nesting usually close to shallow water (MNR 2000).<br>Habitat for this species has been determined through the consideration of Waterfowl Nesting Areas. The Project Location is not in these features. | Yes; considered under Waterfowl Nesting Areas |
| Black-crowned Night Heron | Yes | No | This species prefers deciduous woodland swamps, cattail marshes, islands, wooded river and lake banks, coastal wetlands (MNR 2000).<br>Habitat for this species has been determined through the consideration of Colonial-Nesting Bird Breeding Habitat (tree/shrub). The Project Location is not in these features. | No; considered under Colonial-Nesting Bird Breeding Habitat (tree/shrub) |
| Greater Black-backed Gull | No | No | This species prefers flat rocky coastal islands, moorlands, rocky beaches, cliffs; nest is solitary or in small (rarely large) colonies (MNR 2000).<br>There is no habitat for this species in or within 120 m of the Project Location. | No |

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| Caspian Tern | No | No | This species prefers open habitat near large lakes or rivers, beaches, shorelines, rocky or sandy beaches, offshore islands (MNR 2000).<br>There is no habitat for this species in or within 120 m of the Project Location. | No |
| Short-eared Owl | Yes | Yes (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8, OCB9) | This species prefers grasslands, open areas or meadows that are grassy or bushy; marshes, bogs or tundra; both diurnal and nocturnal habits; ground nester; destruction of wetlands by drainage for agriculture is an important factor in the decline of this species; home range 25 -125 ha; requires 75-100 ha of contiguous open habitat (MNR 2000).<br>The Short-eared Owl breeding territories have been studied extensively on Amherst Island by Kristen Keyes of McGill University (Keyes 2011). The locations of known breeding territories in 2009, 2010, and observations by Stantec in 2011 were used in the consideration of this habitat. Four of these areas are located within 120 m of the Project Location.<br>Although habitat for this species has been determined through the consideration of Open Country Breeding Bird Habitat and Raptor Wintering Areas, it is also considered as a separate habitat due to the relative abundance of this species on Amherst Island. | Yes |
| Red-headed Woodpecker | Yes | Yes | This species prefers open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; feeds on insects and stores nuts or acorns for winter; loss of habitat is limiting factor; requires cavity trees with at least 40 cm dbh; require about 4 ha for a territory | Yes; is considered through Woodland Area-Sensitive Bird Breeding, Open Country Bird Breeding, and Shrub/Early Successional Bird Breeding Habitat |

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| | | | (MNR 2000).<br>This wide range of habitats is considered through Woodland Area-Sensitive Bird Breeding, Open Country Bird Breeding, and Shrub/Early Successional Bird Breeding Habitat. | |
| Common Nighthawk | Yes | Yes | This species prefers open ground; clearings in dense forests; ploughed fields; gravel beaches or barren areas with rocky soils; open woodlands; flat gravel roofs. This also includes open, vegetation-free habitats, including dunes, beaches, recently harvested forests, burnt-over areas, logged areas, rocky outcrops, rocky barrens, grasslands, pastures, peat bogs, marshes, lakeshores, and river banks (MNR 2000).<br>This wide range of habitats is considered through Open Country Bird Breeding, Bird Marsh Breeding, and Shrub/Early Successional Bird Breeding Habitat. | Yes; considered through Open Country Bird Breeding, Bird Marsh Breeding, and Shrub/Early Successional Bird Breeding Habitat |
| Olive-sided Flycatcher | No | No | This species prefers semi-open, conifer forest, prefers spruce; near pond, lake or river; treed wetlands for nesting; burns with dead trees for perching (MNR 2000).<br>Coniferous forest is very limited on Amherst Island and no coniferous forests near water are present in or within 120 m of the Project Location. | No |
| Golden-winged Warbler | Yes | No | This species prefers early successional habitat; shrubby, grassy abandoned fields with small deciduous trees bordered by low woodland and wooded swamps; alder bogs; deciduous, damp woods; shrubbery clearings in deciduous woods with saplings and grasses; brier-woodland edges; requires >10 ha of habitat (MNR 2000).<br>Habitat for this species has been determined through the | Yes; considered through Shrub/Early Successional Bird Breeding Habitat |

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| | | | consideration of Shrub/Early Successional Bird Breeding Habitat. The Project Location is not in these features. | |
| Canada Warbler | Yes | No | This species prefers interior forest; dense, mixed coniferous, deciduous forests with closed canopy, wet bottomlands of cedar or alder; shrubby undergrowth in cool moist mature woodlands; riparian habitat; usually requires at least 30 ha (MNR 2000).<br>Habitat for this species has been determined through the consideration of Woodland Area-Sensitive Bird Breeding Habitat. The Project Location is not in these features. | Yes; considered through Woodland Area-Sensitive Bird Breeding Habitat |
| Yellow-breasted Chat | Yes | No | This species prefers thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines etc (MNR 2000).<br>Habitat for this species has been determined through the consideration of Shrub/Early Successional Bird Breeding Habitat. The Project Location is not in these features. | Yes; considered through Shrub/Early Successional Bird Breeding Habitat |
| Louisiana Waterthrush | Yes | No | This species prefers wooded ravines with running streams, woodlands swamps, and large tracts of mature deciduous or mixed forests (MNR 2000).<br>It has been observed on the mainland; however, there are no known records from Amherst Island. There are three large, mature deciduous swamps with drains running near or through them: Features 4, 21, and 15, which will be considered candidate significant Louisiana waterthrush habitat. The Project Location is not in these features. | Yes |
| Wilson's Phalarope | Yes (WP1) | No | This S3B species prefers open wetlands, ponds, lakes, marshes | Yes |

**Table 3.7: Summary of Site Investigation Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| | | | and sloughs with wet meadow vegetation; freshwater coastal marshes; nests on ground in loose colonies (MNR 2000).<br>It is known to breed on the eastern shoreline, within the coastal marsh on the Kingston Field Naturalists property (Weir 2008). This property is considered candidate significant wildlife habitat. The Project Location is not in these features. | |
| Bats | No | No | Little Brown Bat, Eastern Pipistrelle, and Northern Long-eared Bat all have maternity sites in cavity trees and hibernate in caves, tunnels, or abandoned mine sites (MNR 2000).<br>Habitat for these species has been determined through the consideration of Bat Hibernacula and Bat Maternity Colonies. | No |
| Plants | No | No | Three rare plant species were identified to potentially occur within the Study Area during the Records Review: Carolina Whitlow-grass, Stiff Gentian, and Smith's Bulrush. Through site investigations, potential habitat was identified for 2 of these plant species within 120 m of the Project Location, including: Stiff Gentian and Smith's Bulrush.<br>However, complete ELC surveys were conducted and no rare plant species were observed, including any of the rare species known from the Study Area. | No |

### 3.2.6.4 Animal Movement Corridors

Site Investigation results pertaining to animal movement corridors in and within 120 m of the Project Location are summarized in **Table 3.8**. Animal movement corridors that were not observed in the Study Area will not be carried forward to the Evaluation of Significance phase.

**Table 3.8: Characteristics Used to Identify Candidate Habitat for Species of Conservation Concern**

| Candidate Animal Movement Corridor | Present in or within 120 m of Project Location | Present in Project Location | Rationale | Carried Forward to EOS (Y/N) |
|---|---|---|---|---|
| Amphibian Movement Corridor | No | No | The areas around ABWE1 and ABWE2 were examined for amphibian movement corridors, as these wetlands are candidate significant wildlife habitat for amphibian breeding habitat (wetland). Amphibian movement corridors should consist of native vegetation, no road crossings, no gaps such as fields, waterways or bodies, and undeveloped areas are most significant (OMNR 2011a). Movement corridors must be considered when Amphibian breeding habitat is confirmed as SWH from Amphibian Breeding Habitat – Wetland, which has not yet been confirmed. Corridors should be at least 200 m wide with gaps <20 m and if following riparian area with at least 15 m of vegetation on both sides of waterway. Shorter corridors are more significant than longer corridors; however amphibians must be able to get to and from their summer and breeding habitat (OMNR 2011a). As the two wetland habitats (ABWE1 and ABWE2) are bounded by roads with no corridor >200 m, the habitat within the Study Area does not meet the criteria identified as significant. | No |

## 3.3 SITE INVESTIGATION RESULTS SUMMARY

**Table 3.9** provides a summary of only those natural features that will be carried forward to the Evaluation of Significance.

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| **Wetlands** | | | | |
| 1 | Wetland | UL-74<br>AR-94 | No | Yes |
| 2 | Wetland | WT-41<br>UL-96<br>AR-52<br>TC-47 | No | Yes |
| 3 | Wetland | UL-3<br>TC-104<br>BU-3 | No | Yes |
| 4 | Wetland | WT-76<br>UL-41<br>AR-38TC-39 | No | Yes |
| 5 | Wetland | WT-5 | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| | | UL-3<br>AR-11<br>TC-9 | | |
| 6 | Wetland | WT-overlapping<br>UL-overlapping<br>AR-overlapping<br>TC-overlapping | No | Yes |
| 7 | Wetland | AR-overlapping | No | Yes |
| 8 | Wetland | UL-28<br>AR-103 | No | Yes |
| 9 | Wetland | WT-68<br>UL-18<br>AR-99<br>TC-61 | No | Yes |
| 10 (PSW) | Wetland – Nut Island Duck Club Marsh | WT-3<br>UL-13<br>AR-74<br>TC-3 | Yes | Significant (does not need EOS) |
| 11 | Wetland | WT-60<br>UL-115<br>AR-77<br>TC-62 | No | Yes |
| 12 | Wetland | WT-10<br>UL-4<br>AR-7<br>TC-3 | No | Yes |
| 13 | Wetland | UL-1<br>AR-100 | No | Yes |
| 14 | Wetland | UL-40<br>AR-44 | No | Yes |
| 15 | Wetland | UL-18 | No | Yes |
| 16 | Wetland | UL-19<br>AR-10 | No | Yes |
| 17 | Wetland | UL-3 | No | Yes |
| 18 | Wetland | UL-62<br>AR-58 | No | Yes |
| 19 | Wetland | WT-62<br>UL-102<br>AR-107<br>TC-46 | No | Yes |
| 20 | Wetland | UL-24<br>AR-42 | No | Yes |
| 21 (PSW) | Wetland – Long Point Marsh | WT-119<br>AR-78 | Yes | Significant (does not need EOS) |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| 22 | Wetland | TC - 29 | No | Yes |
| **Woodlands** | | | | |
| 1 | Woodland | WT – 47<br>UL – 4<br>AR – 7<br>TC - 3 | No | Yes |
| 2 | Woodland | UL-100 | No | Yes |
| 3 | Woodland | UL-20<br>AR-16 | No | Yes |
| 4 | Woodland | WT-48<br>UL-overlapping<br>AR-3<br>TC-23 | No | Yes |
| 5 | Woodland | WT-110<br>UL-60<br>AR-50<br>TC-62 | No | Yes |
| 6 | Woodland | UL-18 | No | Yes |
| 7 | Woodland | UL-7<br>AR-8 | No | Yes |
| 8 | Woodland | UL-40<br>AR-44 | No | Yes |
| 9 | Woodland | UL-overlapping<br>AR-overlapping | No | Yes |
| 10 | Woodland | WT-71<br>TC-83 | No | Yes |
| 11 | Woodland | WT-68<br>UL-18<br>AR-99<br>TC-61 | No | Yes |
| 12 | Woodland | WT-67<br>TC-70 | No | Yes |
| 13 | Woodland | UL-3<br>AR-18 | No | Yes |
| 14 | Woodland | UL-3<br>AR-103 | No | Yes |
| 15 | Woodland | WT-71<br>TC-71 | No | Yes |
| 16 | Woodland | WT-91<br>UL-45<br>AR-41<br>TC-111 | No | Yes |
| 17 | Woodland | WT-70<br>UL-54 | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| | | AR-58<br>TC-67 | | |
| 18 | Woodland | UL-3 | No | Yes |
| 19 | Woodland | UL-3<br>BU-45 | No | Yes |
| 20 | Woodland | WT-67<br>UL-30<br>AR-34<br>TC-33 | No | Yes |
| 21 | Woodland | WT-44<br>UL-3<br>AR-39<br>TC-40 | No | Yes |
| 23 | Woodland | UL-28<br>AR-17<br>TC-81 | No | Yes |
| 24 | Woodland | UL-3<br>AR-3 | No | Yes |
| 25 | Woodland | WT-77<br>UL-3<br>AR-3<br>TC-81 | No | Yes |
| 26 | Woodland | TC-111 | No | Yes |
| 28 | Woodland | UL-3<br>TC – 92<br>BU - 107 | No | Yes |
| 29 | Woodland | AR-92<br>TC-109 | No | Yes |
| 30 | Woodland | UL-6<br>AR-9 | No | Yes |
| 32 | Woodland | UL-18 | No | Yes |
| 33 | Woodland | UL-87 | No | Yes |
| 35 | Woodland | UL-72<br>AR-75<br>TC-104 | No | Yes |
| 36 | Woodland | UL – 3<br>TC – overlapping<br>BU – overlapping | No | Yes |
| **ANSIs** | | | | |
| Wetland 21 | Amherst Bay Life Science ANSI | WT-119<br>AR-78 | Yes | Significant (does not need EOS) |
| **Seasonal Concentration Areas** | | | | |
| WT1 | Waterfowl Stopover and | WT – overlapping | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| | Staging Area (Terrestrial) | AR – overlapping<br>UL – overlapping | | |
| WT2 | Waterfowl Stopover and Staging Area (Terrestrial) | AR – overlapping | No | Yes |
| WT3 | Waterfowl Stopover and Staging Area (Terrestrial) | UL – 4 | No | Yes |
| WT4 | Waterfowl Stopover and Staging Area (Terrestrial) | UL – 3<br>AR – overlapping<br>BU – overlapping | No | Yes |
| WA1 | Waterfowl Stopover and Staging Area (Aquatic) | WT-119<br>AR-78 | No | Yes |
| SM1 | Shorebird Migratory Stopover Area | UL – overlapping<br>AR – overlapping | No | Yes |
| RWA-1 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| RWA-2 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| RWA-3 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| RWA-4 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| RWA-5 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| RWA-6 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| RWA-7 | Raptor Wintering Area | UL – 4<br>AR – 8 | No | Yes |
| RWA-8 | Raptor Wintering Area | UL – overlapping<br>TC – 32<br>BU – 37 | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| RWA-9 | Raptor Wintering Area | UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| RWA-10 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| TO1 | Turtle Overwintering | WT – 115<br>AR – 77<br>TC – 118 | No | Yes |
| ML1 | Landbird Migratory Stopover Areas | WT – 48<br>UL – 3<br>AR – 3<br>TC – 23 | No | Yes |
| ML2 | Landbird Migratory Stopover Areas | WT – 71<br>TC – 83 | No | Yes |
| ML3 | Landbird Migratory Stopover Areas | WT – 71<br>TC – 71 | No | Yes |
| ML4 | Landbird Migratory Stopover Areas | WT – 44<br>UL – 3<br>AR – 39<br>TC – 40 | No | Yes |
| ML5 | Landbird Migratory Stopover Areas | UL – 28<br>AR – 17<br>TC – 81 | No | Yes |
| MB2 | Migratory Butterfly Stopover Area | WT – 51<br>UL – 9<br>AR – 3<br>TC – 29 | No | Yes |
| MB3 | Migratory Butterfly Stopover Area | UL – 4<br>TC – 32<br>BU - 37 | No | Yes |
| **Rare Vegetation Communities and Specialized Habitat for Wildlife** | | | | |
| OGF1 | Old Growth Forest | UL – 8 | Yes | Yes |
| OGF2 | Old Growth Forest | WT – 48<br>UL – 103<br>AR – 98<br>TC – 50 | Yes | Yes |
| OGF3 | Old Growth Forest | WT – 71<br>TC – 83 | Yes | Yes |
| WN1 | Waterfowl Nesting Area | WT – 71<br>TC – 71 | No | Yes |
| WN2 | Waterfowl Nesting Area | AR – overlapping | No | Yes |
| WR1 | Woodland Raptor Nesting | WT – 48 | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| | | UL – 3<br>AR – 3<br>TC – 23 | | |
| WR2 | Woodland Raptor Nesting | WT – 44<br>UL – 3<br>AR – 39<br>TC – 40 | No | Yes |
| ABWO1 | Amphibian Breeding Habitat (Woodland) | UL – 19<br>AR – 11 | No | Yes |
| ABWO2 | Amphibian Breeding Habitat (Woodland) | UL - 59<br>AR – 54 | No | Yes |
| ABWO3 | Amphibian Breeding Habitat (Woodland) | TC - 29 | No | Yes |
| ABWE1 | Amphibian Breeding Habitat (Wetland) | WR – 114<br>AR – 77<br>TC – 118 | No | Yes |
| ABWE2 | Amphibian Breeding Habitat (Wetland) | UL - 3 | No | Yes |
| **Habitat for Species of Conservation Concern** | | | | |
| MBB1 | Marsh Breeding Bird Habitat | WT-115<br>AR-78<br>TC - 119 | No | Yes |
| ABB1 | Woodland Area-Sensitive Breeding Bird Habitat | WT – 48<br>UL – 3<br>AR – 3<br>TC – 23 | No | Yes |
| ABB2 | Woodland Area-Sensitive Breeding Bird Habitat | WT – 44<br>UL – 3<br>AR – 39<br>TC – 40 | No | Yes |
| OCB-1 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| OCB-2 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-3 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| OCB-4 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| | | UL – overlapping<br>TC – overlapping<br>BU – overlapping | | |
| OCB-5 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| OCB-6 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-7 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-8 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-9 | Open Country Bird Breeding Habitat | UL – 4<br>AR – 8 | No | Yes |
| SSB1 | Shrub/Early Successional Bird Breeding Habitat | UL – 20<br>AR – 16 | No | Yes |
| SSB2 | Shrub/Early Successional Bird Breeding Habitat | WT – 110<br>UL -11<br>AR – 3<br>TC – 74 | No | Yes |
| SSB3 | Shrub/Early Successional Bird Breeding Habitat | UL – 94<br>AR – 90<br>TC – 98 | No | Yes |
| SSB4 | Shrub/Early Successional Bird Breeding Habitat | WT – 65<br>UL – 70<br>AR – 66<br>TC - 65 | No | Yes |
| SSB5 | Shrub/Early Successional Bird Breeding Habitat | WT – 35<br>UL – 90<br>AR – 101<br>TC – 34 | No | Yes |
| LW1 | Louisiana Waterthrush | WT – 48<br>UL – 3<br>AR – 3<br>TC – 23 | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| LW2 | Louisiana Waterthrush | WT – 71<br>TC – 71 | No | Yes |
| LW3 | Louisiana Waterthrush | WT – 44<br>UL – 3<br>AR – 39<br>TC – 40 | No | Yes |
| OCB-1 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| OCB-2 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-3 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| OCB-4 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-5 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | No | Yes |
| OCB-6 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-7 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-8 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | No | Yes |
| OCB-9 | Short-eared Owl | UL-4<br>AR-8 | No | Yes |

**Table 3.9: Natural Features Carried Forward to Evaluation of Significance**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Identified in Records Review | Evaluation of Significance Required |
|---|---|---|---|---|
| WP1 | Wilson's Phalarope | UL-13<br>AR-17 | Yes | Yes |
| **Generalized Significant Wildlife Habitats** | | | | |
| SN1 | Snake Hibernacula | Not within 120 m of infrastructure identified in Appendix D of the NHA guide that will have an operational impact on the habitats. Therefore these habitats will be carried forward to the Environmental Impact Study where they will be treated as significant and general construction mitigation will be applied. | No | Significant - Generalized |

Legend: WT: Wind Turbine; UL: Underground Transmission Line; AR: Access Road, OL: Overhead Transmission Line, TC: Temporary Construction Areas, BU: Building/Substation

Natural features identified in the Records Review were confirmed through the Site Investigation program. Corrections made to the Records Review are provided in **Table 5B, Appendix B**.

## 3.4 QUALIFICATIONS

Personnel responsible for conducting the site investigations are listed in **Table 4B, Appendix B**. Where available, staff summaries and qualifications are provided in **Appendix D**.

# 4.0 Evaluation of Significance

Natural heritage information collected from the Records Review, the Site Investigations and agency consultations were analyzed to determine the significance and sensitivity of existing natural heritage features and their ecological functions. For all natural features existing in or within 120 m of the Project Location, a determination was made of whether the natural feature is provincially significant, significant, not provincially significant or not significant.

Natural features present in and within 120 m of the Project Location requiring an Evaluation of Significance are summarized in **Table 3.9**.

## 4.1 METHODS

Wetlands and Life Science ANSIs were determined to be provincially significant if they had been identified as such by MNR. This information was obtained from NHIC and through correspondence with the local MNR District. Non-provincially significant wetlands are those that have been evaluated but did not receive sufficient points to be considered provincially significant. Wetlands that have yet to be examined are termed unevaluated. These unevaluated wetlands and those additional wetlands identified during field investigations were assessed during site investigations and desktop analyses using evaluation criteria or procedures established and accepted by MNR.

Valleylands, wildlife habitat and woodlands were considered to be significant if MNR has identified them as such or when evaluated as significant using procedures established by MNR.

Sources used in the Evaluation of Significance for the natural features within 120 m of the Project Location included:

- Ontario Wetland Evaluation System (MNR 2002);
- NHA Guide for Renewable Energy Projects (MNR 2011a);
- Significant Wildlife Habitat Technical Guide (MNR 2000); and
- Draft SWH Ecoregion 6E Criterion Schedule (MNR 2012).

Provincial designations for Special Concern species were obtained from the most recent Committee on the Status of Species at Risk in Ontario (COSSARO 2010) assessments. Federally, designations for Endangered, Threatened and Special Concern species were obtained from the most recent Committee on the Status of Endangered Wildlife in Canada (COSEWIC 2010) assessments and the schedules of the *Species at Risk Act* (SARA) were used to determine species protection.

Within the context of O. Reg 359/09, Endangered and Threatened species are addressed as part of MNR’s *Approval and Permitting Requirements Document for Renewable Energy Projects*

(APRD) requirements and are therefore not included as part of this NHA. Information required with regards to endangered and threatened species is being submitted to MNR under separate cover as part of the Amherst Island Wind Energy Project APRD Report. Where this information indicates that approvals or permits are required, these will be addressed separately through the applicable statute and its permitting process.

These features are shown on **Figures 2.1-2.5, Appendix A**. Specific methods used in the Evaluation of Significance for each type of natural feature are detailed in the following sections.

### 4.1.1 Wetlands

For the purposes of this evaluation, wetlands previously identified and confirmed by MNR as provincially significant or locally significant are considered to meet the requirements for a determination of significance. Unless field investigations provided evidence to contradict the existing MNR assessment of significance, the designation as assigned by MNR is used. Wetland boundaries as delineated by MNR were confirmed during site investigations by an Ontario Wetland Evaluation System (OWES) trained evaluator. Boundaries as delineated during field investigations were considered accurate for the purposes of this report; however, additional wetland ELC polygons surrounding the two PSWs (Nut Island Duck Club Marsh and Long Point Marsh) were identified, which were included in the final boundaries for these two wetlands (**Table 5B, Appendix A**).

During site investigations additional wetland communities were identified within 120 m of the Project Location. Data were collected through desktop procedures (e.g. aerial photograph interpretation) to supplement on-site field investigations. The Wetland Characteristics and Ecological Functions Assessment (WCEFA) for Renewable Energy Projects approach provided in Appendix C of the NHA Guide for Renewable Energy Projects (MNR 2011a) was used to assess previously-unevaluated wetlands identified in LIO (LIO 2012) and to assess additional wetlands identified during field investigations. Although this procedure does not evaluate the significance of these wetlands with the same level of rigour as the OWES, it provides a procedure by which the significance of these wetlands can be assumed and their functions assessed based on the criteria established within the OWES manual.

As described in **Section 3.2.2.2**, 20 unevaluated wetlands were identified within 120 m of the Project Location, and required an Evaluation of Significance. For the two wetlands located in the Project Location (Wetlands 6 and 7), an OWES evaluation was completed.

### 4.1.2 Woodlands

Guidance provided in Section 6.2.2 of the NHA Guide for Renewable Energy Projects (MNR 2011a) was used to evaluate woodlands. The local planning authority has a responsibility for designating significant woodlands, using criteria that are provided in the NHA Guide. The Study Area falls within the Township of Loyalist within the County of Lennox and Addington. For woodlands on Amherst Island, the CRCA study utilized a 4 ha minimum threshold when determining significance based on size. This 4 ha threshold was determined based on the 5–15% total percent woodland cover on Amherst Island alone as opposed to the total woodland cover within Loyalist Township. As described in **Section 3.2.3**, 32 woodlands were located within 120 m of the Project Location, and required an Evaluation of Significance.

### 4.1.3 Wildlife and Wildlife Habitat

Although specific site visits are assigned to target particular groups (i.e. amphibians, reptiles, birds), all visits were conducted by qualified ecologists. All observations made over the duration of the field program are compiled within the list of wildlife for the Study Area (**Appendix F**) and are considered in the assessment of wildlife use of the site.

Given a review of available background information and an analysis of candidate significant wildlife habitat components that occurred in or within 120 m of the Project Location, a four-season pre-construction field survey program was conducted.

Collectively, these multiple surveys, the habitats they cover, and the period over which they occur (season and time of day) offer a comprehensive set of field observations for fauna species on site.

The field survey program to assess wildlife use of the Study Area included (see **Table 4B, Appendix A** for a summary):

- Spring and fall waterfowl stopover and staging surveys (March-May and October-December 2011);
- Winter raptor driving and walking transect surveys (December 2010 – March 2011);
- Spring migratory shorebird surveys (May 2011);
- Spring migratory landbird survey (April-May 2011); and
- Fall migratory landbird survey (September-October 2011);
- Fall migratory butterfly surveys (September 2011);
- Fall migratory swallow surveys (July-September 2011);
- Spring waterfowl nesting surveys (May-July 2011);
- Summer woodland raptor nesting surveys (May-July 2011);
- Amphibian surveys (April-June 2011); and
- Breeding bird point count and area search surveys – including open country breeding birds, marsh breeding birds, shrub/early successional breeding birds, and area-sensitive woodland breeding birds, including targeted surveys for Louisiana Waterthrush, Short-eared Owl, and Wilson’s Phalarope (May-July 2011).

The following candidate significant wildlife habitats were identified as occurring in and within 120 m of the Project Location, requiring an Evaluation of Significance.

1. Seasonal Concentration Areas
    - Waterfowl stopover and staging areas (terrestrial): candidate features WT1, WT2, WT3, and WT4
    - Waterfowl stopover and staging areas (aquatic): candidate feature WA1
    - Shorebird migratory stopover area: candidate feature SM1
    - Raptor wintering areas: candidate features RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7, RWA8, RWA9, and RWA10
    - Turtle overwintering area (TO1)
    - Landbird migratory stopover areas: candidate features ML1, ML2, ML3, ML4 and ML5
    - Migratory butterfly stopover areas: candidate features MB2 and MB3
2. Rare Vegetation Types or Specialized Habitats
    - Old growth forest: candidate features OGF1, OGF2 and OGF3
    - Waterfowl nesting area: candidate features WN1 and WN2
    - Woodland raptor nesting areas: candidate features WR1 and WR2
    - Amphibian breeding habitat (woodland): candidate features ABWO1, ABWO2 and ABWO3
    - Amphibian breeding habitat (wetland): candidate features ABWE1 and ABWE2
3. Species of Conservation Concern
    - Marsh breeding bird habitat: candidate feature MBB1
    - Woodland area-sensitive breeding bird habitat: candidate features ABB1 and ABB2
    - Open country breeding bird habitat, including staging swallow habitat: candidate features OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8 and OCB9
    - Shrub and early successional breeding bird habitat: candidate features SSB1, SSB2, SSB3, SSB4 and SSB5
    - Species of Conservation Concern habitats:
        - Louisiana Waterthrush: candidate features LW1, LW2 and LW3
        - Short-eared Owl: candidate features OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8 and OCB9

- Wilson's Phalarope: candidate feature WP1
- Snake hibernacula (SN1) – note: this habitat will be treated as significant

A summary of the methods and the criteria used to evaluate the significance of each component of candidate significant wildlife habitat are provided below. The approved workplan submitted to the MNR in 2011 is included in **Appendix G**. Full detailed methods are also provided in **Appendix G**.

### 4.1.3.1 Seasonal Concentration Areas of Animals

The criteria and methods used to evaluate the significance of candidate significant wildlife seasonal concentration areas in and within 120 m of the Project Location are presented in **Table 4.1.**

**Table 4.1: Criteria and Methods Used to Evaluate Seasonal Concentration Areas of Animals**

| Candidate Seasonal Concentration Area | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| Waterfowl Stopover and Staging Areas (Terrestrial) | • Presence of annual concentration of listed species (American Black Duck, Wood Duck, Green-winged Teal, Blue-winged Teal, Mallard, Northern Pintail, Northern Shoveler, American Widgeon, Gadwall)<br>• Mixed species aggregations of 100 or more individuals<br>• Annual use of habitat | • Studies were completed during the spring migratory season. Evaluation methods followed "Bird and Bird Habitats: Guidelines for Wind Power Projects" for stopover driving transects and point counts<br>• Stopover counts were conducted by driving a set transect, stopping at candidate habitats and conducting waterfowl counts to estimate numbers and species<br>• Counts timed to coincide with peak numbers (dates and times) | • March-May |
| Waterfowl Stopover and Staging Areas (Aquatic) | • Presence of annual staging of listed species (Canada Goose, Cackling Goose, Snow Goose, American Black Duck, Northern Pintail, Northern Shoveler, American Widgeon, Gadwall, Green-winged Teal, Blue-winged Teal, Hooded Merganser, Common Merganser, Lesser Scaup, Greater Scaup, Long-tailed Duck, Surf Scoter, White-winged Scoter, Black Scoter, Ring-necked Duck, Common Goldeneye, Bufflehead, Redhead, Ruddy Duck, Red- | • Studies were completed during the spring migratory season. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects" for stopover driving transects and point counts<br>• Stopover counts conducted by driving a set transect, stopping at candidate habitats and conducting waterfowl counts to estimate numbers and species<br>• Counts timed to coincide with | • March-May |

**Table 4.1: Criteria and Methods Used to Evaluate Seasonal Concentration Areas of Animals**

| Candidate Seasonal Concentration Area | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| | breasted Merganser, Brant, Canvasback)<br>• Mixed species aggregations of 100 or more individuals for 7 days<br>• Areas with annual staging of Ruddy Ducks, Canvasbacks, and Redheads are significant wildlife habitat<br>• Annual use of habitat | peak numbers (dates and times) | |
| Shorebird Migratory Stopover Area | • Presence of 3 or more of listed species (Greater Yellowlegs, Lesser Yellowlegs, Marbled Godwit, Hudsonian Godwit, Black-bellied Plover, American Golden Plover, Semipalmated Plover, Solitary Sandpiper, Spotted Sandpiper, Semipalmated Sandpiper, Pectoral Sandpiper, White-rumped Sandpiper, Baird's Sandpiper, Least Sandpiper, Purple Sandpiper, Stilt Sandpiper, Short-billed Dowitcher, Red-necked Phalarope, Whimbrel, Ruddy Turnstone, Sanderling, Dunlin) and >1000 shorebird use days during spring or fall migration period<br>• >100 Whimbrel for 3 or more years is considered significant | • Studies were completed during the spring migratory season. Evaluation methods followed "Bird and Bird Habitats: Guidelines for Wind Power Projects" for stopover driving transects and point counts<br>• Stopover counts were conducted by driving a set transect, stopping at candidate habitats and conducting shorebird counts to estimate numbers and species<br>• Counts were timed to coincide with peak numbers (dates and times) | • April-May |
| Raptor Wintering Area | • One or more Short-eared Owls or at least 10 individuals of two of the listed species (Rough-legged Hawk, Red-tailed Hawk, Northern Harrier, American Kestrel, and Snowy Owl)<br>• Site must be used regularly (3 in 5 years) for a minimum of 20 days | • Studies were completed during the winter roosting season. Evaluation methods followed MNR protocols for raptor wintering area surveys<br>• Walking transects were conducted along the interface of upland and forest transects once per week at each location, during daylight hours<br>• Driving transects were also conducted between habitats to supplement data | • November - March |
| Turtle Overwintering | • Presence of 5 over-wintering Midland Painted Turtles, or 1 Northern Map Turtle or Snapping Turtle<br>• Mapped ELC ecosite area with the over-wintering turtles is the | • Studies will be completed during warm, sunny days spring when turtles are exiting hibernation sites<br>• Area searches for basking turtles will be conducted | • spring (March-May) |

**Table 4.1: Criteria and Methods Used to Evaluate Seasonal Concentration Areas of Animals**

| Candidate Seasonal Concentration Area | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| | significant wildlife habitat | throughout the habitat, concentrating on areas with more basking potential (ex. floating logs) and near deeper pools within the habitat<br>• This habitat will be evaluated prior to construction | |
| Landbird Migratory Stopover Areas | • Studies confirm the use of the woodlot by >200 birds/day and with >35 species with at least 5 different survey dates. | • Studies were completed during spring and fall migration periods. Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for line transect sampling<br>• A combination of standardized walking transects established within and along the edge of candidate habitat, were conducted in the early morning hours. | • spring (April-May) and fall migration period (August-October) |
| Migratory Butterfly Stopover Area | • Presence of >5000 Monarch Use Days (MUD) or >3000 with White Admirals or Painted Ladies present is considered significant. | • Studies were conducted during fall migration. A combination of point counts and driving transects established within and along the edge of candidate habitat, were conducted on sunny afternoons. | • August-October |

### 4.1.3.2 Rare Vegetation Communities or Specialized Habitat for Wildlife

The criteria and methods used to evaluate the significance of candidate significant wildlife habitat for rare vegetation communities or specialized habitat for wildlife in and within 120 m of the Project Location are presented in **Table 4.2.**

**Table 4.2: Criteria and Methods Used to Evaluate Rare Vegetation Communities or Specialized Habitat for Wildlife**

| Candidate Rare Vegetation Community or Specialized Habitat for Wildlife | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| Old Growth Forest | • Studies determine if dominant tree species of the ecosite are >140 years old<br>• Old growth forest stands will have experienced no recognizable forestry activities | • Determination of age of forest stand was determined during ELC surveys, including vegetation type and boundaries of ecosite<br>• Historical air photos were used to assist in determining the age of each woodland (Northway-Photomap Remote Sensing Ltd. 1948) | • Summer |
| Waterfowl Nesting Areas | • Presence of 3 or more nesting pairs for listed species (i.e., American Black Duck, Northern Pintail, Northern Shoveler, Gadwall, Blue-winged Teal, Green-winged Teal, Wood Duck, Hooded Merganser and Mallard ) excluding Mallards, or;<br>• Presence of 10 or more nesting pairs for listed species including Mallards.<br>• Any active nesting site of an American Black Duck is considered significant. | • Nesting studies were completed during the spring breeding season. Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for area searches and point counts<br>• A field study confirming waterfowl nesting habitat was used to determine the boundary of the waterfowl nesting habitat for the SWH, this may be greater or less than 120 m from the wetland and will provide enough habitat for waterfowl to successfully nest. | • Early June |
| Woodland Raptor Nesting | • Presence of 1 or more active nests from listed species (Northern Goshawk, Cooper’s Hawk, Sharp-shinned Hawk, Red-shouldered Hawk, Barred Owl, Broad-winged Hawk) is considered significant | • A search for stick nests during vegetation classification was conducted, which were then monitored in early spring<br>• Nesting studies were completed during the spring breeding season. Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for behavioural studies. | • mid-March to end of May |
| Amphibian Breeding Habitat (Woodland) | • Presence of breeding population of 1 or more of the listed salamander species (i.e., Eastern Newt, Blue-spotted Salamander or Spotted Salamander) or 2 or more of the listed frog species (i.e., Gray Treefrog, Spring Peeper, Western Chorus Frog or Wood Frog) with at least 20 individuals (adults, juveniles, eggs/larval masses).<br>• The habitat is the woodland (ELC polygons) and wetland (ELC | • Studies to determine breeding/larval stages were conducted during the spring when amphibians were concentrated around suitable breeding habitat within or near the woodland.<br>• Evaluation methods followed the ‘Marsh Monitoring Protocol’ (BSC 2003). | • April-June |

**Table 4.2: Criteria and Methods Used to Evaluate Rare Vegetation Communities or Specialized Habitat for Wildlife**

| Candidate Rare Vegetation Community or Specialized Habitat for Wildlife | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| | polygons) combined, or in the case of a wetland, the wetland and shoreline.<br>• A travel corridor connecting the woodland and wetland polygons is to be included in the habitat. | | |
| Amphibian Breeding Habitat (Wetland) | • Presence of breeding population of 1 or more of the listed salamander species (i.e., Eastern Newt, Blue-spotted Salamander, Four-toed Salamander or Spotted Salamander) or 2 or more of the listed frog species (i.e., American toad, Northern Leopard Frog, Pickerel Frog, Green Frog, Mink Frog, Bullfrog, Gray Treefrog, or Western Chorus Frog) with at least 20 individuals (adults, juveniles, eggs/larval masses).<br>• The ELC ecosite wetland area and shoreline are included in the habitat | • Studies to determine breeding/larval stages were conducted during the spring when amphibians were concentrated around suitable breeding habitat within or near the woodland.<br>• Evaluation methods followed the 'Marsh Monitoring Protocol' (BSC 2003). | • April-June |

### 4.1.3.3 Habitat for Species of Conservation Concern

The criteria and methods used to evaluate the significance of candidate significant wildlife habitat for species of conservation concern for wildlife in and within 120 m of the Project Location are presented in **Table 4.3**.

**Table 4.3: Criteria and Methods Used to Evaluate Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| Marsh Breeding Bird Habitat | • Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or 1 pair of Sandhill Cranes or breeding by any combination of 5 or more of the listed species (American Bittern, Virginia Rail, Sora, Common Moorhen, American Coot, Pied-billed Grebe, Marsh Wren, Sedge Wren, Common Loon, Sandhill Crane, Green Heron, Trumpeter Swan).<br>• Any site with breeding or 1 or more Black Terns, Trumpeter Swan, Green Heron, or Yellow Rail is SWH | • Studies were completed in spring and early summer when birds were singing and defending their territories. Evaluation methods followed "Bird and Bird Habitats: Guidelines for Wind Power Projects" for standardized point counts<br>• Standardized point counts were conducted within the candidate habitat during the early morning hours. | • May-June |
| Woodland Area-Sensitive Bird | • Presence of nesting or breeding | • Studies were completed in | • May- |

**Table 4.3: Criteria and Methods Used to Evaluate Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| Breeding Habitat | pairs of 3 or more of the listed species (Yellow-bellied Sapsucker, Red-breasted Nuthatch, Veery, Blue-headed Vireo, Northern Parula, Black-throated Green Warbler, Blackburnian Warbler, Black-throated Blue Warbler, Ovenbird, Scarlet Tanager, Winter Wren)<br>• Based on information collected by Stantec regarding area-sensitivity of songbird species (those requiring >30 ha of continuous habitat, see **Table 2B, Appendix B**), the following species were also considered under this habitat: Acadian Flycatcher, Brown Creeper, Blue-gray Gnatcatcher, Black-and-white Warbler, and Mourning Warbler<br>• Any site with breeding Cerulean Warbler or Canada Warbler is significant | spring and early summer when birds were singing and defending their territories. Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for standardized point counts<br>• Standardized point counts were conducted within the candidate habitat during the early morning hours. | June |
| Open Country Bird Breeding Habitat | • Presence of nesting or breeding of 2 or more of the listed species (Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, Northern Harrier, Savannah Sparrow) or a field with 1 or more breeding Short-eared Owl is considered significant wildlife habitat<br>• Area of the significant wildlife habitat is contiguous ELC ecosite field areas<br>• Swallow migratory staging is not included in the draft Ecoregion 6E Criteria as a significant wildlife habitat, but for the purposes of this study, it was included under open country breeding bird habitat as providing the ecological functions required for staging swallows | • Studies were completed in spring and early summer when birds were singing and defending their territories. Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for standardized point counts and line transects<br>• Staging swallow surveys were conducted during fall migration when swallows are migrating south, staging before crossing Lake Ontario.<br>• Standardized point counts and walking transects were conducted within the candidate habitat during the early morning hours. | • May-June (grassland birds)<br>• July-September (staging swallows) |
| Shrub/Early Successional Bird Breeding Habitat | • Presence of nesting or breeding of 1 of the indicator species (Brown Thrasher, Clay-coloured Sparrow) and at least 2 of the common species (Field Sparrow, Black-billed Cuckoo, Eastern Towhee, Willow Flycatcher), or a field with breeding Yellow-breasted Chat or Golden-winged Warbler is considered | • Studies were completed in spring and early summer when birds were singing and defending their territories. Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for standardized point counts and line transects | • May-June |

**Table 4.3: Criteria and Methods Used to Evaluate Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Criteria | Methods | Seasonal Timing |
|---|---|---|---|
| | significant<br>• Area of the significant wildlife habitat is the contiguous ELC ecosite field/thicket area | • Standardized point counts and walking transects were conducted within the candidate habitat during the early morning hours | |
| Special Concern and Rare Wildlife Species | • Presence of Louisiana Waterthrush | • Field investigations were conducted in the identified habitats in late spring and early summer when birds were singing and defending their territories.<br>• Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for standardized point counts | • May-June |
| | • Presence of nesting Short-eared Owl | • Field investigations were conducted in the identified habitats in late spring and early summer when birds were singing and defending their territories.<br>• Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for standardized point counts | • May-June |
| | • Presence of Wilson’s Phalarope | • Field investigations were conducted in the identified habitats in late spring and early summer when birds were singing and defending their territories.<br>• Evaluation methods followed “Bird and Bird Habitats: Guidelines for Wind Power Projects” for standardized point counts | • May-June |

## 4.2 RESULTS

Results of the Evaluation of Significance for wetlands and woodlands are shown in **Figure 5.0-5.5, Appendix A** and outlined in **Tables 9B** and **10B, Appendix B**. The locations of individual features relative to the Project Location are shown on these figures. The following sections summarize the results of the Evaluation of Significance for natural features within 120 m of the Project Location.

### 4.2.1 Wetlands

Two wetlands assessed by MNR as provincially-significant occurred within 120 m of the Project Location: the Nut Island Duck Club Marsh (Wetland 10a) and the Long Point Marsh (Wetland 21).

Twenty unevaluated wetlands, not previously identified by MNR, were identified within 120 m of the Project Location during site investigations. These communities were evaluated using the *Wetland Characteristics and Ecological Functions Assessment for Renewable Energy Projects* described in **Section 4.1.1**. All wetlands except Wetlands 6 and 7 assessed under this protocol are being treated as significant for the purposes of the NHA and Project siting. **Table 9B, Appendix B** provides the evaluations of these wetland communities. Rare species information is addressed through the Habitat for Species of Conservation Concern evaluation, **Section 4.2.3.3**.

No Project components are proposed in, on, or over a wetland, with the exception of underground cabling and access roads crossing a small portion of Wetlands 6 and 7. These two wetlands were evaluated under the OWES and found to be not provincially-significant. Details regarding these assessments are provided in **Appendix E**. These two wetlands are not considered significant and will not be carried forward to the EIS.

An EIS has been completed for those significant wetlands where the Project Location is proposed within 120 m of the feature (Section 5.4.2).

### 4.2.2 Woodlands

Criteria for woodland significance were applied to each of the Woodland Features located within 120 m of the Project Location. Results of the evaluation are provided in **Table 10B, Appendix B**. Fifteen of the woodlands met the criteria for significance based on criteria standards within the NHA Guide for Renewable Energy Projects. These included Features 1, 2, 3, 4, 7, 9, 10, 15, 18, 20, 21, 23, 28, 32, and 36.

The 15 significant woodlands located within 120 m of the Project Location are shown on **Figures 5.1-5.5, Appendix A**. Significant woodlands within 120 m of the Project Location will be included in the EIS. The Project Location is proposed to occur in three significant woodlands (Woodlands 4, 9, and 36). An access road and underground cabling are proposed to cross a thin section of Woodland 9, removing 0.099 ha temporarily and 0.06 ha permanently of woodland habitat. The Project Location also crosses through a gap in Woodland 4, which is currently a ploughed tractor path. Underground cabling is proposed to pass through this gap, and no trees within the woodland are proposed for removal in Woodland 4. A portion of a hedgerow associated with Woodland 36 is proposed for removal as part of the temporary laydown area on the mainland, removing 0.181 ha temporarily of woodland habitat.

An Environmental Impact Study has been completed for those significant woodlands where the Project Location is proposed in or within 120 m of the feature (Section 5.4.1).

### 4.2.3 Wildlife and Wildlife Habitat

Four seasons of extensive wildlife surveys were completed throughout Amherst Island in order to better understand the potential impacts of the proposed Amherst Island Wind Project on local and migratory wildlife. A complete, overall list of species observed during field surveys is provided in **Table A, Appendix F**.

#### Staging Waterfowl

Results of the spring and fall staging waterfowl surveys are provided in **Table B, Appendix F**. A total of 25 waterfowl species were observed between the spring and fall surveys, including 8 species of dabbling ducks, 5 bay ducks, 3 mergansers, 3 goldeneye, 2 goose, 2 swans and 2 sea ducks.

The most common species found inland were Canada Geese (9047 individuals), Common Goldeneye (1247 individuals), Greater Scaup (701 individuals), and Red-breasted Merganser (699 individuals).

The most common species found offshore were Common Goldeneye (4255 individuals), Canada Goose (2763 individuals), Red-breasted Merganser (1568 individuals), and Bufflehead (1304 individuals).

Small pockets of waterfowl were observed in bays along the shoreline of Amherst Island, although the most significant area for migrating waterfowl was observed to be the waters between the island and the mainland.

#### Staging Shorebirds

Results of the spring staging shorebird surveys are provided in **Table C, Appendix F**. Fifteen species of shorebird were observed, the most common species being Dunlin (a total of 366 individuals observed), followed by Semi-palmated Sandpiper (36 individuals), Spotted Sandpiper (25 individuals), and Least Sandpiper (10 individuals).

The majority of these observations (92% of individuals observed) were made at the Amherst bar on the Kingston Field Naturalists property.

#### Winter Raptors

Wintering raptors were found throughout the Study Area, most commonly observed hunting in the open woodlands. Results of the winter raptor surveys are found in **Table D, Appendix F**. In total the winter raptor surveys recorded 11 species of raptors and owls and one predatory songbird, the Northern Shrike, within the Study Area.

Short-eared Owl was the most common species observed, with a total of 242 observations over the 18 surveys. Other commonly observed species include Rough-legged Hawk, Northern Harrier and Red-tailed Hawk with respective totals of 199, 128 and 119 observations over the 18 surveys.

The highest one day totals observed during the driving transect surveys, which provide a conservative estimate of raptors using the Study Area; include 37 Rough-legged Hawks, 22 Red-tailed Hawks, 20 Northern Harriers, 2 American Kestrels, 2 Snowy Owls and 23 Short-eared Owls.

Generally, observations of hunting raptors were spread out around the Study Area, with some of the higher concentrations observed in the western portion of the island, along 2nd Concession Rd, south of Stella, along Front Rd and between Marshall 40 Foot Rd and Lower 40 Foot Rd.

Two Bald Eagles were observed throughout the study period, both on Feb 7, 2012. Both of the observations were made along the south shoreline, outside of the Zone of Investigation, one in the vicinity of the Long Point Marsh PSW, and the other along the coastline at the east end of the island. Other raptor species observed in smaller numbers include Cooper’s Hawk, Merlin, and Red-shouldered Hawk; all of which were likely migrants.

Several Short-eared Owl roost were identified throughout the open grassland habitat within the Study Area ranging in use of a single individual to 28 individuals. There was generally some shifting in ground roosting sites between surveys. Some larger sites were relatively consistently used, with shifting within the site. Some smaller roost site did not appear to be consistently used on different surveys.

Numbers of Northern Saw-whet Owls and Long-eared Owls were relatively low on Amherst Island in the winter of 2011/2012, as a result roost likely under-represented these species. However, significant roost sites were identified using historical knowledge of the Study Area, and signs of past use such as pellets.

### Migratory Landbirds

#### Songbirds

Results of the migratory landbird surveys are provided in **Table E, Appendix F**. During the spring surveys, a total of 4572 individuals were observed over 129 species. Red-winged Blackbirds were the most common species observed (a total of 516 individuals), followed by Yellow Warbler (303 individuals), American Robin (292 individuals), and Song Sparrow (290 individuals). Several species of conservation concern were observed migrating through the Study Area during fall migration, including Canada Warbler (3 individuals), Olive-sided

Flycatcher (2 individuals), Red-headed Woodpecker (1 individual), Golden-winged Warbler (1 individual), Prairie Warbler (1 individual), Hooded Warbler (1 individual), and Cerulean Warbler (1 individual).

Observations of migrants were also made during the fall surveys, with a total of 5174 individuals over 107 species. European Starlings were the most common species observed (a total of 1082 individuals), followed by White-throated Sparrow (444 individuals), American Robin (432 individuals), and Song Sparrow (380 individuals). No species of conservation concern were observed.

Swallows

Concentrations of swallows are known to stage on Amherst Island during their fall migration. Results of the staging swallow surveys can be found in **Table I, Appendix F**. Staging Swallow were most commonly observed either flying over open country areas or resting on hydro wires along roadsides. The largest flock of swallows were a flock of 800 Tree Swallows observed along the southern edge of the island next to the Long Point Marsh PSW on August 9, 2011. In general, the majority of the birds were observed within 100 m of the shoreline, and along the southern shoreline of the island, including in the vicinity of the Amherst Bar.

Over the nine driving transect surveys that were conducted between the period of mid-July to mid-September, a total of 11, 240 swallow observations were made. Six species of swallow were observed in numbers: Bank Swallow (2682 individuals), Barn Swallow (2378 individuals), Cliff Swallow (3 individuals), Northern Rough-winged Swallow (110 individuals), Purple Martin (160 individuals), and Tree Swallow (6087 individuals). The largest numbers of swallows were seen in late-July and early-August.

Raptors

During the spring migration, relatively few raptors were observed during the field surveys. The most common species included Northern Harrier (11 individuals), Red-tailed Hawks (11 individuals) and Turkey Vultures (5 individuals).

Targeted raptors surveys were conducted during the fall migration period, with 14 surveys conducted between early September and early December. In total, 14 species were observed; the most commonly observed species include Northern Harrier, American Kestrel, Red-tailed Hawk and Rough-legged Hawk, with respective total of 214, 192, 185 and 166 individuals observed over the 14 surveys.

## Amphibians

Amphibian surveys were completed from April to June 2011 in wetland habitats and vernal pools. Most wetland habitat within the Study Area consisted of low depressions with wetland vegetation, but lacked the standing water that would support breeding amphibians. Most of the amphibian breeding habitat within the Study Area occurred in the large coastal wetlands in the southwestern portion of the Study Area.

Results of the amphibian surveys are found in **Table F, Appendix F**. Results of the field surveys found seven species of amphibians within the Study Area over 24 stations: Northern Leopard Frog, Wood Frog, Western Chorus Frog, Spring Peeper, Bullfrog, Green Frog, and American Toad.

Spring Peeper and Western Chorus Frog were generally the most common species; the shallow water wetlands found within the Study Area are generally consistent with the breeding requirements of these two species. Bullfrog, an area sensitive species which requires permanent water, was restricted to the Long Point Marsh PSW.

### Breeding Birds

In the late spring and early summer of 2011, extensive breeding bird surveys were conducted in all natural habitats, including open country, woodland, and wetlands. A complete list of all birds observed is provided in **Tables G, Appendix F**. The fifteen most abundant species in the study area and in each habitat type, determined from calculated species densities, are summarized in **Table 4.4** below.

**Table 4.4: Abundant bird species based on density, by habitat type**

| **Grassland** | | **Woodland** | | **Marsh** | |
|---|---|---|---|---|---|
| **Species** | **Density/ 10 ha** | **Species** | **Density/ 10 ha** | **Species** | **Density/ 10 ha** |
| Savannah Sparrow | 10.67 | American Robin | 3.93 | Red-winged Blackbird | 18.05 |
| Red-winged Blackbird | 6.21 | Red-winged Blackbird | 3.56 | European Starling | 15.92 |
| Tree Swallow | 3.11 | Song Sparrow | 3.37 | Mallard | 10.08 |
| Song Sparrow | 2.79 | Rose-breasted Grosbeak | 3.00 | Swamp Sparrow | 10.08 |
| European Starling | 2.71 | Common Grackle | 3.00 | Herring Gull | 9.55 |
| Eastern Kingbird | 2.39 | Red-eyed Vireo | 2.62 | American Wigeon | 4.25 |
| Yellow Warbler | 1.75 | European Starling | 2.62 | Wilson's Phalarope | 3.18 |
| Ring-billed Gull | 1.19 | Eastern Wood-Pewee | 2.44 | Killdeer | 3.18 |
| American Robin | 1.19 | Blue Jay | 2.25 | Wilson's Snipe | 3.18 |
| Grasshopper Sparrow | 0.72 | House Wren | 2.25 | Ring-billed Gull | 3.18 |
| Northern Harrier | 0.64 | Gray Catbird | 2.25 | Yellow Warbler | 3.18 |
| Wilson's Snipe | 0.56 | Yellow Warbler | 2.25 | Common Yellowthroat | 3.18 |
| American Goldfinch | 0.56 | Swamp Sparrow | 1.50 | Gadwall | 2.65 |
| Cedar Waxwing | 0.48 | Great Crested Flycatcher | 1.31 | Savannah Sparrow | 2.65 |
| Common Yellowthroat | 0.48 | Wood Thrush | 1.31 | Tree Swallow | 2.12 |

Thirty-nine species were observed during point counts in hay and pasture habitat, including a number of species of conservation concern and Species at Risk. Savannah Sparrow and Red-winged Blackbird were the most abundant species observed in open country habitat with respective densities of 10.67 pairs and 6.21 pairs/10 ha. These results are in agreement with other studies, as Red-winged Blackbird, and Savannah Sparrow were also the most abundant species observed in field habitat elsewhere, including New York hayfields (Bollinger 1995) and in Minnesota grasslands (Leddy et al. 1999).

Fifty-four species were observed during point counts in woodland habitat. No single species was observed at a particularly high density. The most common species were American Robin, Red-winged Blackbird, and Song Sparrow with densities of 3.93, 3.56 and 3.37 pairs/10 ha, respectively. Other common species were Rose-breasted Grosbeak and Common Grackle with densities of 3.00 pairs/10 ha for both species. The Red-winged Blackbird observations were generally located at the edges of forest habitat rather than within.

Forty-two species were observed during point counts in marsh habitat. Red-winged Blackbird was by far the most abundant species with a density of 18.05 pairs/10 ha. This was the highest density of any species across all habitat types. The next most abundant species, European Starling and Mallard, were recorded at lower densities (15.92 and 10.08 pairs/10 ha respectively). Herring Gulls were also common with a density of 9.55 pairs/10 ha.

The following sections provide data analysis specific to the candidate significant wildlife habitats found within the Zone of Investigation of the Amherst Island Wind Project.

#### 4.2.3.1 Seasonal Concentration Areas

Evaluations of significance for candidate SWH for seasonal concentration areas within 120 m of the Project Location are presented in **Table 4.5**. Field notes are provided in **Appendix C**. A detailed table of results for each type of survey is provided in **Appendix F**.

**Table 4.5: Summary of Evaluation of Significance Results for Seasonal Concentration Areas**

| Candidate Seasonal Concentration Areas | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| Waterfowl Stopover and Staging Areas (Terrestrial) | Yes | **WT1**: Over 10 surveys in the spring and 8 surveys in the fall, none of the listed species were observed. A congregation of 100 individuals of the listed species in one day is considered significant. This is therefore not a significant waterfowl terrestrial stopover and staging area.<br>**WT2**: Over 10 surveys in the spring and 8 surveys in the fall, none of the listed species were observed. A congregation of 100 individuals of the listed species in one day is considered significant. This is therefore not a significant waterfowl terrestrial stopover and staging area.<br>**WT3**: Over 10 surveys in the spring and 8 surveys in the fall, none of the listed species were observed. A congregation of 100 individuals of the listed species in one day is considered significant. This is therefore not a significant waterfowl terrestrial stopover and staging area. | No (WT1, WT2, WT3 and WT4) |

**Table 4.5: Summary of Evaluation of Significance Results for Seasonal Concentration Areas**

| Candidate Seasonal Concentration Areas | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| | | **WT4**: Over 10 surveys in the spring and 8 surveys in the fall, the highest daily total of listed waterfowl species was 2. A congregation of 100 individuals of the listed species in one day is considered significant. This is therefore not a significant waterfowl terrestrial stopover and staging area. | |
| Waterfowl Stopover and Staging Areas (Aquatic) | No | **WA1**: Over 8 surveys in the fall, the highest daily total of waterfowl individuals was 20. A congregation of 100 individuals is considered significant. This is therefore not a significant waterfowl terrestrial stopover and staging area. | No (WA1) |
| Shorebird Migratory Stopover Area | No | **SM1**: A total of 460 shorebirds were seen over 5 survey dates in May 2011. The largest concentration was 365 Dunlin observed on May 26, 2011, at the Amherst Bar. The IBA report also lists higher concentrations of shorebirds at the Amherst Bar in previous years (IBA Canada undated). This habitat is therefore considered a significant shorebird migratory stopover area. | Yes (SM1) |
| Raptor Wintering Area | Yes | **RWA1**: A total of 60 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, including 38 Short-eared Owls. This is, therefore, significant wildlife habitat.<br>**RWA2**: A total of 353 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, including 89 Short-eared Owls. This is, therefore, significant wildlife habitat.<br>**RWA3**: A total of 101 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, including 31 Short-eared Owls. This is, therefore, significant wildlife habitat.<br>**RWA4**: A total of 3 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, all Short-eared Owls. This is, therefore, significant wildlife habitat.<br>**RWA5**: A total of 49 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, including 20 Short-eared Owls. This is, therefore, significant wildlife habitat.<br>**RWA6**: A total of 122 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, including 47 Short-eared Owls. This is, therefore, significant wildlife habitat.<br>**RWA7**: A total of 36 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, including 4 Short-eared Owls. This is, therefore, significant wildlife habitat. | Yes (RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7 and RWA8)<br>and<br>No (RWA9 and RWA10) |

**Table 4.5: Summary of Evaluation of Significance Results for Seasonal Concentration Areas**

| Candidate Seasonal Concentration Areas | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| | | **RWA8**: A total of 21 individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat, including 10 Short-eared Owls. This is, therefore, significant wildlife habitat.<br>**RWA9:** A total of 1 individual of the listed raptor species was observed during walking and driving transects conducted in this habitat. This is, therefore, not significant wildlife habitat.<br>**RWA10:** No individuals of the listed raptor species were observed during walking and driving transects conducted in this habitat. This is, therefore, not significant wildlife habitat. | |
| Turtle Overwintering | Unknown | Evaluation of significance surveys have not yet been completed; this habitat will be treated as significant. These surveys will be conducted prior to construction and are further described in the Environmental Impact Study (Section 5.5.3.3). | Yes (TO1) |
| Landbird Migratory Stopover Areas | Yes | **ML1**: Over 6 survey dates in the spring, the following numbers of individuals were observed: 66, 48, 126, 49, 76, and 36 with the following number of species: 23, 20, 38, 23, 27, and 17. A total of 57 species were observed over all of the survey dates in the spring. Over 7 survey dates in the fall, the following numbers of individuals were observed: 3, 10, 38, 34, 20, 24, and 50 with the following number of species: 2, 3, 10, 6, 7, 9, and 5. A total of 23 species were observed over all of the survey dates in the fall.<br>**ML2**: Over 6 survey dates in the spring, the following numbers of individuals were observed: 62, 46, 33, 29, 88, and 63 with the following number of species: 23, 17, 14, 20, 36, and 23. A total of 57 species were observed over all of the survey dates in the spring. Over 8 survey dates in the fall, the following numbers of individuals were observed: 17, 13, 24,12, 85, 29, 23, and 60 with the following number of species: 7, 7, 12, 4, 18, 9, 7, and 17. A total of 45 species were observed over all of the survey dates in the fall.<br>**ML3**: Over 6 survey dates in the spring, the following numbers of individuals were observed: 111, 67, 63, 55, 62, and 59 with the following number of species: 17, 11, 22, 20, 28, and 22. A total of 46 species were observed over all of the survey dates in the spring. Over 8 survey dates in the fall, the following numbers of individuals were observed: 30, 25, 25, 12, 35, 42, 43, and 17 with the following number of species: 9, 9, 16, 6, 14, 12, 12, and 8. A total of 35 species were observed over all of the survey dates in the fall.<br>**ML4**: Over 6 survey dates in the spring, the following numbers of individuals were observed: 26, 32, 36, 34, 44, | Yes (ML1, ML2, ML3, ML4 and ML5) |

**Table 4.5: Summary of Evaluation of Significance Results for Seasonal Concentration Areas**

| Candidate Seasonal Concentration Areas | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| | | and 61 with the following number of species: 11, 16, 18, 17, 19, and 24. A total of 45 species were observed over all of the survey dates in the spring. Over 7 survey dates in the fall, the following numbers of individuals were observed: 26, 46, 28, 159, 107, 94, and 112 with the following number of species: 11, 15, 13, 19, 17, 16, and 21. A total of 45 species were observed over all of the survey dates in the fall.<br>**ML5**: Over 6 survey dates in the spring, the following numbers of individuals were observed: 60, 40, 64, 45, 53 and 36 with the following number of species: 21, 15, 25, 17, 18 and 15. A total of 47 species were observed over all of the survey dates in the spring. Over 8 survey dates in the fall, the following numbers of individuals were observed: 46, 38, 40, 15, 108, 99, 24 and 197 with the following number of species: 24, 14, 14, 13, 20, 22, 14 and 31. A total of 59 species were observed over all of the survey dates in the fall.<br>Although the number of species using these woodlands meet the criteria, there were not >200 birds/day for 5 days observed at any one woodland. However, because the transects covered less than 25% of the woodland area, we are considering 50 individuals observed per day on each transect to be significant. Therefore, all five habitats are considered significant. | |
| Migratory Butterfly Stopover Area | No | **MB2**: Occasional Monarch butterflies were noted during two surveys in August 2011; however, no large flocks or numbers were observed. This is therefore not significant migratory butterfly stopover habitat.<br>**MB3:** Occasional Monarch butterflies were noted during two surveys in August 2011; however, no large flocks or numbers were observed. This is therefore not significant migratory butterfly stopover habitat. | No (MB2, MB3) |

### 4.2.3.2 Rare Vegetation Communities or Specialized Habitat for Wildlife

Evaluations of significance for candidate SWH for rare vegetation communities or specialized habitat for wildlife within 120 m of the Project Location are presented in **Table 4.6**. Detailed table of results for each type of survey is provided in **Appendix F**.

**Table 4.6: Summary of Evaluation of Significance Results for Rare Vegetation Communities or Specialized Habitat for Wildlife**

| Candidate Rare Vegetation Communities or Specialized Habitat for Wildlife | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| Old Growth Forest | Yes | **OGF1**: This Sugar Maple – Beech Deciduous Forest was classified as mature. There were no trees with a dbh larger than 50 cm. This forest was present and mature in the 1948 historical air photos (Northway-Photomap Remote Sensing Ltd 1948); therefore, this forest is greater than 70 years old. There was no evidence of forestry noted during ELC surveys. This forest is therefore considered old growth.<br>**OGF2**: This Sugar Maple Deciduous Forest was classified as mature. There were rarely trees with a dbh larger than 50 cm. This forest was present and mature in the 1948 historical air photos (Northway-Photomap Remote Sensing Ltd 1948); therefore, this forest is greater than 70 years old. There was no evidence of forestry noted during ELC surveys. This forest is therefore considered old growth.<br>**OGF3**: This Green Ash Lowland Forest was classified as mature. There were rarely trees with a dbh larger than 50 cm. This forest was present and mature in the 1948 historical air photos (Northway-Photomap Remote Sensing Ltd 1948); therefore, this forest is greater than 70 years old. There was no evidence of forestry noted during ELC surveys. This forest is therefore considered old growth. | Yes (OGF1, OGF2, OGF3) |
| Waterfowl Nesting Areas | No | **WN1**: Two of the indicator species were observed during breeding bird surveys: Mallard and Wood Duck. This type of habitat requires breeding evidence of three or more listed species, excluding mallard, to be considered significant. Therefore, this habitat is not a significant waterfowl nesting area.<br>**WN2**: Two of the indicator species were observed during breeding bird surveys: Mallard and Wood Duck. This type of habitat requires breeding evidence of three or more listed species, excluding mallard, to be considered significant. Therefore, this habitat is not a significant waterfowl nesting area. | No (WN1, WN2) |
| Woodland Raptor Nesting Habitat | No | **WR1**: One stick nest was found in this habitat during ELC surveys. It was confirmed in spring 2011 to be an active Red-tailed Hawk nest. Because this is not a listed species for this habitat, this is not significant woodland raptor nesting habitat.<br>**WR2**: No stick nests were found in this habitat during ELC surveys. Therefore, this is not significant woodland raptor nesting habitat. | No (WR1, WR2) |
| Amphibian | Yes | **ABWO1**: Two species of anurans (Spring Peeper and | Yes (ABWO2 |

**Table 4.6: Summary of Evaluation of Significance Results for Rare Vegetation Communities or Specialized Habitat for Wildlife**

| Candidate Rare Vegetation Communities or Specialized Habitat for Wildlife | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| Breeding Habitat (Woodland) | | American Toad) were observed in this feature, with 3 individuals heard calling. Two or more of the listed frog species with at least 20 individuals confirms significant amphibian breeding habitat (woodland). This is therefore not significant amphibian breeding habitat.<br>**ABWO2**: Five species of anurans, including Western Chorus Frog, were observed in this feature, with more than 20 individuals. Two or more of the listed frog species with at least 20 individuals confirms significant amphibian breeding habitat (woodland). This is therefore significant amphibian breeding habitat.<br>**ABWO3**: Two species of anuran (Gray Treefrog and Spring Peeper) were observed in this feature, with greater than 20 individuals in total. Two or more of the listed frog species with at least 20 individuals confirms significant amphibian breeding habitat (woodland). This is therefore significant amphibian breeding habitat. | and ABWO3)<br>And<br>No (ABWO1) |
| Amphibian Breeding Habitat (Wetland) | Yes | **ABWE1**: Six species of anurans, including western chorus frog, were observed in this feature, with more than 20 individuals. Two or more of the listed frog species with at least 20 breeding individuals confirms significant amphibian breeding habitat (woodland). This is therefore significant amphibian breeding habitat.<br>**ABWE2**: Three species of anurans (American toad, spring peeper, and western chorus frog) were observed in this feature, with more than 20 individuals observed. Two or more of the listed frog species with at least 20 breeding individuals confirms significant amphibian breeding habitat (woodland). This is therefore significant amphibian breeding habitat. | Yes (ABWE1, ABWE2) |

### 4.2.3.3 Habitat for Species of Conservation Concern

Evaluations of significance for candidate SWH for rare vegetation communities or specialized habitat for wildlife within 120 m of the Project Location are presented in **Table 4.7**. Detailed table of results for each type of survey is provided in **Appendix F**.

**Table 4.7: Summary of Evaluation of Significance Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| Marsh Breeding Bird Habitat | Yes | **MBB1**: Five of the listed species were observed with breeding evidence during breeding bird surveys in this habitat: Common Loon, American Bittern, Green Heron, Marsh Wren, and Yellow Rail. The presence of 4 or more of the listed species indicates significant marsh breeding bird habitat. This habitat is therefore significant wildlife habitat. | Yes (MBB1) |
| Woodland Area-Sensitive Bird Breeding Habitat | Yes | **ABB1**: Four of the species listed in the Ecoregion criteria were observed with breeding evidence during breeding bird surveys: Yellow-bellied Sapsucker, Scarlet Tanager, Black-throated Green Warbler, and Veery. The presence of 3 or more listed species observed with breeding evidence indicates significant area sensitive bird breeding habitat. This habitat is therefore significant woodland area-sensitive bird breeding habitat, and it contains >4 ha of interior habitat, calculated 200 m from the habitat edge.<br>**ABB2**: Two of the species listed in the Ecoregion criteria were observed with breeding evidence during breeding bird surveys: Yellow-bellied Sapsucker and Veery. The presence of 3 or more listed species observed with breeding evidence indicates significant area sensitive bird breeding habitat. This habitat is therefore not significant woodland area-sensitive bird breeding habitat. | Yes (ABB1)<br>And<br>No (ABB2) |
| Open Country Bird Breeding Habitat | Yes | **OCB1**: Three listed species were observed during breeding bird surveys: Upland Sandpiper, Grasshopper Sparrow, and Savannah Sparrow. In addition, 15 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB2**: Three listed species were observed during breeding bird surveys: Upland Sandpiper, Grasshopper Sparrow, and Savannah Sparrow. Short-eared Owls have also been observed nesting in this habitat (Keyes 2011). In addition, 286 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB3**: Three listed species were observed during breeding bird surveys: Upland Sandpiper, Grasshopper Sparrow, and Savannah Sparrow. In addition, 19 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB4**: Three listed species were observed during breeding bird surveys: Upland Sandpiper, Grasshopper Sparrow, and Savannah Sparrow. In addition, 1596 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB5**: Three listed species were observed during breeding | Yes (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8, OCB9) |

**Table 4.7: Summary of Evaluation of Significance Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| | | bird surveys: Upland Sandpiper, Grasshopper Sparrow, and Savannah Sparrow. Short-eared Owls have also been observed nesting in this habitat (Keyes 2011). In addition, 250 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB6**: Three listed species were observed during breeding bird surveys: Upland Sandpiper, Grasshopper Sparrow, and Savannah Sparrow. In addition, 148 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB7**: Four listed species were observed during breeding bird surveys: Upland Sandpiper, Grasshopper Sparrow, Short-eared Owl, and Savannah Sparrow. In addition, 2923 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB8**: Three listed species were observed during breeding bird surveys: Upland Sandpiper, Grasshopper Sparrow, and Savannah Sparrow. Short-eared Owls have also been observed nesting in this habitat (Keyes 2011). In addition, 2211 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat.<br>**OCB9:** Two listed species were observed during breeding bird surveys: Upland Sandpiper and Savannah Sparrow. Short-eared Owls have also been observed nesting in this habitat (Keyes 2011). In addition, 2253 staging swallows were observed over 9 swallow surveys. This feature is therefore significant open country breeding bird habitat. | |
| Shrub/Early Successional Bird Breeding Habitat | Yes | **SSB1**: One of the listed indicator species (Brown Thrasher) and four of the listed common species (Field Sparrow, Eastern Towhee, Willow Flycatcher, and Black-billed Cuckoo) were observed in this habitat during breeding bird surveys. No species of special concern were observed. The presence of 1 of the indicator listed species and 2 of the common listed species indicate significant shrub/early successional bird breeding habitat. This is therefore significant shrub/early successional bird breeding habitat.<br>**SSB2**: Three of the listed common species (Black-billed Cuckoo, Eastern Towhee, and Willow Flycatcher) were observed in this habitat during breeding bird surveys. No indicator species or species of special concern were observed. The presence of 1 of the indicator listed species and 2 of the common listed species indicate significant | Yes (SSB1, SSB3, SSB4 and SSB5)<br>and<br>No (SSB2) |

**Table 4.7: Summary of Evaluation of Significance Results for Habitat for Species of Conservation Concern**

| Candidate Habitat for Species of Conservation Concern | Present in or within 120 m of Project Location | Rationale | Carried Forward to Summary and EIS (Y/N) |
|---|---|---|---|
| | | shrub/early successional bird breeding habitat. This is therefore not significant shrub/early successional bird breeding habitat.<br>**SSB3**: One of the listed indicator species (Brown Thrasher) and two of the listed common species (Eastern Towhee and Willow Flycatcher) were observed in this habitat during breeding bird surveys. No species of special concern were observed. The presence of 1 of the indicator listed species and 2 of the common listed species indicate significant shrub/early successional bird breeding habitat. This is therefore significant shrub/early successional bird breeding habitat.<br>**SSB4:** One of the listed indicator species (Brown Thrasher) and three of the listed common species (Field Sparrow, Eastern Towhee and Willow Flycatcher) were observed in this habitat during breeding bird surveys. No species of special concern were observed. The presence of 1 of the indicator listed species and 2 of the common listed species indicate significant shrub/early successional bird breeding habitat. This is therefore significant shrub/early successional bird breeding habitat.<br>**SSB5:** One of the listed indicator species (Brown Thrasher) and three of the listed common species (Field Sparrow, Eastern Towhee and Willow Flycatcher) were observed in this habitat during breeding bird surveys. No species of special concern were observed. The presence of 1 of the indicator listed species and 2 of the common listed species indicate significant shrub/early successional bird breeding habitat. This is therefore significant shrub/early successional bird breeding habitat. | |
| Louisiana Waterthrush | No | Louisiana Waterthrush was not observed during breeding bird surveys in any of the candidate significant habitats (LW1, LW2, and LW3). Therefore, none of these habitats are significant for this species. | No (LW1, LW2, LW3) |
| Short-eared Owl | Yes | This species was observed at each of the open country breeding bird habitats (**OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8,** and **OCB9**). Therefore, each of these features are considered significant Short-eared Owl habitat. | Yes (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8, OCB9) |
| Wilson's Phalarope | No | This species was not observed in or within 120 m of the Project Location on the KFN property in feature WP1. This species is more closely associated with the coastal marsh found within the wetland area in the eastern portion of this property. | No (WP1) |

## 4.3 SUMMARY

This NHA was undertaken to identify natural features found in or within 120 m of the Project Location and evaluate their significance. Based on an Evaluation of Significance, significant natural features identified in and within 120 m of the Project Location are presented in **Table 4.8**.

**Table 4.8: Summary of Evaluation of Significance of Natural Features**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Located in or within 120 m of Project Location | Significant? (Y/N) | Carried Forward to EIS (Y/N) |
|---|---|---|---|---|---|
| **Wetlands** | | | | | |
| 1 | Wetland | UL-74<br>AR-94 | Within 120 m | Yes | Yes |
| 2 | Wetland | WT-41<br>UL-96<br>AR-52<br>TC-47 | Within 120 m | Yes | Yes |
| 3 | Wetland | UL-3<br>TC-104<br>BU-3 | Within 120 m | Yes | Yes |
| 4 | Wetland | WT - 76<br>UL-41<br>AR-38<br>TC-39 | Within 120 m | Yes | Yes |
| 5 | Wetland | WT-5<br>UL-3<br>AR-11<br>TC-9 | Within 120 m | Yes | Yes |
| 8 | Wetland | UL-28<br>AR-103 | Within 120 m | Yes | Yes |
| 9 | Wetland | WT-68<br>UL-18<br>AR-99<br>TC-61 | Within 120 m | Yes | Yes |
| 10 (PSW) | Wetland – Nut Island Duck Club Marsh | WT-3<br>UL-13<br>AR-74<br>TC-3 | Within 120 m | Yes | Yes |
| 11 | Wetland | WT-60<br>UL-115<br>AR-77<br>TC-62 | Within 120 m | Yes | Yes |
| 12 | Wetland | WT-10<br>UL-4<br>AR-7<br>TC-3 | Within 120 m | Yes | Yes |
| 13 | Wetland | UL-1<br>AR-100 | Within 120 m | Yes | Yes |
| 14 | Wetland | UL-40<br>AR-44 | Within 120 m | Yes | Yes |
| 15 | Wetland | UL-18 | Within 120 m | Yes | Yes |
| 16 | Wetland | UL-19 | Within 120 m | Yes | Yes |

**Table 4.8: Summary of Evaluation of Significance of Natural Features**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Located in or within 120 m of Project Location | Significant? (Y/N) | Carried Forward to EIS (Y/N) |
|---|---|---|---|---|---|
| | | AR-10 | | | |
| 17 | Wetland | UL-3 | Within 120 m | Yes | Yes |
| 18 | Wetland | UL-62<br>AR-58 | Within 120 m | Yes | Yes |
| 19 | Wetland | WT-62<br>UL-102<br>AR-107<br>TC-46 | Within 120 m | Yes | Yes |
| 20 | Wetland | UL-24<br>AR-42 | Within 120 m | Yes | Yes |
| 21 (PSW) | Wetland – Long Point Marsh | WT-119<br>AR-78 | Within 120 m | Yes | Yes |
| 22 | Wetland | TC - 29 | Within 120 m | Yes | Yes |
| **Woodlands** | | | | | |
| 1 | Woodland | WT – 47<br>UL – 4<br>AR -7<br>TC – 3 | Within 120 m | Yes | Yes |
| 2 | Woodland | UL-100 | Within 120 m | Yes | Yes |
| 3 | Woodland | UL-20<br>AR-16 | Within 120 m | Yes | Yes |
| 4 | Woodland | WT-48<br>UL-overlapping<br>AR-3<br>TC-23 | In | Yes | Yes |
| 7 | Woodland | UL-7<br>AR-8 | Within 120 m | Yes | Yes |
| 9 | Woodland | UL-overlapping<br>AR-overlapping | In | Yes | Yes |
| 10 | Woodland | WT-71<br>TC-83 | Within 120 m | Yes | Yes |
| 15 | Woodland | WT-71<br>TC-71 | Within 120 m | Yes | Yes |
| 18 | Woodland | UL-3 | Within 120 m | Yes | Yes |
| 20 | Woodland | WT-67<br>UL-30<br>AR-34<br>TC-33 | Within 120 m | Yes | Yes |
| 21 | Woodland | WT-44<br>UL-3<br>AR-39<br>TC-40 | Within 120 m | Yes | Yes |
| 23 | Woodland | UL-28<br>AR-17<br>TC-81 | Within 120 m | Yes | Yes |
| 28 | Woodland | UL-3<br>TC – 92<br>BU - 107 | Within 120 m | Yes | Yes |
| 32 | Woodland | UL-18 | Within 120 m | Yes | Yes |
| 36 | Woodland | UL – 3 | In | Yes | Yes |

**Table 4.8: Summary of Evaluation of Significance of Natural Features**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Located in or within 120 m of Project Location | Significant? (Y/N) | Carried Forward to EIS (Y/N) |
|---|---|---|---|---|---|
| | | TC – overlapping<br>BU - overlapping | | | |
| **ANSIs** | | | | | |
| Wetland 21 | Amherst Bay Life Science ANSI | WT-119<br>AR-78 | Within 120 m | Yes | Yes |
| **Seasonal Concentration Areas** | | | | | |
| RWA-1 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| RWA-2 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| RWA-3 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| RWA-4 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| RWA-5 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| RWA-6 | Raptor Wintering Area | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| RWA-7 | Raptor Wintering Area | UL – 4<br>AR – 8 | In | Yes | Yes |
| RWA-8 | Raptor Wintering Area | UL – overlapping<br>TC – 32<br>BU - 37 | Within 120 m | Yes | Yes |
| TO-1 | Turtle Overwintering | WT – 115<br>AR – 77<br>TC – 118 | Within 120 m | Yes* | Yes |
| ML1 | Landbird Migratory Stopover Areas | WT – 48<br>UL – 3<br>AR – 3<br>TC – 23 | Within 120 m | Yes | Yes |
| ML2 | Landbird Migratory Stopover Areas | WT – 71<br>TC – 83 | Within 120 m | Yes | Yes |

**Table 4.8: Summary of Evaluation of Significance of Natural Features**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Located in or within 120 m of Project Location | Significant? (Y/N) | Carried Forward to EIS (Y/N) |
|---|---|---|---|---|---|
| ML3 | Landbird Migratory Stopover Areas | WT – 71<br>TC – 71 | Within 120 m | Yes | Yes |
| ML4 | Landbird Migratory Stopover Areas | WT – 44<br>UL – 3<br>AR – 39<br>TC – 40 | Within 120 m | Yes | Yes |
| ML5 | Landbird Migratory Stopover Areas | UL – 28<br>AR – 17<br>TC – 81 | Within 120 m | Yes | Yes |
| **Rare Vegetation Communities and Specialized Habitat for Wildlife** | | | | | |
| OGF1 | Old Growth Forest | UL – 8 | Within 120 m | Yes | Yes |
| OGF2 | Old Growth Forest | WT – 48<br>UL – 103<br>AR – 98<br>TC – 50 | Within 120 m | Yes | Yes |
| OGF3 | Old Growth Forest | WT – 71<br>TC – 83 | Within 120 m | Yes | Yes |
| ABWO2 | Amphibian Breeding Habitat (Woodland) | UL - 59<br>AR – 54 | Within 120 m | Yes | Yes |
| ABWO3 | Amphibian Breeding Habitat (Woodland) | TC -29 | Within 120 m | Yes | Yes |
| ABWE1 | Amphibian Breeding Habitat (Wetland) | WR – 114<br>AR – 77<br>TC – 118 | Within 120 m | Yes | Yes |
| ABWE2 | Amphibian Breeding Habitat (Wetland) | UL - 3 | Within 120 m | Yes | Yes |
| **Habitat for Species of Conservation Concern** | | | | | |
| MBB1 | Marsh Breeding Bird Habitat | WT-115<br>AR-78<br>TC - 119 | Within 120 m | Yes | Yes |
| ABB1 | Woodland Area-Sensitive Breeding Bird Habitat | WT – 48<br>UL – 3<br>AR – 3<br>TC – 23 | Within 120 m | Yes | Yes |
| OCB-1 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| OCB-2 | Open | WT – overlapping | In | Yes | Yes |

**Table 4.8: Summary of Evaluation of Significance of Natural Features**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Located in or within 120 m of Project Location | Significant? (Y/N) | Carried Forward to EIS (Y/N) |
|---|---|---|---|---|---|
| | Country Bird Breeding Habitat | AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | | | |
| OCB-3 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| OCB-4 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-5 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| OCB-6 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-7 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-8 | Open Country Bird Breeding Habitat | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-9 | Open Country Bird Breeding Habitat | UL – 4<br>AR – 8 | Within 120 m | Yes | Yes |
| SSB1 | Shrub/Early Successional Bird Breeding Habitat | UL – 20<br>AR – 16 | Within 120 m | Yes | Yes |
| SSB3 | Shrub/Early Successional Bird Breeding Habitat | UL – 94<br>AR – 90<br>TC – 98 | Within 120 m | Yes | Yes |
| SSB4 | Shrub/Early Successional Bird Breeding Habitat | WT – 65<br>UL – 70<br>AR – 66<br>TC - 65 | Within 120 m | Yes | Yes |
| SSB5 | Shrub/Early Successional Bird Breeding | WT – 35<br>UL – 90<br>AR – 101 | Within 120 m | Yes | Yes |

**Table 4.8: Summary of Evaluation of Significance of Natural Features**

| Feature ID | Feature Type | Distance to Project Infrastructure Within 120 m (m) | Located in or within 120 m of Project Location | Significant? (Y/N) | Carried Forward to EIS (Y/N) |
|---|---|---|---|---|---|
| | Habitat | TC – 34 | | | |
| OCB-1 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| OCB-2 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-3 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| OCB-4 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-5 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping | In | Yes | Yes |
| OCB-6 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-7 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-8 | Short-eared Owl | WT – overlapping<br>AR – overlapping<br>UL – overlapping<br>TC – overlapping<br>BU – overlapping | In | Yes | Yes |
| OCB-9 | Short-eared Owl | UL-4<br>AR-8 | Within 120 m | Yes | Yes |
| **Generalized Significant Wildlife Habitats** | | | | | |
| SN1 | Snake Hibernacula | Not in or within 120 m of infrastructure identified in Appendix D of the NHA guide that will have an operational impact on the habitats. Therefore these habitats will be carried forward to the Environmental Impact Study where they will be treated as significant and general construction mitigation will be applied. | | Treated as Significant | Yes |

Legend: WT: Wind Turbine; UL: Underground Transmission Line; AR: Access Road, OL: Overhead Transmission Line, TC: Temporary Construction Areas, BU: Building/Substation
* This feature has not yet been evaluated. It will be evaluated prior to construction.

The locations of the significant features are presented in **Figures 5.1-5.5, Appendix A**.

An Environmental Impact Study Report will be prepared to identify mitigation measures in respect to any negative environmental effects on these features.

# 5.0 Environmental Impact Study

The construction, installation or expansion of a renewable energy generation facility is not permitted within a provincially significant southern wetland, provincially significant coastal wetland, or a provincial park or conservation reserve (unless otherwise permitted under the Provincial Parks and Conservation Reserves Act, 2006) (O. Reg. 359/09, s. 37).

Such facilities may be permitted within the following areas subject to the completion of an EIS (O. Reg. 359/09, s. (38(1)):

- provincially significant northern wetland;
- provincially significant life science ANSI;
- significant valleyland;
- significant woodland;
- significant wildlife habitat;
- within 120 m of the above natural features, provincially significant southern wetland, provincially significant coastal wetland, provincial park or conservation reserve; or
- within 50 m of a provincially significant earth science ANSI (O. Reg. 359/09, s. (38(1)).

In accordance with O. Reg. 359/09, s. 37, no part of the Amherst Island Project is sited within a provincially significant southern or coastal wetland (as a condition of the application of the Wetland Characteristics and Ecological Functions Assessment protocol (MNR 2011a)). Furthermore, since the Project Location includes the air space in which a Project operates, the wind turbines have been sited such that no part of a turbine blade overhangs a provincially significant southern or coastal wetland.

Significant natural heritage features that occur in or within 120 m of the Amherst Island Project Location are summarized in Table 4.7 and include Project components:

- within 120 m of significant wetlands;
- in and within 120 m of non-significant wetlands;
- in and within 120 m of significant woodlands;
- in and within 120 m of significant wildlife habitat components;
- and within 50 m of a Provincially Significant Life Science ANSI.

In accordance with O. Reg 359/09, an EIS must be prepared to identify and assess potential environmental effects and identify mitigation measures designed to prevent or minimize potential effects on a natural feature. Natural features within the Amherst Island Study Area, for which an EIS is required, include significant wetlands, significant woodlands, significant wildlife habitat and an ANSI. Direct impacts on wildlife (i.e. mortality) are addressed through the Environmental Effects Monitoring Plan (EEMP) which is provided in the Design and Operations Report. A summary of the EEMP can be found below in **Section 5.6**.

## 5.1 PROJECT FOOTPRINT OVERVIEW

The basic components of the proposed Project include up to 36 Siemens wind turbines. The turbine model proposed utilizes the same 36 turbine pad locations that have been subject to the assessment required under REA. The layout includes 34 Siemens SWT-2.3-113 2300 kW and two (2) Siemens SWT-2.3-113 2221 kW model wind turbines. The final layout will result in a total installed nameplate capacity of approximately 56 - 75 MW. The number of wind turbines will be dependent upon final selection of the model of the wind turbine most appropriate to the proposed Project.

The Amherst Island Wind Energy Project Draft Construction Plan Report (Stantec 2012b) contains full Project specifications; however, the relevant details to this report are described below:

Specifications of the wind turbines include:

- Tower height: 99.5 m
- Blade length: 55 m
- Rotor diameter: 113 m
- Tip height: 154.5 m

The constructible area at each turbine location is approximately 100 m x 100 m and will be used as a temporary construction staging area. Within the constructible area will be a turbine staging area for construction of the turbine foundation and assembly of the turbine, and a crane pad where the crane(s) will rest during turbine installation.

Gravel access roads will be approximately 4-6 m wide and will not require resizing for the operation phase, with the exception of the entrances off the Township or County roads that require wider turning radii, of approximately 10-15 m, during operations. A staging area would occur within the approximately 10 m staked constructible area along access roads for construction of the 4-6 m wide access road. Some access roads require turnaround areas for delivery trucks. These turnaround areas will be the same width as access roads, and include the same requirements for staging areas. A staging area would occur within the approximately 50 m wide staked constructible area along access road entrances off municipal roads for construction of the 10-15 m wide access road entrances. The final area of proposed access roads totals approximately 20.7 ha. Note that the proposed access road to turbines 13, 18, 26, and 30 runs adjacent to Marshall 40 Foot Road on the west side.

A heavy-lift crawler and mobile cranes would be used to assemble the turbines. The movement of the cranes between turbine sites, termed ‘crane paths’, would follow access roads and municipal roads where possible. The crane(s) would be, in some places, broken down and transported to other turbine locations for re-assembly. However, there may be instances where it is more effective, to minimize potential impact to municipal roads and avoid demobilization of the crane(s), to move the crane(s) along the most direct path possible between two turbines. All proposed crane paths will follow collector line corridors, with a constructible area of approximately 10 m wide.

Underground and/or overhead 34.5 kV collector lines (underground unless specified by the Township) will carry the electricity to the municipal road allowances following the turbine access roads or, along the most direct path possible between two turbines (i.e. across a field). All proposed collector lines have been routed on private lands where landowners have agreements with the Proponent. Where possible, the underground and/or overhead collector lines have been incorporated into the design of the access roads to reduce the area required for construction and minimize the potential construction impacts. Data cabling, if installed, would run with the collector lines.

Associated with the Project will be a substation. At the substation, the accumulated power from the collector lines will be transformed from a 34.5 kV collection voltage to a 115 kV transmission voltage. The substation will consist of a prepared area of approximately 80 m x 100 m in size.

A 115 kV submarine cable will be installed to join transmission lines on Amherst Island and the mainland. The transmission line will connect to the submarine cable via cable vaults.

Associated with the proposed Project will be a switching station where the transmission line on the mainland will be connected to the existing Hydro-One Networks Inc. (HONI) QS6 transmission line. The switching station will consist of a prepared area of approximately 2500 $m^2$ in size and will be located on private land.

As part of the proposed Project, a permanent docking facility is required on Amherst Island and a temporary docking facility is required on the mainland. The location of the dock on the mainland has not been finalized. There are three alternative locations being considered for the mainland dock.

An operations and maintenance building will be required on the island to facilitate the day-to-day operations of the Project. The building will be located on private land and will be approximately 15 m x 73 m along with parking space and on-site storage. The operations and maintenance would be enclosed in a yard of approximately 1100 $m^2$ with a chain link fence.

An unserviced storage shed will be situated across Art McGinns Road from S17 and S10, with a building footprint of approximately 6 m x 8 m.

One to three permanent met towers would be installed for use during the operation phase of the Project. The met towers would be a steel lattice structure 60 or 100 m high.

Roadside collector and transmission lines will be sited within the municipal road allowance. Final details of the line requirements will be developed at the detailed design stage in consultation with the Township and County. The entire span of the municipal road allowance has been included within the assessment of temporary land use, though this entire area will not be used for installation of the collector and/or transmission lines.

Temporary central staging areas will be set up on Amherst Island and the mainland to facilitate construction of the proposed Project. The central staging areas vary in size from as small as approximately 30 m x 50 m to as large as approximately 10 hectares. A temporary concrete batch plant will be utilized on Amherst Island to facilitate construction of the proposed Project. The prepared area for the batch plant will be approximately 120 m x 150 m. Temporary site offices will be set up on Amherst Island and the mainland to facilitate construction of the proposed Project. The temporary site offices will not be serviced, and would be placed within the delineated construction work areas. The prepared area for the site office(s) on Amherst Island will be approximately 50 m x 50 m.

The Project Location (including constructible area) and the associated 120 m Zone of Investigation, in relation to significant natural features, are shown on **Figure 5.1-5.5, Appendix A**.

The Draft Construction Plan Report for the Amherst Island Wind Energy Project (2012b) will detail the full construction specifications. Construction activities area anticipated to be ongoing for 18-24 months from the start of construction. The projected timing and duration of key construction activities is provided in **Table 11B, Appendix B**.

## 5.2 LAND USE OF PROJECT LOCATION

The Project Location and the associated 120 m Zone of Investigation consisted of a mix of naturalized habitat and active cropland (mainly hay and pasture). Woodland and wetland communities occurred throughout the Zone of Investigation. These communities frequently consisted of deciduous forest and cultural woodland, with fewer occurrences of deciduous swamp. Two large provincially significant coastal marshes occur within the Zone of Investigation: the Nut Island Duck Club Marsh and the Long Point Marsh.

All of the 36 turbines are sited within lands currently managed for agriculture (hay or pasture). The total amount of natural vegetation to be removed permanently for the duration of Project operation (i.e. long term removal areas) is 15.0 ha. An additional 40.5 ha of vegetation removal or disturbance is required temporarily during the construction of the Project. Long-term removal areas include infrastructure that will remain in place for the entire Project duration, including turbine bases and access roads. The evaluation of the total amount of vegetation to be impacted during construction includes consideration of the entire municipal road allowance (on both sides of the road) for roadside collector lines, and considers the potential for underground collector lines. Detailed design undertaken in consultation with the County will determine on which side of the road allowance the collector lines will be located. Therefore the assumption of disturbance of the entire road allowance is considered conservative in terms of area and magnitude of impact.

Vegetation to be removed or disturbed for the Project consists primarily of deciduous woodland and agricultural land. Details on habitat removal by vegetation community type is provided in **Table 12B, Appendix B**. Details on habitat to be removed by natural feature type is provided in **Table 13B, Appendix B**.

## 5.3 NEGATIVE ENVIRONMENTAL EFFECTS AND MITIGATION MEASURES ASSOCIATED WITH THE CONSTRUCTION AND DECOMMISSIONING PHASES OF THE PROJECT

The primary mitigation measure employed to reduce impacts to natural features and functions was avoidance; micro-siting decisions made during the development of the Project layout considered minimizing impacts to natural features and wildlife habitat. The Project is sited predominately within actively agricultural land with minimal natural habitat removal required for the Project. Modifications to the site plan were made to avoid placing the Project is significant features.

Large provincially significant coastal wetlands with open aquatic habitat are located in the southwestern portion of Amherst Island, the boundaries of which were re-delineated and expanded during the Evaluation of Significance. As a result of the re-delineation, turbines were removed and access roads relocated. Outside of these coastal wetlands, most wetlands within the Study Area consisted of early successional habitats; meadows regenerating in reed canary grass or early successional woodlands of green ash. To the extent possible, the project was sited outside of these features, with the exception of a small amount (0.143 ha temporarily and 0.087 ha permanently) of reed canary grass meadow marsh removal for access roads and collector lines.

The Project Location has been sited to avoid woodlands within the Study Area to the extent possible. Modifications to the layout has resulted in only a minimal amount of proposed tree removal within a single woodland for an access road and collector line, where avoidance was not possible due to access constraints. Proposed turbines locations are set back from significant woodlands. Most turbines are sited more than 50 m from significant woodlands, with the exception of three turbines sited 11 m, 47 m and 48 m from the dripline of significant woodlands.

Impacts to shoreline and offshore habitat have been avoided. All proposed turbine locations are sited more than 550 m from the shoreline.

Removal of relatively small amounts of hay and pasture habitat was unavoidable while siting the project, given the abundance of these habitat type on Amherst Island. However, overall the amount of grassland habitat removal is a small proportion of grassland available within the Study Area. Grasslands (including pasture and hayfields) provide habitat for open country breeding birds and wintering raptors, in particular the Short-eared Owl. In order to minimize impact on the habitat for these species, collector lines and access roads were made as short and as direct as possible to connect to the turbines. The width of access roads post-construction will as also be minimized to 4-6 m to reduce habitat loss, and construction areas will be re-seeded immediately with hay or grass, in consultation with the landowners.

The initial layout design evaluation was a table top exercise by the consultants to examine all natural resource data (provincial and local government, stakeholder information and preliminary site investigations (Golder Associates 2007 and Stantec 2011), as well incorporating the REA regulatory setback constraints.  The information gathered allowed the subject matter experts to identify key habitat areas of interest. In addition to natural resource information, the social and cultural aspects issues for the island were also considered for the project design were also significant large parameters components in the development of the initial project and layout. Existing land activity was also taken into consideration: Current farming activity, including a large cattle grazing operation on pastureland, was considered in turbine placement in order to reduce the impact on the highest quality grassland habitat available.

The Evaluation of Significance surveys, including surveys for grassland breeding birds and wintering raptors, were conducted in 2011.  Information gathered through these surveys informed the design engineers of the locations of important areas for open country birds. This information, in conjunction with the social and cultural concerns, including private landowner input, allowed the proponent to develop the most appropriate project layout. This included moving and removing proposed turbine locations, minimizing access road widths and lengths, and using underground cabling where possible.

### 5.3.1 Significant Woodlands

Fifteen of the woodlands met the criteria for significance based on criteria standards within the NHA Guide for Renewable Energy Projects. Potential negative impacts and proposed mitigation measure during the construction and decommissioning phases of the Project are detailed in **Table 14B, Appendix B**.

The primary mitigation strategy was avoidance of the significant woodlands. The 15 significant woodlands located in or within 120 m of the Project Location are shown on **Figures 5.1-5.5, Appendix A**.

The Project Location is proposed to occur within three significant woodlands: Woodlands 4, 9, and 36. Woodland 4 (**Figure 5.2, Appendix A**) is a 214.7 ha woodland that was determined to be significant based on six of the seven criteria: woodland size, interior habitat, proximity of other features, linkages, water protection and woodland diversity. It is comprised of a mosaic of deciduous forest, deciduous swamp and thicket habitat. It also provides significant wildlife habitat for migratory landbird stopover, area-sensitive bird breeding habitat, old growth forest and amphibian breeding. An underground collector line is proposed to run through a section of this feature. The collector line will follow an existing farm trail, approximately 6 m wide, and through the feature with no tree removal proposed. Overall, potential impacts to Woodland Feature 4 are anticipated to be very minor.

Woodland Feature 9 (**Figure 5.4, Appendix A**) is a 15.8 ha woodland that was determined to be significant based on three of the seven criteria: woodland size, interior habitat, and woodland diversity. It is composed of three habitat types: Fresh-Moist Oak-Maple-Hickory Deciduous Forest, Fresh-Moist Shagbark Hickory Deciduous forest, and Gray Dogwood Cultural Thicket. It does not contain any significant wildlife habitat. An access road and underground cabling are proposed to cross through a narrow section of the Shagbark Hickory Deciduous Forest community, resulting in the removal of 0.099 ha temporarily and 0.06 ha permanently of woodland. Removal of vegetation within this feature for construction of Project components could have the potential to affect both flora and fauna through loss of species diversity, by reducing or fragmenting available habitat (especially for species with low mobility), from the introduction or spread of invasive species, and from the temporary disruption to movement of wildlife.

Woodland Feature 36 (**Figure 5.3, Appendix A**) is a 306.9 ha woodland that was determined to be significant based on five of the seven criteria: woodland size, interior habitat, linkages, water protection and woodland diversity. It is composed of Fresh-Moist Ash Lowland Deciduous Forest, and it does not contain any significant wildlife habitat. A temporary laydown area and buildings are proposed to overlap with a portion of a hedgerow associated with this woodland, resulting in the removal of 0.181 ha temporarily of woodland. Removal of vegetation within this feature for construction of Project components could have the potential to affect both flora and fauna through loss of species diversity, by reducing available habitat (especially for species with low mobility), from the introduction or spread of invasive species, and from the temporary disruption to movement of wildlife.

Indirect impacts to significant woodlands resulting from construction activities, such as dust generation, sedimentation and erosion are expected to be short term, temporary in duration and mitigable through the use of standard site control measures. Potential impacts and mitigation requirements to significant woodlands are described in **Table 14B, Appendix B** as well as in the general construction mitigation recommendations in **Table 5.1** below.

### 5.3.2 Significant Wetlands

Twenty wetlands, not previously identified by MNR, were identified in or within 120 m of the Project Location and are treated as provincially significant, with the exception of Wetlands 6 and 7. Both the Nut Island Duck Club Marsh (Wetland 10a) and Long Point Marsh (Wetland 21), previously identified as provincially significant by the MNR, remain as provincially significant in this report.

The primary mitigation strategy was avoidance of wetlands. Prior to final siting of the Project, significant wetlands were identified applying a conservative approach. Substantial effort was allocated to the design of the final layout to ensure that Project components were sited outside of conservatively identified significant wetland boundaries. Separation distances from Project components to significant wetlands were maximized to the extent possible as an impact avoidance strategy. The 20 significant wetlands located within 120 m of the Project Location are shown on **Figures 5.1-5.5, Appendix A**.

There will be no direct loss of significant wetland habitat or function due to the Project. Indirect impacts resulting from construction activities, such as dust generation, sedimentation, and erosion are expected to be short term, temporary in duration and mitigable through the use of standard site control measures.

New access roads and infrastructure can alter surface flow, and the minimal increase in hard surface area could result in increased run-off quantities during precipitation events. Access roads at their permanent width of 6 m will cover approximately 20.7 ha in total over the entire study area. The percent area converted to hard surfaces is negligible and no effect to the water balance is anticipated. Potential impacts and mitigation measures for dewatering are provided in **Section 5.5**.

During construction, there will be increased vehicular traffic and the potential for accidental spills. These potential impacts will be avoided where possible and mitigated via implementation of a sediment and erosion protection plan, including the identification of specific locations for material stock-piling and maintenance activities to isolate any spills from the wetland. In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately. Mitigation measures for stock-piling, maintenance, and potential spills are provided in **Section 5.5**.

Vegetation clearing and construction disturbance in close proximity to wetland features may create new edges in adjacent communities. Such edges may cause changes in vegetation composition as result of increased exposure to sun and wind, particularly in closed canopy situations. This can create opportunities for the introduction and spread of invasive species in nearby wetland units.

Potential negative impacts and proposed mitigation measures during the construction and decommissioning phases of the Project are detailed in **Table 14B, Appendix B**. Mitigation measures to be applied to each wetland feature are provided in **Table 15B, Appendix B**.

#### 5.3.2.1 Non-Provincially Significant Wetlands

Wetlands 6 and 7 were evaluated using OWES and were determined not to be provincially significant (see Sections 4.1.1 and 4.2.1). These non-provincially significant wetlands consist of a concentration of reed canary grass, occurring in moist depressions in fields. These non-provincially significant wetlands do not require an EIS; regardless, the relatively small amount of removal of reed canary grass is not anticipated to have an impact on local vegetation or the ecological function of wetland habitat for wildlife. Results of the field surveys have found that ground roosting Short-eared Owls are often found in areas of reed canary grass. Potential impacts to ground roosting raptors are discussed further **Section 5.3.3.2**.

### 5.3.3 Significant Wildlife Habitats

The following significant wildlife habitats were identified in or within 120 m of the Project Location (**Table 4.7; Figures 5.1-5.5, Appendix A**):

- Raptor Wintering Area (RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7, and RWA8)
- Turtle Overwintering Area (TO1)*
- Migratory Landbird Stopover Area (ML1, ML2, ML3, ML4 and ML5)
- Old Growth Forest (OGF1, OGF2, and OGF3)
- Amphibian Breeding (Woodland and Wetland) (ABWO2, ABWO3, ABWE1, ABWE2)
- Marsh Breeding Birds (MBB1)
- Woodland Area-Sensitive Breeding Bird Habitat (ABB1)
- Open Country Breeding Bird Habitat and Short-eared Owl Habitat (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8, and OCB9)
- Shrub/Early Successional Bird Breeding Habitat (SSB1, SSB3, SSB4, SSB5)

*This habitat has not been evaluated and is being treated as significant in this report. It will be evaluated prior to construction.

Mitigation measures for each feature are provided in **Table 16B, Appendix B**.

#### 5.3.3.1 Raptor Wintering Areas

Amherst Island contains abundant grassland habitat, predominantly hay and pasture, which provides significant habitat for wintering raptors, including owls. For the purpose of the NHA, the Study Area on the island has been divided into 8 large blocks of grassland and woodland (RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7 and RWA8), each of which has been evaluated as significant habitat for raptor wintering areas (**Figures 4.1-4.5, Appendix A**). The extent of grassland habitat, the high meadow vole population and the windswept nature of Amherst Island, which helps to reduce snow cover, provide significant habitat for winter raptors.

The raptor wintering areas mostly consist of hay and pasture fields, with woodlands that provide roosting opportunities. Most of the woodlands on the island consist of deciduous trees, which may be used by roosting American Kestrel and Red-tailed and Rough-legged Hawks. Coniferous dominated woodlands occur in the northwestern portion of the island, and in and around the Owl Woods in the eastern portion of the island. These coniferous woodlands are used as roosting areas by Long-eared Owls, Northern Saw-whet Owls and, to a lesser extent, Boreal Owls. Snowy Owl will not necessarily use the woodlands for roosting, often utilizing posts, hay bales, hedgerows, etc. Some species, such as Northern Harriers and Short-eared Owls will roost in open fields. The grassland habitat on the island provides hunting opportunities for all of these species.

As the majority of the island is comprised of grassland habitat, avoidance of this habitat type was not possible; most Project components are sited in significant raptor wintering areas. As a result, construction will result in direct loss of habitat, although this amount represents a relatively small amount of significant open country habitat in the Study Area. In total, approximately 68.6 ha of significant raptor wintering area habitat will be temporarily removed and approximately 17.7 ha of significant raptor wintering area habitat will be removed for the life of the project; this respectively represents 1.8% and 0.5% of the total identified significant raptor wintering habitat of 3742 ha. During the field studies for the Evaluation of Significance, several roost locations for Short-eared Owls were identified in the open grassland. Roost sites generally were comprised of grassy areas with dense residual dead vegetation, in particular areas dominated by reed canary grass. Results suggest that Short-eared Owls generally move between roosts or within a larger roost site; no specific roost locations were found to be used consistently throughout the winter of 2011/2012. Access roads and underground collect lines (on private land) are proposed to pass through some of the sites where Short-eared Owls were observed roosting, however, there will be limited removal of vegetation. Ground roosting sites for Short-eared Owls do not appear to be a limiting factor on Amherst Island. This small loss of habitat is anticipated to have a negligible impact on the availability of roost sites within the Study Area. In most cases, Short-eared Owls would be are expected to continue using sites adjacent to the access roads, as documented on other wind projects (i.e. Wolfe Island).

Potential indirect impacts to wintering raptors during construction, including disturbance due to increased traffic, noise, or dust, is likely to have a more significant impact than habitat loss. However, these disturbance impacts will be temporary and short term in duration.

The Owls Woods is a well-known roost location for wintering Long-eared Owls, Northern Saw-whet Owls and, to a lesser extent, Boreal Owls. The Project will have no encroachment into Owl Woods, with construction activities occurring approximately 500 m from the pine plantation within the woods, which supports the highest concentration of owls. Swengel (1987, in Sandilands 2010) found the Northern Saw-whet Owls were tolerant of moderate to heavy human activity, as long as they were not detected; suggesting activities in the fields outside of the Owl Woods are unlikely to result in significant disturbance. Overall, considering construction activities will be short term in duration and outside of the Owl Woods, construction of the Project is not anticipated to have a significant impact on wintering raptors roosting within the Owl Woods.

Windlectric Inc. is committed to having discussions with landowners, potentially including Cataraqui Region Conservation Authority, to augment wintering owl habitat on Amherst Island. This would include development of a management strategy with agencies, interested landowners, and other interested parties to implement some of the recommendations provided in the Owl Woods Management Plan (Ecological Services 2011). Recommendations in the plan that could be implemented include, but are not limited to, improvement of infrastructure, signage and public education at the Owl Woods, as well as future planting of trees to increase roosting options on the island.

Potential negative impacts and proposed mitigation measures during the construction and decommissioning phases of the Project are detailed in **Table 14B, Appendix B**.

#### 5.3.3.2 Turtle Overwintering Area

A single turtle overwintering area (TO1, **Figure 5.4, Appendix A**) has been identified. This feature has been assumed as significant, which will be confirmed prior to construction; see **Section 5.6.3.3** below.

TO1 occurs in the open water of the Long Point Marsh PSW. No Project components are sited within TO1. The closest project component is an access road, located approximately 77 m from TO1 and on the opposite side of an existing municipal road. As such there will be no encroachment or habitat loss.

During spring emergence, turtles seek out basking sites within, or in very close proximity to their overwintering area. It would be unlikely to encounter a turtle 77 m from the marsh during spring emergence. As such, direct impacts to wintering or spring-emerging turtles are very unlikely.

Potential indirect impacts to TO1 could include wetland degradation from dust, siltation or accidental spills. In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately. These potential impacts and mitigation measures are covered under the discussion of significant wetlands in **Section 5.4.2**.

#### 5.3.3.3 Migratory Landbird Stopover Area

Four significant migratory landbird stopover and staging areas have been identified within 120 m of the Project Location: ML1, ML2, ML3, ML4 and ML5 (**Figures 5.1-5.5, Appendix A**). No Project components are in this type of significant wildlife habitat.

ML1 (Woodland Feature 4) is approximately 215 ha in size, comprised of deciduous forest and swamp. It is located in the southwest portion of the island; the west end of ML1 is within 1 km of the shoreline (**Figure 5.4, Appendix A**).

ML2 (Woodland Feature 10) is approximately 29 ha in size, comprised of lowland deciduous forests. It is located centrally on the island, approximately 2.6 km from the southern shoreline and 3.2 km from the northern shoreline (**Figure 5.3, Appendix A**).

ML3 (Woodland Feature 15) is approximately 19.5 ha in size, comprised of lowland deciduous forest. It is located in the southwest portion of the island, immediately adjacent to the Long Point Marsh PSW. ML3 is located approximately 0.5 km from the southern shoreline (**Figure 5.5, Appendix A**).

ML4 (Woodland Feature 21) is approximately 198 ha in size, comprised of a mosaic of deciduous lowland forest and deciduous swamp. It occurs centrally within the island, approximately 1 km from the southern shoreline and 1.6 km from the northern shoreline (**Figure 5.3, Appendix A**).

ML5 (Woodland Feature 23) is approximately 18.3 ha in size, comprised of deciduous ash lowland forest, deciduous upland sugar maple forest, and dry jack pine coniferous forest. The coniferous forest is known as the Owl Woods. It occurs centrally within the island, approximately 1 km from the southern shoreline and 1.2 km from the northern shoreline (**Figure 5.3, Appendix A**).

No project components are sited within significant migratory landbird stopover areas. Project components located within 120 m of each feature are summarized in **Table 4.7**. No direct impacts to migratory landbird stopover areas are anticipated from construction of the project, as no encroachment into, or removal of, this habitat type is proposed.

Potential indirect impacts to migratory landbirds from the Project during construction include disturbance due to increased traffic, noise, or dust. The most adverse impacts associated with construction noise typically occur if critical life cycle activities are disrupted (i.e. nesting, mating) (NWCC 2002). Because migrating landbirds in general are able to use a much wider range of habitat types during migration compared to the breeding season, it is expected that the effects of disturbance would be less significant during migration than during the breeding season.

Potential negative impacts and proposed mitigation measures during the construction and decommissioning phases of the project are detailed in **Table 14B, Appendix B**.

### 5.3.3.4 Old Growth Forest

Three significant old growth forests have been identified within 120 m of the Project Location: OGF1, OGF2, and OGF3 (**Figures 5.4, Appendix A**). No Project components are in this type of significant wildlife habitat.

No project components are sited within significant old growth forest. Project components located within 120 m of each feature are summarized in Table 4.7. Setbacks from each of the old growth forest units to the closest project component are between 8 m and 71 m from blade tip. No direct impacts to old growth forest habitat are anticipated from construction of the project, as no encroachment into, or removal of, this habitat type is proposed. Potential indirect effects include woodland degradation from dust or siltation. These potential impacts and mitigation measures are summarized in **Table 14B, Appendix B**.

### 5.3.3.5 Amphibian Breeding (Woodland and Wetland)

Three significant amphibian breeding areas have been identified within 120 m of the Project Location: ABWO2, ABWO3, ABWE1 and ABWE2 (**Figures 5.1-5.5, Appendix A**). No Project components are in this type of significant wildlife habitat.

ABWO2 consists of deciduous swamp within the Nut Island Duck Club Marsh PSW. The Project Location is sited outside of this feature; the closest project component is an access road, approximately 54 m away (Figure 5.4).

ABWO3 consists of meadow marsh on the mainland. The Project Location is sited outside of this feature; the closest project component is a temporary construction area, approximately 29 m away.

ABWE1 consists of deciduous woodland and open marsh within the Long Point Marsh PSW. The Project Location is sited outside of this feature; the closest project component is an access road, approximately 77 m away (Figure 5.4).

ABWE2 consists of reed canary grass marsh along a watercourse, upstream of the Long Point Marsh PSW. The Project Location is sited outside of this feature; the closest project component is an underground collector line, approximately 3 m away, within the municipal RoW (Figure 5.5).

No loss of amphibian breeding habitat is anticipated from the project. The type of construction proposed involves works having little or minimal impact to pervious areas and precludes the potential for effects associated with changes in water influence (i.e. surface and water changes).

Construction activities are expected to be low impact and short term in duration. Potential impacts to amphibian habitat could include wetland degradation from dust, siltation, erosion or accidental spills. In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately. These potential impacts and mitigation measures are covered under the discussion of significant wetlands in **Section 5.4.2**.

At ABWE2 an underground collector line will be installed within 3 m of the amphibian breeding habitat. All work will be completed in the roadway or the municipal road allowance. At this location, the boundaries of the amphibian breeding habitat should be delineated and flagged / staked in the field by a qualified ecologist. Erosion and siltation controls will be installed.

These potential impacts and mitigation measures are summarized in **Table 14B, Appendix B**.

#### 5.3.3.6 Marsh Breeding Bird Habitat

A single significant woodland marsh breeding bird habitat was identified within 120 m of the Project Location: MBB1 (**Figure 5.5, Appendix A**).

MBB1 (Wetland 21) is approximately 350 ha in size with a variety of wetland habitats including shallow marsh. No project components are proposed to overlap with this habitat. Project components within 120 m of this habitat feature are a wind turbine located 115 m, temporary construction area located at 119 m, and an access road located at 78 m from this feature.

There will be no direct loss of marsh breeding bird habitat. Indirect impacts during construction could include disturbance or disruption to breeding birds. Disturbance from construction activities, such as increased traffic, noise, or dust, may result in avoidance of habitats by birds. These effects may be greatest if disturbance occurs during critical life stages such as courtship or nesting (NWCC 2002).

Potential impacts and mitigation measures are summarized in **Table 14B, Appendix B**.

#### 5.3.3.7 Woodland Area-Sensitive Breeding Bird Habitat

A single significant woodland area-sensitive breeding bird habitat was identified in and within 120 m of the Project Location: ABB1 (**Figure 5.4, Appendix A**).

ABB1 (Woodland 4) is approximately 215 ha in size with >4 ha of interior forest habitat and is comprised of deciduous forest and swamp. An underground collector line is proposed to cross through ABB1; however, it will be installed within an existing farm trail, so no tree removal is proposed. An access road is proposed within 3 m of the edge of a relatively small portion of the feature. Five turbines occur within 120 m of ABB1, the closest of which is 48 m away from turbine blade sweep.

There will be no direct loss of woodland area-sensitive breeding bird habitat. Indirect impacts during construction could include disturbance or disruption to breeding birds. Disturbance from construction activities, such as increased traffic, noise, or dust, may result in avoidance of adjacent habitats by birds. These effects may be greatest if disturbance occurs during critical life stages such as courtship or nesting (NWCC 2002).

Potential impacts and mitigation measures are summarized in **Table 14B, Appendix B**.

#### 5.3.3.8 Open Country Breeding Bird Habitat and Short-eared Owl Habitat

Amherst Island contains abundant grassland habitat, predominantly hay and pasture. For the purpose of the NHA, the Study Area on the island has been divided into 9 large grassland blocks (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8 and OCB9), each of which has been evaluated as significant habitat for open country breeding birds and Short-eared Owl breeding habitat.

As the majority of the island is comprised of grassland habitat, avoidance of this habitat type was not possible; most project components are sited in the significant open country breeding bird habitat and Short-eared Owl breeding habitat. As such, construction will result in direct loss of a relatively small amount of habitat. In total, approximately 67.8 ha of open country breeding bird habitat will be temporarily removed and approximately 17.2 ha of open country breeding bird habitat will be removed for the life of the project; this respectively represents 2.1% and 0.6% of the total identified significant open country habitat of 3113 ha. The implementation of mitigation measures such as avoiding activities that could disturb or destroy nests during key periods or protecting active nests with buffer zones reduces potential impacts to nests.

Fragmentation of the grassland habitat is a potential impact from the installation of the Project. The Study Area generally provides contiguous grassland habitat, with some breaks created by woodlands or field in cultivation (e.g. corn, wheat, soya). Given the contiguous nature of the grassland habitat within the Study Area, the majority of the habitat is suitable for area sensitive species. Construction of the project will result in removal of a very minimal amount of the grassland habitat, predominately in long, linear strip for the access roads. The access roads, at 4-6 m in width, are not likely to create a significant break in the grassland habitat, resulting in fragmentation. As such, the Project is unlikely to impact the suitability of the grassland habitat for area sensitive species. There are four of the open country habitats with contain proposed access roads that cross entirely through the habitat, potentially creating smaller contiguous habitat patches. None of these created habitat patches are less than 30 ha, which is the minimum patch size required for open country breeding birds as described in the Significant Wildlife Habitat Ecoregion 6E Criterion Schedule (MNR 2012). However, the creation of roads has the potential to increase the edge habitat that may increase nest parasitism and predation, changes in food availability and habitat characteristics, and an increase in vehicle traffic and human disturbance (Northern EnviroSearch Ltd., 2008). Several studies of avoidance to roads by grassland breeding birds are available; generally, the level of disturbance has been associated with road traffic volume and subsequently noise (U.S. Department of Transportation 2004, Reijnen et al., 1987). Forman et al., 2002 found that increasing traffic was related to increasing avoidance from grassland birds, with no significant effect observed on roads with traffic volume of 3000-8000 vehicles/day or less. Traffic along proposed access roads during operation of the project is likely to be in the range of a few vehicles a week and therefore is not likely to result in a significant avoidance effect.

To address any possible fragmentation effects of building access roads in this grassland habitat and an increase in traffic, the following measures will be implemented during operation or after decommissioning:

- Minimize maintenance vehicle traffic and human presence on access roads during grassland breeding bird season (May 1st to July 31st)
- Rehabilitation of access roads back to grassland after decommissioning, in consultation with the landowners

The placement of the access roads was considered with respect to REA setback requirements and existing activity on private properties. For example, existing public infrastructure was used where possible to limit the installation of an access road, access roads were placed along fence or tree lines to avoid removing vegetation in significant woodlands as well as not disrupting interior grassland habitat, and surface water considerations were used when placing roads and culverts in order to reduce surface water run-off into significant habitat areas. Other constraints factored into the placement of roads as well such as regulatory constraints on unopened road allowances, landowner consultation, significant wetlands, and cost.

Construction activities have the potential to result in disturbance or disruption to breeding birds. Disturbance from construction activity, such as increased traffic, noise, or dust, may result in avoidance of habitats by birds. These effects may be greatest if disturbance occurs during critical life stages such as courtship or nesting (NWCC 2002).

Grassland raptors, such as Northern Harrier or Short-eared Owl, may be more vulnerable to disturbance effects during construction. Females disturbed at the early stages of nest building have been reported to abandon the site and nest a short distance away. However, Sandilands (2010) reported that human disturbance is not likely to be a major factor for nesting Short-eared Owls.

Mitigation will include identification of Short-eared Owl breeding territories and curtailment of construction activities within the breeding territories from mid-March through to end of July. Curtailment would include avoidance of the use of heavy equipment in a potential breeding territory during the early nesting stage, from mid-March through end of May. Following this period, nesting Short-eared Owls are likely to be less susceptible to disturbance. However, construction activities will be avoided at dawn and dusk, to mitigate potential avoidance impacts to hunting owls.

Wiggins et al. (2006) reports that nests from previous years may occasionally be reused. However, Short-eared Owl research on Amherst Island in 2009 and 2010 (Keyes 2011) found low site fidelity between years. As such, breeding territories from previous years may not be a good indicator of territory location during construction. Therefore, a qualified biologist will conduct targeted Short-eared Owl surveys in proximity to project components to identify potential nesting territories. Where territories have been identified in the same year as construction, weekly monitoring will be undertaken to measure potential avoidance behavior by Short-eared Owls, with weekly reports of the findings to MNR. If deemed necessary, additional adaptive management will be implemented in consultation with MNR.

Potential impacts and mitigation measures are summarized in **Table 14B, Appendix B**.

#### 5.3.3.9 Shrub/Early Successional Bird Breeding Habitat

Four significant shrub/early successional breeding bird habitat features were identified within 120 m of the Project Location: SSB1, SSB3, SSB4 and SSB5 (**Figures 5.1-5.5, Appendix A**). No Project components are in this type of significant wildlife habitat.

SSB1 consists of approximately 14 ha of green ash cultural woodlands and is contained within Woodland Feature 3. The Project Location is not sited within this feature. The closest project component is an access road 16 m away. The access road is situated on the other side of an existing municipal road. No turbines are located within 120 m of the feature.

SSB3 consists of approximately 12 ha of grey dogwood cultural thicket. It is located adjacent to Woodland Feature 23 and is part of Owl Woods. The Project Location is not sited within this feature. The closest project component is an access road 90 m away. No turbines are located within 120 m of the feature.

SSB4 consists of approximately 74.8 ha of grey dogwood cultural thicket and is not associated with a woodland feature. The Project Location is not sited within this feature. The closest project component is a wind turbine blade tip, 65 m away.

SSB5 consists of approximately 35.7 ha of grey dogwood cultural thicket interspersed with Fresh-Moist Ash Lowland Deciduous Forest and is contained within Woodland Feature 21. The Project Location is not sited within this feature. The closest project component is a temporary construction area, 34 m away. A wind turbine is proposed for 35 m away. There will be no direct loss of habitat or function to the significant shrub/successional breeding bird features. Indirect impacts during construction could include disturbance or disruption to breeding birds. Disturbance from construction activities, such as increased traffic, noise, or dust, may result in avoidance of habitats by birds. These effects may be greatest if disturbance occurs during critical life stages such as courtship or nesting (NWCC 2002).

Potential impacts and mitigation measures are summarized in **Table 14B, Appendix B**.

### 5.3.4 Generalized Significant Wildlife Habitats

In addition to the series of wildlife habitats identified above, a number of wildlife habitat types have also identified that may be present within the Study Area, but are located in or within 120 m of Project components that are not expected to have an operational impact on this habitat. It includes Snake Hibernacula (SN1). In accordance with the NHA Guide (MNR 2011a), potential impacts to these habitats are typically associated with the temporary disturbance of construction activity and can be grouped together as generalized impacts and mitigation measures.

The full suite of wildlife habitats that require generalized consideration have been reviewed, and have compiled a comprehensive list of general construction mitigation measures that will be implemented during the construction and decommissioning phases (**Table 18B, Appendix B**) of the Project.

### 5.3.5 Areas of Natural and Scientific Interest (ANSI)

The Amherst Bay Life Science ANSI is located within 120 m of the Project Location. Because it is formed by the Long Point Coastal Marsh PSW, the impacts and associate mitigation are the same for these features. See **Section 5.3.2**.

## 5.4 OTHER GENERAL CONSTRUCTION MITIGATION

To fully identify all mitigation measures that are recommended for this development, the following section provides best management practices and other measures intended to minimize or mitigate potential adverse impacts on adjacent significant natural features. These measures will be implemented, where required and reasonable, during the construction and decommissioning of the various turbines, access roads and collector lines.

### 5.4.1 Vegetation Removal

Natural features where habitat will be removed include grasslands, wetlands and scattered trees. Where vegetation removal is proposed, the following mitigation measures will be applied:

- As appropriate, and prior to construction, the limits of vegetation clearing will be staked in the field. The Construction Contractor will ensure that no construction disturbance occurs beyond the staked limits and that edges of sensitive areas adjacent to the work areas are not disturbed. Regular monitoring of the limits of clearing will be implemented to ensure the objective of minimal disturbance. Should monitoring reveal that clearing occurred beyond defined limits, mitigation action will be taken that could include rehabilitation of the disturbed area to pre-disturbance conditions at the direction of a qualified ecologist (with enhancement of any disturbed areas).
- To the extent practical, tree and/or brush clearing and grassland removal will be completed prior to, or after, the core nesting season for breeding birds (May 1 to July 31). Should clearing be required during the breeding bird season, prior to construction, surveys will be

undertaken by a qualified biologist to identify the presence/absence of nesting birds or breeding habitat. If a nest is located, a designated buffer will be marked off within which no construction activity will be allowed while the nest is active. The radius of the buffer will range from 5 - 60 m, depending on the species. Buffer widths are based on the species' sensitivity and on buffer width recommendations that have been reviewed and approved by Environment Canada.

- Prior to the start of construction activity, the topsoil/seedbank will be stripped and preserved; material will be reapplied in suitable rehabilitation areas post construction.
- Excavated soil from crane pads will be re-used on site, as feasible. If not feasible, the soil will be disposed of at an approved off-site facility. Temporary laydown areas will be returned to pre-construction conditions.
- Following construction, topsoil in areas of temporary disturbance will be replaced/restored. Disturbed areas in agricultural fields will be reseeded with a hay mix. Disturbed areas in wetlands 6 and 7 will be reseeded with a native wetland grass mix. Reseeded areas will be monitored for one year to ensure regeneration success.

### 5.4.2 Sediment and Erosion Control Measures

In order to minimize erosion and the introduction of sediment into significant natural features during grading and construction activities, erosion and sediment (E&S) control measures will be implemented prior to the initiation of any construction.

The proximity of adjacent significant natural features increases the risk of sedimentation within a construction area. As such, all significant natural features identified within 30 m of any proposed construction area are at higher risk of sediment transfer and erosion from grading and topsoil removal.

E&S control measures will be in installed to minimize erosion impacts adjacent to significant natural features, as appropriate. The following measures/guidelines will be implemented, as required, during the construction of the Amherst Island Wind Project components:

- Sediment control measures, which may include perimeter silt fencing, mud mats (access roads), check dams (rock or straw bales), and sediment bags (dewatering);
- Silt barriers (e.g., fencing) will be erected along wetland and woodland community edges located within 30 m of construction areas (including staging areas and laydown areas) to minimize potential sediment transport to the significant natural features. These barriers will be regularly monitored and properly maintained during and following construction until soils in the construction area are re-stabilized with vegetation; and
- Where culverts are proposed within 30 m of a significant natural feature, enhanced sediment and erosion control measure (i.e. straw bales, double rows of sediment fencing, check dams) will be installed as added protection to filter runoff and further minimize potential

sedimentation within the downstream features (wetland, woodland). This added protection is proposed to reduce environmental risk.

Specific E&S control measures will be selected, located and sized by an engineer during the detailed design stage to ensure proper functioning of these measures. All E&S controls will be installed prior to construction and will be maintained during and following construction to ensure their effectiveness at protecting the adjacent significant natural features.

### 5.4.3 Dewatering

Site specific geotechnical investigations to be completed prior to construction activities will provide further details related to geologic conditions. Dewatering requirements will be re-assessed as part of the geotechnical investigations.

If groundwater is encountered during excavations, good construction practices will be used, such as minimizing the length of time that the excavation is open and monitoring seepage into the excavation. Should pumping be required to dewater excavated areas, water will be directed into the nearest drain or spread across the buildable area and appropriate energy dissipation techniques will be used to reduce the potential for erosion and scouring. Discharge piping will be free of leaks and will be properly anchored to prevent bouncing and snaking during surging. The rate of discharge will be monitored to ensure no erosion or flooding occurs. If energy dissipation measures are found to be inadequate, the rate of dewatering will be reduced or ceased until satisfactory mitigation measures are in place.

In order to mitigate any impacts to significant natural features during dewatering activities, the following measures will be implemented, as required and necessary:

- The area to be used for dewatering will be clearly marked with flagging and/or snow-fencing prior to work commencing;
- During site preparation, silt fencing will be included to retain sediments on site so they do not enter any significant natural feature. All sediment control structures will be inspected regularly, and repaired/maintained as necessary;
- All water pumped during dewatering activities will be directed away from significant natural features and not directly into wetlands;
- The use of sediments bags (or filter rings) will be used as appropriate to filter out suspended sediment prior to discharge. Any sediment bags or filter rings will be monitored during pumping to ensure their efficacy, with any clogging or failures to be rectified immediately; and
- After the staging area and dewatering work area is no longer required, any remaining disturbed soils will be returned to pre-disturbance conditions and/or reseeded.

Further dewatering recommendations will be reviewed upon the completion of the detailed engineering design. Additional detail is provided in the Amherst Island Construction Plan Report (separate cover, Stantec 2012b).

### 5.4.4 Other General Mitigation Measures

**Table 5.1** summarizes the general mitigation measures which will be implemented during construction, including the mitigation objective and specific location where each mitigation measure should be applied.

**Table 5.1: Summary of Construction Phase Mitigation Measures Recommended**

| Mitigation Measure | Objective(s) | Location(s) |
|---|---|---|
| Any vegetation removal required along roadside collector lines should be minimized, and occur entirely within the road right-of-way. | Minimize vegetation removal and impacts on wildlife habitats | Underground Collector Lines/ or overhead collector lines |
| Any accidentally damaged trees should be pruned through the implementation of proper arboricultural techniques. | Protect tree species from permanent damage | Entire Project |
| Suspend work if high runoff volume is noted or excessive sediment discharge occurs. | Minimize erosion impacts on features when construction activities are proposed within 30 m of significant natural features | Within 30 m of any significant feature, including significant woodlands and wetlands and significant wildlife habitat* |
| No vehicle traffic on exposed soils, and no heavy machinery traffic on slopes | Limit unnecessary risk of increased erosion, turbidity or sedimentation | Entire Project |
| Re-vegetate temporary access roads or crane paths to pre-construction conditions as soon as possible. | Limit the potential for erosion or sedimentation due to exposed soil conditions | Entire Project |
| Maintain existing vegetation buffers around water bodies | Minimize the potential for erosion, and protect wildlife habitat, within riparian areas | Entire Project |
| Any stockpiled material will be stored more than 30 m from a significant wetland, woodland, or water body | Limit the potential for increased erosion within 30 m of significant natural features | Entire Project |
| All maintenance activities, vehicle refueling or washing, and chemical storage will be located more than 30 m from any significant feature. | Minimize the risk of contamination of chemical spill around significant natural features | Entire Project |
| Develop a spill response plan, train staff on appropriate procedures, and keep emergency spill kits on site. | Minimize potential long-term effects or significant contaminations in the event an accidental spill occurs | Entire Project |
| Dispose of waste material by authorized and approved offsite vendors | Limit the potential for contamination of significant natural features | Entire Project |
| Implement infiltration techniques to the maximum extent possible. | Minimize potential impacts to soil moisture regime and groundwater stores | Entire Project |
| Design roads to promote infiltration. | Minimize potential impacts to soil moisture regime and groundwater stores | Entire Project |
| No herbicides will be used within significant features or wildlife habitats. | Avoid impacts to natural vegetation species, significant features, and wildlife habitats | Significant woodlands and wetlands, and significant wildlife habitat* |
| Minimize grading activities to maintain | Maintain existing surface water | Entire Project |

**Table 5.1: Summary of Construction Phase Mitigation Measures Recommended**

| Mitigation Measure | Objective(s) | Location(s) |
|---|---|---|
| existing drainage patterns, to the fullest extent possible. | drainage patterns | |
| Control rate and timing of water pumping, and restrict taking of water during periods of extreme low flow. | Limit potential impacts on water temperature, surface water storage, and wildlife habitat | Entire Project |
| Implementation of storm water discharge best management practices. | Avoid potential contamination of water sources | Entire Project |
| Collect drill cuttings as they are generated and placed in a soil bin or bag for off-site disposal | Limit the potential for soil or water contamination | Horizontal Directional Drilling |
| Restore and re-vegetate entry/exit pits to pre-construction conditions as soon as possible after construction | Minimize the presence of exposed soil to reduce the potential for erosion | Horizontal Directional Drilling |

** Only if these habitats evaluated as significant in this report or are determined to be significant through pre-construction surveys described in* ***Section 5.6.3.3***

### 5.4.5 Eastern Milksnake Mitigation Measures

Due to the generalist nature of this species, it is possible to encounter this species in almost any habitat available on Amherst Island. Because of this, special mitigation measures are provided in **Table 5.2** below for this species.

**Table 5.2: Mitigation Measures for Eastern Milksnake**

| Mitigation Measure | Objective(s) | Location(s) |
|---|---|---|
| In cultural meadows, clearly delineate work area using silt fencing or similar barrier | Minimize Eastern Milksnake movement into work areas | In cultural meadow areas |
| Provide those on site with descriptions and photos of Eastern Milksnakes | Increase awareness of those on site of this species | Entire Project |
| If an Eastern Milksnake is encountered, work in the area must stop until the animal leaves the area on its own accord | Minimize harm to Eastern Milksnakes encountered | Entire Project |
| All Eastern Milksnakes encountered must be recorded, with UTMs and photographs where possible, to be presented to the MNR Peterborough district | Provide data to the MNR regarding this species on Amherst Island | Entire Project |

## 5.5 NEGATIVE ENVIRONMENTAL EFFECTS AND MITIGATION MEASURES ASSOCIATED WITH THE OPERATIONAL PHASE OF THE PROJECT

### 5.5.1 Significant Woodlands

Operation of the Project is anticipated to have very limited impacts to significant woodlands.

During operation, infrequent day to day use of access roads and maintenance activities associated with the road may result in impacts to woodlands, due to dust, but such impacts are expected to be minimal. If required, dust suppression during operation of the Project could be considered.

There may be occasional impacts during maintenance of access roads or collector lines. If major maintenance activities are required in proximity to significant woodlands, mitigation measure for construction (**Table 14B, Appendix B**) should be implemented.

Other potential impacts that might occur during operation include spills and contamination to the woodland. Improper disposal of wastes (fluids, containers, cleaning materials) could also have a negative impact on the feature. Storage of fuel and activities with the potential to cause contamination will occur in properly protected and sealed areas. In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately.

### 5.5.2 Significant Wetlands

As with significant woodlands, operation of the Project is anticipated to have very limited impacts to significant wetlands. There are no Project components located in significant wetlands.

During operation, infrequent day to day use of access roads and maintenance activities associated with the road may result in impacts to wetlands, due to dust, but such impacts are expected to be very minimal. If required, dust suppression during operation of the Project could be considered.

There may be occasional impacts during maintenance of access roads or collector lines. If major maintenance activities are required in proximity to significant wetlands, mitigation measure for construction (**Table 14B, Appendix B**) should be implemented.

Other potential impacts that might occur during operation include spills and contamination to the wetlands. Improper disposal of wastes (fluids, containers, cleaning materials) could also have a negative impact on the feature. Storage of fuel and activities with the potential to cause contamination will occur in properly protected and sealed areas. In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately.

### 5.5.3 Significant Wildlife Habitat

#### 5.5.3.1 Raptor Wintering Areas

Fragmentation and disturbance of habitat as a result of wind energy projects were identified as a potential indirect effect to wintering raptors (Kingsley and Whittam 2007). Noise levels during operation might also impact hunting raptors, in particular owl species which primarily hunt by sound. Potential results of these disturbances could range from behavioural changes, such as local avoidance of turbines, to abandonment of the wind power project area. Nevertheless, much of the data collected from wind power developments in Canada and elsewhere indicates that wind turbines have limited effects on raptor activity or abundance in the wind power area.

Madders and Whitfield (2006) examined raptor sensitivity to displacement by wind turbines based on data from 8 studies and personal communications with three researchers. They conclude that most raptor species have low sensitivity to displacement (ie. no evidence reported in studies), including six species observed at Amherst Island: Turkey Vulture, Red-tailed Hawk, Broad-winged Hawk, Sharp-shinned Hawk, American Kestrel, and Peregrine Falcon. Stewart et al. (2007) conducted a meta-analysis of the effect of wind turbines on bird abundance at 19 globally-distributed wind farms, and concluded that raptors (Falconiformes and Accipitriformes) demonstrated minimal declines in abundance relative to waterfowl and wading birds. Their study methods were unable to determine whether declines noted for any species were due to decline in population size or local avoidance of the wind turbines. A comparison of breeding bird diversity and abundance between a wind turbine area in Northeastern Wisconsin and a nearby reference area revealed a reduced abundance of open-county raptors in the turbine area (Howe et al. 2002), however the authors suggest that differences may be due to habitat differences between the two areas and statistical significance was not noted. Red-tailed hawks were the 28th most abundance bird species in the reference area, and the 25th most abundant species in the turbine area (Howe et al. 2002).

A study of breeding bird population effects in the UK demonstrated local avoidance of operating wind turbines by up to 500m for Buzzard (*Buteo buteo*) and 1,000 m for Hen Harrier (*Circus cyaneus*) relative to control areas (Pearce-Higgins et al 2009). In contrast, North American raptors do not typically demonstrate local avoidance of wind turbines. In the Altamont Pass Wind Resource Area, California, Red-tailed Hawks were frequently observed flying and foraging around active wind turbines in fall (31.5 sightings per observation session) and regularly in winter (9.8 sightings/session; Hoover and Morrison 2005). Red-tailed Hawks were also observed on more than 1,000 occasions within the one-year study period perching on operating turbines (Hoover and Morrison 2005). As the species is thought to primarily hunt from a perch, this result strongly suggests that active wind turbines do not deter the species from foraging. Wintering raptors were infrequently observed at the Buffalo Ridge Wind Resource Area, comprising less than 2% of all observations (Osborn et al. 1998), nevertheless both Red-tailed Hawks and American Kestrels were observed hunting near active wind turbines. More than half of observed Kestrels flew within 15 m of wind turbines, whereas Red-tailed Hawks rarely flew within 30 m of turbines (Osborn et al. 1998).

Diurnal raptors at the Erie Shores Wind Farm were observed only during summer and fall (James 2008), however flight and foraging behaviour around active wind turbines can be assumed to correlate to flight and foraging behaviour of wintering raptors. The majority of raptor species flew regularly within 200 m of, but not less than 50 m from, active turbines. Sharp-shinned Hawks were the exception, with approximately 50% of individuals flying within 100 m of turbines. Both Cooper's Hawk and Red-tailed Hawk were observed actively hunting within 50 m of turbines.

The three years of post-construction disturbance monitoring of wintering raptors completed at the Wolfe Island Wind Plant provides good insight into potential disturbance impacts of the Amherst Island Wind Project. Both islands are similar in ecology and support large concentration of raptors during the winter months, including species such as Short-eared Owl. The post-construction studies have demonstrated that wintering raptors continue to use the Wolfe Island Wind Plant project area in high numbers (Stantec 2010b, 2011b and 2012a). The studies have found some localized avoidance around operational wind turbines; for example, Short-eared Owls have rarely been observed foraging within 200 m of turbines with spinning blades. However, the impact of localized avoidance does not appear to have limited the number of raptors supported by the project area. Short-eared Owls have been recorded in significantly higher numbers during post-construction surveys than during pre-construction surveys. Generally, the abundance of raptors on Wolfe Island is closely associated with the abundance of prey. Disturbance from wind turbines to relatively small amount of available habitat in which they forage does not appear to be impacting the prey base or the ability of raptors to find and capture this prey. Similar results would be expected on Amherst Island, with the Project Area continuing to support high concentrations of raptors during operation of the Project.

Potential disturbance to roosting raptors from operational wind turbines is less likely to be of concern than disturbance to foraging birds in active flight. Availability of deciduous woodlands for roosting American Kestrels, Red-tailed Hawks and Rough-legged Hawks is unlikely to be affected by the operation of the project. Wind turbines have been set back from areas of coniferous forest in the northwestern portion of the island and around the Owl Woods, which supports roosting Saw-whet Owls and Long-eared Owls.

The Owl Woods is a well-known birding attraction with established trials which attracts birders and photographers from across North America. Historically, the level of disturbance within the Owl Woods from visitors has been relatively high. However, regardless of this level of disturbance, use of the woods by roosting owls has remained very high. Swengel (1987, in Sandilands 2010) found the Northern Saw-whet Owls were tolerant of moderate to heavy human activity while roosting, as long as they were not detected; detection may result in changing roosts. Often disturbance to roosting raptors comes from sudden disruptions that startle the birds (e.g. sudden noises or movement), or as Swengel (1987) found as a result of being detected by a human, such as by visitors to the Owl Woods. It is unlikely that the constant presence of wind turbines, would startle, or result in disturbance to raptors roosting in the Owl Woods. Overall, the operation of the Project is unlikely to result in disturbance to roosting raptors and owls in the Owl Woods, or other woodland features.

Compared to forest roosting species, there may be higher potential for disturbance to ground roosting species such as Northern Harriers or Short-eared Owls as the Project Location is within potential roosting habitat. Raptors may avoid roosting on the ground in close proximity to operating wind turbines. Project related traffic may also disturb ground nesting birds in proximity to access roads, although traffic is likely to be minimal during operation of the project. During the first three years of operations, regular human presence at some turbines for mortality monitoring may also disturb ground nesting raptors. The potential disturbance in proximity to project components may result in some localized shifting of ground roosting sites. However, results of the field studies conducted for the Evaluation of Significance suggest shifting of roost sites occurs regularly during pre-construction, with Short-eared Owls generally moving between roosts or within a larger roost site on different surveys. Overall, the availability of ground roosting sites  does not appear to be a limiting factor within the Study Area and a minimal amount of disturbance that may occur from the operation of the project is unlikely to impact ground roosting raptors.

Amherst Island is anticipated to continue to support large concentration of wintering raptor during operation of the Project. Post-construction monitoring for disturbance will be conducted in all significant raptor wintering areas (RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7 and RWA8) for a period of three years, to ensure disturbance to wintering raptors is not higher than expected. The Environmental Effects Monitoring Plan (included in the Amherst Island Wind Project Design and Operations Report) describes a response and contingency plan that will be implemented if performance objectives cannot be met.

#### 5.5.3.2 Turtle Overwintering Habitat

Turtle overwintering habitat (TO1) was not evaluated prior to the creation of this report and is required to be evaluated prior to construction. If it is determined to be not significant, the following mitigation measures will not be required. Evaluation methods for turtle overwintering habitat are as follows:

Habitat use studies will be conducted and will include turtle emergence studies to be completed during the early spring (Mar-May). Specifically, observational studies will consist of area searches conducted from the edges of the feature. Observations will be performed in the afternoon, on sunny days when turtles are likely to be basking near their hibernacula site. Each station will be surveyed a minimum of 3 times, with each survey lasting a minimum of 30 minutes.

At each station, the surveyor will observe for a minimum of 30 minutes, recording all species seen, along with an estimate of the number of individuals of each species and behavior observed. Additional information that will be recorded on the appropriate data forms includes:

- Weather conditions (temperature, wind speed (on a Beaufort scale), % cloud cover, and presence of any precipitation should be recorded).
- Date and time of day.
- Location of any turtles observed.
- Name of the observer doing field work.

Given the size and characteristics of the turtle overwintering areas in TO1, it is anticipated that the habitat could potentially support some of the indicator turtle species identified in the Draft Significant Wildlife Habitat Ecoregion 6E Criterion Schedule, including: Midland Painted Turtle, Northern Map Turtle, or Common Snapping Turtle.

Regardless of its significance, potential impacts to turtle overwintering area TO1 during operation of the Project are anticipated to be minimal. The closest project component is an access road 77 m away, which occurs on the opposite side of an existing municipal road. Potential indirect impacts would include wetland degradation from dust, noise or accidental spill. These impacts to wetlands, and mitigation measures, are discussed in **Section 5.6.2**.

Overall, turtle overwintering areas are not anticipated to be significantly impacted by the operation of the project. Therefore no post-construction monitoring is proposed.

#### 5.5.3.3 Migratory Landbird Stopover Area

Four significant migratory landbird stopover and staging areas have been identified within 120 m of the Project Location: ML1, ML2, ML3, ML4 and ML5 (**Figures 5.1-5.5, Appendix A**). No Project components are in this type of significant wildlife habitat.

Information regarding indirect effects of wind turbines on migrating passerines is limited. Of four bird taxa reviewed in 19 separate studies, passerine birds showed the least population response to wind turbines when compared with waterfowl, wading birds and raptors (Stewart et al. 2007). Passerines were also noted not to be vulnerable to displacement (Langston and Pullan 2003, cited in Stewart et al. 2005). However, in a study of six wind energy facilities in Alberta, EchoTrack (2005) found evidence of localized avoidance as birds increased their flight height and slowed their flight speed when they approached wind turbines. This avoidance response may result in increased energy expenditure to migratory birds. The extent to which an avoidance is considered an impact depends on the species, size of wind project, spatial arrangement of the turbines, type of movements (i.e. local movements or annual migrations) and the incurred energetic cost (Masden et al. 2009). Masden et al. (2010) concluded that the energetic cost expended to avoid a wind project was undetectable and insignificant compared with other factors such as strong or unfavourable winds.

The potential for turbines to act as a barrier to movement has also been identified as a potential impact. Reviews of available literature suggest the barrier effect has not been proven to significantly impact bird populations (Drewitt and Langston 2006) however the effect of wind farms as barriers to migratory bird movement is not yet fully understood and has not been well studied (Telleria 2009; Masden et al. 2009). Lateral displacement of migratory flight paths was observed for numerous bird species at two offshore wind farms in Denmark. Peterson et al. (2006) found that 50% fewer migratory bird flocks flew directly over offshore wind turbines, although the decline was much less for daytime migrants compared with nocturnal migrants. Most species changed their flight path orientation at 200 m to 500 m away from the active turbines. No evidence of habituation to the turbines was observed over time (Peterson et al. 2006). Using acoustic surveys, Howe et al. (2002) also observed that nocturnal migrant birds were less abundant over turbine areas when compared with reference sites.

Overall, turbine within the Amherst Island Wind Energy Project have been sited outside of significant migratory landbird stopover areas and are relatively well spaced. As such, disturbance to stopover habitat, or potential barrier effects, are not anticipated to be significant. Post-construction monitoring for disturbance will be conducted in all significant migratory landbird stopover areas (ML1, ML2, ML3ML4 and ML5) for a period of three years, to ensure potential disturbance to migratory landbirds is not higher than expected. The Environmental Effects Monitoring Plan (included in the Amherst Island Wind Project Design and Operations Report) describes a response and contingency plan that will be implemented if performance objectives cannot be met.

#### 5.5.3.4 Old Growth Forest

Potential negative impacts to old growth forests from operation of the Project are anticipated to be minimal. Potential indirect impacts would include woodland degradation from dust, noise or accidental spill. These impacts to woodlands, and mitigation measures, are discussed in **Section 5.6.1**.

Overall, old growth forest habitat is not anticipated to be significantly impacted by the operation of the Project. Therefore no post-construction monitoring is proposed.

#### 5.5.3.5 Amphibian Breeding (Woodland and Wetland)

Potential impacts to significant amphibian breeding habitat (ABWO2, ABWO3, ABWE1 and ABWE2) during operation of the Project are anticipated to be minimal.

No access roads occur within 50 m of amphibian breeding habitat. Given this setback, infrequent day to day uses of the access roads and maintenance activities are unlikely to result in habitat impacts. If required, dust suppression during operation of the Project could be considered.

There may be occasional impacts during maintenance of collector lines. Maintenance of the collector line adjacent to ABWE2 could result in wetland degradation by dust, siltation, erosion or accidental spill. If collector line maintenance activities are required in proximity to ABWE2, mitigation measure used during construction (**Table 14B, Appendix B**) should be implemented.

Effects of turbine noise on amphibian populations are relatively unknown and not-well understood; however, individual reproductive success has been directly related to calling effort in frogs (Sun and Narins 2004). Therefore, noise may be a concern because it can interfere with calling rates, which could in turn impact fitness (Sun and Narins 2004, Penna et al. 2005). As well, noise may not allow breeding frogs to properly hear and move toward breeding aggregations (Maxell and Hokit 1999).

Masking of auditory environmental signals, such as mammal warning cries or amphibian calls, may be significant immediately underneath the turbine (Rabin et al. 2006), but the effects rapidly decline with distance from the turbine. A study of low frequency noise and vibration at a modern wind farm determined that vibration is 1/5th to 1/100th of the limit of human perception within 25 m of the turbine base (Legerton et al. 1996).

In the Amherst Island project layout, only a single turbine is located within 120 m of significant amphibian breeding habitat: S36 which is 114 m away from ABWE1. Considering the setbacks from turbines, masking of auditory signals is not anticipated to have a significant impact on this feature.

During operation of the facility, some materials such as lubricating oils and other fluids associated with turbine maintenance have the potential for discharge on the environment through accidental spills, resulting in a potential impact to amphibian habitat through ground or surface water contamination. In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately.

#### 5.5.3.6 Marsh Breeding Bird Habitat

Marsh breeding birds are among the more sensitive bird species with respect to disturbance from wind power development. In their meta-analysis of the effect of wind turbines on bird abundance at 19 globally-distributed wind farms, Stewart et al. (2007) concluded that wading birds were the second-most likely bird taxon to demonstrate declines in abundance. Pearce-Higgins et al (2012) found construction disturbance was the primary cause of bird population declines at wind farms (Pearce-Higgins et al 2012). For some species, populations rebounded once construction ceased and turbines became operational, however the apparently more disturbance-sensitive Snipe and Curlew did not return to their pre-construction abundance (Pearce-Higgins et al 2012).

However, as noted for raptors, above, differences in avoidance behaviour have been noted at North American wind development projects when compared with European studies. The single wind turbine at Pickering Nuclear Generating Station, adjacent to the Hydro Marsh, has not proved to be a deterrent to local marsh breeding birds. Black-crowned Night Herons (*Nycticorax nycticorax*) and Common Terns (*Sterna hirundo*) were observed flying within 50 m of the active turbine and regularly visited the Hydro Marsh (James 2002). At the Erie Shores Wind Farm, Great Blue Heron were relatively scarce due to limited habitat; however, half of the 19 individuals observed in 2006 and 2007 flew within 100 m of operating turbines (James 2008). Post-construction studies at the Wolfe Island Wind Plant did not find any significant declines in species diversity or abundance in the large coastal wetlands adjacent to operational wind turbines; no declines were observed in the common marsh species such as Swamp Sparrow, Marsh Wren and Common Yellowthroat. More sensitive species, such as Least Bittern, were also recorded breeding on Wolfe Island in proximity to operational wind turbines.

At Amherst Island, wind turbines have been sited away from marsh breeding bird habitat; the closest turbine to MBB1 is 119 m away from blade sweep. The closest proposed access road is 78 m away from this habitat. During operation, potential disturbance impacts of Project-related traffic are expected to be minimal and less frequent than day to day use of the road system. Municipal roads are closer to MBB1 than Project access roads. Resident breeding birds nesting along the road edge of this community have likely habituated to the presence of noise and human activity. As such, disturbance impacts from operational wind turbines to breeding birds in MBB1 are expected to be negligible.

#### 5.5.3.7 Woodland Area-Sensitive Breeding Bird Habitat

Potential threats to woodland area-sensitive breeding birds as a result of wind energy projects include fragmentation and disturbance of habitat (Kingsley and Whittam 2007).

At other wind power developments in Ontario, post-construction monitoring studies report no significant negative effects on woodland area-sensitive breeding birds, although in each case turbines were located away from wooded areas. James (2008) found no indication of disturbance or displacement of, woodland birds by operating wind turbines at the Erie Shores Wind Farm. Both number of species and number of individual birds increased from 2006 surveys to 2007. Area-sensitive species, including Yellow-bellied Sapsucker and Hairy Woodpecker were noted on several occasions foraging within 50m of operating turbine towers (James 2008). At the Melancthon I Wind Plant, in central Ontario, post-construction monitoring results revealed no significant difference in woodland bird species densities between points located within 150 m of a turbine and points located further away (Stantec 2007).

Post-construction monitoring of the Wolfe Island Wind Plant included disturbance studies to breeding birds in woodland habitat adjacent to operating wind turbines. The post-construction surveys recorded 51 species, six of which were woodland area sensitive species, which was slightly higher species diversity from pre-construction surveys. During pre-construction 45 species, two of which were area-sensitive, were recorded in the same woodlands using the same survey methods (Stantec 2012c).

During operation, potential disturbance impacts of Project-related traffic are expected to be minimal. There may be occasional impacts during maintenance of access roads or collector lines. Maintenance of the access road and/or collector line adjacent to ABB1 could results in woodland degradation by dust, siltation, erosion or accidental spill. If maintenance activities are required in proximity to ABB1, mitigation measures used during construction (**Table 14B, Appendix B**) should be implemented.

Overall, turbines within the Amherst Island Wind Energy Project have been sited outside of woodland area-sensitive breeding bird habitat with the closest turbine sited 48 m away from blade sweep. As such, disturbance for forest breeding birds is not anticipated to be a significant impact. Post-construction monitoring for disturbance will be conducted in ABB1 for a period of three years, to ensure potential disturbance to forest breeding birds is not higher than expected. The Environmental Effects Monitoring Plan (included in the Amherst Island Wind Project Design and Operations Report) describes a response and contingency plan that will be implemented if performance objectives are not met.

#### 5.5.3.8 Open Country Breeding Bird Habitat and Short-eared Owl Habitat

Disturbance of open country and ground-nesting breeding bird habitat as a result of wind energy projects were identified as potential threats (Kingsley and Whittam 2007). Avoidance by breeding birds of operational turbines would result in indirect loss of habitat and fragmentation.

Studies specific to the wind industry indicate that abundance of breeding birds is not negatively affected at many wind facilities (Kingsley and Whittam 2007). Mountain Plover (*Charadrius montanus*) abundance decreased during construction of a wind power facility, but showed evidence of returning to near pre-construction levels during the operations phase despite a widespread decline in species abundance within the region (Young et al. 2006). Nest locations in this study were noted to be unaffected by distance, with nests as close as 35 m to a turbine base. Most studies to date which document avoidance, disturbance or displacement effects have focused mainly on grassland or open country birds. Studies of bird densities in grassland habitats have documented localized avoidance behavior in some species (Leddy et al. 1999; Johnson et al. 2000; Erickson 2004), from 50 m to 180 m from turbine bases. Mean density of breeding birds in Conservation Reserve Program Grasslands in Minnesota was four times higher at 180 m from the base of a turbine than at 40 m (Leddy et al. 1999). Other studies have shown no avoidance of wind turbines (Shaffer and Johnson 2008; James 2008) while still others show species nesting in higher abundances near turbines (de Lucas et al. 2004).

Post-construction monitoring on Wolfe Island in 2010 and 2011 (Stantec 2011a and 2011c) aimed to compare abundance of grassland breeding birds to pre-construction conditions. The results of the studies found that grassland breeding birds remained very abundant within the project area and within 100m of operational wind turbines. To date, a review of existing research at operating facilities suggests that wind facilities have little impact on the nesting of birds (Strickland et al. 2011). As operational wind turbines are not anticipated to result in significant displacement of open country breeding birds, it is unlikely the turbines will result in fragmentation of the large contiguous open country breeding bird habitat within the Study Area.

In addition to potential disturbance from turbines, Project related traffic may impact grassland breeding birds, although traffic during operation is expected to be minimal. There may be occasional impacts during maintenance of access roads or collector lines that run through the significant open country habitat. If maintenance activities are required in close proximity, mitigation measures used during construction (**Table 14B, Appendix B**) should be implemented. During the first three years of operations, regular human presence at some turbines for mortality monitoring may also disturb ground nesting birds. Noise levels from operational wind turbines might result in disturbance effects to breeding birds. Habib et al. (2007) found that noise from compressor stations (which produce sound at 75 to 90 dB(A) at the source) reduced pairing success of Ovenbirds (a forest songbird) by 15%. Levels of noise that may be experienced by open country breeding birds from operation of the wind turbines is influenced by a number of factors such as distance from receptor, direction of the receptor (i.e. up or down wind) or weather effects (wind speed and direction). For example, noise from wind turbines are more likely to have the least effect on wildlife at high wind speeds, as the sound from the turbines can be masked by the sound of the wind. Reijnen et al. (1996) suggest that noise levels that are below 47 dB(A) will not have significant effects on breeding birds. Barber et. al. (2010) suggest that physiological responses to noise exposure in animals may begin to appear at exposure levels of 55- 60 dB(A). Studies also indicate that birds adjust their songs to compensate for environmental background noises (Burmm 2004; Barber et al. 2010) and that many species of wildlife easily habituate to regular noise (Penna et al. 2005).

Short-eared Owls may be more vulnerable to disturbance effects than other open country breeding birds and may avoid nesting in close proximity to operational wind turbines. As observed during post-construction winter raptor surveys on Wolfe Island, Short-eared Owls may avoid hunting in close proximity to operational wind turbines. However, the Wolfe Island results suggest this relatively limited habitat disturbance did not impact raptor abundance, suggesting Short-eared Owls and other raptors were not significantly impacted in their ability to find and capture prey. In 2010, Keyes (2011) recorded an active breeding pair of Short-eared Owl within the 86-turbine Wolfe Island Wind Plant. Although this nest was unsuccessful due to damage from farm machinery, it demonstrates Short-eared Owls are able to establish and maintain breeding territories within active wind farms in southern Ontario.

Project components, including wind turbines, have been sited in areas where Short-eared Owls have been observed breeding by Keyes (2011) in 2009 and 2010 and by Stantec in 2011. However, Keyes (2011) found low site fidelity between years on Amherst Island, indicating that breeding territories from previous years are not necessarily good indicators of locations of future territories. As result, siting turbines away from nesting territories recorded in previous years was not necessarily considered effective mitigation to avoid impacts to Short-eared Owls. Overall, considering the distribution of proposed wind turbines on Amherst Island and the apparent shifting of Short-eared Owls breeding territories from year to year, it is likely that breeding territories will often overlap with wind turbine locations. Given the relatively small amount of Short-eared Owl breeding habitat that could be potentially disturbed by the Project, it is anticipated the ability of breeding pairs to establish suitable breeding territories on Amherst Island will not be impacted.

Overall, operation of the Project, with access and wind turbine sited in grassland habitat, is not anticipated to result in significant disturbance or fragmentation to open country breeding bird habitat. Breeding Short-eared Owls may show some localized avoidance to nesting or hunting in close proximity to operations wind turbines. However, considering the relatively minimal amount of habitat that may be impacted, the presence of wind turbines is not expected to impact the breeding density or success of Short-eared Owls on Amherst Island.

Post-construction monitoring for disturbance will be conducted in all significant open country breeding habitat (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8 and OCB9) for a period of three years. The monitoring will aim to measure and quantify potential disturbance impacts to open county breeds, including Short-eared Owls, to ensure potential disturbance is not higher than expected. The Environmental Effects Monitoring Plan (included in the Amherst Island Wind Project Design and Operations Report) describes a response and contingency plan that will be implemented if performance objectives cannot be met.

#### 5.5.3.9 Shrub/Early Successional Bird Breeding Habitat

Disturbance of habitat as a result of wind energy Projects were identified a potential threat to breeding birds (Kingsley and Whittam 2007). Turbines within the Amherst Island Wind Energy Project have been sited outside of shrub/early successional bird breeding habitat. As such, disturbance for shrubland breeding birds is not anticipated to be a significant impact. During operation, potential disturbance impacts of Project-related traffic are expected to be minimal and less frequent than day-to-day use of the road system. Municipal roads are closer to both SSB1 and SSB2 than Project access roads. Resident breeding birds nesting along the road edge of this community have likely adapted to the presence of noise and human activity.

Post-construction monitoring for disturbance will be conducted in SBB4 and SBB5, which are within 120m of proposed turbine locations. Monitoring is proposed for a period of three years, to ensure potential disturbance to shrubland breeding birds is not higher than expected. The Environmental Effects Monitoring Plan (included in the Amherst Island Wind Project Design and Operations Report) describes a response and contingency plan that will be implemented if performance objectives cannot be met.

### 5.5.4 Areas of Natural and Scientific Interest (ANSI)

The Amherst Bay Life Science ANSI is formed by the Long Point Coastal Marsh PSW. The environmental effects and mitigation measures are the same for these features. See **Section 5.5.2**.

## 5.6 MONITORING PLAN

O. REA Reg. 359/09 requires that applicants prepare an Environmental Effects Monitoring Plan (EEMP) as part of the Design and Operations Report to demonstrate how any negative environmental effects (direct and indirect) of the Project will be mitigated and to set out a program for ongoing monitoring of the effectiveness of mitigation measures. The EEMP includes a description of:

- Performance objectives in respect of each negative environmental effect
- All mitigation measures planned to achieve performance objectives
- How the Project will be monitored to ensure that mitigation strategies are meeting performance objectives, and
- A contingency plan to be implemented should monitoring reveal that mitigation measures have failed

The EEMP covers potential impacts to natural features that were identified through the Environmental Impact Study of this report. Specifically, the EEMP includes monitoring for impacts to natural features during construction, and post-construction monitoring for disturbance to significant wildlife habitat (raptor wintering areas, landbird migratory stopover areas, woodland area sensitive breeding bird habitat, open country breeding bird and Short-eared Owl breeding habitat and shrubland/early successional breeding bird habitat). **Table 17B, Appendix B** summarizes the proposed monitoring of impacts to natural features, including the methods to be used, locations of monitoring, frequency of sample collection, how the results of the monitoring plan will be reported and contingency measures that will be undertaken.

In addition to impact to natural features and significant wildlife habitat, the EEMP also addresses potential direct impacts on wildlife (i.e, mortality). In accordance with O. Reg. 359/09, the direct impacts are addressed through the EEMP, including mitigation measures, monitoring requirements and contingency plans. However, a discussion of the direct impacts to wildlife using significant wildlife habitat in the Study Area is provided below for convenience.

### 5.6.1 Overview of Direct Impacts

Various studies have been conducted throughout North America to document bird collisions at wind facilities, to determine why collisions may be occurring, and to understand the extent to which they occur. Results of these studies on different groups of birds utilizing significant wildlife habitat on Amherst Island are provided below.

#### Raptors and Owls

Due to the concentration of raptors on Amherst Island during the winter, there is some risk of mortality. Some of the species present are known to hover while hunting, or fly erratically at dusk, potentially making them susceptible to collisions with the wind turbines. Because raptors have relatively low reproductive rates, population recovery from mortality effects can be slow (Kingsley and Whittam 2007). Post-construction mortality studies at the Wolfe Island Wind Plant have been extended through the winter, to monitor potential fatalities to wintering raptors. Results from the 3 years of post-construction monitoring have found relatively few raptor fatalities during the winter months, despite the high concentration of raptors in the project area. Overall, based on these results, direct mortality is not likely to have a significant impact on the wintering raptor population on Amherst Island.

According to the Wind Energy Bird and Bat Monitoring Database (Environment Canada et al. 2012), no Short-eared Owl or other owl fatalities has been recorded at Ontario windfarms to date. The monitoring database shows that owl mortality across all wind farms in Canada has been very low. This is likely due to their low flying nature and potentially the keen hearing of owls that alert them to the presence of wind turbines. It can be expected the risk of mortality from turbine collision to wintering and breeding owls on Amherst Island would be low.

### Migratory Landbirds

Based on a review of available literature, it appears that most collisions are of nocturnal migratory songbirds (Kingsley and Whittam 2007), at least partly because they are the most abundant species at wind energy facilities (National Academy of Sciences 2007). In addition, most fatalities at operational facilities in Canada have been found from May through October, with the fall migration period (August to October) experiencing 51% of all fatalities (Environment Canada et al. 2012).

Landbirds typically migrate in broad fronts (Drewitt and Langston 2008; Diehl et al. 2003; Ewert et al. 2006). Studies suggest that most passerines migrate at altitudes above the height of wind turbines (Zimmerman 1998); however, when ascending or descending as they cross the lake, or when traveling in low cloud or fog conditions, birds may be at increased risk of collision with man-made structures.

Recent research examining the relationship between risk factors and recorded bird mortality did not find a relationship between the abundance of migratory birds and the number of bird collisions per turbine, indicating that bird use does not necessarily equate to high mortality rates (Ferrer et al. 2011). Rather, Ferrer et al. (2011) found that the probability of collisions depends on species behaviours and topographical factors. Individuals whose behaviour does not place it within the rotor swept zone are considered to be at lower risk of collisions with turbines (USFWS 2012). Additionally, under many conditions, some birds have demonstrated the ability to detect and alter flight paths to avoid collision (EchoTrack Inc. 2005; Plissner et al. 2008; USFWS 2012).

“Nearshore” turbines (defined as those within 250 m of the lakeshore) were shown to be responsible for a disproportionate amount of bird and bat mortality at the Erie Shores Wind Project, which is also located at a shoreline location in a raptor migration corridor (but in an agricultural landscape found along Lake Erie) (James 2008). James (2008) estimated that bat mortality could be reduced by 50% and bird mortality by 80% at the Erie Shores Wind Project if turbines were not placed in the “nearshore” area. Research has also shown that migrants select forested areas in close proximity to water and may be particularly concentrated in riparian woodlands located within 400 m of the lakeshore (Bonter et al. 2008; Ewert et al, 2006). No nearshore turbines – defined as those within 250 m of the lakeshore – have been proposed on Amherst Island.

Monitoring results to date from operational facilities indicate that wind turbines are not a major concern with respect to the sustainability of migratory bird populations in Ontario (Friesen 2011; MNR 2011c) and are a small contributor to overall bird mortality when compared to other anthropogenic structures (e.g. collisions with building and communications towers or mortality from agricultural practices) (Arnett et al. 2007; Kingsley and Whittam 2007; National Academy of Sciences 2007; Kerlinger et al. 2011).

**Breeding Birds**

Collision risk is partly a function of the rate of exposure of birds to the turbine blade sweep and types of behaviour that occur within this range. In general, resident breeding birds tend to have lower collision rates than non-residents, at least partly because they become familiar with the turbines and avoid them (Kingsley and Whittam 2007). Although some behaviors of resident birds, such as aerial displays (e.g. Killdeer or Upland Sandpiper) or actively hunt within the blade sweep area (e.g. Tree Swallow) may put them at higher risk.

Mortality rates are available for several operating wind projects, including Wolfe Island Wind Plant, located approximately 10 km east of Amherst Island. Amherst Island is very similar to Wolfe Island with regard to habitat and geography. Like Wolfe Island, Amherst Island supports the high densities of grassland breeding birds and late summer staging swallows and therefore may experience similar rates of avian mortality.

The taller tower height on Amherst Island may result in reduced mortality to grassland birds. The bottom of the blade swept of the proposed Amherst Island turbines will be at 45 m high, 10 m higher than the turbines on Wolfe Island. As such, fewer aerial displaying breeding birds are likely to attain the height of the blade sweep and therefore at risk of collision. However, the long blade length, and thus the large blade sweep area, may result in a higher number of birds at risk of collision.

Generally, forest breeding birds are at lower risk than some grassland and shrubland species, as forest breeding birds do not conduct high-risk behaviours such as aerial displays. During the first three years of the Wolfe Island Wind Plant post-construction monitoring, only one forest breeding bird fatality, a Wood Thrush, has been recorded during the breeding bird season (Stantec 2010a, 2010b, 2011a, 2011b and 2011c).

The marsh breeding bird species found breeding on Amherst Island in proximity to the Project Location include American Bittern, Virginia Rail, Marsh Wren, Common Loon, Great Blue Heron, and Green Heron. These species are not expected to engage in high risk behaviours during breeding season; life cycle activities for these species (mating, foraging, and rearing of young) typically occur at heights that are below the blade sweep zone. While Wilson’s Snipe are not specifically identified as marsh species, they were recorded in the marsh habitats within the Project Area. These species conduct aerial mating displays and may be at higher risk to collisions with turbines.

The shrub/successional breeding bird species found on Amherst Island in proximity to the Project Location include Brown Thrasher, Field Sparrow, Eastern Towhee, Willow Flycatcher and Black-billed Cuckoo. These species are not expected to engage in high risk behaviours during breeding season and typically occur at heights that are below the blade sweep zone. While Wilson’s Snipe and American Woodcock are not specifically identified as shrub/successional species, they were recorded in the shrub/successional habitats within the Project Area. These species conduct aerial mating displays and may be at higher risk to collisions with turbines.

Overall, the annual fatality rate for all birds on Wolfe Island is likely a reasonable indicator of fatality rate on Amherst Island. This rate has been higher than average for wind power facilities; 13.4 birds/turbine/year during the first year of operation (2009/2010) and 10 birds/turbine/year during the second year of operation (2010-2011). The higher mortality rates on Wolfe Island can be attributed partially to the high density of grassland breeding birds and the large number of late summer staging swallows; similar risk factors occur on Amherst Island. Monitoring results to date from operational facilities indicate that wind turbines are not a major concern with respect to the sustainability of migratory bird populations in Ontario (Friesen 2011; MNR 2011c) and are a small contributor to overall bird mortality when compared to other anthropogenic influences (e.g. farming practices and house cats) (Arnett et al. 2007; Kingsley and Whittam 2007; National Academy of Sciences 2007; Kerlinger et al. 2011). Friesen (2011) concludes the mortality rates at Wolfe Island are likely not significant with respect to local or regional populations of species, in part because the mortality is spread among at least 58 species.

The mortality rates observed to date at operational facilities in Ontario are considered low, with no evidence of large scale fatality events or significant population impacts (Friesen 2011). Monitoring results to date from operational facilities indicate that wind turbines are not a major concern with respect to the sustainability of migratory bird populations in Ontario (Friesen 2011; MNR 2011c) and are a small contributor to overall bird mortality when compared to other anthropogenic influences (Arnett et al. 2007; Kingsley and Whittam 2007; National Academy of Sciences 2007; Kerlinger et al. 2011).

## 5.7 SUMMARY OF IMPACTS AND MITIGATION

The Project will result in the erection of up to 36 wind turbines as well as the installation of supporting infrastructure, such as access roads, electrical cabling, and a substation. Through a comprehensive review of background material in conjunction with site-specific investigations and Evaluation of Significance surveys, several significant, or presumed significant, natural features and wildlife habitats have been identified in or within 120 m of the Project Location.

As part of this Environmental Impact Study, a series of monitoring commitments and mitigation measures have been recommended to be implemented as part of the development of this Project. These recommendations have been developed in association with the specific significant natural features and wildlife habitats that have been identified within the Study Area.

The application of these protective, mitigation, and compensation measures are expected to address any negative environmental effects of construction, operation and decommissioning of the Project on the natural heritage features in the Study Area and their associated ecological functions.

## 6.0 Closure

This NHA and Environmental Impact Study for the Windlectric Inc. Amherst Island Wind Energy Project has been prepared in accordance with O.Reg 359/09, s. 24-28 and 37-38.

The application of these protective, mitigation, and compensation measures are expected to address any negative environmental effects of construction, operation and decommissioning of the Project on the natural heritage features in the Study Area and their associated ecological functions. An environmental effects monitoring plan that includes a post-construction monitoring program will be developed to confirm the accuracy of predicted effects as well as to monitor the effects to other natural elements. Mortality monitoring, as required and described by the MOE, is described in the environmental effects monitoring plan, and will be conducted for three years following construction.

Stantec Consulting Ltd. prepared this NHA and Environmental Impact Study for Windlectric Inc. for the Amherst Island Wind Energy Project. Windlectric Inc. is committed to implementing the appropriate protection and mitigation measures as they apply to the construction and operation of the proposed Project.

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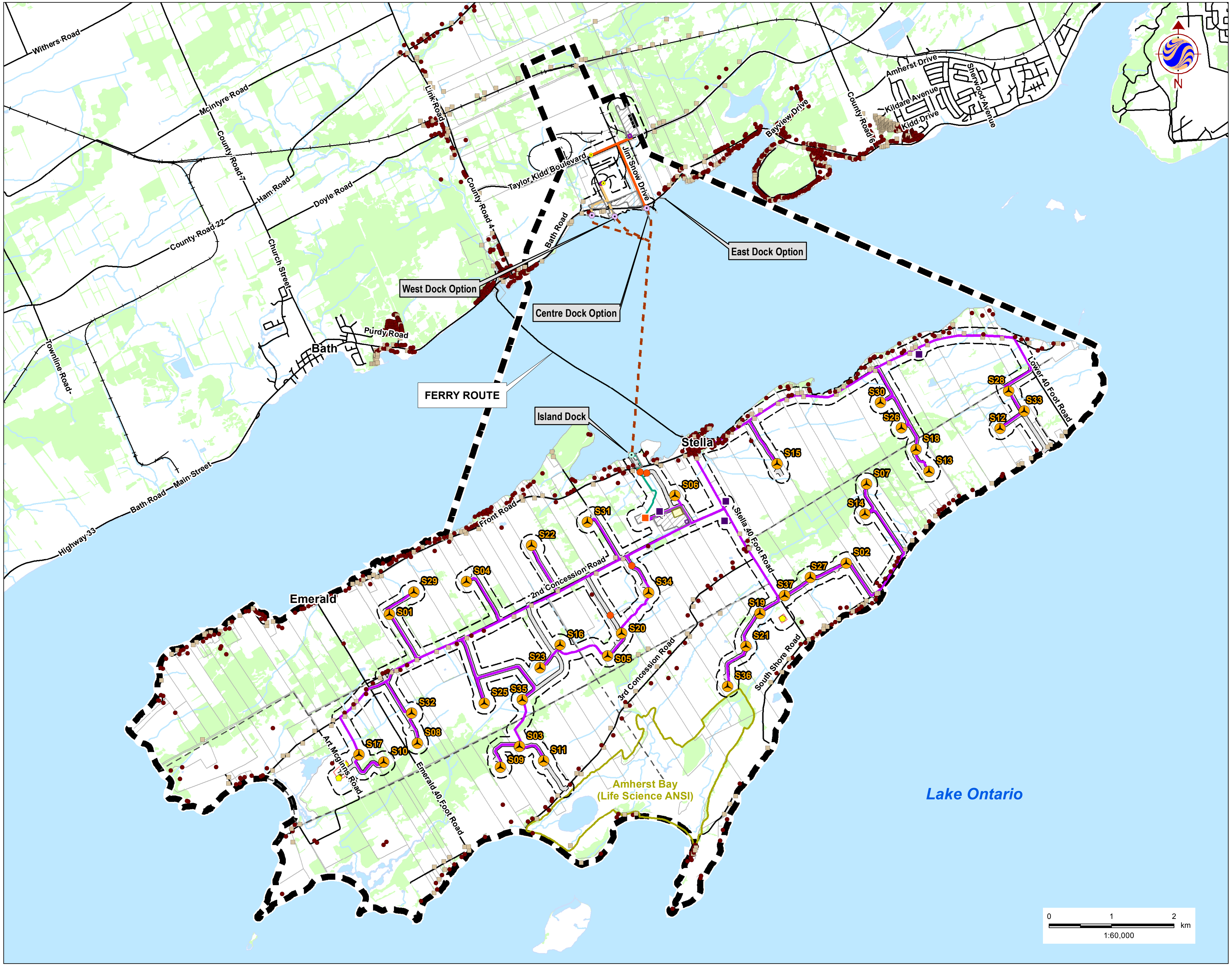
# Appendix A

## Figures



## Legend

Project Study Area
120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Substation (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)
- Storage Shed

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Noise Receptors**

- Existing
- Vacant

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Waterbody
- Wooded Area
- ANSI Boundary
- Property Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1A

Title

## Project Location & Study Area

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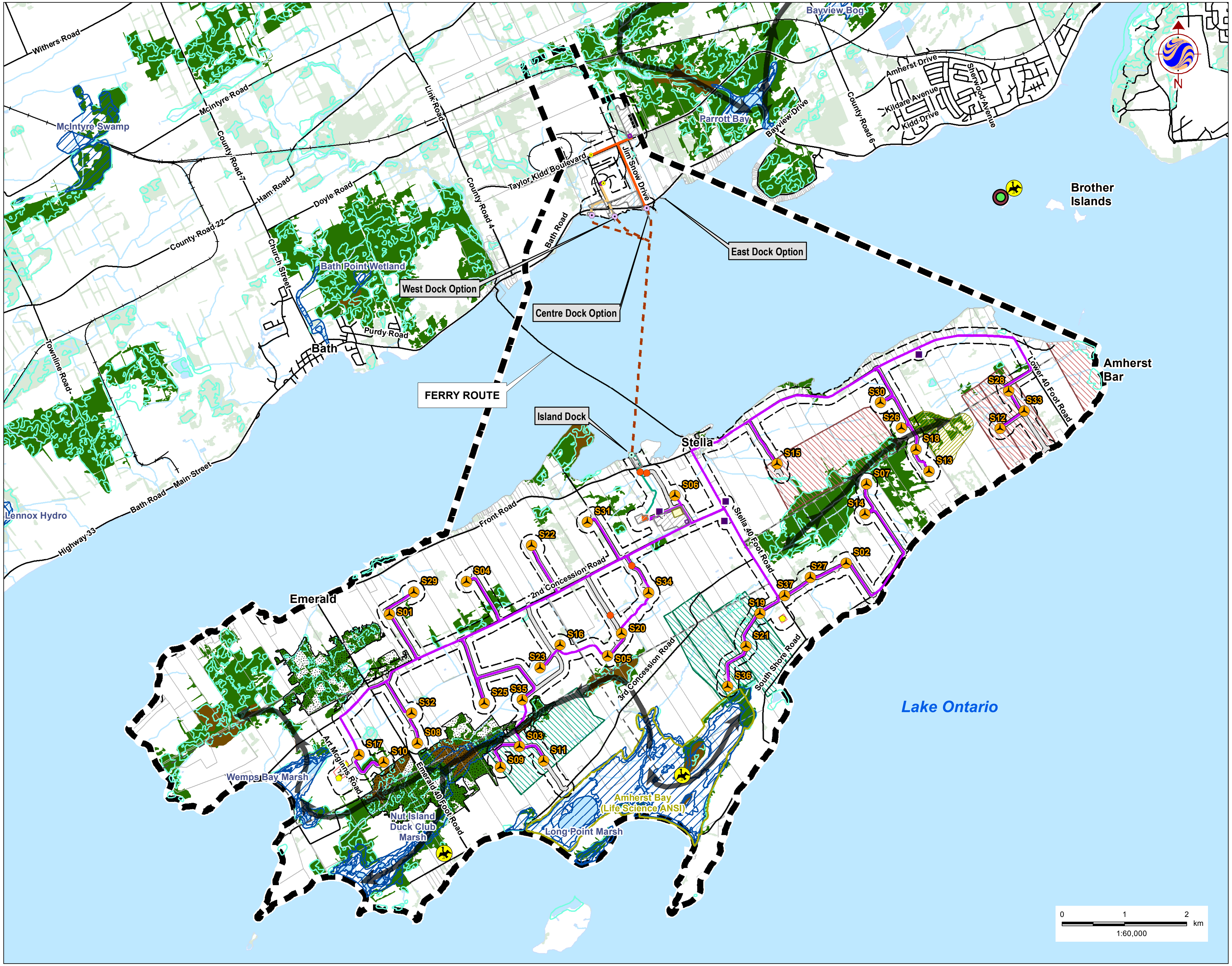
Revised: 2013-01-02 By: pworsell



## Legend

- Project Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Substation (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)
- Storage Shed

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Waterbody
- Provincially Significant Wetland
- Unevaluated Wetland
- Woodlot
- Significant Woodlot
- ANSI Boundary
- Owl Woods
- Old Growth Woodlot
- Property Boundary
- Common Tern Nesting Site/Colony
- Herring Gull Nesting Site/Colony
- Wildlife Habitat Linkage
- Colonial Waterbirds Site
- Bald Eagle Nesting, Foraging, and Perching Habitat

**Short-eared Owl Breeding Territory**

- 2009
- 2010

**Notes**

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Figure No.

1B

Title

# Natural Features - Records Review

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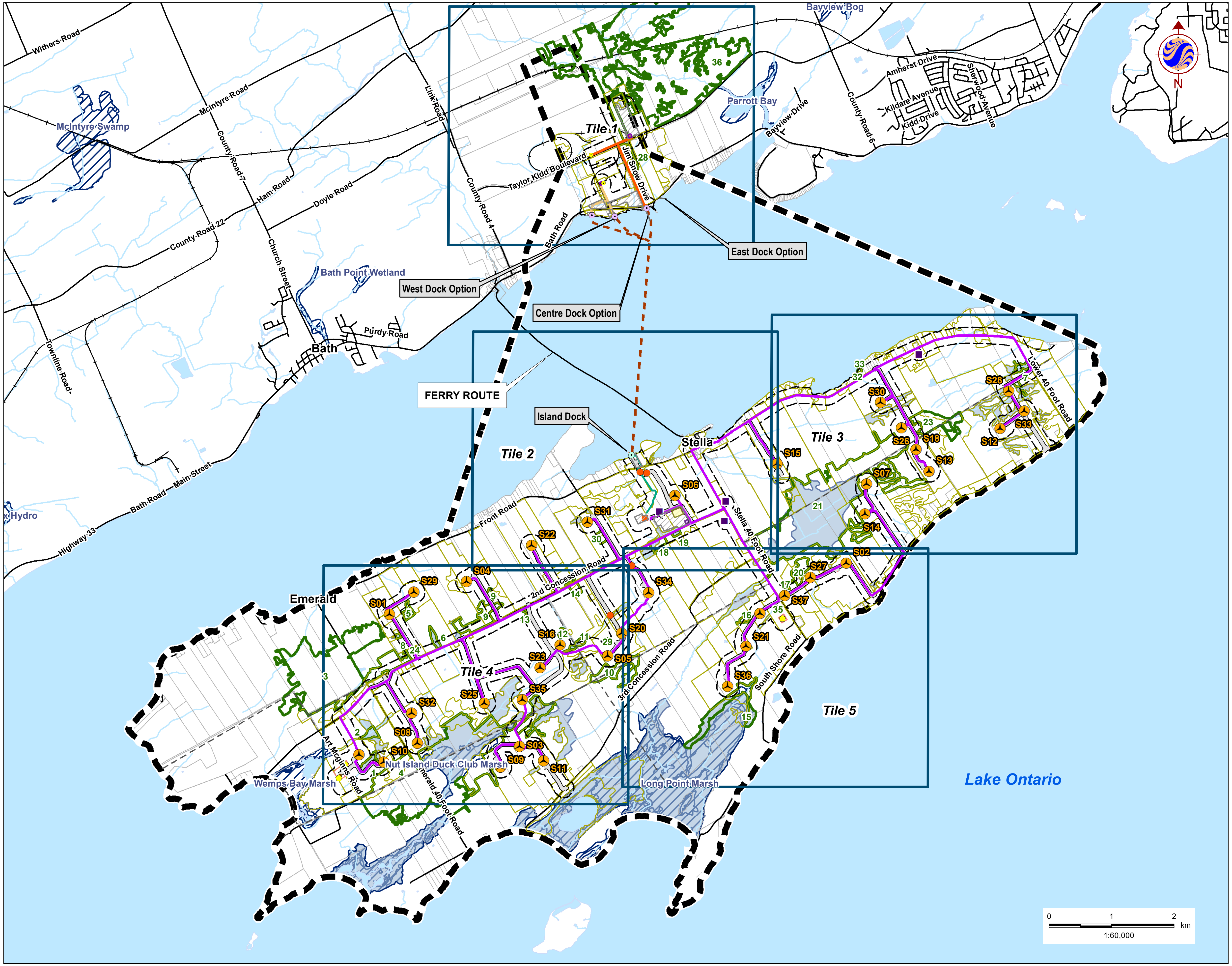
Revised: 2013-01-02 By: pworsell



## Legend

- ▬ Project Study Area
- ┅ 120m Zone of Investigation

**Project Components**

- Turbine
- ⬠ Met Tower (Potential Location)
- ■ Substation (Potential Location)
- ═ Access Road
- ━ Collector Lines
- ┅ Submarine Cable Path
- ■ Operation and Maintenance Building (Potential Location)
- ● Potential Culvert Location
- ● Point of Common Coupling
- ⊙ Mainland Cable Vault (Potential Location)
- ⊙ Island Cable Vault
- ☐ Constructible Area
- ■ Mainland Dock (Potential Location)
- ■ Island Dock
- ☐ Batch Plant (Potential Location)
- ☐ Site Office (Potential Location)
- ☐ Storage Shed

**Transmission Lines**

- ━ Mainland Option1
- ━ Mainland Option 2
- ━ Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- ☐ Switching Station (Potential Location)

**Existing Features**

- ━ Road
- ┅ Unopened Road Allowance
- ┼ Railway
- ━ Watercourse
- ■ Waterbody
- ☐ Property Boundary
- ▨ Provincially Significant Wetland (MNR)
- ☐ Woodland Delineation (Stantec)
- ■ Wetland Delineation (Stantec)
- ☐ ELC Boundary

## Notes

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Figure No.
2.0

Title

**ELC Vegetation Communities & Woodland/Wetland Natural Features - Overview**

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig2_ELC_Overview_20130102.mxd
Revised: 2013-01-02 By: pworsell

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential ocation)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Property Line
- Provincially Significant Wetland (MNR)
- Woodland Delineation (Stantec)
- Wetland Delineation (Stantec)
- ELC Boundary

## Notes

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Figure No.

2.1

Title

# ELC Vegetation Communities & Woodland/Wetland Natural Features

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Revised: 2013-01-02 By: pworsell

## Legend

- ▚ Study Area
- ┅ 120m Zone of Investigation

**Project Components**

- ● Turbine
- ⬠ Met Tower (Potential ocation)
- ═ Access Road
- ─ Collector Lines
- ╍ Submarine Cable Path
- ─ Laydown Area and Crane Path
- ╍ Submarine Cable Path
- ■ Operation and Maintenance Building (Potential Location)
- □ Storage Shed
- □ Turbine Blade Tips
- 🟩 Substation (Potential Location)
- ● Potential Culvert Location
- ⊙ Point of Common Coupling
- ⊙ Mainland Cable Vault (Potential Location)
- ⊙ Island Cable Vault
- □ Constructible Area
- ■ Mainland Dock (Potential Location)
- ■ Island Dock
- □ Batch Plant (Potential Location)
- □ Site Office (Potential Location)

**Transmission Lines**

- ─ Mainland Option1
- ─ Mainland Option 2
- ─ Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- □ Switching Station (Potential Location)

**Existing Features**

- ─ Road
- ─ Unopened Road Allowance
- ┼ Railway
- ─ Watercourse
- ─ Property Line
- ▨ Provincially Significant Wetland (MNR)
- 🟩 Woodland Delineation (Stantec)
- ■ Wetland Delineation (Stantec)
- □ ELC Boundary

## Notes

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Figure No.

2.2

Title

# ELC Vegetation Communities & Woodland/Wetland Natural Features

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Revised: 2013-01-02 By: pworsell

## Legend

- ▀ Study Area
- ▫ 120m Zone of Investigation

**Project Components**

- ● Turbine
- ⬟ Met Tower (Potential ocation)
- ═ Access Road
- — Collector Lines
- - - Submarine Cable Path
- — Laydown Area and Crane Path
- - - Submarine Cable Path
- 🟫 Operation and Maintenance Building (Potential Location)
- ☐ Storage Shed
- ☐ Turbine Blade Tips
- 🟩 Substation (Potential Location)
- ● Potential Culvert Location
- ● Point of Common Coupling
- ● Mainland Cable Vault (Potential Location)
- ● Island Cable Vault
- ☐ Constructible Area
- ▭ Mainland Dock (Potential Location)
- ▭ Island Dock
- ▭ Batch Plant (Potential Location)
- ▭ Site Office (Potential Location)

**Transmission Lines**

- — Mainland Option1
- — Mainland Option 2
- — Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- ☐ Switching Station (Potential Location)

**Existing Features**

- — Road
- — Unopened Road Allowance
- —+— Railway
- — Watercourse
- — Property Line
- ▨ Provincially Significant Wetland (MNR)
- ☐ Woodland Delineation (Stantec)
- ▭ Wetland Delineation (Stantec)
- ☐ ELC Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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Figure No.

2.3

Title

# ELC Vegetation Communities & Woodland/Wetland Natural Features

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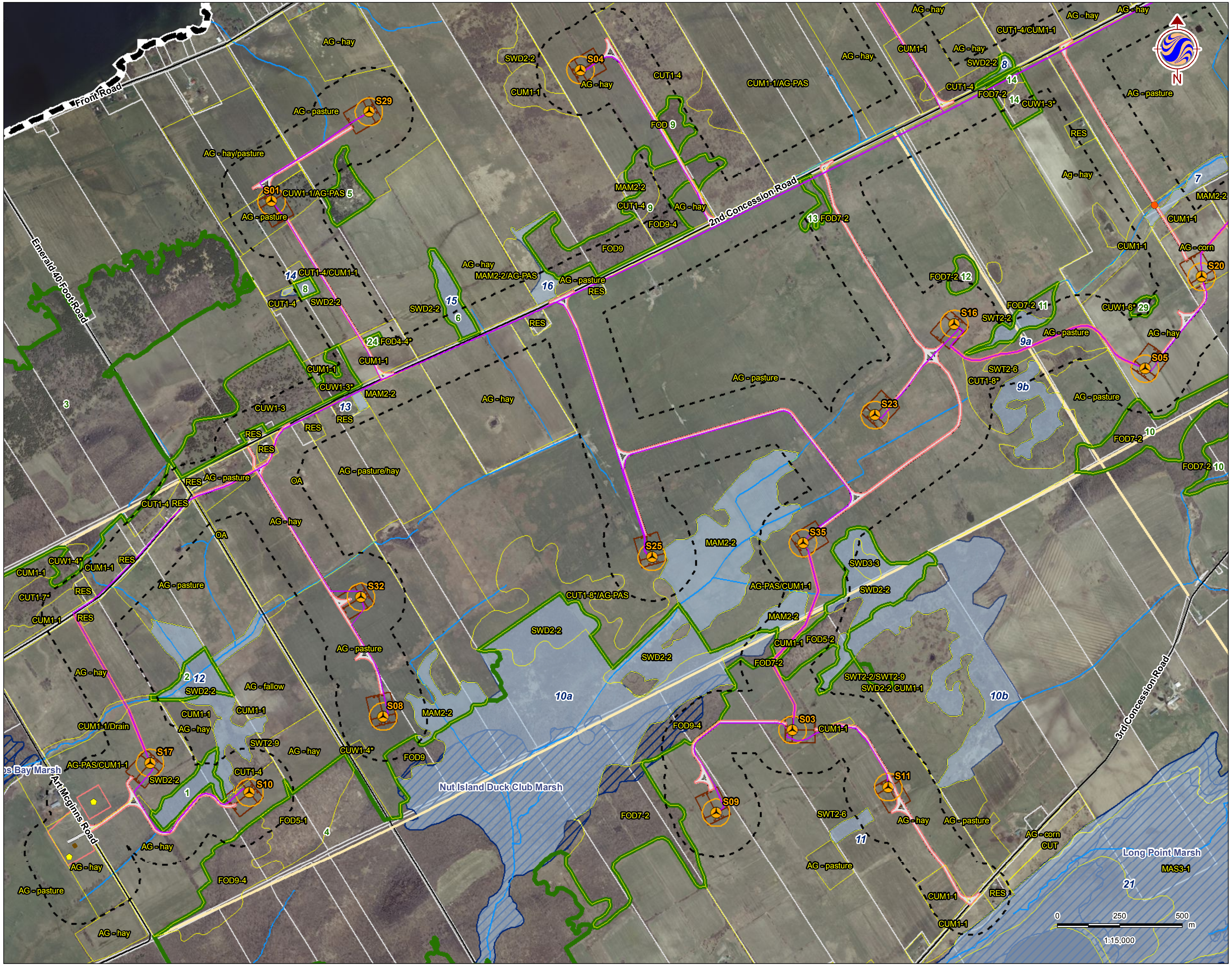

# Legend

- ▭ Study Area
- ┅ 120m Zone of Investigation

**Project Components**

- ⊕ Turbine
- ⬟ Met Tower (Potential ocation)
- ═ Access Road
- — Collector Lines
- ╍ Submarine Cable Path
- — Laydown Area and Crane Path
- ╍ Submarine Cable Path
- ■ Operation and Maintenance Building (Potential Location)
- ▭ Storage Shed
- ▭ Turbine Blade Tips
- ■ Substation (Potential Location)
- ● Potential Culvert Location
- ⊙ Point of Common Coupling
- ⊙ Mainland Cable Vault (Potential Location)
- ⊙ Island Cable Vault
- ▭ Constructible Area
- ■ Mainland Dock (Potential Location)
- ■ Island Dock
- ▭ Batch Plant (Potential Location)
- ▭ Site Office (Potential Location)

**Transmission Lines**

- — Mainland Option1
- — Mainland Option 2
- — Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- ▭ Switching Station (Potential Location)

**Existing Features**

- — Road
- — Unopened Road Allowance
- ┼ Railway
- — Watercourse
- ▭ Property Line
- ▨ Provincially Significant Wetland (MNR)
- ▭ Woodland Delineation (Stantec)
- ■ Wetland Delineation (Stantec)
- ▭ ELC Boundary

# Notes

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Figure No.

2.4

Title

## ELC Vegetation Communities & Woodland/Wetland Natural Features

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Revised: 2013-01-02 By: pworsell

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential ocation)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Property Line
- Provincially Significant Wetland (MNR)
- Woodland Delineation (Stantec)
- Wetland Delineation (Stantec)
- ELC Boundary

## Notes

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Figure No.
2.5

Title

**ELC Vegetation Communities & Woodland/Wetland Natural Features**

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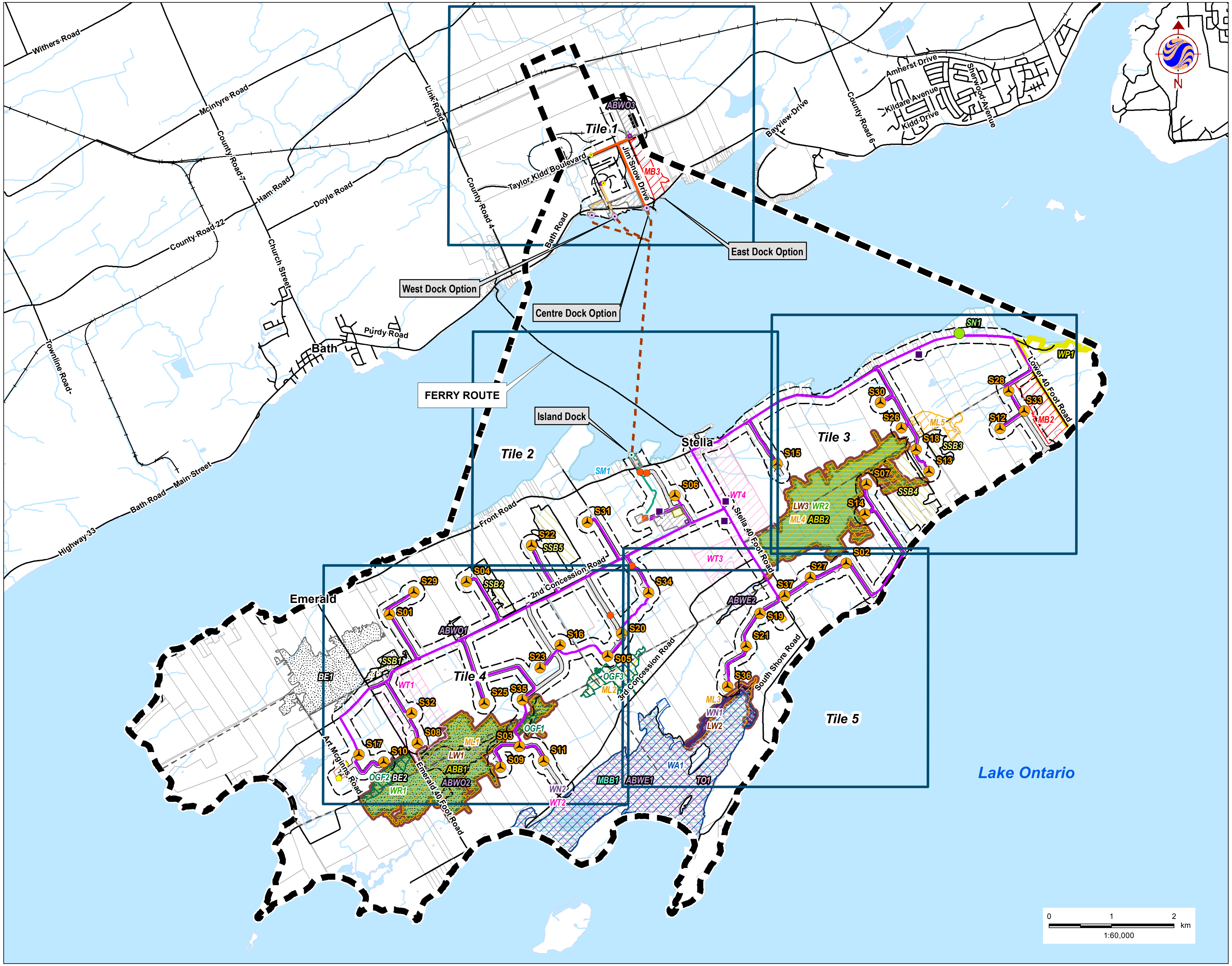
Revised: 2013-01-02 By: pworsell



## Legend

- Project Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Substation (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)
- Storage Shed

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Waterbody
- Property Boundary

**Candidate Significant Wildlife Habitat Features**

- Snake Hibernacula (SN)
- Louisiana Waterthrush Habitat (LW)
- Waterfowl Nesting Area (WN)
- Woodland Raptor Nesting Area (WR)
- Shorebird Migratory Stopover (SM)
- Wilson's Phalarope (WP)
- Bald Eagle Nesting, Foraging, and Perching Habitat (BE)
- Amphibian Breeding (ABWO & ABWE)
- Area-Sensitive Breeding Bird (ABB)
- Colonially-Nesting Birds - Trees/Shrubs (CNB)
- Marsh Breeding Bird (MBB)
- Shrub/Early Successional Bird Breeding (SSB)
- Turtle Overwintering (TO)
- Landbird Migratory Stopover Area (ML)
- Migratory Butterfly Stopover Area (MB)
- Waterfowl Stopover & Staging - Aquatic (WA)
- Waterfowl Stopover & Staging - Terrestrial (WT)
- Old Growth Forest (OGF)

## Notes

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Figure No.

3.0

Title

# Candidate Significant Natural Features & Wildlife Habitat - Overview

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig3_CandidateSignificantWildlifeHabitat_Overview_20130102.mxd
Revised: 2013-01-02 By: pworsell

## Legend

Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Laydown Area and Crane Path
Submarine Cable Path
Operation and Maintenance Building (Potential Location)
Storage Shed
Turbine Blade Tips
Substation (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Property Line

**Candidate Significant Wildlife Habitat Features**

Snake Hibernacula (SN)
Amphibian Breeding (ABWO & ABWE)
Area-Sensitive Breeding Bird (ABB)
Marsh Breeding Bird (MBB)
Shrub/Early Successional Bird Breeding (SSB)
Turtle Overwintering (TO)
Louisiana Waterthrush Habitat (LW)
Waterfowl Nesting Area (WN)
Woodland Raptor Nesting Area (WR)
Shorebird Migratory Stopover (SM)
Bald Eagle Nesting, Foraging, and Perching Habitat (BE)
Landbird Migratory Stopover Area (ML)
Migratory Butterfly Stopover Area (MB)
Waterfowl Stopover & Staging - Aquatic (WA)
Waterfowl Stopover & Staging - Terrestrial (WT)
Old Growth Forest (OGF)
Wilson's Phalarope (WP)

**Notes**

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3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

* Distances shown between project components and habitats are provided in detail in Table 3.9 in the main report.

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AMHERST ISLAND WIND ENERGY PROJECT

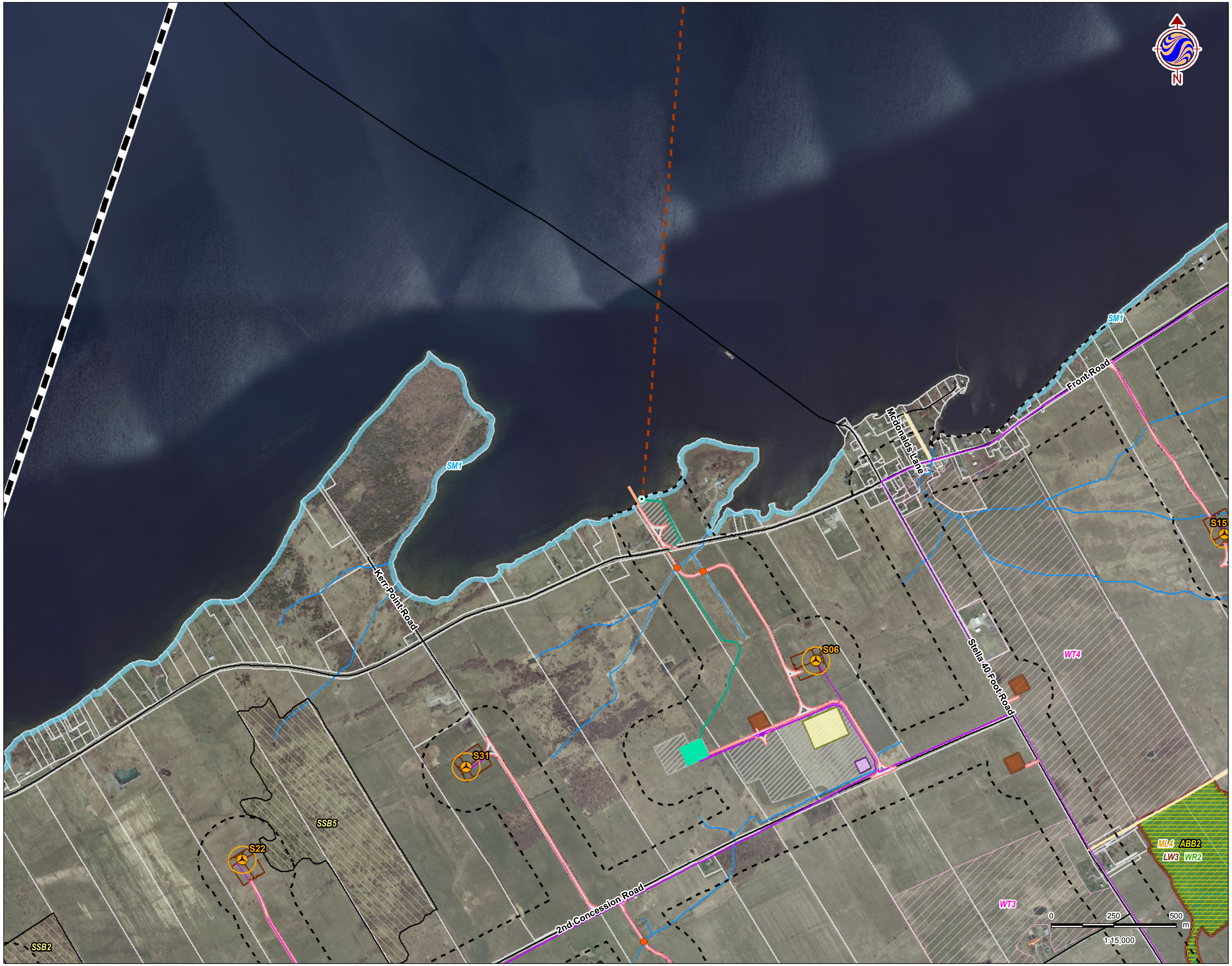
Figure No.

3.1

Title

# Candidate Significant Natural Features & Wildlife Habitat

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig3_CandidateSignificantWildlifeHabitat_20130102.mxd
Revised: 2013-01-02 By: pworsell



## Legend

Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Laydown Area and Crane Path
Submarine Cable Path
Operation and Maintenance Building (Potential Location)
Storage Shed
Turbine Blade Tips
Substation (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Property Line

**Candidate Significant Wildlife Habitat Features**

Snake Hibernacula (SN)
Amphibian Breeding (ABWO & ABWE)
Area-Sensitive Breeding Bird (ABB)
Marsh Breeding Bird (MBB)
Shrub/Early Successional Bird Breeding (SSB)
Turtle Overwintering (TO)
Louisiana Waterthrush Habitat (LW)
Waterfowl Nesting Area (WN)
Woodland Raptor Nesting Area (WR)
Shorebird Migratory Stopover (SM)
Bald Eagle Nesting, Foraging, and Perching Habitat (BE)
Landbird Migratory Stopover Area (ML)
Migratory Butterfly Stopover Area (MB)
Waterfowl Stopover & Staging - Aquatic (WA)
Waterfowl Stopover & Staging - Terrestrial (WT)
Old Growth Forest (OGF)
Wilson's Phalarope (WP)

**Notes**

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
3.2

Title

# Candidate Significant Natural Features & Wildlife Habitat

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig3_CandidateSignificantWildlifeHabitat_20130102.mxd
Revised: 2013-01-02 By: pworsell

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Property Line

**Candidate Significant Wildlife Habitat Features**

- Snake Hibernacula (SN)
- Amphibian Breeding (ABWO & ABWE)
- Area-Sensitive Breeding Bird (ABB)
- Marsh Breeding Bird (MBB)
- Shrub/Early Successional Bird Breeding (SSB)
- Turtle Overwintering (TO)
- Louisiana Waterthrush Habitat (LW)
- Waterfowl Nesting Area (WN)
- Woodland Raptor Nesting Area (WR)
- Shorebird Migratory Stopover (SM)
- Bald Eagle Nesting, Foraging, and Perching Habitat (BE)
- Landbird Migratory Stopover Area (ML)
- Migratory Butterfly Stopover Area (MB)
- Waterfowl Stopover & Staging - Aquatic (WA)
- Waterfowl Stopover & Staging - Terrestrial (WT)
- Old Growth Forest (OGF)
- Wilson's Phalarope (WP)

**Notes**

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3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

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Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
3.3

Title

# Candidate Significant Natural Features & Wildlife Habitat

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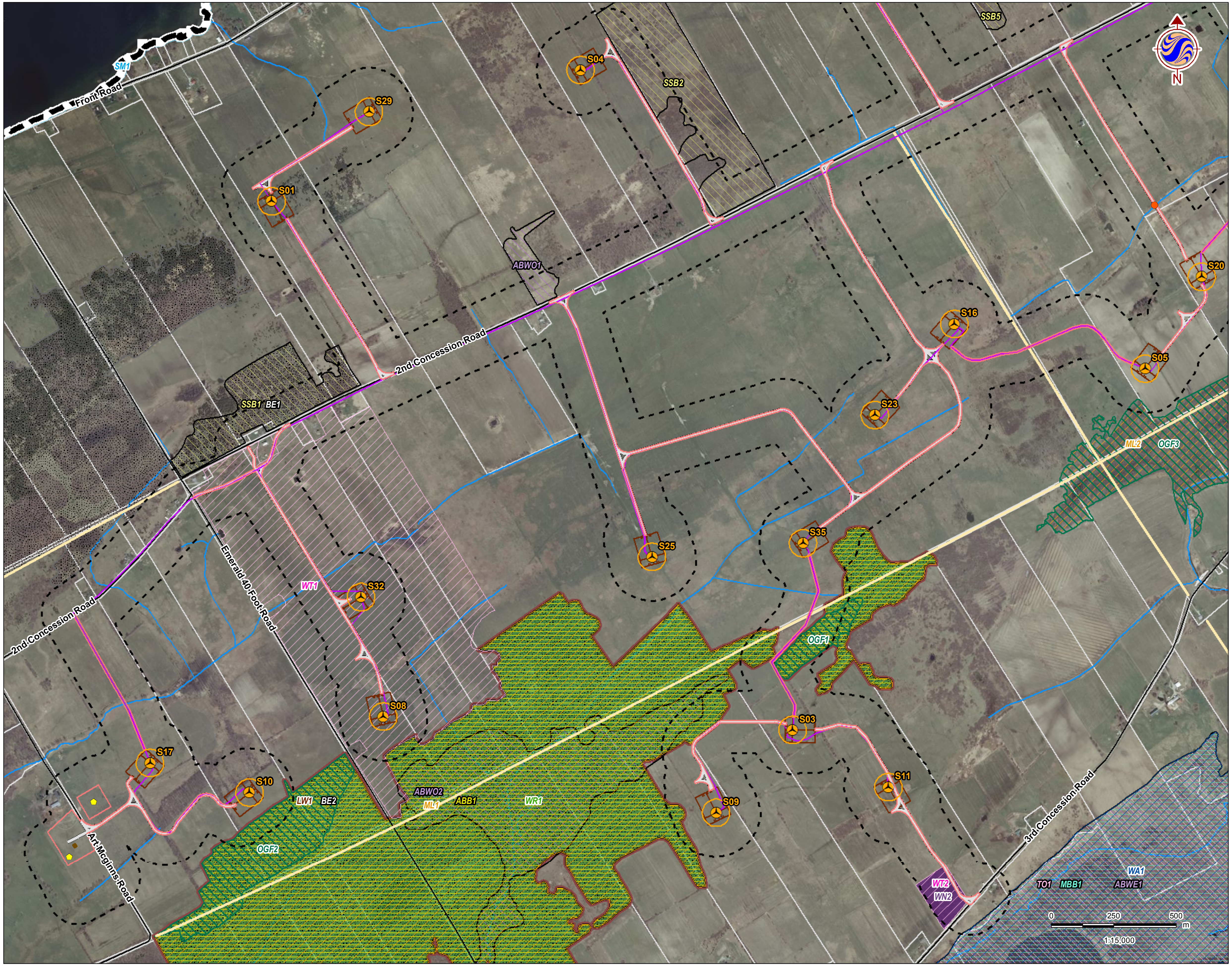
Revised: 2013-01-02 By: pworsell



## Legend

Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Laydown Area and Crane Path
Submarine Cable Path
Operation and Maintenance Building (Potential Location)
Storage Shed
Turbine Blade Tips
Substation (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Property Line

**Candidate Significant Wildlife Habitat Features**

Snake Hibernacula (SN)
Amphibian Breeding (ABWO & ABWE)
Area-Sensitive Breeding Bird (ABB)
Marsh Breeding Bird (MBB)
Shrub/Early Successional Bird Breeding (SSB)
Turtle Overwintering (TO)
Louisiana Waterthrush Habitat (LW)
Waterfowl Nesting Area (WN)
Woodland Raptor Nesting Area (WR)
Shorebird Migratory Stopover (SM)
Bald Eagle Nesting, Foraging, and Perching Habitat (BE)
Landbird Migratory Stopover Area (ML)
Migratory Butterfly Stopover Area (MB)
Waterfowl Stopover & Staging - Aquatic (WA)
Waterfowl Stopover & Staging - Terrestrial (WT)
Old Growth Forest (OGF)
Wilson's Phalarope (WP)

**Notes**

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

* Distances shown between project components and habitats are provided in detail in Table 3.9 in the main report.

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Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
3.4

Title

**Candidate Significant Natural Features & Wildlife Habitat**

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig3_CandidateSignificantWildlifeHabitat_20130102.mxd
Revised: 2013-01-02 By: pworsell

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Property Line

**Candidate Significant Wildlife Habitat Features**

- Snake Hibernacula (SN)
- Amphibian Breeding (ABWO & ABWE)
- Area-Sensitive Breeding Bird (ABB)
- Marsh Breeding Bird (MBB)
- Shrub/Early Successional Bird Breeding (SSB)
- Turtle Overwintering (TO)
- Louisiana Waterthrush Habitat (LW)
- Waterfowl Nesting Area (WN)
- Woodland Raptor Nesting Area (WR)
- Shorebird Migratory Stopover (SM)
- Bald Eagle Nesting, Foraging, and Perching Habitat (BE)
- Landbird Migratory Stopover Area (ML)
- Migratory Butterfly Stopover Area (MB)
- Waterfowl Stopover & Staging - Aquatic (WA)
- Waterfowl Stopover & Staging - Terrestrial (WT)
- Old Growth Forest (OGF)
- Wilson's Phalarope (WP)

**Notes**

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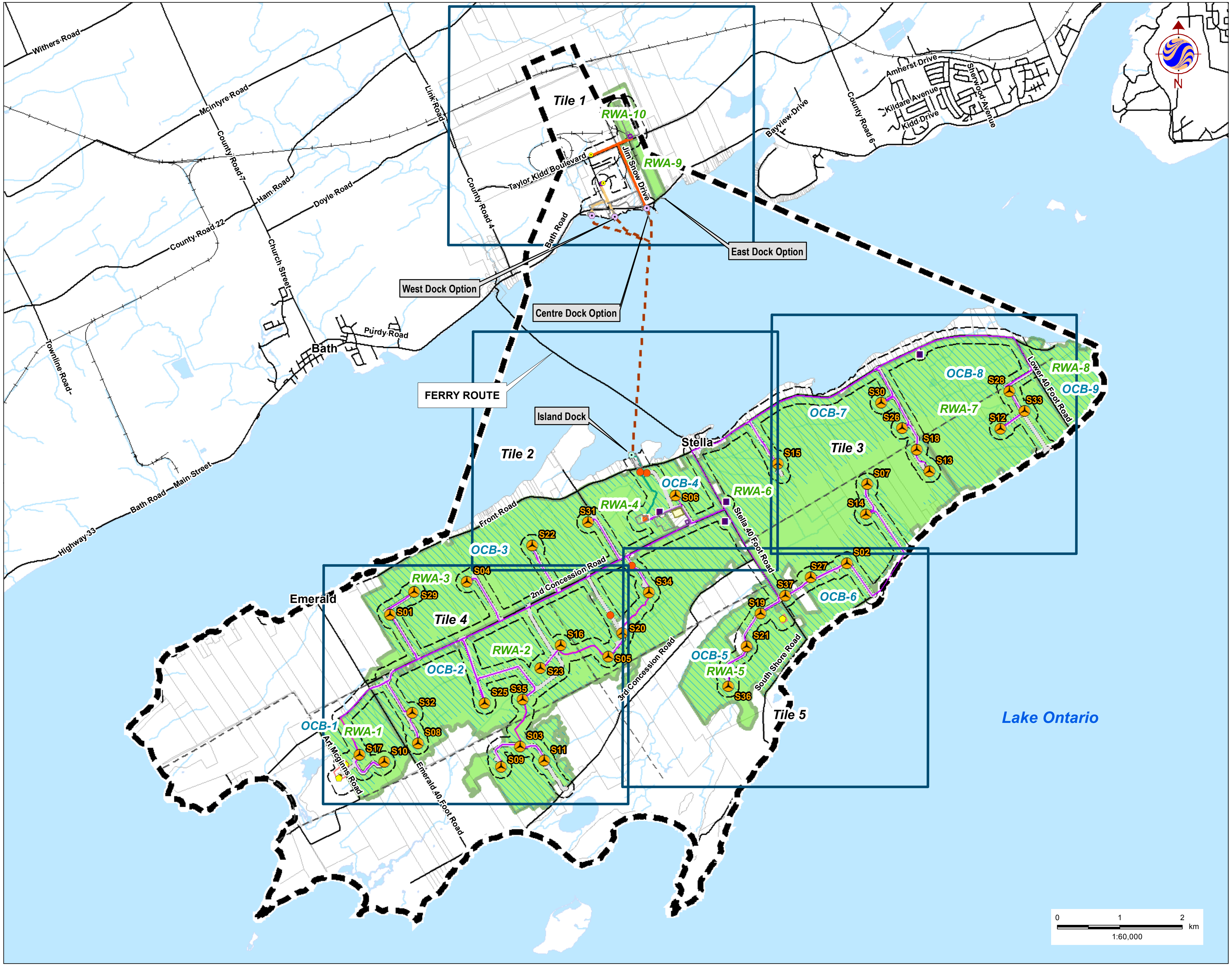
Figure No.

3.5

Title

## Candidate Significant Natural Features & Wildlife Habitat

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig3_CandidateSignificantWildlifeHabitat_20130102.mxd
Revised: 2013-01-02 By: pworsell



## Legend

Project Study Area
120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Substation (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)
- Storage Shed

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Waterbody
- Property Boundary
- Open Country Breeding Bird Area (OCB) (OCB habitats are transparent with hatching)
- Raptor Wintering Area (RWA)

## Notes

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Figure No.
4.0

Title

**Candidate Open Country Breeding Bird & Raptor Wintering Areas - Overview**

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig4_CandidateRWA_OCB_Overview_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Notes

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Figure No.

4.1

Title

## Candidate Open Country Breeding Bird & Raptor Wintering Areas

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig4_CandidateRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- ⬠ Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- ☐ Storage Shed
- ☐ Turbine Blade Tips
- Substation (Potential Location)
- ● Potential Culvert Location
- ⊙ Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- ☐ Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- ☐ Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- ☐ Property Line
- Open Country Breeding Bird Area (OCB) (OCB habitats are transparent with hatching)
- Raptor Wintering Area (RWA)

## Notes

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Figure No.

4.2

Title

## Candidate Open Country Breeding Bird & Raptor Wintering Areas

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig4_CandidateRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Legend

- ▚ Study Area
- ⬚ 120m Zone of Investigation

**Project Components**

- ● Turbine
- ⬠ Met Tower (Potential Location)
- ▭ Access Road
- ― Collector Lines
- ╍ Submarine Cable Path
- ― Laydown Area and Crane Path
- ╍ Submarine Cable Path
- ■ Operation and Maintenance Building (Potential Location)
- ☐ Storage Shed
- ☐ Turbine Blade Tips
- ■ Substation (Potential Location)
- ● Potential Culvert Location
- ⊙ Point of Common Coupling
- ⬡ Mainland Cable Vault (Potential Location)
- ⬡ Island Cable Vault
- ☐ Constructible Area
- ■ Mainland Dock (Potential Location)
- ■ Island Dock
- ☐ Batch Plant (Potential Location)
- ☐ Site Office (Potential Location)

**Transmission Lines**

- ― Mainland Option1
- ― Mainland Option 2
- ― Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- ☐ Switching Station (Potential Location)

**Existing Features**

- ― Road
- ― Unopened Road Allowance
- ┼ Railway
- ― Watercourse
- ☐ Property Line
- ▨ Open Country Breeding Bird Area (OCB) (OCB habitats are transparent with hatching)
- ■ Raptor Wintering Area (RWA)

## Notes

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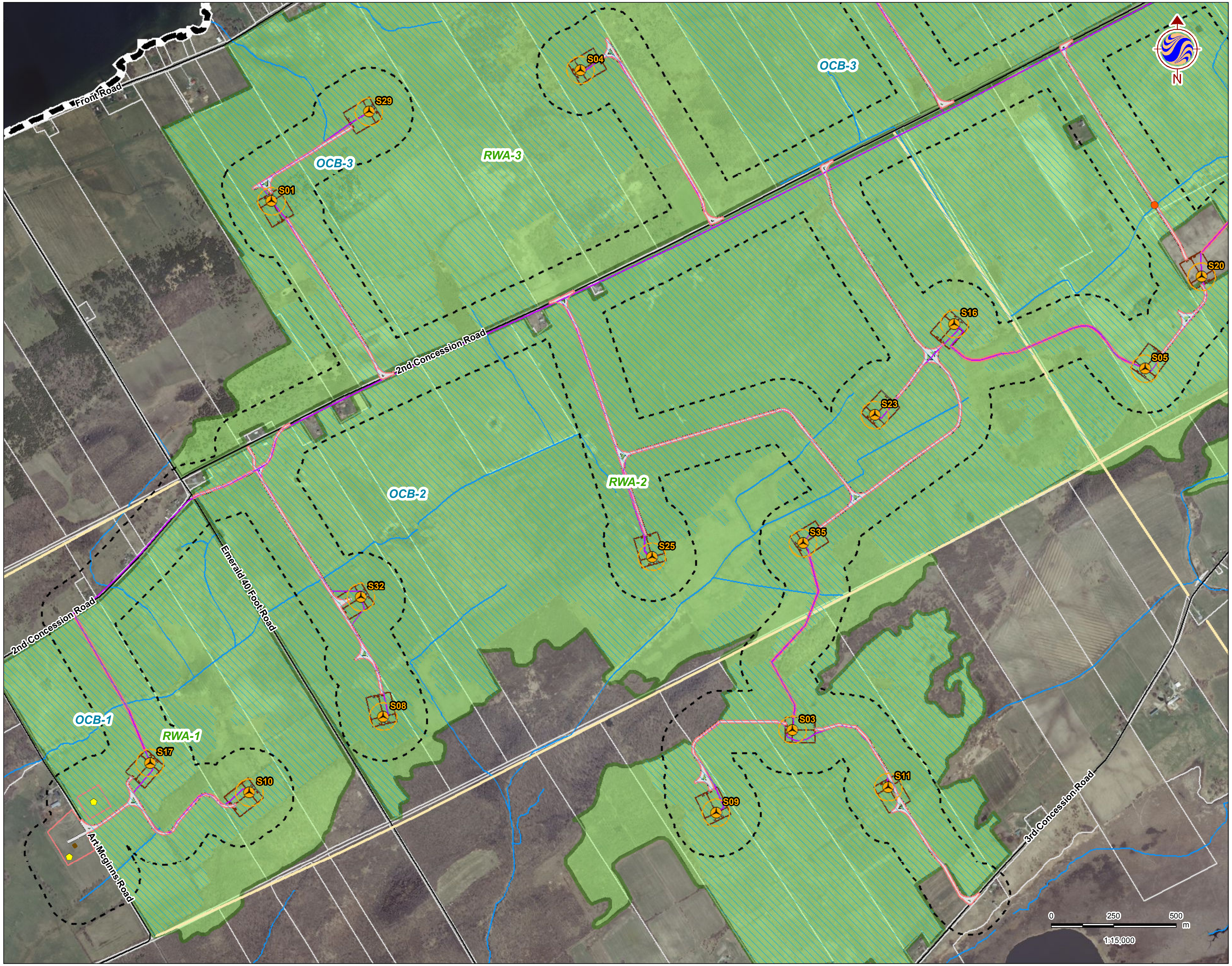
Figure No.
4.3

Title

## Candidate Open Country Breeding Bird & Raptor Wintering Areas

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig4_CandidateRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson



## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Property Line
- Open Country Breeding Bird Area (OCB) (OCB habitats are transparent with hatching)
- Raptor Wintering Area (RWA)

## Notes

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Figure No.
4.4

Title
**Candidate Open Country Breeding Bird & Raptor Wintering Areas**

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig4_CandidateRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Property Line
- Open Country Breeding Bird Area (OCB) (OCB habitats are transparent with hatching)
- Raptor Wintering Area (RWA)

## Notes

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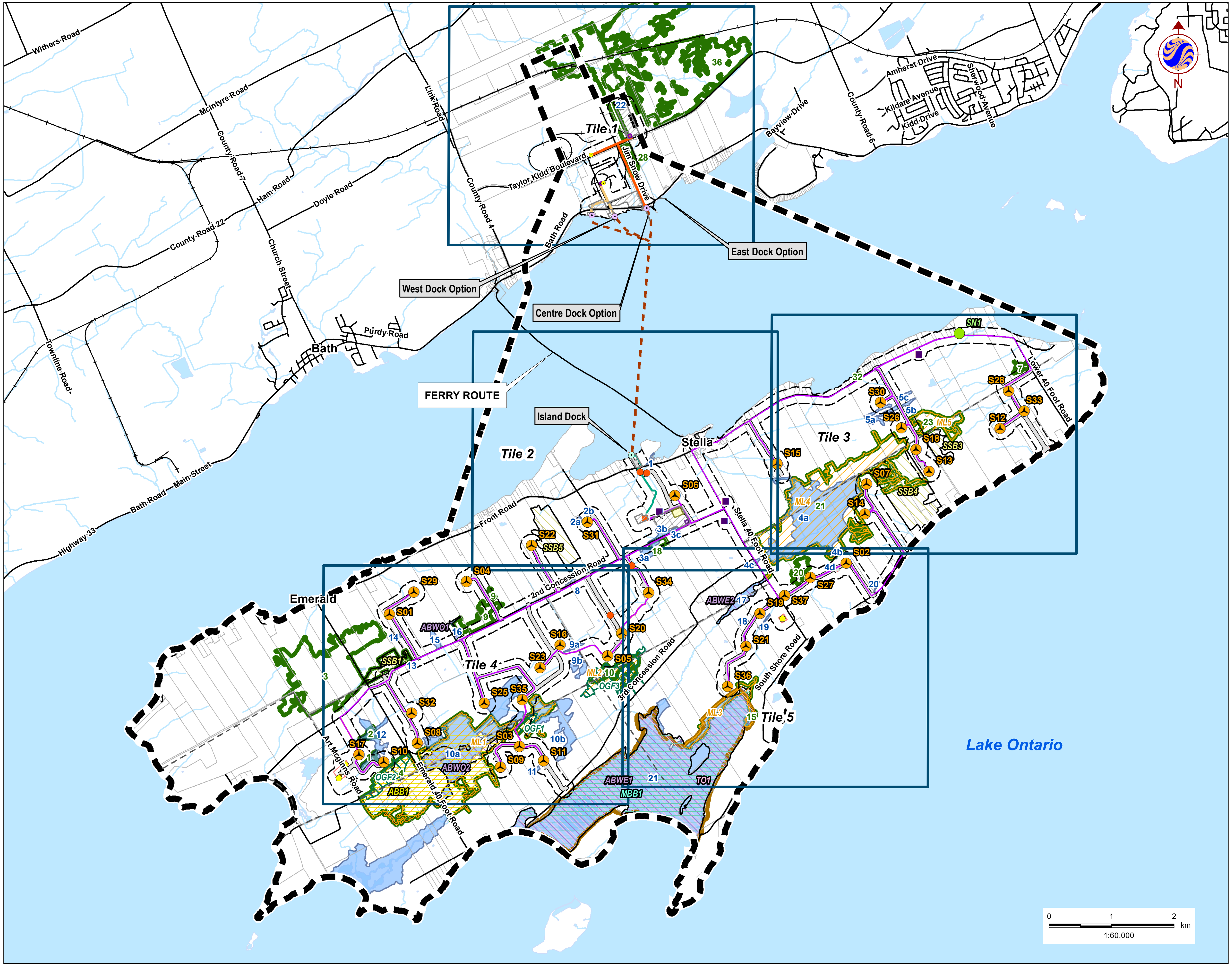
Figure No.
4.5

Title

# Candidate Open Country Breeding Bird & Raptor Wintering Areas

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig4_CandidateRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson



## Legend

- ▬ Project Study Area
- ┅ 120m Zone of Investigation

**Project Components**

- ● Turbine
- ⬠ Met Tower (Potential Location)
- ■ Substation (Potential Location)
- ═ Access Road
- — Collector Lines
- ╌ Submarine Cable Path
- ■ Operation and Maintenance Building (Potential Location)
- ● Potential Culvert Location
- ● Point of Common Coupling
- ● Mainland Cable Vault (Potential Location)
- ● Island Cable Vault
- ☐ Constructible Area
- ■ Mainland Dock (Potential Location)
- ■ Island Dock
- ☐ Batch Plant (Potential Location)
- ☐ Site Office (Potential Location)
- ☐ Storage Shed

**Transmission Lines**

- — Mainland Option1
- — Mainland Option 2
- — Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- ☐ Switching Station (Potential Location)

**Existing Features**

- — Road
- ╌ Unopened Road Allowance
- ┼ Railway
- — Watercourse
- ■ Waterbody
- ☐ Amherst Bay Life Science ANSI
- ☐ Property Boundary

**Significant Wildlife Habitat Features**

- ● Snake Hibernacula (SN)
- ▨ Amphibian Breeding (ABWO & ABWE)
- ▨ Area-Sensitive Breeding Bird (ABB)
- ▨ Marsh Breeding Bird (MBB)
- ▨ Shrub/Early Successional Bird Breeding (SSB)
- ▨ Turtle Overwintering (TO)
- ▨ Landbird Migratory Stopover Area (ML)
- ▨ Waterfowl Stopover & Staging - Terrestrial (WT)
- ▨ Old Growth Forest (OGF)
- ☐ Significant Woodland
- ■ Significant Wetland

## Notes

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Figure No.
5.0

Title

# Significant Natural Features & Wildlife Habitat - Overview

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig5_SignificantWildlifeHabitat_Overview_20130102.mxd
Revised: 2013-01-02 By: pworsell

## Legend

- ▨ Study Area
- ▭ 120m Zone of Investigation

**Project Components**

- ⊕ Turbine
- ⬠ Met Tower (Potential Location)
- ═ Access Road
- ― Collector Lines
- ╌ Submarine Cable Path
- ― Laydown Area and Crane Path
- ╌ Submarine Cable Path
- ■ Operation and Maintenance Building (Potential Location)
- ▭ Storage Shed
- ▭ Turbine Blade Tips
- ■ Substation (Potential Location)
- ● Potential Culvert Location
- ⊙ Point of Common Coupling
- ⊙ Mainland Cable Vault (Potential Location)
- ⊙ Island Cable Vault
- ▭ Constructible Area
- ■ Mainland Dock (Potential Location)
- ■ Island Dock
- ■ Batch Plant (Potential Location)
- ■ Site Office (Potential Location)

**Transmission Lines**

- ― Mainland Option1
- ― Mainland Option 2
- ― Island Transmission Line

**Land Use**

- ▨ Central Staging Area
- ▭ Switching Station (Potential Location)

**Existing Features**

- ― Road
- ― Unopened Road Allowance
- ┼ Railway
- ― Watercourse
- ▭ Amherst Bay Life Science ANSI
- ▭ Property Line

**Significant Wildlife Habitat Features**

- ● Snake Hibernacula (SN)
- ▨ Amphibian Breeding (ABWO & ABWE)
- ▨ Area-Sensitive Breeding Bird (ABB)
- ▨ Marsh Breeding Bird (MBB)
- ▨ Shrub/Early Successional Bird Breeding (SSB)
- ▨ Turtle Overwintering (TO)
- ■ Shorebird Migratory Stopover (SM)
- ▨ Landbird Migratory Stopover Area (ML)
- ▨ Waterfowl Stopover & Staging - Terrestrial (WT)
- ▨ Old Growth Forest (OGF)
- ▭ Significant Woodland
- ■ Significant Wetland

**Notes**

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3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

5.1

Title

## Significant Natural Features & Wildlife Habitat

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig5_SignificantWildlifeHabitat_20130102.mxd
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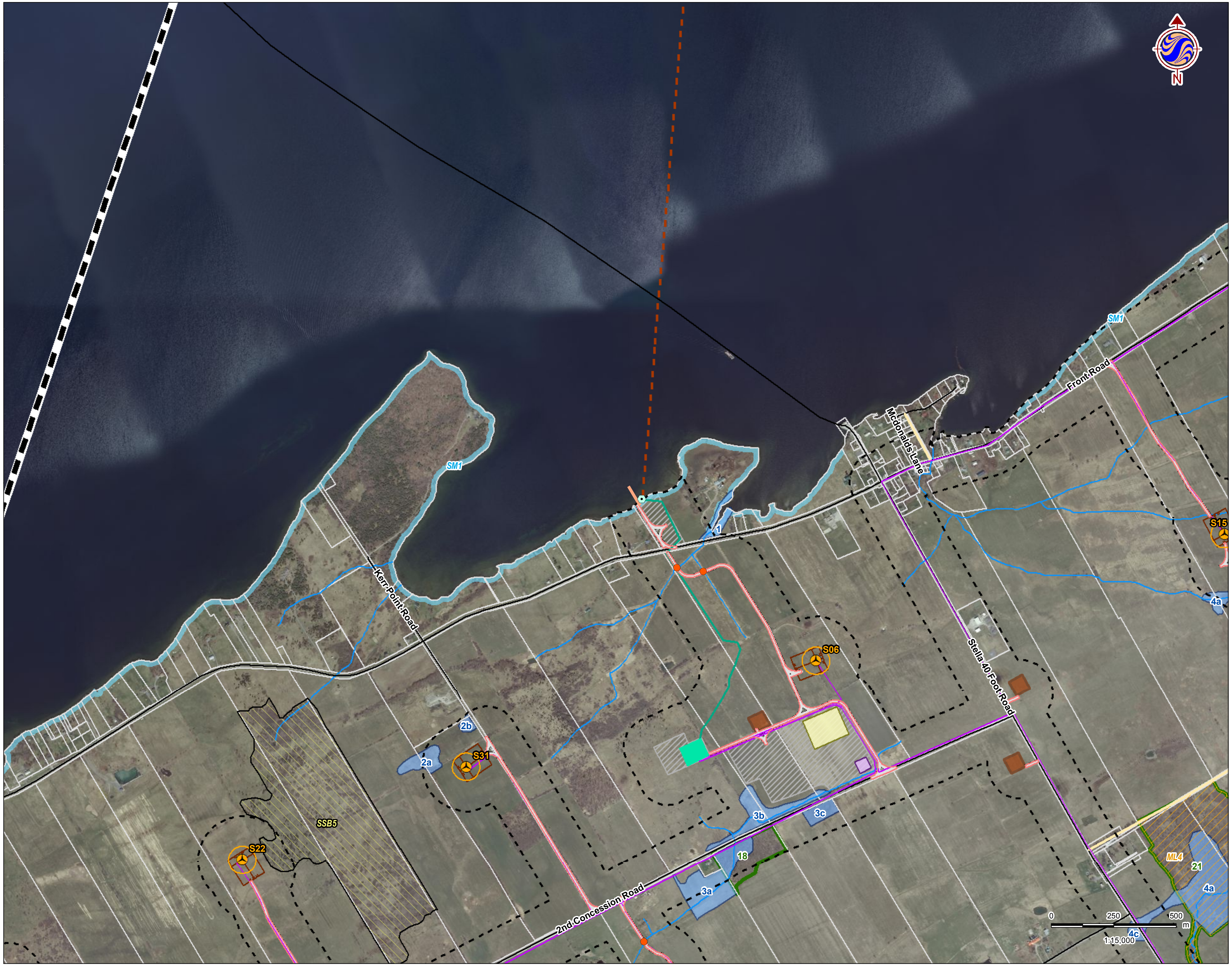

## Legend

Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Laydown Area and Crane Path
Submarine Cable Path
Operation and Maintenance Building (Potential Location)
Storage Shed
Turbine Blade Tips
Substation (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Amherst Bay Life Science ANSI
Property Line

**Significant Wildlife Habitat Features**

Snake Hibernacula (SN)
Amphibian Breeding (ABWO & ABWE)
Area-Sensitive Breeding Bird (ABB)
Marsh Breeding Bird (MBB)
Shrub/Early Successional Bird Breeding (SSB)
Turtle Overwintering (TO)
Shorebird Migratory Stopover (SM)
Landbird Migratory Stopover Area (ML)
Waterfowl Stopover & Staging - Terrestrial (WT)
Old Growth Forest (OGF)
Significant Woodland
Significant Wetland

**Notes**

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

5.2

Title

## Significant Natural Features & Wildlife Habitat

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Revised: 2013-01-02 By: pworsell

## Legend

Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Laydown Area and Crane Path
Submarine Cable Path
Operation and Maintenance Building (Potential Location)
Storage Shed
Turbine Blade Tips
Substation (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Amherst Bay Life Science ANSI
Property Line

**Significant Wildlife Habitat Features**

Snake Hibernacula (SN)
Amphibian Breeding (ABWO & ABWE)
Area-Sensitive Breeding Bird (ABB)
Marsh Breeding Bird (MBB)
Shrub/Early Successional Bird Breeding (SSB)
Turtle Overwintering (TO)
Shorebird Migratory Stopover (SM)
Landbird Migratory Stopover Area (ML)
Waterfowl Stopover & Staging - Terrestrial (WT)
Old Growth Forest (OGF)
Significant Woodland
Significant Wetland

**Notes**

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
5.3

Title

## Significant Natural Features & Wildlife Habitat

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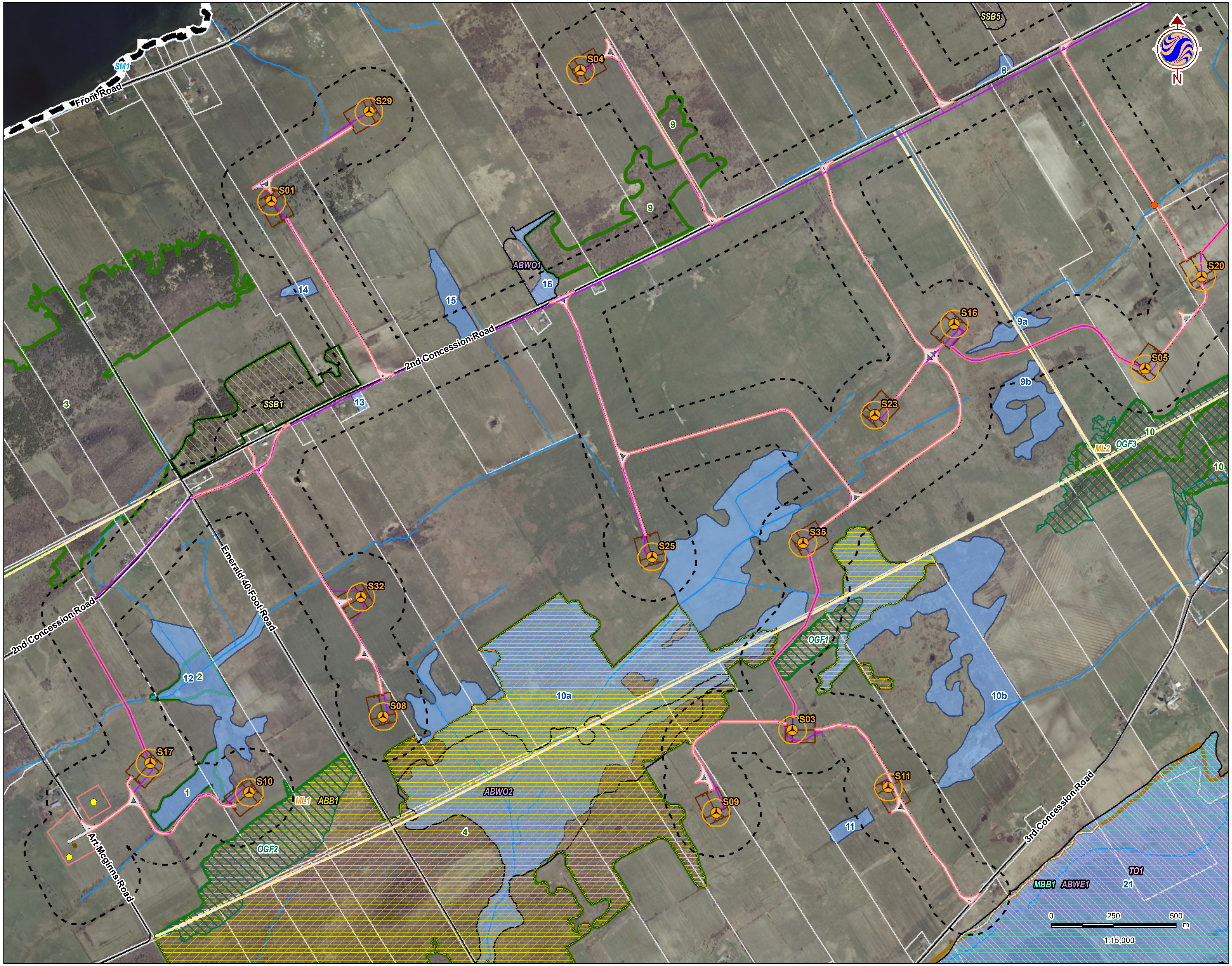
Revised: 2013-01-02 By: pworsell



## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Amherst Bay Life Science ANSI
- Property Line

**Significant Wildlife Habitat Features**

- Snake Hibernacula (SN)
- Amphibian Breeding (ABWO & ABWE)
- Area-Sensitive Breeding Bird (ABB)
- Marsh Breeding Bird (MBB)
- Shrub/Early Successional Bird Breeding (SSB)
- Turtle Overwintering (TO)
- Shorebird Migratory Stopover (SM)
- Landbird Migratory Stopover Area (ML)
- Waterfowl Stopover & Staging - Terrestrial (WT)
- Old Growth Forest (OGF)
- Significant Woodland
- Significant Wetland

**Notes**

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Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

5.4

Title

# Significant Natural Features & Wildlife Habitat

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig5_SignificantWildlifeHabitat_20130102.mxd
Revised: 2013-01-02 By: pworsell

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Submarine Cable Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Amherst Bay Life Science ANSI
- Property Line

**Significant Wildlife Habitat Features**

- Snake Hibernacula (SN)
- Amphibian Breeding (ABWO & ABWE)
- Area-Sensitive Breeding Bird (ABB)
- Marsh Breeding Bird (MBB)
- Shrub/Early Successional Bird Breeding (SSB)
- Turtle Overwintering (TO)
- Shorebird Migratory Stopover (SM)
- Landbird Migratory Stopover Area (ML)
- Waterfowl Stopover & Staging - Terrestrial (WT)
- Old Growth Forest (OGF)
- Significant Woodland
- Significant Wetland

**Notes**

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3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

* Distances shown between project components and habitats are provided in detail in Table 3.9 in the main report.

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AMHERST ISLAND WIND ENERGY PROJECT

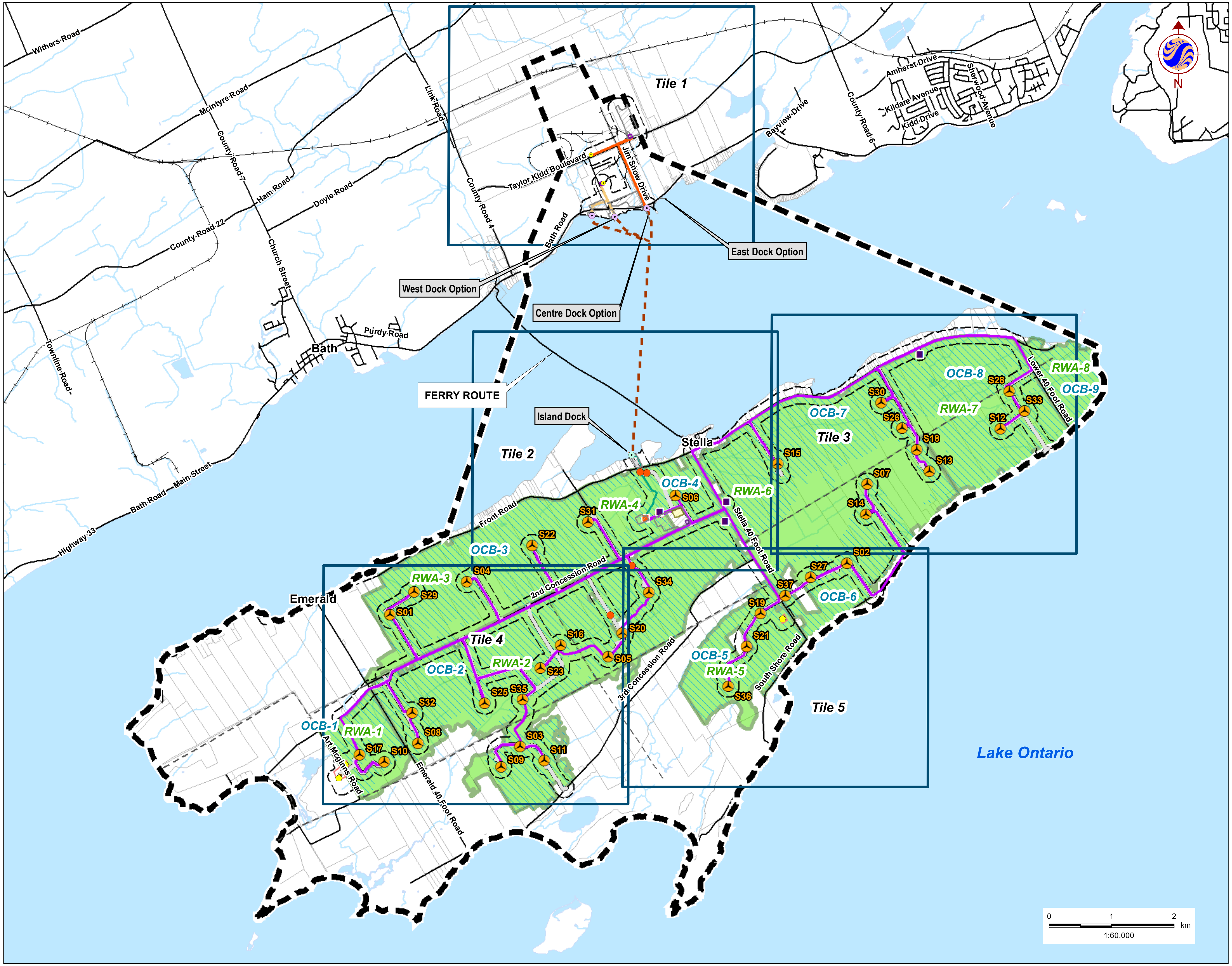
Figure No.

5.5

Title

## Significant Natural Features & Wildlife Habitat

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig5_SignificantWildlifeHabitat_20130102.mxd
Revised: 2013-01-02 By: pworsell



## Legend

Project Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Substation (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Operation and Maintenance Building (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)
Storage Shed

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Waterbody
Property Boundary
Open Country Breeding Bird Area (OCB)
(OCB habitats are transparent with hatching)
Raptor Wintering Area (RWA)

## Notes

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Figure No.
6.0

Title

**Significant Open Country Breeding Bird & Raptor Wintering Areas**

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig6_SignificantRWA_OCB_Overview_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Legend

| | |
|---|---|
| ▬ ▬ | Study Area |
| ╍ | 120m Zone of Investigation |
| **Project Components** | |
| ● | Turbine |
| ⬠ | Met Tower (Potential Location) |
| ▭ | Access Road |
| — | Collector Lines |
| ‒ ‒ | Submarine Cable Path |
| — | Laydown Area and Crane Path |
| ■ | Operation and Maintenance Building (Potential Location) |
| ☐ | Storage Shed |
| ☐ | Turbine Blade Tips |
| 🟩 | Substation (Potential Location) |
| ● | Potential Culvert Location |
| ⊙ | Point of Common Coupling |
| ⬡ | Mainland Cable Vault (Potential Location) |
| ⬡ | Island Cable Vault |
| ☐ | Constructible Area |
| ■ | Mainland Dock (Potential Location) |
| ■ | Island Dock |
| ☐ | Batch Plant (Potential Location) |
| ☐ | Site Office (Potential Location) |
| **Transmission Lines** | |
| — | Mainland Option1 |
| — | Mainland Option 2 |
| — | Island Transmission Line |
| **Land Use** | |
| ▨ | Central Staging Area |
| ☐ | Switching Station (Potential Location) |
| **Existing Features** | |
| — | Road |
| — | Unopened Road Allowance |
| ┼ | Railway |
| — | Watercourse |
| ☐ | Property Line |
| ▨ | Open Country Breeding Bird Area (OCB)<br>(OCB habitats are transparent with hatching) |
| 🟩 | Raptor Wintering Area (RWA) |

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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Figure No.
6.1

Title

**Significant Open Country Breeding Bird & Raptor Wintering Areas**

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig6_SignificantRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Legend

- Study Area
- 120m Zone of Investigation

**Project Components**

- Turbine
- Met Tower (Potential Location)
- Access Road
- Collector Lines
- Submarine Cable Path
- Laydown Area and Crane Path
- Operation and Maintenance Building (Potential Location)
- Storage Shed
- Turbine Blade Tips
- Substation (Potential Location)
- Potential Culvert Location
- Point of Common Coupling
- Mainland Cable Vault (Potential Location)
- Island Cable Vault
- Constructible Area
- Mainland Dock (Potential Location)
- Island Dock
- Batch Plant (Potential Location)
- Site Office (Potential Location)

**Transmission Lines**

- Mainland Option1
- Mainland Option 2
- Island Transmission Line

**Land Use**

- Central Staging Area
- Switching Station (Potential Location)

**Existing Features**

- Road
- Unopened Road Allowance
- Railway
- Watercourse
- Property Line
- Open Country Breeding Bird Area (OCB)
  (OCB habitats are transparent with hatching)
- Raptor Wintering Area (RWA)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

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Figure No.
6.2

Title

# Significant Open Country Breeding Bird & Raptor Wintering Areas

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig6_SignificantRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Notes

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* Distances shown between project components and habitats are provided in detail in Table 3.9 in the main report.

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Client/Project

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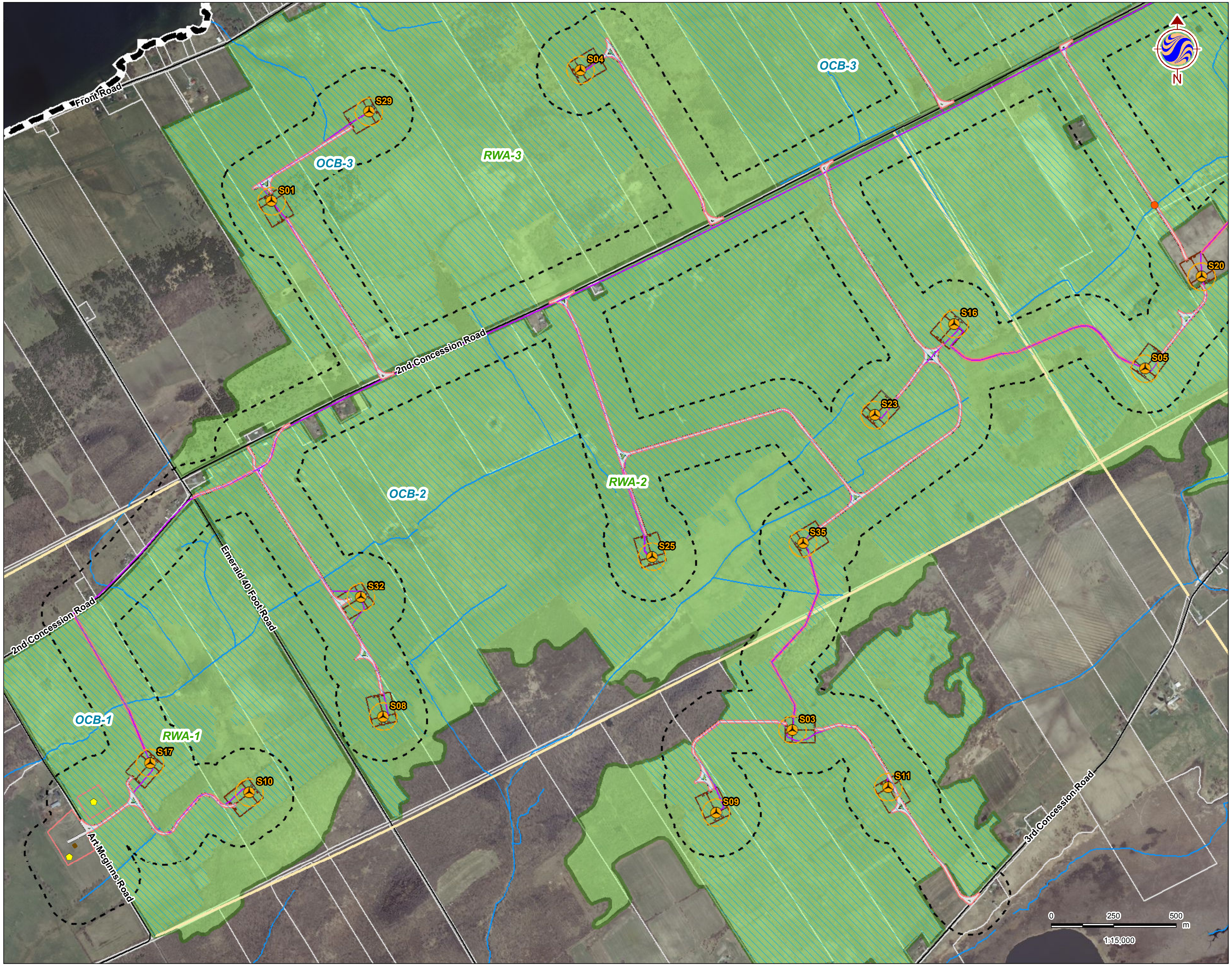
Figure No.
6.3

Title

# Significant Open Country Breeding Bird & Raptor Wintering Areas

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig6_SignificantRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson



## Legend

Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Laydown Area and Crane Path
Operation and Maintenance Building (Potential Location)
Storage Shed
Turbine Blade Tips
Substation (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Property Line
Open Country Breeding Bird Area (OCB)
(OCB habitats are transparent with hatching)
Raptor Wintering Area (RWA)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012. Project layout S19 - revision 3.
3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

* Distances shown between project components and habitats are provided in detail in Table 3.9 in the main report.

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Figure No.

6.4

Title

# Significant Open Country Breeding Bird & Raptor Wintering Areas

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig6_SignificantRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson

## Legend

Study Area
120m Zone of Investigation

**Project Components**

Turbine
Met Tower (Potential Location)
Access Road
Collector Lines
Submarine Cable Path
Laydown Area and Crane Path
Operation and Maintenance Building (Potential Location)
Storage Shed
Turbine Blade Tips
Substation (Potential Location)
Potential Culvert Location
Point of Common Coupling
Mainland Cable Vault (Potential Location)
Island Cable Vault
Constructible Area
Mainland Dock (Potential Location)
Island Dock
Batch Plant (Potential Location)
Site Office (Potential Location)

**Transmission Lines**

Mainland Option1
Mainland Option 2
Island Transmission Line

**Land Use**

Central Staging Area
Switching Station (Potential Location)

**Existing Features**

Road
Unopened Road Allowance
Railway
Watercourse
Property Line
Open Country Breeding Bird Area (OCB)
(OCB habitats are transparent with hatching)
Raptor Wintering Area (RWA)

## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012. Project layout S19 - revision 3.
3. Imagery Source: First Base Solutions ©, 2012. Imagery Date: 2008.

* Distances shown between project components and habitats are provided in detail in Table 3.9 in the main report.

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Client/Project

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Figure No.
6.5

Title
**Significant Open Country Breeding Bird & Raptor Wintering Areas**

W:\active\60960595\drawing\MXD\Terrestrial\NHA\160960595_Fig6_SignificantRWA_OCB_20130111.mxd
Revised: 2013-01-11 By: carobertson

# Appendix B

## Tables

**Table 1B: Agencies Contacted, Records Requested and Records Received**

| Information Source and Contact Information | Records Requested | Records Received |
|---|---|---|
| Source: Ministry of the Environment<br>Name, position of contact:<br>Doris Dumais, Director, Environmental Assessment and Approvals<br>Date(s) contacted:<br>August 17, 2011<br>May 30, 2012 | • Copy of the Draft Project Description Report | • None received |
| Source: Canadian Environmental Assessment Agency<br>Name, position of contact:<br>Mrs. Tracy Allison, Fish Habitat Biologist<br>Date(s) contacted:<br>August 17, 2011 | • Copy of the Draft Project Description Report | • None received |
| Source: Department of Fisheries and Oceans<br>Name, position of contact:<br>Ms. Louise Knox, Regional Director<br>Date(s) contacted:<br>August 17, 2011 | • Waters supporting aquatic Species at Risk<br>• Fish and fish habitat data including stream classifications (thermal regimes)<br>• Known groundwater seepage areas<br>• Other water bodies<br>• Hazard lands<br>• Local wetlands or other environmentally sensitive or significant areas<br>• Any other information regarding aquatic or terrestrial habitats or wildlife in the Study Area | • None received |
| Source: Environment Canada<br>Name, position of contact:<br>Mr. Rob Dobos, Manager, Environmental Assessment Section<br>Date(s) contacted:<br>August 17, 2011 | • Waters supporting aquatic Species at Risk<br>• Fish and fish habitat data including stream classifications (thermal regimes)<br>• Known groundwater seepage areas<br>• Other water bodies<br>• Hazard lands<br>• Local wetlands or other environmentally sensitive or significant areas<br>• Any other information regarding aquatic or terrestrial habitats or wildlife in the Study Area | • None received |

**Table 1B: Agencies Contacted, Records Requested and Records Received**

| Information Source and Contact Information | Records Requested | Records Received |
|---|---|---|
| Source: Natural Resources Canada<br>Name, position of contact:<br>Mr. Mathieu Leblanc, Environmental Assessment Officer – Ecoenergy RP<br>Date(s) contacted:<br>August 17, 2011 | • Waters supporting aquatic Species at Risk<br>• Fish and fish habitat data including stream classifications (thermal regimes)<br>• Known groundwater seepage areas<br>• Other water bodies<br>• Hazard lands<br>• Local wetlands or other environmentally sensitive or significant areas<br>• Any other information regarding aquatic or terrestrial habitats or wildlife in the Study Area | • None received |
| Source: Cataraqui Region Conservation Authority (CRCA)<br>Name, position of contact:<br>Stephen Knechtal, General Manager of CRCA<br>Date(s) contacted:<br>September 16, 2008<br>August 17, 2011<br>October 6, 2011 | • Regulated Area mapping.<br>• Hazard Land mapping.<br>• Site records and/or lists of locally- and regionally-rare plant and animal species.<br>• Any natural area reports and/or mapping for Conservation Areas, ANSIs, Environmentally Sensitive Areas.<br>• ELC mapping<br>• Permitting requirements | • Response (March 28, 2011) and screening maps (Sept 26, 2008)<br>• Owl Woods Management Plan |
| Source: Loyalist Township<br>Name, position of contact:<br>Murray Beckel, Planner/Chief Building Official of Loyalist Township<br>Date(s) contacted:<br>September 16, 2008<br>October 6, 2011 | • Notice of Draft Site Plan request | • None received |
| Source: Ministry of Natural Resources<br>Name, position of contact:<br>Eric Prevost (Renewable Energy Planning Ecologist) and Kate Pitt (Species at Risk Biologist) | NHA Records review for the district including:<br>• Provincial Parks, Conservation Reserves, ANSIs<br>• Wetlands (PSWs)<br>• Woodlands<br>• Valleylands<br>• Significant Wildlife Habitat | NHA Records review for the district including:<br>• Provincial Parks, Conservation Reserves, ANSIs<br>• Wetlands (PSW Evaluations)<br>• Woodlands<br>• Valleylands |

**Table 1B: Agencies Contacted, Records Requested and Records Received**

| Information Source and Contact Information | Records Requested | Records Received |
|---|---|---|
| <u>Date(s) contacted</u>:<br>May 12, 2011<br>June 3, 2011<br>February 2012 | | - Significant Wildlife Habitat |

**Table 2B. Background Wildlife List**

| *COMMON NAME* | *SCIENTIFIC NAME* | ONTARIO STATUS | GLOBAL STATUS | COSSARO | COSEWIC | ECO REGION (OWES) | Local Status PIF Priority Species (BCR 13) | | SOURCE |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| **ODONATA** | | | | | | | | | |
| Familiar Bluet | *Enallagma civile* | S5 | G5 | | | | | | KFN |
| Fragile Forktail | *Ischnura posita* | S4 | G5 | | | | | | KFN |
| Eastern Forktail | *Ischnura verticalis* | S5 | G5 | | | | | | KFN |
| Twelve-Spotted Skimmer | *Libellula pulchella* | S5 | G5 | | | | | | KFN |
| Common Whitetail | *Plathemis lydia* | S5 | G5 | | | | | | KFN |
| | | | | | | | | | |
| **BUTTERFLIES** | | | | | | | | | |
| Monarch | *Danaus plexippus* | S4B, S2N | G5 | SC | SC | | | | MNR |
| | | | | | | | | | |
| **AMPHIBIANS** | | | | | | | | | |
| Spotted Salamander | *Ambystoma maculatum* | S4 | G5 | | | | | | |
| American Toad | *Anaxyrus americanus* | S5 | G5 | | | | | | HA |
| Western Chorus Frog (great lakes - shield) | *Pseudacris triseriata* | S4 | G5 | NAR | THR | | | | HA/KFN |
| Spring Peeper | *Pseudacris crucifer* | S5 | G5 | | | | | | HA |
| Bullfrog | *Lithobates catesbeiana* | S4 | G5 | | | | | | HA/KFN |
| Northern Green Frog | *Lithobates clamitans* | S5 | G5 | | | | | | HA |
| Northern Leopard Frog | *Lithobates pipiens* | S5 | G5 | NAR | NAR | | | | HA/KFN |
| Mink Frog | *Lithobates septentrionalis* | S5 | G5 | | | | | | HA |
| | | | | | | | | | |
| **REPTILES** | | | | | | | | | |
| Snapping Turtle | *Chelydra serpentina* | S3 | G5 | SC | SC | | | | HA/MNR |
| Midland Painted Turtle | *Chrysemys picta marginata* | S5 | G5T5 | | | | | | HA |
| Northern Map Turtle | *Graptemys geographica* | S3 | G5 | SC | SC | | | | NHIC/HA/MNR |
| Eastern Gartersnake | *Thamnophis sirtalis* | S5 | G5 | | | | | | HA/KFN |
| Northern Watersnake | *Nerodia sipedon sipedon* | S5 | G5T5 | NAR | NAR | | | | HA/KFN |
| Brown Snake | *Storeria dekayi* | S5 | G5 | | NAR | | | | HA |
| Eastern Milksnake | *Lampropeltis triangulum* | S3 | G5 | SC | SC | | | | HA/MNR |
| | | | | | | | | | |
| **BIRDS** | | | | | | | | | |
| Canada Goose | *Branta canadensis* | S5 | G5 | | | | | | OBBA/KFN |
| Mute Swan | *Cygnus olor* | SNA | G5 | | | | | | OBBA |
| Wood Duck | *Aix sponsa* | S5 | G5 | | | | | | OBBA |
| Gadwall | *Anas strepera* | S4 | G5 | | | | | | OBBA/KFN |
| American Wigeon | *Anas americana* | S4 | G5 | | | 6 | | | OBBA/KFN |
| American Black Duck | *Anas rubripes* | S4 | G5 | | | | | | OBBA/KFN |
| Mallard | *Anas platyrhynchos* | S5 | G5 | | | | | | OBBA/KFN |
| Blue-winged Teal | *Anas discors* | S4 | G5 | | | | | | OBBA |
| Northern Shoveler | *Anas clypeata* | S4 | G5 | | | 6 | | | OBBA |
| Northern Pintail | *Anas acuta* | S5 | G5 | | | | | | OBBA |
| Green-winged Teal | *Anas crecca* | S4 | G5 | | | | | | OBBA |
| Redhead | *Aythya americana* | S2B, S4N | G5 | | | | | | OBBA |
| Ring-necked Duck | *Aythya collaris* | S5 | G5 | | | 6,7 | | | OBBA |
| Lesser Scaup | *Aythya affinis* | S4 | G5 | | | 7 | | | OBBA |
| Hooded Merganser | *Lophodytes cucullatus* | S5B,S5N | G5 | | | 7 | | | OBBA |
| Common Merganser | *Mergus merganser* | S5B,S5N | G5 | | | 7 | | | OBBA |
| Red-breasted Merganser | *Mergus serrator* | S4B,S5N | G5 | | | 6,7 | | | OBBA |
| Ruddy Duck | *Oxyura jamaicensis* | S4B,S4N | G5 | | | | | | OBBA |
| Ring-necked Pheasant | *Phasianus colchicus* | SNA | G5 | | | | | | OBBA/KFN |
| Ruffed Grouse | *Bonasa umbellus* | S5 | G5 | | | | | | OBBA |
| Common Loon | *Gavia immer* | S5B,S5N | G5 | NAR | NAR | | | | OBBA/KFN |
| Pied-billed Grebe | *Podilymbus podiceps* | S4B,S4N | G5 | | | | | | OBBA/KFN |
| Double-crested Cormorant | *Phalacrocorax auritus* | S5B | G5 | NAR | NAR | | | | OBBA/KFN |
| American Bittern | *Botaurus lentiginosus* | S4B | G4 | | | | | | OBBA/KFN |
| Great Blue Heron | *Ardea herodias* | S5 | G5 | | | | | | OBBA/KFN |
| Green Heron | *Butorides virescens* | S4B | G5 | | | | | | OBBA |
| Black-crowned Night-Heron | *Nycticorax nycticorax* | S3B,S3N | G5 | | | | | | OBBA/KFN |
| Turkey Vulture | *Cathartes aura* | S5B | G5 | | | | | | OBBA/KFN |
| Osprey | *Pandion haliaetus* | S5B | G5 | | | 7 | | | OBBA/KFN |
| Northern Harrier | *Circus cyaneus* | S4B | G5 | NAR | NAR | | X | Grass | OBBA/KFN |
| Sharp-shinned Hawk | *Accipiter striatus* | S5 | G5 | NAR | NAR | | | | OBBA |
| Cooper's Hawk | *Accipiter cooperii* | S4 | G5 | NAR | NAR | | | | OBBA |
| Northern Goshawk | *Accipiter gentilis* | S4 | G5 | NAR | NAR | 7 | | | OBBA |
| Red-tailed Hawk | *Buteo jamaicensis* | S5 | G5 | NAR | NAR | | | | OBBA/KFN |
| American Kestrel | *Falco sparverius* | S5B | G5 | | | | X | Grass | OBBA/KFN |
| Merlin | *Falco columbarius* | S5B | G5 | NAR | NAR | 6 | | | OBBA |
| Virginia Rail | *Rallus limicola* | S5B | G5 | | | | | | OBBA |
| Sora | *Porzana carolina* | S4B | G5 | | | | | | OBBA |
| Common Moorhen | *Gallinula chloropus* | S4B | G5 | | | | | | OBBA |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| American Coot | *Fulica americana* | S4B | G5 | NAR | NAR | | | | OBBA |
| Killdeer | *Charadrius vociferus* | S5B, S5N | G5 | | | | | | OBBA/KFN |
| Spotted Sandpiper | *Actitis macularia* | S5 | G5 | | | | | | OBBA/KFN |
| Upland Sandpiper | *Bartramia longicauda* | S4B | G5 | | | | | | OBBA |
| Wilson's Snipe | *Gallinago delicata* | S5B | G5 | | | | | | OBBA/KFN |
| American Woodcock | *Scolopax minor* | S4B | G5 | | | | | | OBBA |
| Wilson's Phalarope | *Phalaropus tricolor* | S3B | G5 | | | | | | OBBA/KFN |
| Ring-billed Gull | *Larus delawarensis* | S5B,S4N | G5 | | | | | | OBBA/KFN |
| Herring Gull | *Larus argentatus* | S5B,S5N | G5 | | | | | | OBBA/KFN |
| Great Black-backed Gull | *Larus marinus* | S2B | G5 | | | | | | OBBA/KFN |
| Caspian Tern | *Hydroprogne caspia* | S3B | G5 | NAR | NAR | | | | OBBA/KFN |
| Black Tern | *Chlidonias niger* | S3B | G4 | SC | NAR | | | | OBBA/NHIC/MNR |
| Common Tern | *Sterna hirundo* | S4B | G5 | NAR | NAR | | | | OBBA/KFN |
| Rock Pigeon | *Columba livia* | SNA | G5 | | | | | | OBBA |
| Mourning Dove | *Zenaida macroura* | S5 | G5 | | | | | | OBBA/KFN |
| Yellow-billed Cuckoo | *Coccyzus americanus* | S4B | G5 | | | | | | OBBA |
| Black-billed Cuckoo | *Coccyzus erythropthalmus* | S5B | G5 | | | | X | Shrub | OBBA |
| Eastern Screech-Owl | *Megascops asio* | S5 | G5 | NAR | NAR | | | | OBBA/KFN |
| Great Horned Owl | *Bubo virginianus* | S5 | G5 | | | | | | OBBA/KFN |
| Long-eared Owl | *Asio otus* | S4 | G5 | | | | | | OBBA |
| Short-eared Owl | *Asio flammeus* | S2N, S4B | G5 | SC | SC-3 | | X | Grass | OBBA/MNR |
| Common Nighthawk | *Chordeiles minor* | S4B | G5 | SC | THR | | | | OBBA/MNR |
| Ruby-throated Hummingbird | *Archilochus colubris* | S5B | G5 | | | | | | OBBA |
| Belted Kingfisher | *Ceryle alcyon* | S4B | G5 | | | | X | Other | OBBA/KFN |
| Yellow-bellied Sapsucker | *Sphyrapicus varius* | S5B | G5 | | | | | | OBBA |
| Downy Woodpecker | *Picoides pubescens* | S5 | G5 | | | | | | OBBA/KFN |
| Hairy Woodpecker | *Picoides villosus* | S5 | G5 | | | | | | OBBA |
| Northern Flicker | *Colaptes auratus* | S4B | G5 | | | | X | Forest | OBBA/KFN |
| Pileated Woodpecker | *Dryocopus pileatus* | S5 | G5 | | | | | | OBBA |
| Olive-sided Flycatcher | *Contopus borealis* | S4B | G5 | SC | THR | 6 | | | KFN |
| Eastern Wood-Pewee | *Contopus virens* | S4B | G5 | | | | X | Forest | OBBA/KFN |
| Alder Flycatcher | *Empidonax alnorum* | S5B | G5 | | | | | | OBBA |
| Willow Flycatcher | *Empidonax traillii* | S5B | G5 | | | | X | Shrub | OBBA/KFN |
| Least Flycatcher | *Empidonax minimus* | S4B | G5 | | | | | | OBBA |
| Eastern Phoebe | *Sayornis phoebe* | S5B | G5 | | | | | | OBBA |
| Great Crested Flycatcher | *Myiarchus crinitus* | S4B | G5 | | | | | | OBBA/KFN |
| Eastern Kingbird | *Tyrannus tyrannus* | S4B | G5 | | | | X | Grass | OBBA/KFN |
| Warbling Vireo | *Vireo gilvus* | S5B | G5 | | | | | | OBBA/KFN |
| Red-eyed Vireo | *Vireo olivaceus* | S5B | G5 | | | | | | OBBA/KFN |
| Blue Jay | *Cyanocitta cristata* | S5 | G5 | | | | | | OBBA/KFN |
| American Crow | *Corvus brachyrhynchos* | S5B | G5 | | | | | | OBBA/KFN |
| Common Raven | *Corvus corax* | S5 | G5 | | | 6 | | | OBBA |
| Horned Lark | *Eremophila alpestris* | S5B | G5 | | | | | | OBBA |
| Purple Martin | *Progne subis* | S4B | G5 | | | | | | OBBA/KFN |
| Tree Swallow | *Tachycineta bicolor* | S4B | G5 | | | | | | OBBA/KFN |
| Northern Rough-winged Swallow | *Stelgidopteryx serripennis* | S4B | G5 | | | | | | OBBA/KFN |
| Bank Swallow | *Riparia riparia* | S4B | G5 | | | | X | Other | OBBA |
| Cliff Swallow | *Petrochelidon pyrrhonota* | S4B | G5 | | | | | | OBBA |
| Black-capped Chickadee | *Poecile atricapillus* | S5 | G5 | | | | | | OBBA/KFN |
| Red-breasted Nuthatch | *Sitta canadensis* | S5 | G5 | | | | | | OBBA |
| White-breasted Nuthatch | *Sitta carolinensis* | S5 | G5 | | | | | | OBBA/KFN |
| Brown Creeper | *Certhia americana* | S5B | G5 | | | | | | OBBA |
| Carolina Wren | *Thryothorus ludovicianus* | S4 | G5 | | | | | | OBBA |
| House Wren | *Troglodytes aedon* | S5B | G5 | | | | | | OBBA/KFN |
| Winter Wren | *Troglodytes hiemalis* | S5B | G5 | | | | | | OBBA |
| Sedge Wren | *Cistothorus platensis* | S4B | G5 | NAR | NAR | | | | OBBA |
| Marsh Wren | *Cistothorus palustris* | S4B | G5 | | | | | | OBBA/KFN |
| Golden-crowned Kinglet | *Regulus satrapa* | S5B | G5 | | | 7 | | | OBBA |
| Blue-gray Gnatcatcher | *Polioptila caerulea* | S4B | G5 | | | | | | OBBA |
| Eastern Bluebird | *Sialia sialis* | S5B | G5 | NAR | NAR | | | | OBBA |
| Veery | *Catharus fuscescens* | S4B | G5 | | | | | | OBBA |
| Hermit Thrush | *Catharus guttatus* | S5B | G5 | | | 7 | | | OBBA |
| Wood Thrush | *Hylocichla mustelina* | S4B | G5 | | | | X | Forest | OBBA/KFN |
| American Robin | *Turdus migratorius* | S5B | G5 | | | | | | OBBA/KFN |
| Gray Catbird | *Dumetella carolinensis* | S4B | G5 | | | | | | OBBA/KFN |
| Northern Mockingbird | *Mimus polyglottos* | S4 | G5 | | | | | | OBBA |
| Brown Thrasher | *Toxostoma rufum* | S4B | G5 | | | | X | Shrub | OBBA/KFN |
| European Starling | *Sturnus vulgaris* | SNA | G5 | | | | | | OBBA/KFN |
| Cedar Waxwing | *Bombycilla cedrorum* | S5B | G5 | | | | | | OBBA/KFN |
| Blue-winged Warbler | *Vermivora cyanoptera* | S4B | G5 | | | | X | Shrub | OBBA |
| Golden-winged Warbler | *Vermivora chrysoptera* | S4B | G4 | SC | THR | | X | Shrub | OBBA/MNR |
| Nashville Warbler | *Oreothlypis ruficapilla* | S5B | G5 | | | | | | OBBA |
| Yellow Warbler | *Dendroica petechia* | S5B | G5 | | | | | | OBBA/KFN |
| Chestnut-sided Warbler | *Dendroica pensylvanica* | S5B | G5 | | | | | | OBBA |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Yellow-rumped Warbler | *Dendroica coronata* | S5B | G5 | | | 7 | | | OBBA |
| Black-throated Green Warbler | *Dendroica virens* | S5B | G5 | | | | | | OBBA |
| Blackburnian Warbler | *Dendroica fusca* | S5B | G5 | | | 7 | | | OBBA |
| Pine Warbler | *Dendroica pinus* | S5B | G5 | | | | | | OBBA |
| Black-and-white Warbler | *Mniotilta varia* | S5B | G5 | | | | | | OBBA |
| American Redstart | *Setophaga ruticilla* | S5B | G5 | | | | | | OBBA/KFN |
| Ovenbird | *Seiurus aurocapilla* | S4B | G5 | | | | | | OBBA |
| Northern Waterthrush | *Seiurus noveboracensis* | S5B | G5 | | | | | | OBBA |
| Louisiana Waterthrush | *Seiurus motacilla* | S3B | G5 | SC | SC | | X | Forest | OBBA/MNR |
| Mourning Warbler | *Oporornis philadelphia* | S4B | G5 | | | | | | OBBA |
| Common Yellowthroat | *Geothlypis trichas* | S5B | G5 | | | | | | OBBA/KFN |
| Canada Warbler | *Wilsonia canadensis* | S4B | G5 | SC | THR | | X | Forest | OBBA/MNR |
| Yellow-breasted Chat | *Icteria virens* | S2B | G5 | SC | SC | | X | Shrub | NHIC/KFN |
| Eastern Towhee | *Pipilo erythrophthalmus* | S4B | G5 | | | | X | | OBBA/KFN |
| Chipping Sparrow | *Spizella passerina* | S5B | G5 | | | | | | OBBA |
| Clay-colored Sparrow | *Spizella pallida* | S4B | G5 | | | 7 | | | OBBA |
| Field Sparrow | *Spizella pusilla* | S4B | G5 | | | | X | Grass | OBBA |
| Vesper Sparrow | *Pooecetes gramineus* | S4B | G5 | | | | X | Grass | OBBA |
| Savannah Sparrow | *Passerculus sandwichensis* | S4B | G5 | | | | X | Grass | OBBA/KFN |
| Grasshopper Sparrow | *Ammodramus savannarum* | S4B | G5 | | | | X | Grass | OBBA/KFN |
| Song Sparrow | *Melospiza melodia* | S5B | G5 | | | | | | OBBA/KFN |
| Swamp Sparrow | *Melospiza georgiana* | S5B | G5 | | | | | | OBBA |
| White-throated Sparrow | *Zonotrichia albicollis* | S5B | G5 | | | | | | OBBA |
| Scarlet Tanager | *Piranga olivacea* | S4B | G5 | | | | | | OBBA |
| Northern Cardinal | *Cardinalis cardinalis* | S5 | G5 | | | | | | OBBA/KFN |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | S4B | G5 | | | | X | Forest | OBBA/KFN |
| Indigo Bunting | *Passerina cyanea* | S4B | G5 | | | | | | OBBA |
| Red-winged Blackbird | *Agelaius phoeniceus* | S5 | G5 | | | | | | OBBA/KFN |
| Common Grackle | *Quiscalus quiscula* | S5B | G5 | | | | | | OBBA/KFN |
| Brown-headed Cowbird | *Molothrus ater* | S4B | G5 | | | | | | OBBA/KFN |
| Orchard Oriole | *Icterus spurius* | S4B | G5 | | | | | | OBBA/KFN |
| Baltimore Oriole | *Icterus galbula* | S4B | G5 | | | | X | Other | OBBA/KFN |
| Purple Finch | *Carpodacus purpureus* | S4B | G5 | | | | | | OBBA |
| House Finch | *Carpodacus mexicanus* | SNA | G5 | | | | | | OBBA/KFN |
| White-winged Crossbill | *Loxia leucoptera* | S5B | G5 | | | 6,7 | | | OBBA |
| American Goldfinch | *Carduelis tristis* | S5B | G5 | | | | | | OBBA/KFN |
| House Sparrow | *Passer domesticus* | SNA | G5 | | | | | | OBBA/KFN |
| | | | | | | | | | |
| **MAMMALS** | | | | | | | | | |
| Virginia Opossum | *Didelphis virginiana* | S4 | G5 | | | | | | MA |
| Northern Short-tailed Shrew | *Blarina brevicauda* | S5 | G5 | | | | | | MA |
| Star-nosed Mole | *Condylura cristata* | S5 | G5 | | | | | | MA |
| Little Brown Bat | *Myotis lucifugus* | S5 | G5 | | THR | | | | MA/KFN |
| Northern Long-eared Bat | *Myotis septentrionalis* | S3? | G4 | | END-NS | | | | MA |
| Eastern Pipistrelle | *Pipistrellus subflavus* | S3? | G5 | | END-NS | | | | MA |
| Red Bat | *Lasiurus borealis* | S4 | G5 | | | | | | MA |
| Big Brown Bat | *Eptesicus fuscus* | S5 | G5 | | | | | | MA |
| Hoary Bat | *Lasiurus cinereus* | S4 | G5 | | | | | | MA |
| Eastern Cottontail | *Sylvilagus floridanus* | S5 | G5 | | | | | | MA/KFN |
| Snowshoe Hare | *Lepus americanus* | S5 | G5 | | | 7 | | | MA |
| European Hare | *Lepus europaeus* | SNA | G5 | | | | | | MA |
| Eastern Chipmunk | *Tamias striatus* | S5 | G5 | | | | | | MA/KFN |
| Woodchuck | *Marmota monax* | S5 | G5 | | | | | | MA |
| Grey Squirrel | *Sciurus carolinensis* | S5 | G5 | | | | | | MA |
| Red Squirrel | *Tamiasciurus hudsonicus* | S5 | G5 | | | | | | MA |
| Beaver | *Castor canadensis* | S5 | G5 | | | | | | MA |
| White-footed Mouse | *Peromyscus leucopus* | S5 | G5 | | | | | | MA |
| Deer Mouse | *Peromyscus maniculatus* | S5 | G5 | | | | | | MA/KFN |
| Muskrat | *Ondatra zibethicus* | S5 | G5 | | | | | | MA |
| Meadow Vole | *Microtus pennsylvanicus* | S5 | G5 | | | | | | MA/KFN |
| Norway Rat | *Rattus norvegicus* | SNA | G5 | | | | | | MA |
| Porcupine | *Erethizon dorsatum* | S5 | G5 | | | 7 | | | MA |
| Coyote | *Canis latrans* | S5 | G5 | | | | | | KFN |
| Red Fox | *Vulpes vulpes* | S5 | G5 | | | | | | MA |
| Raccoon | *Procyon lotor* | S5 | G5 | | | | | | MA |
| Mink | *Mustela vison* | S4 | G5 | | | | | | MA |
| Striped Skunk | *Mephitis mephitis* | S5 | G5 | | | | | | MA |
| River Otter | *Lutra canadensis* | S5 | G5 | | | | | | MA |
| White-tailed Deer | *Odocoileus virginianus* | S5 | G5 | | | | | | MA/KFN |
| | | | | | | | | | MA |
| ***SUMMARY*** | | | | | | | | | |
| | | | | | | | | | |
| Total Butterflies: | | | | | | | | | |
| Total Amphibians: | | | | | | | | | |

| | |
|---|---|
| Total Reptiles: | |
| Total Birds: | |
| Total Breeding Birds: | |
| Total Mammals: | |
| | |
| **SIGNIFICANT SPECIES** | |
| | |
| Global: | |
| National: | |
| Provincial: | |
| Regional: | |
| Local: | |
| | |
| **Explanation of Status and Acronymns** | |
| | |
| COSSARO: Committee on the Status of Species at Risk in Ontario | |
| COSEWIC: Committee on the Status of Endangered Wildlife in Canada | |
| REGION: Rare in a Site Region | 8 |
| S1: Critically Imperiled—Critically imperiled in the province (often 5 or fewer occurrences) | 6 |
| S2: Imperiled—Imperiled in the province, very few populations (often 20 or fewer), | 4 |
| S3: Vulnerable—Vulnerable in the province, relatively few populations (often 80 or fewer) | 13 |
| S4: Apparently Secure—Uncommon but not rare | 31 |
| S5: Secure—Common, widespread, and abundant in the province | |
| SX: Presumed extirpated | |
| SH: Possibly Extirpated (Historical) | |
| SNR: Unranked | |
| SU: Unrankable—Currently unrankable due to lack of information | |
| SNA: Not applicable—A conservation status rank is not applicable because the species is not a suitable target for conservation activities. | |
| S#S#: Range Rank—A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species | |
| S#B- Breeding status rank | |
| S#N- Non Breeding status rank | |
| ?: Indicates uncertainty in the assigned rank | |
| G1: Extremely rare globally; usually fewer than 5 occurrences in the overall range | |
| G1G2: Extremely rare to very rare globally | |
| G2: Very rare globally; usually between 5-10 occurrences in the overall range | |
| G2G3: Very rare to uncommon globally | |
| G3: Rare to uncommon globally; usually between 20-100 occurrences | |
| G3G4: Rare to common globally | |
| G4: Common globally; usually more than 100 occurrences in the overall range | |
| G4G5: Common to very common globally | |
| G5: Very common globally; demonstrably secure | |
| T: Denotes that the rank applies to a subspecies or variety | |
| END: Endangered | |
| THR: Threatened | |
| SC: Special Concern | |
| 2, 3 or NS after a COSEWIC ranking indicates the species is either on Schedule 2, Schedule 3 or No Schedule of the Species At Risk Act (SARA) | |
| NAR: Not At Risk | |
| IND: Indeterminant, insufficient information to assign status | |
| DD: Data Deficient | |
| 6: Rare in Site Region 6 | |
| 7: Rare in Site Region 7 | |
| Area: Minimum patch size for area-sensitive species (ha) | |
| H- highly significant in Hamilton Region (i.e. rare) | |
| m- moderately significant in Hamilton Region (i.e. uncommon) | |
| L1- extremely rare locally (Toronto Region) | |
| L2- very rare locally (Toronto Region) | |
| L3- rare to uncommon locally (Toronto Region) | |
| HR- rare in Halton Region, highly significant | |
| HU- uncommon in Halton Region, moderately significant | |
| * The Pileated Woodpecker will incorporate smaller woodlots into its homerange, therefore it may not be a true area-sensitive species (Naylor et al. 1996) | |
| | |
| **LATEST STATUS UPDATE** | |
| | |
| Butterflies: September, 2009 | |
| Amphibans: September, 2009 | |
| Reptiles:June, 2011 | |
| Birds: June, 2011 | |
| Mammals: September, 2009 | |
| S and G ranks and explanations: September, 2009 | |
| | |
| **NOTE** | |
| | |
| All rankings for birds refer to breeding birds unless the ranking is followed by N | |

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**Sources**

HA: Ontario Herpetofaunal Atlas
KFN: Kingston Field Naturalists
MA: Mammal Atlas of Ontario
MNR: Ministry of Natural Resources
NHIC: Natural Heritage Information Centre
OBBA: Ontario Breeding Bird Atlas

**Table 3B Potential Species of Conservation Concern occurring within the Study Area**

| Common Name | Scientific Name | S-Rank | Provincial Status (COSSARO) | National Status (COSEWIC) | Source | Description of Habitat (OMNR 2010) |
|---|---|---|---|---|---|---|
| **BUTTERFLIES** | | | | | | |
| Monarch | *Danaus plexippus* | S2N, S4B | SC | SC | NHIC | abandoned farmland and roadsides, but also in city gardens and parks. Larval host plant is milkweed. |
| **REPTILES** | | | | | | |
| Snapping Turtle | *Chelydra serpentina* | S3 | SC | SC | OHSA | permanent, semi-permanent fresh water; marshes, swamps or bogs; rivers and streams with soft muddy banks or bottoms |
| Northern Map Turtle | *Graptemys geographica* | S3 | SC | SC | OHSA | large bodies of water with soft bottoms, and aquatic vegetation; basks on logs or rocks or on beaches and grassy edges, will bask in groups; uses soft soil or clean dry sand for nest sites |
| Milksnake | *Lampropeltis triangulum* | S3 | SC | SC | MNR | farmlands, meadows, hardwood or aspen stands; pine forest with brushy or woody cover; river bottoms or bog woods; hides under logs, stones, or boards or in outbuildings; often uses communal nest sites |
| **AMPHIBIANS** | | | | | | |
| Western Chorus Frog | *Pseudacris triseriata* | S4 | | THR | OHSA | roadside ditches or temporary ponds in fields; swamps or wet meadows; woodland or open country with cover and moisture; small ponds and temporary pools |
| **BIRDS** | | | | | | |
| Louisiana Waterthrush | *Seiurus motacilla* | S3B | SC | SC | NHIC | wooded ravines with running streams, woodlands swamps, and large tracts of mature deciduous or mixed forests |
| Black Tern | *Chlidonias niger* | S3B | SC | | NHIC,<br>OBBA,<br>MNR | wetlands, coastal or inland marshes; large cattail marshes, marshy edges of rivers, lakes or ponds, wet open fens, wet meadows; returns to same area to nest each year in loose colonies; must have shallow (0.5 to 1 m deep) water and areas of open water near nests; prefers marshes >20 ha in size |
| Short-eared Owl | *Asio flammeus* | S2N, S4B | SC | SC | OBBA | grasslands, open areas or meadows that are grassy or bushy; marshes, bogs or tundra; both diurnal and nocturnal habits; ground nester; destruction of wetlands by drainage for agriculture is an important factor in the decline of this species; home range 25 -125 ha; prefers 75-100 ha of contiguous open habitat |

**Table 3B Potential Species of Conservation Concern occurring within the Study Area**

| Common Name | Scientific Name | S-Rank | Provincial Status (COSSARO) | National Status (COSEWIC) | Source | Description of Habitat (OMNR 2010) |
|---|---|---|---|---|---|---|
| Red-headed Woodpecker | *Melanerpes erythrocephalus* | S4B | SC | THR | MNR | open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; feeds on insects and stores nuts or acorns for winter; loss of habitat is limiting factor; requires cavity trees with at least 40 cm dbh; require about 4 ha for a territory |
| Redhead | *Aythya americana* | S2B | | | OBBA | shallow cattail/bulrush marshes, lakes and ponds and fens; preferred nesting usually close to shallow water |
| Black-crowned Night Heron | *Nycticorax nycticorax* | S3B | | | OBBA/KFN | deciduous woodland swamps, cattail marshes, islands, wooded river and lake banks, coastal wetlands |
| Greater Black-backed Gull | *Larus marinus* | S2B | | | OBBA/KFN | flat rocky coastal islands, moorlands, rocky beaches, cliffs; nest is solitary or in small (rarely large) colonies |
| Caspian Tern | *Hydroprogne caspia* | S3B | | | OBBA/KFN | open habitat near large lakes or rivers, beaches, shorelines, rocky or sandy beaches, offshore islands |
| Wilson's Phalarope | *Phalaropus tricolor* | S3B | | | OBBA/KFN | open wetlands, ponds, lakes, marshes and sloughs with wet meadow vegetation; freshwater coastal marshes; nests on ground in loose colonies; sewage lagoons with grassy edges |
| Common Nighthawk | *Chordeiles minor* | S4B | SC | THR | OBBA | open ground; clearings in dense forests; ploughed fields; gravel beaches or barren areas with rocky soils; open woodlands; flat gravel roofs. This also includes open, vegetation-free habitats, including dunes, beaches, recently harvested forests, burnt-over areas, logged areas, rocky outcrops, rocky barrens, grasslands, pastures, peat bogs, marshes, lakeshores, and river banks |
| Olive-sided Flycatcher | *Contopus borealis* | S4B | SC | THR | OBBA | semi-open, conifer forest, prefers spruce; near pond, lake or river; treed wetlands for nesting; burns with dead trees for perching |
| Golden-winged Warbler | *Vermivora chrysoptera* | S4B | SC | THR | OBBA | early successional habitat; shrubby, grassy abandoned fields with small deciduous trees bordered by low woodland and wooded swamps; alder bogs; deciduous, damp woods; shrubbery clearings in deciduous woods with saplings and grasses; brier-woodland edges; prefers >10 ha of habitat |
| Canada Warbler | *Wilsonia canadensis* | S4B | SC | THR | OBBA | interior forest; dense, mixed coniferous, deciduous forests with closed canopy, wet bottomlands of cedar or alder; shrubby undergrowth in cool moist mature woodlands; riparian habitat; usually requires at least 30 ha |

| Table 3B Potential Species of Conservation Concern occurring within the Study Area | | | | | | |
|---|---|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **S-Rank** | **Provincial Status (COSSARO)** | **National Status (COSEWIC)** | **Source** | **Description of Habitat (OMNR 2010)** |
| Yellow-breasted Chat | *Icteria virens* | S2B | SC | SC | OBBA, NHIC | thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines etc |
| **MAMMALS** | | | | | | |
| Little Brown Bat | *Myotis lucifugus* | S5 | | THR | MA | caves, quarries, tunnels, hollow trees or buildings for roosting; winters in humid caves; maternity sites in dark warm areas such as attics and barns; feeds primarily in wetlands, forest edges |
| Northern Long-eared Bat | *Myotis septentrionalis* | S3? | | END-NS | MA | typically a species of forested landscapes. hibernates during winter in mines or caves; during summer males roost alone and females form maternity colonies of up to 60 adults; roosts in houses, manmade structures but prefers hollow trees or under loose bark |
| Eastern Pipistrelle | *Pipistrellus subflavus* | S3? | | END-NS | MA | open woods near water; roosts in trees, cliff crevices, buildings or caves; hibernates in damp, draft-free, warm caves, mines or rock crevices |
| **VEGETATION** | | | | | | |
| Stiff Gentian | *Gentianella quinquefolia* | S2 | | | NHIC | moist soil, roadsides, streambanks and edges of woods; prairies |
| Carolina Whitlow-grass | *Draba reptans* | S3 | | | NHIC | dry sandy areas, dry open flats, limestone pavements |
| Smith's Bulrush | *Schoenoplectus smithii* | S3 | | | NHIC | wet shores and beaches |
| Branching Burreed | *Sparganium androcladum* | SH | | | NHIC | shallow water and muddy shores of ponds, lake margins and marshes |

**Table 3B Potential Species of Conservation Concern occurring within the Study Area**

| Common Name | Scientific Name | S-Rank | Provincial Status (COSSARO) | National Status (COSEWIC) | Source | Description of Habitat (OMNR 2010) |
|---|---|---|---|---|---|---|

COSSARO – Committee on the Status of Species at Risk in Ontario
COSEWIC – Committee on the Status of Endangered Wildlife in Canada

Source:
EC – Environment Canada/Canadian Wildlife Service Species At Risk Website
NHIC – Natural Heritage Information Database
OBBA – Ontario Breeding Bird Atlas
OHSA – Ontario Herpetofaunal Summary Atlas
AMO – Atlas of the Mammals of Ontario
DFO – direct correspondence with DFO
MNR – direct correspondence with MNR
Stantec – observed in the Study Area during site investigations

Status:
S1 – Critically Imperiled
S2 – Imperiled
S3 – Vulnerable
S#B- Breeding status rank
? – Rank uncertain
END – Endangered
THR - Threatened
SC – Special Concern

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| **Site Investigation** | | | | | | | |
| 7/26/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 22 | 30 | 0 | 2 |
| 7/27/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 23 | 20 | 0 | 3 |
| 7/28/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 26 | 70 | 0 | 2 |
| 7/29/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 21 | 100 | Rain | 2 |
| 8/2/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 26 | 10 | 0 | 3 |
| 8/3/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 22 | 90 | 0 | 3 |
| 8/4/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 26 | 0 | 0 | 2 |
| 8/5/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 27 | 10 | 0 | 2 |
| 8/17/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 23 | 30 | 0 | 2 |
| 8/18/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 22 | haze | 0 | 2 |
| 8/19/2011 | ELC, vegetation communities, wetland delineation, and wildlife habitat assessment | James Leslie | 8hr | 25 | 5 | 0 | 2 |
| 11/11/2011 | ELC, vegetation communities and wildlife habitat assessment | Josh Mansell | 8hr | 2 | 60 | 0 | 3 |
| 3/27/2012 | ELC, vegetation communities and wildlife habitat assessment | James Leslie | 8hr | 4 | 10 | 0 | 2 |
| 3/28/2012 | ELC, vegetation communities and wildlife habitat assessment | James Leslie | 8hr | 4 | 80 | 0 | 2 |
| 5/18/2012 | ELC, vegetation communities and wildlife habitat assessment | Josh Mansell | 8hr | 5 | 80 | 0 | 2 |
| 8/15/2012 | ELC, vegetation communities and wildlife habitat assessment | Katherine St. James | 4hr | 28 | 60 | 0 | 2 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| **Evaluation of Significance** | | | | | | | |
| 4/19/2011, 19:45-22:00 | Amphibian Surveys | B. Holden, J. Heslop | 2hr 15min | 7 | 100 | 0 | 3-4 |
| 4/20/2011, 20:00-21:30 | Amphibian Surveys | B. Holden, J. Heslop | 1hr 30min | 3-4 | 100 | Drizzle | 6-7 |
| 4/26/2011, 20:25-21:58 | Amphibian Surveys | D. Graham, M. Ross | 1hr 23min | 8 | 100 | 0 | 1 |
| 5/17/2011, 20:43-22:50 | Amphibian Surveys | B. Stamp | 2hr 7min | 8 | 95 | 0 | 5 |
| 5/17/2011, 21:52-22:57 | Amphibian Surveys | J. Heslop | 1hr 5min | 9 | 100 | 0 | 3 |
| 6/18/2011, 19:25-23:45 | Amphibian Surveys | B. Holden, A. Wormington | 4hr 20min | 14 | 0 | 0 | 2-3 |
| 6/19/2011, 21:35-23.45 | Amphibian Surveys | B. Holden, A. Wormington | 2hr 10min | 10 | 5 | 0 | 1 |
| 6/7/2011, 8:30-9:15 | Waterfowl Nesting Survey (WN1) | P. Read | 45min | 13 | 40 | 0 | 1 |
| 6/5/2011, 9:25-9:40 | Waterfowl Nesting Survey (WN2) | P. Read | 15min | 12 | 90 | 0 | 0 |
| 6/11/11, 5:00-9:57 | Breeding Bird Surveys and Point Counts (P1, P2, G1, G2, W1, W2) | P. Read | 4hr 57min | 15 | 80 | 0 | 1 |
| 6/24/2011, 6:15-10:45 | Breeding Bird Surveys and Point Counts (P1, P2, G1, G2, W1, W2) | A. Wormington | 4hr 47min | 22 | 90 | 0 | 2 |
| 7/12/2011, 5:19-10:30 | Breeding Bird Surveys and Point Counts (P1, P2, G1, G2, W1, W2) | A. Wormington | 1hr 23min | 23 | 100 | 0 | 1 |
| 6/3/2011, 5:00-10:45 | Breeding Bird Surveys and Point Counts (P19-P23, G9, G13, G16, G17, W13, W15, W21, W30, W31, W33) | P. Read | 5hr 45min | 13 | 0 | 0 | 1 |
| 6/17/2011, 5:20-12:02 | Breeding Bird Surveys and Point Counts (P19-P23, G9, G13, G16, G17, W13, W15, W21, W30, W31, W33) | A. Wormington | 6hr 45min | 13 | 10 | 0 | 2 |
| 7/3/2011, 5:59-10:53 | Breeding Bird Surveys and Point Counts (P19-P23, G9, G13, G16, G17, W13, W15, W21, W30, W31, W33) | A. Wormington | 4hr 55min | 22 | 100 | 0 | 0 |
| 6/5/2011, 5:15-11:10 | Breeding Bird Surveys and Point Counts (P24, P28-P30, P32, P34, P62, P63, G14, G15, G20, W15, W33, W34, W36, W37, M3) | P. Read | 5hr 55min | 12 | 90 | 0 | 0 |
| 6/21/2011, 9:03-10:35 | Breeding Bird Surveys and Point Counts (P24, P28-P30, P32, P34, P62, P63, G14, G15, G20, W15, W33, W34, W36, W37, M3) | A. Wormington | 5hr 50min | 11 | 10 | 0 | 1 |
| 7/7/2011, 5:50-10:22 | Breeding Bird Surveys and Point Counts (P24, P28-P30, P32, P34, P62, P63, G14, G15, G20, W15, W33, W34, W36, W37, M3) | A. Wormington | 5hr 40min | 15 | 0 | 0 | 1 |
| 6/4/2011, 4:50-10:52 | Breeding Bird Surveys and Point Counts (P27, P39, P40, P41, P42, G19, G22, G23, W24, W25, W27- W29) | P. Read | 6hr 2min | 13 | 80 | 0 | 1 |
| 6/18/2011, 5:43-9:41 | Breeding Bird Surveys and Point Counts (P27, P39, | A. Wormington | 5hr 17min | 13 | 30 | 0 | 0 |

**Table 4B:** **Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| | P40, P41, P42, G19, G22, G23, W24, W25, W27- W29) | | | | | | |
| 7/4/2011, 5:50-10:33 | Breeding Bird Surveys and Point Counts (P27, P39, P40, P41, P42, G19, G22, G23, W24, W25, W27- W29) | A. Wormington | 4hr 30min | 15 | 50 | 0 | 1 |
| 6/6/2011, 5:00-9:38 | Breeding Bird Surveys and Point Counts (P31, P33, P35, P43, P44, G18, G21, G24, G25, W26, W32, W33) | P. Read | 4hr 38min | 12 | 0 | fog | 0 |
| 6/19/2011, 5:36-11:00 | Breeding Bird Surveys and Point Counts (P31, P33, P35, P43, P44, G18, G21, G24, G25, W26, W32, W33) | A. Wormington | 5hr 11min | 10 | 10 | 0 | 0 |
| 7/5/2011, 6:46-9:18 | Breeding Bird Surveys and Point Counts (P31, P33, P35, P43, P44, G18, G21, G24, G25, W26, W32, W33) | A. Wormington | 4hr 35min | 20 | 10 | 0 | 1 |
| 6/7/2011, 5:00-9:58 | Breeding Bird Surveys and Point Counts (P36-P38, P47, G26-28, G30, W34, W35,W38, W40-W42, M4) | P. Read | 4hr 58min | 13 | 40 | 0 | 1 |
| 6/20/2011, 5:58-8:42 | Breeding Bird Surveys and Point Counts (P36-P38, P47, G26-28, G30, W34, W35,W38, W40-W42, M4) | A. Wormington | 6hr 42min | 10 | 40 | 0 | 1 |
| 7/6/2011, 5:36-9:22 | Breeding Bird Surveys and Point Counts (P36-P38, P47, G26-28, G30, W34, W35,W38, W40-W42, M4) | A. Wormington | 4hr 54min | 17 | 50 | 0 | 1 |
| 5/30/2011, 6:10-10:00 | Breeding Bird Surveys and Point Counts (P3-P5, P14, G3, G5-G9, W3, W6, M1) | P. Read | 3hr 50min | 16 | 80 | 0 | 0 |
| 6/15/11, 5:30-12:15 | Breeding Bird Surveys and Point Counts (P3-P5, P14, G3, G5-G9, W3, W6, M1) | A. Wormington | 5hrs 6min | 12 | 10 | 0 | 3 |
| 6/27/2011, 5:42-9:13 | Breeding Bird Surveys and Point Counts (P3-P5, P14, G3, G5-G9, W3, W6, M1) | A. Wormington | 3hr 10min | 18 | 0 | 0 | 0 |
| 6/30/2011, 6:10-11:05 | Breeding Bird Surveys and Point Counts (P3-P5, P14, G3, G5-G9, W3, W6, M1) | A. Wormington | 4hr 12min | 16 | 10 | 0 | 1 |
| 6/9/2011, 5:00-10:25 | Breeding Bird Surveys and Point Counts (P45, P46, P52, P53, P55, P56, G29, G33, G35, G36, W38, W43,W45) | P. Read | 5hr 25min | 15 | 40 | 0 | 2 |
| 6/23/2011, 5:40-8:50 | Breeding Bird Surveys and Point Counts (P45, P46, P52, P53, P55, P56, G29, G33, G35, G36, W38, W43,W45) | A. Wormington | 3hr 10min | 22 | 40 | trace | 2 |
| 7/10/2011, 5:30-12:15 | Breeding Bird Surveys and Point Counts (P45, P46, P52, P53, P55, P56, G29, G33, G35, G36, W38, W43,W45) | A. Wormington | 4hr 32min | 18 | 70 | 0 | 1 |
| 6/8/2011, 5:00-10:17 | Breeding Bird Surveys and Point Counts (P48-P51, P54, P64, G31, G32,G34, W38, W43, W45) | P. Read | 5hr 17min | 14 | n/a | fog | 2 |
| 6/22/2011, 5:25- | Breeding Bird Surveys and | A. Wormington | 3hr 58min | 18 | 100 | light | 2 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| 10:12 | Point Counts (P48-P51, P54, P64, G31, G32,G34, W38, W43, W45) | | | | | | |
| 7/8/2011, 6:25-7:58 | Breeding Bird Surveys and Point Counts (P48-P51, P54, P64, G31, G32,G34, W38, W43, W45) | A. Wormington | 4hr 43min | 20 | 50 | 0 | 0 |
| 6/10/2011, 4:55-10:15 | Breeding Bird Surveys and Point Counts (P57, P58, G37-G39, G43, W46, W47) | P. Read | 5hr 20min | 13 | 80 | 0 | 2 |
| 6/25/2011, 5:20-9:32 | Breeding Bird Surveys and Point Counts (P57, P58, G37-G39, G43, W46, W47) | A. Wormington | 5hr 24min | 16 | 80 | 0 | 1 |
| 7/11/2011, 5:18-10:35 | Breeding Bird Surveys and Point Counts (P57, P58, G37-G39, G43, W46, W47) | A. Wormington | 2hr 32min | 22 | 85 | 0 | 1 |
| 6/10/2011, 8:05-11:15 | Breeding Bird Surveys and Point Counts (P59-P61, G40, G41, W22, W23, W44, M5) | P. Read | 3hr 10min | 16 | 100 | 0 | 2 to 3 |
| 6/26/2011, 6:10-9:30 | Breeding Bird Surveys and Point Counts (P59-P61, G40, G41, W22, W23, W44, M5) | A. Wormington | 2hr 44min | 18 | 80 | 0 | 1 |
| 7/9/2011, 5:40-11:30 | Breeding Bird Surveys and Point Counts (P59-P61, G40, G41, W22, W23, W44, M5) | A. Wormington | 3hr 46min | 20 | 0 | 0 | 1 |
| 6/1/2011, 5:00-10:24 | Breeding Bird Surveys and Point Counts (P6, P17, P18, P25, P26, G4, G11, G42, W7-WW11, W20) | P. Read | 5hr 24min | 19 | 10 | 0 | 2 |
| 6/13/11, 5:40-11:30 | Breeding Bird Surveys and Point Counts (P6, P17, P18, P25, P26, G4, G11, G42, W7-WW11, W20) | A. Wormington | 5hr 55min | 10 | 10 | 0 | 0 |
| 6/28/2011, 5:55-11:35 | Breeding Bird Surveys and Point Counts (P6, P17, P18, P25, P26, G4, G11, G42, W7-WW11, W20) | A. Wormington | 4hr 30min | 20 | 100 | 0 | 2 |
| 6/2/2011, 5:00-10:40 | Breeding Bird Surveys and Point Counts (P7, P9, P13, P15, P16, G9, G12, W14, W15) | P. Read | 5hr 40min | 12 | 40 | 0 | 3 |
| 6/14/2011, 5:19-10:30 | Breeding Bird Surveys and Point Counts (P7, P9, P13, P15, P16, G9, G12, W14, W15) | A. Wormington | 4hr 9min | 10 | 100 | 0 | 4 |
| 6/29/2011, 5:50-10:25 | Breeding Bird Surveys and Point Counts (P7, P9, P13, P15, P16, G9, G12, W14, W15) | A. Wormington | 3hr 31min | 17 | 50 | 0 | 2 |
| 5/31/2011, 5:15-9:45 | Breeding Bird Surveys and Point Counts (P8, P10-P12, G9,G10,W6, W15, M1, M2) | P. Read | 4hr 30min | 15 | 10 | 0 | 0 |
| 6/16/11, 5:18-10:35 | Breeding Bird Surveys and Point Counts (P8, P10-P12, G9,G10,W6, W15, M1, M2) | A. Wormington | 3hr 53min | 10 | 0 | 0 | 1 |
| 7/2/2011, 5:55-10:25 | Breeding Bird Surveys and Point Counts (P8, P10-P12, G9,G10,W6, W15, M1, M2) | A. Wormington | 3hr 20min | 16 | 0 | 0 | 1 |
| 9/1/2011, 6:35 - | Fall Migratory landbird | B. Holden & A. | 3hr 40min | 18- | 100 | 0 | 1-4 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| 10:15 | survey | Wormington | | 22 | | | |
| 9/2/2011, 6:41 - 9:44 | Fall Migratory landbird survey | B. Holden & A. Wormington | 3hr 3min | 18-21 | 5-50 | 0 | 1-5 |
| 9/8/2011, 6:38 - 9:58 | Fall Migratory landbird survey | B. Holden & A. Wormington | 3hr 20min | 16-18 | 80-100 | 0 | 1-5 |
| 9/9/2011, 6:35 - 9:38 | Fall Migratory landbird survey | B. Holden & A. Wormington | 3hr 3min | 16-23 | 10-20 | 0 | 0-2 |
| 9/15/2011, 6:51 - 10:17 | Fall Migratory landbird survey | B. Holden & M. Ross | 3hr 26min | 9-12 | 95-100 | Light drizzle | 2-3 |
| 9/16/2011, 7:20 - 10:43 | Fall Migratory landbird survey | B. Holden & M. Ross | 3hr 23min | 4-10 | 0-15 | 0 | 3-4 |
| 9/22/2011, 7:06 - 9:50 | Fall Migratory landbird survey | B. Holden &J. Mansell | 2hr 44min | 17-19 | 30-100 | 0 | 3 |
| 9/23/2011, 7:00 - 10:30 | Fall Migratory landbird survey | B. Holden & J. Mansell | 3hr 30min | 14-20 | 10-100 | 0 | 1-3 |
| 9/29/2011, 7:10 - 10:25 | Fall Migratory landbird survey | B. Holden & J. Mansell | 3hr 15min | 18 | 30-100 | Light rain | 0-1 |
| 9/30/2011, 7:13 - 10:18 | Fall Migratory landbird survey | B. Holden &J. Mansell | 3hr 5min | 14-18 | 20-100 | 0 | 2-5 |
| 10/6/2011, 7:14 - 11:00 | Fall Migratory landbird survey | B. Holden & J. Mansell | 3hr 46min | 2-16 | 0 | 0 | 0-3 |
| 10/7/2011, 7:30 - 10:15 | Fall Migratory landbird survey | B. Holden & J. Mansell | 2hr 45min | 7-14 | 0 | 0 | 1-3 |
| 10/12/2011, 7:21 - 10:42 | Fall Migratory landbird survey | B. Holden & Z. Lebrun-Southcott | 3hr 21min | 12-16 | 15-100 | 0 | 1-3 |
| 10/13/2011, 7:10 - 10:31 | Fall Migratory landbird survey | B. Holden & Z. Lebrun-Southcott | 3hr 21min | 13-15 | 100 | Light drizzle | 1-4 |
| 10/20/2011, 7:14 - 10:40 | Fall Migratory landbird survey | B. Holden & Z. Lebrun-Southcott | 3hr 26min | 10-13 | 90-100 | Rain | 4-6 |
| 10/21/2011, 7:20 - 10:19 | Fall Migratory landbird survey | B. Holden & Z. Lebrun-Southcott | 2hr 59min | 8-11 | 80-100 | 0 | 2-4 |
| 9/1/2011, 16:00 - 17:40 | Fall Migratory Raptor Survey | B. Holden and A. Wormington | 1hr 40min | 25 | 50 | 0 | 1 |
| 9/8/2011, 16:30 - 19:00 | Fall Migratory Raptor Survey | B. Holden and A. Wormington | 2hr 30min | 20 | 50 | 0 | 2 |
| 9/15/2011, 13:30 - 16:30 | Fall Migratory Raptor Survey | B. Holden and M. Ross | 3hrs | 17-19 | 40-80 | 0 | 3-4 |
| 9/22/2011, 13:20 - 18:26 | Fall Migratory Raptor Survey | B. Holden and J. Mansell | 5hr 6min | 19-23 | 20-40 | 0 | 3 |
| 9/29/2011, 13:00 - 18:00 | Fall Migratory Raptor Survey | B. Holden and J. Mansell | 5hrs | 19 | 80 | 0 | 2 |
| 10/6/2011, 12:00 - 15:10 | Fall Migratory Raptor Survey | B. Holden and J. Mansell | 3hr 10min | 10 | 0 | 0 | 0-1 |
| 10/12/2011, 13:27 -16:29 | Fall Migratory Raptor Survey | B. Holden and Z. Lebrun-Southcott | 3hr 2min | 16 | 90 | Scattered showers | 1-2 |
| 10/20/2011, 13:47 -17:02 | Fall Migratory Raptor Survey | B. Holden and Z. Lebrun-Southcott | 3hr 15min | 14 | 90 | 0 | 3 |
| 10/27/2011, 12:03-16:25 | Fall Migratory Raptor Survey | J. Mansell & Z. Lebrun-Southcott | 4hr 22min | 6 | 85 | 0 | 4 |
| 11/3/2011, 10:52-3:33 | Fall Migratory Raptor Survey | J. Mansell & Z. Lebrun-Southcott | 4hr 41min | 5-10 | 20-90 | 0 | 3-4 |
| 11/9/2011, 12:15-16:20 | Fall Migratory Raptor Survey | B. Stamp & J. Heslop | 4hr 5min | 15 | 30 | 0 | 2 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| 11/9/2011, 8:06-8:11 & 13:18-15:52 | Fall Migratory Raptor Survey | J. Mansell & Z. Lebrun-Southcott | 2hr 39min | 10-15 | 15-70 | 0 | 2-3 |
| 11/17/2011, 11:00-16:12 | Fall Migratory Raptor Survey | J. Mansell & Z. Lebrun-Southcott | 4hr 52min | 2-4 | 50-75 | Light flurries | 3-4 |
| 11/24/2011, 8:55-13:00 | Fall Migratory Raptor Survey | J. Heslop & Z. Lebrun-Southcott | 4hr 5min | -1-5 | 30-100 | 0 | 2-3 |
| 12/1/2011, 11:58-16:40 | Fall Migratory Raptor Survey | B. Holden & Z. Lebrun-Southcott | 4hr 42min | 6 | 40-60 | 0 | 1-2 |
| 9/1/2011, 16:00 - 17:40 | Fall Waterfowl Migration survey | B. Holden and A. Wormington | 1hr 40min | 25 | 50 | 0 | 1 |
| 9/8/2011, 16:30 - 19:00 | Fall Waterfowl Migration survey | B. Holden and A. Wormington | 2hr 30min | n/a | n/a | n/a | n/a |
| 9/15/2011, 13:30 - 16:30 | Fall Waterfowl Migration survey | B. Holden and M. Ross | 3hrs | 17-19 | 40-80 | 0 | 4 |
| 9/22/2011, 13:00 - 18:30 | Fall Waterfowl Migration survey | B. Holden and J. Mansell | 5hr 30min | 19-23 | 20-40 | 0 | 3 |
| 9/29/2011, 13:00 - 16:00 | Fall Waterfowl Migration survey | B. Holden and J. Mansell | 3hrs | 19 | 70 | 0 | 2 |
| 10/6/2011, 12:00 - 15:10 | Fall Waterfowl Migration survey | B. Holden and J. Mansell | 3hr 10min | 10-17 | 0 | 0 | 0-3 |
| 10/12/2011, 13:27 -16:29 | Fall Waterfowl Migration survey | B. Holden and Z. Lebrun-Southcott | 3hr 2min | 16 | 90 | Scattered showers | 1-2 |
| 10/20/2011, 13:47 -17:02 | Fall Waterfowl Migration survey | B. Holden and Z. Lebrun-Southcott | 3hr 15min | 14 | 90 | 0 | 3 |
| 10/27/2011, 12:03-16:25 | Fall Waterfowl Migration survey | J. Mansell and Z. Lebrun-Southcott | 4hr 22min | 6 | 85 | 0 | 4 |
| 11/3/2011, 10:52-15:33 | Fall Waterfowl Migration survey | J. Mansell and Z. Lebrun-Southcott | 4hr 41min | 5-10 | 20-100 | 0 | 3-4 |
| 11/9/2011, 13:08-15:49 | Fall Waterfowl Migration survey | J. Mansell and Z. Lebrun-Southcott | 2hr 41min | 15 | 15 | 0 | 2 |
| 11/9/2011, 12:00-16:30 | Fall Waterfowl Migration survey | B. Stamp and J. Heslop | 4hr 30min | 15 | 30 | 0 | 2 |
| 11/17/2011, 10:53-16:12 | Fall Waterfowl Migration survey | J. Mansell and Z. Lebrun-Southcott | 5hr 15min | 2-4 | 50-75 | Light flurries | 3-4 |
| 11/24/2011, 8:55-13:00 | Fall Waterfowl Migration survey | J. Heslop & Z. Lebrun-Southcott | 4hr 5min | -1-5 | 30-100 | 0 | 2-3 |
| 12/1/2011, 11:59-16:40 | Fall Waterfowl Migration survey | B. Holden & Z. Lebrun-Southcott | 4hr 41min | 6 | 60 | 0 | 1-2 |
| 12/7/2011, 9:50-12:20 | Fall Waterfowl Migration survey | J. Mansell and Z. Lebrun-Southcott | 2hr 30min | 1 | 100 | 0 | 1-2 |
| 12/7/2011, 9:50-12:00 | Fall Waterfowl Migration survey | C. Payette & B. Holden | 2hr 10min | 0 | 100 | 0 | 1 |
| 12/21/2011, 10:04-12:50 | Fall Waterfowl Migration survey | C. Payette & Z. Lebrun-Southcott | 2hr 46min | 4 | 100 | Light rain | 3 |
| 12/21/2011, 10:00-14:00 | Fall Waterfowl Migration survey | B. Holden & N. Charlton | 4hrs | 4-5 | 100 | Rain | 2 |
| 5/3/2011, 2:07-2:45; 4:15-7:47 | Shorebird migration surveys | M. Ross and D. Graham | 4hrs, 10min | 8 | 100 | 0 | 3 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| 5/11/2011, 3:21 – n/a | Shorebird migration surveys | B. Stamp and D. Graham | n/a | 20 | 0 | 0 | 0 |
| 5/17/2011, 14:20-17:20 | Shorebird migration surveys | B. Stamp and J. Heslop | 3hrs | 12 | 95 | 0 | 4 |
| 5/20/2011, 9:00-11:00 | Shorebird migration surveys | A. Taylor, N. Kopysh | 2hrs | 15 | 100 | 0 | 0 |
| 5/25/2011, 11:35-2:59 | Shorebird migration surveys | M. Ross and D. Graham | 3hrs, 24min | 20 | 5 | 0 | 3 |
| 5/26/2011, 9:24-10:30 | Shorebird migration surveys | D. Graham | 1hr, 6min | 14 | 80 | 0 | 1-3 |
| 4/27/2011, 6:25 - 12:31 | Spring Landbird Stopover surveys | M. Ross and D. Graham | 6hrs 6min | 6 - 8 | 100 | 0 | 1-3 |
| 4/28/2011, 7:04 - 7:21 | Spring Landbird Stopover surveys | Don Graham | 17min | 10 - 15 | 5-10 | 0 | 3 |
| 5/4/2011, 6:00 - 12:53 | Spring Landbird Stopover surveys | M. Ross and D. Graham | 6hr 53min | 8 - 15 | 10 | 0 | 0-2 |
| 5/11/2011, 6:10 - 10:45 | Spring Landbird Stopover surveys | B. Stamp | 4hr 35min | 5-18 | 60-100 | 0 | 2-4 |
| 5/12/2011, 6:06 - 12:28 | Spring Landbird Stopover surveys | D. Graham | 6hr 22min | 12-21 | 10-100 | 0 | 1 |
| 5/18/2011, 6:25 - 14:50 | Spring Landbird Stopover surveys | J. Heslop and B. Stamp | 8hr 35min | 14 - 16 | 80-100 | Light rain | 2-4 |
| 5/19/2011, 6:30 - 12:28 | Spring Landbird Stopover surveys | J. Heslop and B. Stamp | 5hr 58min | 6- 8 | 100 | 0 | 0-2 |
| 5/26/2011, 6:20-2:40 | Spring Landbird Stopover surveys | M. Ross and D. Graham | 8hr 20min | 10 - 15 | 5-10 | 0 | 1-2 |
| 3/24/2011, 12:00-15:20 | Staging and Foraging Spring Waterfowl surveys | A. Taylor, N. Kopysh | 3hr 20min | 3 | 90 | 0 | 1 |
| 3/29/2011, 9:00-12:30 | Staging and Foraging Spring Waterfowl surveys | D. Graham, C. Karpijaakko | 3hr 30min | -1 | 70 | 0 | 2 |
| 4/4/2011, 11:30-14:30 | Staging and Foraging Spring Waterfowl surveys | A. Taylor, N. Kopysh | 3hr | 5 | 100 | 0 | 3 to 4 |
| 4/24/2011, 12:40-16:30 | Staging and Foraging Spring Waterfowl surveys | B. Stamp, J. Heslop | 3hr 50min | 10 | 60 | 0 | 2 |
| 4/19/2011, 11:20-2:30 | Staging and Foraging Spring Waterfowl surveys | B. Holden, J. Heslop | 3hr | 9 | 50-90 | 0 | 3 to 4 |
| 4/26/2011, 14:45-18:00 | Staging and Foraging Spring Waterfowl surveys | M. Ross, M. Strauss | 3hr 15min | 11 | 100 | 0 | 4 |
| 5/3/2011, 14:07-14:45 14:15-19:47 | Staging and Foraging Spring Waterfowl surveys | M. Ross, D. Graham | 4hr | 8 | 100 | Rain | 3 |
| 5/11/2011, 15:31-18:08 | Staging and Foraging Spring Waterfowl surveys | B. Stamp, D.Graham | 2hr 37min | 20 | 0 | 0 | 1 |
| 5/17/2011, 14:40-16:50 | Staging and Foraging Spring Waterfowl surveys | B. Stamp, J. Heslop | 2hr 10min | 12 | 95 | Light rain | 4 |
| 5/25/2011, 11:35-14:59 | Staging and Foraging Spring Waterfowl surveys | M. Ross, D. Graham | 3hr 34min | 20 | 5 | 0 | 3 |
| 7/8/2011, 12:30 - 16:15 | Staging Swallow Survey | B. Holden | 3hr 45min | 26 | 30 | 0 | 0-1 |
| 7/13/2011, 11:30 - 15:00 | Staging Swallow Survey | B. Holden | 3hr 30min | 22-26 | 50-100 | 0 | 2-6 |
| 7/23/2011, 11:00 - 14:40 | Staging Swallow Survey | B. Holden | 3hr 40min | 32 | 10-30 | 0 | 2-3 |
| 7/27/2011, 8:40 - 12:00 | Staging Swallow Survey | B. Holden | 3hr 20min | 27-29 | 40-60 | 0 | 3 |
| 8/3/2011, 12:00 - 15:00 | Staging Swallow Survey | B. Holden | 3hrs | 20-23 | 100 | 0 | 2-3 |
| 8/9/2011, 14:00 - 16:00 | Staging Swallow Survey | B. Holden | 2hrs | 19-21 | 100 | Heavy rain | 2-3 |
| 8/16/2011, 14:00 - 18:00 | Staging Swallow and Migratory Butterfly Stopover Survey | M. Ross | 4hrs | 27 | 15-40 | 0 | 2 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| 8/26/2011, 8:50 - 11:00 | Staging Swallow and Migratory Butterfly Stopover Survey | M. Ross | 2hr 10min | 17-20 | 35t-45 | 0 | 3 |
| 9/2/2011, 11:15 - 13:30 | Staging Swallow Survey | B. Holden | 2hr 15min | 22-24 | 5 | 0 | 3-4 |
| 11/9/2011, 16:10-17:22 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Josh Mansell & Zoe Lebrun-Southcott | 1hr 11min | 8 | 85 | 0 | 3 |
| 11/9/2011, n/a | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Bob Stamp & Jim Heslop | n/a | 12 | 90 | 0 | 3 |
| 11/24/2011, 15:47-17:11 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Jim Heslop & Zoe Lebrun-Southcott | 1hr 36min | 4 | 100 | 0 | 40972 |
| 11/24/2011,15:55-17:02 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Brandon Holden & Josh Mansell | 1hr 7min | 5 | 100 | 0 | 40972 |
| 12/7/2011, 8:50-9:05 & 9:50-12:20 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Josh Mansell & Zoe Lebrun-Southcott | 2hr 45min | 1 | 100 | 0 | 3 |
| 12/7/2011, 16:27-16:55 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Brandon Holden & Cheryl-Anne Payette | 1hr 28min | 0 | 100 | 0 | 2 |
| 12/20/2011, n/a | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Brandon Holden & Nicole Charlton | n/a | n/a | 70-90 | 0 | 2-3 |
| 12/20/2011, 15:58-16:59 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Cheryl-Anne Payette & Zoe Lebrun-Southcott | 1hr 1min | 0 | 10-20 | 0 | 2 |
| 12/21/2011, 10:04-13:17 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | B. Holden & N. Charlton | 3hrs13min | 4 | 100 | Light drizzle | 2 |
| 12/21/2011, 10:04-12:49 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | C. Payette & Z. Lebrun-Southcott | 2hr 45min | 3 | 100 | Light rain | 3 |
| 1/10/2012, 10:00-11:45 &16:22-17:23 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Brandon Holden & Josh Mansell | 2hr 46min | 4 | 60 | 0 | 3 |
| 1/10/2012, 10:15-12:25 &16:30-17:20 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Don Graham & Matthew Ross | 3hr | 4 | 60 | 0 | 1 |
| 1/24/2012, 13:15-14:46 & 16:40-17:28 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Don Graham & Matthew Ross | 3hr 12min | 1 | 100 | 0 | 2 |
| 1/24/2012, 13:10-15:05 & 16:20-17:37 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Brandon Holden & Josh Mansell | 2hr 12min | 1 | 100 | 0 | 3-4 |
| 2/7/2012, 10:52-12:58 & 16:58-17:54 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Don Graham & Carla Korpijaakko | 3hr 2min | -2 | 100 | 0 | 1 |
| 2/7/2012, 10:55-13:26 & 16:45-17:44 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Josh Mansell & Brandon Holden | 3hr 30min | 1 | 0 | 0 | 1 |
| 2/22/2012, 10:50-12:15 & 17:00-17:55 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Don Graham & Carla Korpijaakko | 2hr 20min | 4 | 100 | 0 | 1 |
| 2/22/2012, 10:45-13:30 & 17:00-n/a | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Brandon Holden & Josh Mansell | 2hr 45min | 3 | 100 | drizzle/snow/rain | 5 |
| 3/7/2012, 10:50- | Winter Raptor Driving and | Brandon | 2hr 47min | 8 | 55-90 | 0 | 3-4 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| 12:25 & 17:15-18:27 | Walking Transects, including Short-eared Owl Surveys | Holden & Josh Mansell | | | | | |
| 3/7/2012, 14:35-17:35 & 17:35-18:30 | Winter Raptor Driving and Walking Transects, including Short-eared Owl Surveys | Andrew Taylor and Nicole Kopysh | 3hr 55min | 8 | 30 | 0 | 3 |
| 6/9/2011, 20:20-20:40 | Short-eared Owl Breeding Driving Survey | P. Read | 20min | 19 | 100 | 0 | 3 |
| 6/9/2011, 21:05-21:20 | Short-eared Owl Breeding Driving Survey | P. Read | 15min | 19 | 100 | 0 | 3 |
| 6/10/2011, 20:00-21:15 | Short-eared Owl Breeding Driving Survey | P. Read | 1hr15min | 18 | 100 | 0 | 3 |
| 6/11/2011, 20:00-21:15 | Short-eared Owl Breeding Driving Survey | P. Read | 1hr15min | 19 | 100 | Light | 5 |
| 7/2/2011, 20:10-20:51 | Short-eared Owl Breeding Driving Survey | A. Wormington | 41min | 23 | 40 | 0 | 0 |
| 7/3/2011, 20:12-21:08 | Short-eared Owl Breeding Driving Survey | A. Wormington | 56min | 24 | 30 | 0 | 1 |
| 7/4/2011, 20:15-20:53 | Short-eared Owl Breeding Driving Survey | A. Wormington | 38min | 24 | 0 | 0 | 1 |
| 7/5/2011, 20:09-21:02 | Short-eared Owl Breeding Driving Survey | A. Wormington | 53min | 23 | 70 | 0 | 1 |
| 7/6/2011, 20:22-21:10 | Short-eared Owl Breeding Driving Survey | A. Wormington | 48min | 22 | 25 | 0 | 1 |
| 7/7/2011, 20:17-21:06 | Short-eared Owl Breeding Driving Survey | A. Wormington | 51min | 22 | 50 | 0 | 0 |
| 7/8/2011, 20:19-21:07 | Short-eared Owl Breeding Driving Survey | A. Wormington | 48min | 20 | 15 | 0 | 1 |
| 7/9/2011, 20:17-21:04 | Short-eared Owl Breeding Driving Survey | A. Wormington | 47min | 18 | 30 | 0 | 1 |
| 6/7/2011, 20:30-20:50 | Short-eared Owl Observational Survey (Station 4) | P. Read | 20min | 20 | 20 | 0 | 0 |
| 5/11/2011, 20:00-20:20 | Short-eared Owl Observational Surveys (Station 1) | D. Graham | 20min | 10 | 20 | 0 | 1 |
| 6/6/2011, 20:50-21:10 | Short-eared Owl Observational Surveys (Station 1) | P. Read | 20min | 17 | <10 | 0 | 1 |
| 6/21/2011, 20:45-21:05 | Short-eared Owl Observational Surveys (Station 1) | A. Wormington | 20min | 21 | 100 | 0 | 1 |
| 6/1/2011, 20:40-21:00 | Short-eared Owl Observational Surveys (Station 10) | P. Read | 20min | 20 | <10 | 0 | 3 |
| 6/15/2011, 20:26-20:46 | Short-eared Owl Observational Surveys (Station 10) | A. Wormington | 20min | 22 | 10 | 0 | 0 |
| 5/11/2011, 20:00-20:20 | Short-eared Owl Observational Surveys (Station 11) | B. Stamp | 20min | 15 | 20 | 0 | 2 |
| 5/30/2011, 20:55-21:15 | Short-eared Owl Observational Surveys (Station 11) | P. Read | 20min | 16 | 10 | 0 | 0 |
| 6/26/2011, 20:34-20:54 | Short-eared Owl Observational Surveys (Station 11) | A. Wormington | 20min | 18 | 35 | 0 | 1 |
| 5/11/2011, 20:26-20:46 | Short-eared Owl Observational Surveys (Station 12) | B. Stamp | 20min | 15 | 20 | 0 | 2 |
| 5/30/2011, 20:20-20:40 | Short-eared Owl Observational Surveys (Station 12) | P. Read | 20 min | 16 | 10 | 0 | 0 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| 6/27/2011, 20:22-20:42 | Short-eared Owl Observational Surveys (Station 12) | A. Wormington | 20min | 20 | 50 | 0 | 0 |
| 5/10/2011, 20:08-20:28 | Short-eared Owl Observational Surveys (Station 13) | B. Stamp | 20min | 14 | 30 | 0 | 1 |
| 5/31/2011, 20:30-20:50 | Short-eared Owl Observational Surveys (Station 13) | P. Read | 20min | 20 | <10 | 0 | 2 |
| 6/27/2011, 20:46-21:06 | Short-eared Owl Observational Surveys (Station 13) | A. Wormington | 20min | 20 | 50 | 0 | 0 |
| 5/10/2011, 20:32-20:52 | Short-eared Owl Observational Surveys (Station 14) | B. Stamp | 20min | 10 | 10 | 0 | 3 |
| 6/9/2011, 20:40-21:00 | Short-eared Owl Observational Surveys (Station 14) | P. Read | 20min | 19 | 100 | 0 | 3 |
| 6/22/2011, 20:17-20:37 | Short-eared Owl Observational Surveys (Station 14) | A. Wormington | 20min | 20 | 100 | 0 | 1 |
| 5/31/2011, 20:55-21:15 | Short-eared Owl Observational Surveys (Station 15) | P. Read | 20min | 22 | <10 | 0 | 2 |
| 6/22/2011, 20:45-21:05 | Short-eared Owl Observational Surveys (Station 15) | A. Wormington | 20min | 20 | 100 | 0 | 1 |
| 5/10/2011, 20:10-20:30 | Short-eared Owl Observational Surveys (Station 2) | D. Graham | 20min | 10 | 20 | 0 | 1 |
| 6/6/2011, 20:30-20:50 | Short-eared Owl Observational Surveys (Station 2) | P. Read | 20min | 17 | <10 | 0 | 1 |
| 6/21/2011, 20:17-20:37 | Short-eared Owl Observational Surveys (Station 2) | A. Wormington | 20min | 21 | 90 | 0 | 1 |
| 6/7/2011, 20:55-21:15 | Short-eared Owl Observational Surveys (Station 3) | P. Read | 20min | 18 | 20 | 0 | 0 |
| 6/14/2011, 20:57-21:17 | Short-eared Owl Observational Surveys (Station 3) | A. Wormington | 20min | 13 | 0 | 0 | 0 |
| 5/17/2011, 20:22-20:37 | Short-eared Owl Observational Surveys (Station 4) | B. Stamp | 15min | 8 | 95 | 0 | 5 |
| 6/14/2011, 20:30-20:50 | Short-eared Owl Observational Surveys (Station 4) | A. Wormington | 20min | 15 | 0 | 0 | 0 |
| 5/17/2011, 20:33-21:00 | Short-eared Owl Observational Surveys (Station 5) | J. Heslop | 27min | 9 | 100 | 0 | 2-3 |
| 6/5/2011, 20:55-21:15 | Short-eared Owl Observational Surveys (Station 5) | P. Read | 20min | 16 | 30 | 0 | 0 |
| 5/17/2011, 20:00-20:30 | Short-eared Owl Observational Surveys (Station 6) | J. Heslop | 30min | 10 | 100 | 0 | 2-3 |
| 6/5/2011, 20:30-20:50 | Short-eared Owl Observational Surveys (Station 6) | P. Read | 20min | 17 | 30 | 0 | 0 |
| 6/16/2011, 20:35-20:53 | Short-eared Owl Observational Surveys | A. Wormington | 18min | 20 | 50 | 0 | 0 |

**Table 4B: Natural Feature Site Investigations, Amherst Island Wind Energy**

| Survey Date (mm/dd/yyyy) And t | Purpose of Site Investigation | Field Personnel | Duration (Person-Hours) | Weather Conditions* | | | |
|---|---|---|---|---|---|---|---|
| | | | | Air (°C)* | Cloud (%) | Precip. | Wind** |
| | (Station 6) | | | | | | |
| 5/17/2011, 19:55-20:15 | Short-eared Owl Observational Surveys (Station 7) | B. Stamp | 20min | 8 | 95 | Light | 5 |
| 6/1/2011, 21:05-21:25 | Short-eared Owl Observational Surveys (Station 7) | P. Read | 20min | 18 | <10 | 0 | 3 |
| 6/15/2011, 20:53-21:13 | Short-eared Owl Observational Surveys (Station 7) | A. Wormington | 20min | 20 | 20 | 0 | 0 |
| 5/10/2011, 20:30-20:50 | Short-eared Owl Observational Surveys (Station 8) | D. Graham | 20min | 10 | 20 | 0 | 1 |
| 6/3/2011, 20:50-21:10 | Short-eared Owl Observational surveys (Station 8) | P. Read | 20min | 17 | 10 | 0 | 1 |
| 6/24/2011, 20:25-20:45 | Short-eared Owl Observational Surveys (Station 8) | A. Wormington | 20min | 20 | 80 | Light | 1 |
| 5/11/2011, 20:27-20:47 | Short-eared Owl Observational Surveys (Station 9) | D. Graham | 20min | 10 | 20 | 0 | 1 |
| 6/3/2011, 20:30-20:45 | Short-eared Owl Observational Surveys (Station 9) | P. Read | 15min | 17 | 10 | 0 | 1 |
| 6/24/2011, 20:49-21:09 | Short-eared Owl Observational Surveys (Station 9) | A. Wormington | 20min | 20 | 80 | Trace | 1 |
| 6/16/2011, 20:57-21:17 | Short-eared Owl Observational Surveys Station 5) | A. Wormington | 20min | 18 | 60 | 0 | 0 |

**Table 5B: Summary of Corrections to Records Review for Amherst Island Wind Project**

| Features within 120m of the Project Location | Records Review Results | Correction made as a result of site investigation | Report Section Providing Criteria Used in Determination of Correction |
|---|---|---|---|
| Wetlands | Nut Island Duck Club Marsh; Long Point Marsh | 32 additional wetland communities identified. Boundaries to Nut Island Duck Club Marsh and Long Point Marsh changed – adjacent wetland ELC communities added. | 3.2.2.3 |
| Woodlands | Several significant woodland features identified | 36 woodland communities confirmed in features 1 through 36. | 3.2.3 |
| Valleylands | None identified | None identified | 3.2.4 |
| ANSIs | Long Point Marsh Life Science ANSI (Provincially-Significant) | No additional ANSIs identified | 3.2.5 |

| **Table 6B:** | **Site Investigation Results - Wetland** | | | | | |
|---|---|---|---|---|---|---|
| **Feature #** | **Total Feature Size (ha)** | **Figure #** | **Composition** | **Attributes** | **Function** | **Significance** |
| 1 | 0.76 | 2 | MAM2-2 | This open community, a lacustrine wetland located along the north shore of the island, consists primarily of Reed-canary grass, with Goldenrod, Aster and Narrow-leaved cattail occurring in lesser proportions. Woody species present were rare and included Black willow and other Willow species. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity<br>• Fish habitat | Unknown, requires Evaluation of Significance |
| 2a | 1.2 | 2 | MAS2-2 | This small, open wetland is dominated by Wool grass, with less prominent occurrences of Soft Rush, Path Rush, Float-topped bushy goldenrod and Sedge species. Sparse willow species occur in the understory. No surface water was present although the soil was mesic. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 2b | 0.3 | 2 | MAM2-2 | This community, associated with wetland 2a, consisted of a dense ground layer of herbaceous plants, dominated by reed-canary grass, with secondary components consisting of rice cut grass, Bebb's sedge, devil's beggar-ticks, and narrow-leaved cattail. Soil was moist. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 3a | 4 | 2 | CUM1-1, MAM2-2 | This wetland is comprised of both meadow marsh and deciduous swamp communities.<br>The meadow marsh consisted largely of Reed-canary grass with less frequent occurrence of forbs and other grasses.<br>The deciduous swamp is comprised mainly of green ash, with Freeman's maple and White elm in lesser proportions. The understory consists of rare occurrences of canopy species, while the sparse herbaceous cover included Fowl meadow grass, Spotted touch-me-not, Small jack-in-the-pulpit, Panicled aster, Black snakeroot and Sedge species. The soil was mesic/moist. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 3b | 2.4 | 2 | MAM2-2, SWD2-2 | The meadow marsh community is dominated by Reed-canary grass, with rare occurrences of Narrow-leaved cattail and Wool grass.<br>The deciduous swamp was dominated by Green ash, with Slippery elm present in small numbers. Ground cover consists largely of Fowl meadow grass, Kentucky bluegrass with some Fox sedge, Spotted touch-me-not, | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

| Table 6B: Site Investigation Results - Wetland | | | | | | |
|---|---|---|---|---|---|---|
| **Feature #** | **Total Feature Size (ha)** | **Figure #** | **Composition** | **Attributes** | **Function** | **Significance** |
| | | | | Panicled aster, White avens and Reed-canary grass. Scarlet strawberry and Carex species were present but sparse. | | |
| 3c | 0.8 | 2 | MAM2-2, AG-PAS | The meadow marsh community is dominated by Reed-canary grass, with rare occurrences of Narrow-leaved cattail and Wool grass. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 4a | 105 | 3 | SWD3-3, MAM2-2, SWT2-6 | This large wetland encompasses several community types.<br>Meadow marshes included:<br>Reed-canary grass dominated with varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species were rare occurrences and consisted primarily of green ash, gray dogwood, and narrow-leaved meadowsweet, or;<br>Sedge dominated with less frequent occurrences of Wool grass, Blue vervain, Perfoliate thoroughwort and Early goldenrod. Woody species were rare and included Green ash, Silky dogwood and Willow species.<br>Thicket swamps were comprised of thick canopies of narrow-leaved meadowsweet above ground layers consisting primarily of reed-canary grass and grass-leaved goldenrod. Other less frequently observed species included swamp milkweed, sedges, and bulrushes.<br>Deciduous swamp communities were include the following:<br>Green ash dominated with varying canopy density and maturity with a lower abundance of Freeman's maple with an understory of sparse Willow species and Silky dogwood. Ground cover consisted of mainly Sedge | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

| **Table 6B:** | **Site Investigation Results - Wetland** | | | | | |
|---|---|---|---|---|---|---|
| **Feature #** | **Total Feature Size (ha)** | **Figure #** | **Composition** | **Attributes** | **Function** | **Significance** |
| | | | | species, with Fowl meadow grass, Reed-canary grass, Wool grass and Sensitive fern. Grass and sedge dominance is variable and the soil is moist, or; Freeman's maple dominated with lesser components of Green ash with the understory comprised of sparse occurrences of these species as well as Slippery elm. Ground cover consists of Sensitive fern, with less frequent occurrences of Spotted touch-me-not, Fowl meadow grass and Wood nettle. No surface water, soil mesic.<br>Ash lowlands dominated by Green ash, with less frequent American basswood and Freeman's maple. Understory species consist of Gray dogwood, Narrow-leaved meadowsweet and Wild red raspberry, while the ground cover is variable depending on moisture regime but includes Sedge and violet species, Wood reed grass, Virginia wild rye, Fox sedge and Fowl meadow grass.<br>Cultural woodland with mid age Green ash canopy, with less frequent occurrences of White elm. Understory and ground cover was variable and included Nannyberry, Gray dogwood, narrow-leaved meadowsweet, Scarlet strawberry, Brown Knapweed, Canada blue grass and Timothy.<br>Cultural meadow with species composition including, timothy, Kentucky blue-grass, Canada goldenrod, wild carrot, common milkweed, bird's foot trefoil, tufted vetch, and scarlet strawberry. Mixtures of straw, red-top grass, and reed-canary grass were often observed where soil had higher moisture content. | | |
| 4b | 1.2 | 3 | SWD2-2 | This deciduous swamp was dominated by Green ash with freeman maple associates. The understory was considered sparse with some willow species and meadowsweet present. Ground layers consisted mainly of | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

**Table 6B:** **Site Investigation Results - Wetland**

| Feature # | Total Feature Size (ha) | Figure # | Composition | Attributes | Function | Significance |
|---|---|---|---|---|---|---|
| | | | | fowl meadow grass, fox sedge and abundant other sedge species. In some areas grasses dominated the ground layer. Soil was moist, but no standing water was present at time of investigation. | | |
| 4c | 0.31 | 2 | CUM1-1, MAM2-2 | This small wetland associated with We4a has been isolated by a road, which bisects to the east, from We4a. This meadow marsh community is dominated by Reed canary grass with sedge associates. Woody species occur rarely and include some sparse occurrences of Green ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 4d | 0.23 | 5 | SWT2-6 | This small swamp thicket was dominated by narrow-leaved meadowsweet with associates including gray dogwood, red-osier dogwood and rarely willow species. Understory vegetation was abundant, and included various sedge species, Reed-canary grass, Aster species and goldenrod species. Canopy species were sparse and included rarely green ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 5 | 8.45 | 3 | MAM2, AG-PAS | This moderately sized meadow marsh community, which includes areas which have been actively grazed and pockets of shallow marsh, was dominated by woolly sedge, with abundant associates including redtop, path rush, blue vervain, Canada goldenrod, American water-horehound, heal-all, grass-leaved goldenrod, fox sedge, and ragweed. Canopy species were sparse and included green ash and American elm. Soil was dry-mesic. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 6a | 19.5 | 3 | MAM2-2, CUP3-12, CUM1-1 | This moderately sized meadow marsh community is associated with various intermittent channels and streams which intersect within the community. It is dominated by reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species are rare if present at all and consist of primarily green ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity<br>• Fish habitat | Unknown, requires Evaluation of Significance |

| **Table 6B:** | **Site Investigation Results - Wetland** | | | | | |
|---|---|---|---|---|---|---|
| **Feature #** | **Total Feature Size (ha)** | **Figure #** | **Composition** | **Attributes** | **Function** | **Significance** |
| 6b | 2.1 | 3 | MAM2-2 | This small community associated with We6a is dominated by reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species are rare if present at all and consist of primarily green ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 6c | 4.4 | 3 | MAM2-2 | This community associated with We6a is also associated with the various intermittent streams and channels which intersect the community. It is dominated by reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species are rare if present at all and consist of primarily green ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 6d | 2.7 | 3 | MAM2-2 | This small community associated with We6a is also associated with the various intermittent streams and channels which intersect the community. It is dominated by reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species are rare if present at all and consist of primarily green ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 6e | 2.35 | 3 | SWD2-2 | This small deciduous treed swamp community associated with We6d is also associated with the various intermittent streams and channels which intersect the community. It is dominated by green ash with white elm in the canopy. There are other various swamp associates such as gray dogwood, red-osier dogwood, and reed canary grass in the shrub and ground layers. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 7 | 2.1 | 4 | MAM2-2, CUM1-1 | This small meadow marsh community associated with a drainage feature was dominated by reed canary grass and accompanied by various mixtures of other species including species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. A deep | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

**Table 6B: Site Investigation Results - Wetland**

| Feature # | Total Feature Size (ha) | Figure # | Composition | Attributes | Function | Significance |
|---|---|---|---|---|---|---|
| | | | | drainage channel cuts through the feature. | | |
| 8 | 0.56 | 4 | SWD2-2, CUT1-4 | This small deciduous swamp located adjacent to 2nd Concession road was dominated by green ash in the canopy with Freeman's maple associates. The understory was sparse and included green ash and Freeman's maple saplings. The ground layer was dominated by various species of grasses and sedges, including Canada bluegrass, fox sedge and reed canary grass. No surface water was present at time of survey. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 9a | 1.5 | 4 | SWT2-2, FOD7-2 | This small swamp thicket was dominated by narrow-leaved leaved meadowsweet with a dense ground layer of sedge species. No surface water was present in the community at time of survey. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 9b | 5.1 | 4 | CUT1-8, SWT2-6 | This moderately sized swamp thicket community associated with We9a was dominated by narrow-leaved meadowsweet with rarely occurring gray dogwood, green ash, white elm and bur oak. The ground layer was dominated by redtop grass, goldenrod and sedge species. No surface water was present in this community at the time of survey. Disturbances include partial grazing in portions of the community. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 10a | 167.5 | 4 | SWD2-2, SWD3-3, MAM2-2, CUM1-1 | This large wetland encompasses several community types.<br>Meadow marshes were comprised of Reed-canary grass dominated with varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species were rare occurrences and consisted primarily of green ash, gray dogwood, and narrow-leaved meadowsweet.<br>Swamp thickets include:<br>Narrow-leaved meadowsweet dominated communities with ground layers consisting primarily of reed-canary grass and grass- | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Provincially-Significant |

| **Table 6B:** | **Site Investigation Results - Wetland** | | | | | |
|---|---|---|---|---|---|---|
| **Feature #** | **Total Feature Size (ha)** | **Figure #** | **Composition** | **Attributes** | **Function** | **Significance** |
| | | | | leaved goldenrod. Other less frequently observed species included swamp milkweed, sedges, and bulrushes, or;<br>Gray dogwood dominated communities with scattered occurrences of narrow-leaved meadowsweet. Rare to occasional occurrences of green ash, Freeman's maple, and white elm made up a sparse canopy. The ground layer was thick and dominated by reed-canary grass, giant goldenrod, wild carrot, and an aster species.<br>Deciduous swamps include:<br>Freeman's maple dominated with green ash associates and American basswood as an occasional to rare occurrence among them. The sub-canopy composition typically included canopy species as well as blue beech and elm species. Shrub species were infrequent and varied between communities but included gray dogwood, narrow-leaved meadowsweet, winterberry, and red-osier dogwood. The ground layers were dense and consisted mainly of sedges, spotted touch-me-not, fowl meadow grass, sensitive fern, wood nettle, jack-in-the-pulpit, and panicled aster, or;<br>Green ash dominated communities, associated with lower abundances of Freeman's maple, and occasionally white elm. Typical understory species ranged through silky dogwood, narrow-leaved meadowsweet, and nannyberry, while the ground layers consisted mainly of fowl meadow grass, fox sedge and other sedges, Northern water-horehound, panicled aster, and Virginia wild rye. Soil was moist throughout.<br>There is also a small Meadow marsh community dominated by reed canary grass | | |

**Table 6B: Site Investigation Results - Wetland**

| Feature # | Total Feature Size (ha) | Figure # | Composition | Attributes | Function | Significance |
|---|---|---|---|---|---|---|
| | | | | with varying mixtures of less commonly observed species such sedges, grass-leaved goldenrod, and hedge bindweed. Woody species were not observed in this community. Surface water was not present in this community. | | |
| 10b | 30.1 | 4 | SWD2-2, SWD3-3, MAM2-2, SWT2-2, SWT2-9 | This wetland encompasses several community types.<br>Deciduous swamps include:<br>Green ash dominated with lower abundances of Freeman's maple and occasionally White Elm. Typical understory species ranged through silky dogwood, narrow-leaved meadowsweet, and nannyberry, while the ground layers consisted mainly of fowl meadow grass, fox sedge and other sedges, Northern water-horehound, panicled aster, and Virginia wild rye. Soil was moist throughout, with some surface pools of no more than 10 to 15cm depth in the wettest communities, or;<br>Freeman's Maple dominated canopy with Green ash and occasional American Basswood. The subcanopy composition typically included canopy species as well as blue beech and elm species. Shrub species were infrequent and varied between communities but included gray dogwood, narrow-leaved meadowsweet, winterberry, and red-osier dogwood. The ground layers were dense and consisted mainly of sedges, spotted touch-me-not, fowl meadow grass, sensitive fern, wood nettle, jack-in-the-pulpit, and panicled aster.<br>Swamp thickets include:<br>Slender willow dominated with infrequent occurrences of Green ash. The understory was a moderately thick layer of narrow-leaved meadowsweet, while the ground layer | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

**Table 6B:** **Site Investigation Results - Wetland**

| Feature # | Total Feature Size (ha) | Figure # | Composition | Attributes | Function | Significance |
|---|---|---|---|---|---|---|
| | | | | included redtop grass, fox sedge, timothy grass, and daisy fleabane. This community type was generally associated with or adjacent to culturally influenced habitat, or;<br>Gray dogwood dominated with scattered occurrences of Narrow-leaved meadowsweet. Rare to occasional occurrences of green ash, Freeman's maple, and white elm made up a sparse canopy. The ground layer was thick and dominated by reed-canary grass, giant goldenrod, wild carrot, and an aster species.<br>Cultural Thickets include Gray dogwood dominated with less common occurrences of Narrow-leaved meadowsweet. Tree cover was sparse but commonly included green ash and white elm. Ground cover varied but consistently included Kentucky bluegrass, Canada bluegrass, timothy, red-top grass, wild carrot, scarlet strawberry, flat-topped bushy goldenrod, Canada goldenrod, common heal-all, and path rush.<br>Meadow Marsh communities consisted of a mix of Reed-canary grass, Sedge species and Broad-leaved cattail. | | |
| 11 | 1.05 | 4 | SWT2-6 | This small thicket swamp community was dominated by narrow-leaved meadowsweet, with some instances of gray dogwood and rarely red-osier dogwood. A cattail marsh inclusion was also present within the community. Understory vegetation consisted of reed-canary grass and grass-leaved goldenrod. Other less frequently observed species included swamp milkweed and sedges. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 12 | 13.8 | 2 | MAM2, MAM, SWD2-2, SWT2-9 | This meadow marsh, deciduous swamp, and swamp thicket community is located northwest of the Nut Island Duck Club Marsh.<br>The meadow marshes are dominated by reed-canary grass, while the deciduous swamp is dominated by Green Ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

**Table 6B: Site Investigation Results - Wetland**

| Feature # | Total Feature Size (ha) | Figure # | Composition | Attributes | Function | Significance |
|---|---|---|---|---|---|---|
| | | | | The swamp thicket community was dominated by a dense understory layer of gray dogwood with scattered occurrences of narrow-leaved meadowsweet. Rare to occasional occurrences of green ash, Freeman's maple, and white elm made up a sparse canopy. The ground layer was thick and dominated by reed-canary grass, giant goldenrod, wild carrot, and an aster species. | | |
| 13 | 0.32 | 4 | MAM2-2 | This small meadow marsh community consisted of a thick layer of reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 14 | 0.75 | 4 | CUT1-4, CUM1-1 | This small wetland community was dominated by gray dogwood with an inclusion of Reed Canary meadow marsh. Other species present within the community included giant goldenrod, wild carrot, and an aster species. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 15 | 2.6 | 4 | SWD2-2 | This mature swamp community was dominated by green ash with some American elm and ironwood in the understory. Ground cover was dominated by *Carex* with asters, grasses and sedges also present. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 16 | 1.7 | 4 | MAM2-2, AG-PAS | This small disturbed meadow marsh community was dominated by Reed-canary grass with other commonly observed forb, grass and sedge species including wool-grass, grass-leaved goldenrod and swamp milkweed. Evidence of cattle grazing and pasture land was apparent. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 17 | 9.8 | 5 | MAM2-2 | This large meadow marsh community is found growing along either side of a small intermittent creek which bisects the community and runs parallel to 3rd concession rd. This community is dominated by Reed-canary grass. Other species present within the community include various species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species are rare if present at all and consist of primarily green ash. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

**Table 6B: Site Investigation Results - Wetland**

| Feature # | Total Feature Size (ha) | Figure # | Composition | Attributes | Function | Significance |
|---|---|---|---|---|---|---|
| 18 | 0.27 | 5 | SWD2-2 | This small deciduous swamp community is located as an inclusion within a deciduous forest community. It is dominated by mature green ash with reed-canary grass in the understory. Other species found occasionally in the understory include species of sedge and other grasses. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 19 | 0.88 | 5 | MAM2-2 | This small meadow marsh community consisted of a thick layer of reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 20 | 1.1 | 5 | MAM2-2 | This small meadow marsh community was interspersed with areas of cultural meadow and was overall considerably dry. The dominant species was reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |
| 21 | 370.44 | 5 | MAS3-1, MAS2-10 | This large contiguous wetland known as Long Point Marsh has been previously surveyed and is considered provincially significant. Areas observed during 2011 surveys include the following communities:<br>Marsh communities included:<br>A large cattail organic shallow marsh dominated by narrow-leaved cattail.<br>A sweet manna grass dominated shallow marsh community, with green ash forming a very sparse canopy layer along with rare occurrences of Freeman's maple and bur oak. Snags were abundant throughout and some surface water was present.<br>Green ash dominated communities, associated with lower abundances of Freeman's maple, and occasionally white elm. Typical understory species ranged | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Provincially-Significant |

| **Table 6B:** | **Site Investigation Results - Wetland** | | | | | |
|---|---|---|---|---|---|---|
| **Feature #** | **Total Feature Size (ha)** | **Figure #** | **Composition** | **Attributes** | **Function** | **Significance** |
| | | | | through silky dogwood, narrow-leaved meadowsweet, and nannyberry, while the ground layers consisted mainly of fowl meadow grass, fox sedge and other sedges, Northern water-horehound, panicled aster, and Virginia wild rye. Soil was moist throughout. | | |
| 22 | 1.2 | 1 | MAM2 | This is a young graminoid mineral meadow marsh located at the north end of a property on the mainland. It is dominated by broad-leaved cattail, purple loosestrife, aster species, and grass species. | • Flood attenuation<br>• Short-term water quality improvement<br>• Preservation of biodiversity | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| 1 | 3.05 | 4 | SWD1-2<br>(Bur Oak Mineral Deciduous swamp) | Feature 1 is a small woodland feature occurring within an agricultural landscape, including active pasture, hay and fallow fields, and cultural meadow and cultural thicket areas.<br>Feature 1 occurs to the east of Art McGinnis Rd. and south of 2nd Concession Rd, and occupies a small central portion of the agricultural area. | Snags were considered rare to occasional<br>Age structure primarily mature (most trees <10 to <50cm dbh)<br>No trees were observed that were >25 dbh and contained cavities<br>Overall canopy cover was >60%; characterized as closed canopy<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed<br>Vernal pools absent, presence of surface water was present, infrequent pooling present within east side of community.<br>No disturbance noted. | • Woodland diversity representation | Unknown, requires Evaluation of Significance. |
| 2 | 2.99 | 4 | SWD2-2<br>(Green Ash Mineral Deciduous Swamp) | Woodland feature 2 was comprised of a small Green ash swamp which is bisected north from south by a stream.<br>Land use immediately surrounding the woodland feature is primarily managed agricultural lands.<br>Feature 2 occurs South of 2nd | Snags were considered rare<br>Age structure primarily mid-age (most trees <10 to <24 dbh)<br>Trees observed >25dbh were considered rare<br>No trees were observed that were >25 dbh and contained | • Provides water protection<br>• Close to other significant natural features | Unknown, requires Evaluation of Significance. |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | Concession Rd., and to the west of Emerald 40 Foot Rd. | cavities<br>Overall canopy cover was >60%; characterized as closed canopy<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed<br>Vernal pools absent, presence of surface water <10cm depth<br>No disturbance noted. | | |
| 3 | 136.03 | 4 | Comprised of a mosaic of six different vegetation community types including:<br>CUW1-3*<br>(Green Ash Mineral Cultural woodland)<br>SWD2-2<br>(Green Ash mineral Deciduous Swamp)<br>CUW1-4*<br>(Shagbark Hickory Mineral | Woodland feature 3 is found north of 2nd Concession Rd. and on the east and west sides of Emerald 40 Foot Rd.<br>The feature is comprised of a mosaic of vegetation community types and bisected by one north-south road .The road was considered a bisecting opening less than 20 m in width and was not considered to divide the woodland into separate features.<br>The majority of the feature is not within 120m of the Project Location.<br>Land use immediately surrounding the woodland feature is primarily managed | Snags considered rare to occasional<br>Varying age structure ranging from young to mature (trees from <10 to, rarely, >50cm dbh)<br>No trees were observed that were >25 dbh and contained cavities.<br>The majority of Feature 3 consisted of closed (>60%) canopy cover.<br>Patches of open (i.e. ≤ 60%) canopy cover occurred extensively along 2nd concession rd. on the southern extent of the feature (CUT and CUW communities) near collector line | • Large woodland<br>• Interior habitat<br>• Close to other significant natural features<br>• Provides connectivity between significant natural features<br>• Provides water protection | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | cultural woodland)<br>CUT1-7* (Prickly Ash Mineral Cultural Thicket)<br>CUT1-4 (Gray Dogwood Cultural Thicket)<br>FOC (Coniferous Forest) | agricultural lands, as well as residences along the southern edge of the feature. | row.<br>No vernal pools were observed within 120m of the Project Location.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Pools of surface water present in some communities.<br>Disturbance observed included:<br>-evidence of past logging activity<br>-Some cattle grazing | | |
| 4 | 214.72 | 4 | FOD9-4 (Fresh-Moist Shagbark Hickory Deciduous Forest)<br>FOD5-1 (Dry-Fresh Sugar Maple Deciduous Forest)<br>CUW1-4* (Maple Mineral | Woodland feature 4 is a very large contiguous woodland and wetland community encompassing portions of the Southwest corner of the island. The area surrounding this wetland feature includes agriculture to the north, and Lake Ontario, agriculture and marsh to the southwest.<br>Woodland composition within 120 m of the Project Location is composed of cultural woodland and deciduous forest. The majority of the feature is not | Snags considered rare to occasional (<24cm dbh).<br>Varying age structure ranging from mid-age to mature age classes (trees from <10 to 50cm dbh).<br>No trees were observed that were >25 dbh and contained cavities.<br>The majority of woodland 4 consisted of closed (>60%) canopy cover. | • Large woodland<br>• Interior habitat<br>• Close to other significant natural features<br>• Provides connectivity between significant natural features<br>• Provides | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | Cultural Woodland)<br>SWD3-2 (Silver Maple Mineral Deciduous Swamp)<br>SWD2-2 (Green Ash Mineral swamp)<br>FOD9 (Fresh-Moist Oak-Maple-Hickory Deciduous forest)<br>CUT1-4 (Gray Dogwood Cultural Thicket)<br>SWT2-9 (Gray Dogwood Mineral Thicket Swamp)<br>SWD3-3 (Swamp Maple Mineral Deciduous Swamp) | within 120m of the Project Location.<br>This feature is bisected by Art McGinnis Rd., Emerald 40 Foot Rd. and a stream runs the length of the feature from east to west, ending in the large marshlands occurring adjacent to Lake Ontario. | Patches of open (i.e. ≤ 60%) canopy cover occurred in CUT and SWT communities.<br>No vernal pools were observed, surface water and pooling occurs in deciduous swamp communities.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Fully surveyed area includes some heavily grazed woodland mixed with pasture, heavily disturbed community with ground cover grazed and unidentifiable. | water protection<br>• Woodland diversity representation | |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | FOD9-4 (Fresh-Moist Shagbark Hickory Deciduous Forest)<br>FOD7-2 (Fresh-Moist Ash Lowland Deciduous Forest)<br>FOD5-2 (Dry-fresh Sugar Maple Beech Deciduous Forest)<br>SWT2-2 (Willow Mineral thicket Swamp)<br>SWD Deciduous Swamp | | | | |
| 5 | 2.87 | 4 | CUW1-1 (Red Cedar Cultural Woodland) | Woodland feature 5 was a small red cedar woodland located north of 2nd Concession Rd. and south of Front Rd.<br>Land use immediately surrounding the woodland | No trees were observed that were >25 dbh and contained cavities.<br>Open canopy.<br>No vernal pools were observed. | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | feature was comprised of managed agricultural lands. | No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Heavily disturbed with cattle grazing and trampling occurring throughout. | | |
| 6 | 2.58 | 4 | SWD2-2 (Green Ash Mineral Deciduous Swamp) | Woodland feature 6 was a small isolated woodland found immediately adjacent to 2nd Concession Rd, on the north side.<br>Land use immediately surrounding the woodland feature was comprised of managed agricultural lands. | Snags considered rare to occasional.<br>Mature forest (trees from <10 to, rarely, <50cm dbh).<br>No trees were observed that were >25 dbh and contained cavities.<br>Consisted of closed (>60%) canopy cover.<br>No vernal pools were observed.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>No disturbance noted. | | Unknown, requires Evaluation of Significance |
| 7 | 2.35 | 3 | SWD2-2 (Green Ash Mineral Deciduous | Woodland 7 is a small isolated deciduous swamp located west of Lower 40 Foot Rd, south of Front Rd. | Snags considered rare to occasional.<br>Mature forest (trees from <10 to, | • Provides water protection<br>• Close to | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | Swamp) | Land use immediately surrounding the woodland is a fallow agricultural field which has converted to a cultural meadow. | rarely, <50cm dbh).<br>No trees were observed that were >25 dbh and contained cavities.<br>Consisted of closed (>60%) canopy cover.<br>No vernal pools were observed.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>No disturbance noted. | other significant natural features | |
| 8 | 0.49 | 4 | SWD2-2 (Green Ash Mineral Deciduous Swamp) | Woodland 8 is a small isolated deciduous swamp located north of 2nd Concession Rd and to the east of Emerald 40 Foot Rd.<br>Land use immediately surrounding the woodland feature was comprised of agricultural use, particularly pasture and some hay. | Snags considered rare to occasional (<10 to 24cm dbh).<br>Mature forest (trees from <10 to, rarely, >50cm dbh).<br>No trees were observed that were >25 dbh and contained cavities.<br>Consisted of closed (>60%) canopy cover.<br>No vernal pools were observed.<br>No specialized wildlife habitat features (hibernacula, stick | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | nests, etc.) observed.<br>No disturbance noted. | | |
| 9 | 15.82 | 4 | FOD9 (Fresh-Moist Oak-Maple-Hickory Deciduous Forest Ecosite)<br>FOD9-4 (Fresh-Moist Shagbark Hickory Deciduous forest)<br>CUT1-4 (Gray Dogwood Cultural Thicket)<br>FOD (Deciduous forest) | Woodland 9 was culturally influenced deciduous woodland immediately adjacent to the north of 2nd Concession Rd., east of feature 6.<br>Land use immediately surrounding the woodland feature was comprised residences and managed agricultural lands. | Woodlot was observed from edge due to lack of property access.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was variable>60%; in FOD characterized as closed canopy, CUT areas characterized as open canopy <60%.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>No vernal pools were observed.<br>Some pasture and grazing abutting the woodland. | • Large woodland<br>• Interior habitat<br>• Woodland diversity representation | Unknown, requires Evaluation of Significance |
| 10 | 14.69 | 4 | FOD7-2 (Fresh-moist Ash Lowland Deciduous Forest) | Woodland 10 was moderately sized deciduous woodland located to the north of 3rd Concession Rd.<br>Land use immediately | Snags were considered absent to rare.<br>Age structure young (<10cm dbh) or mature (10 to 50cm dbh); varying within the woodland by | • Large woodland<br>• Interior habitat<br>• Close to other | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | CUT1-4<br>(Gray Dogwood Cultural Thicket) | surrounding the woodland feature was comprised of managed agricultural lands. A small water feature flows through the southern edge of the woodland. | community type.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy; CUT considered open canopy <60%.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools were not observed.<br>No disturbance noted. | significant natural features<br>• Provides linkage between significant features<br>• Provides water protection | |
| 11 | 2.55 | 4 | FOD7-2<br>(Fresh-Moist ash Lowland Deciduous Forest)<br>SWT2-2<br>(Willow Mineral Thicket Swamp)<br>CUT1-8*<br>(Meadowsweet Mineral Cultural Thicket) | Woodland 11 was a small meandering cultural woodland located north of woodlot 10, and south of 2nd Concession Rd.<br>Land use immediately surrounding the woodland feature was comprised of managed agricultural lands. | Snags were considered ocassional to rare (<10 to 24cm)<br>Age structure mid-age (10 to 24cm dbh)<br>No trees were observed that were >25 dbh and contained cavities<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | SWT2-6 (Meadowsweet mineral Thicket Swamp) | | nests, etc.) observed.<br>Vernal pools were not observed.<br>Disturbance noted include partially grazed areas abutting woodland. | | |
| 12 | 1.23 | 4 | FOD7-2<br>(Fresh-Moist ash Lowland Deciduous Forest) | Feature 12 was a small deciduous woodland, separated from woodland feature 11, located directly south, by a gap of approximately 200 m.<br>Land use immediately surrounding the woodland feature was comprised of managed agricultural lands. | Snags were considered absent to rare.<br>Age structure mid-age (10 to 24cm dbh).<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools were not observed within 120m.<br>No disturbance noted. | | Unknown, requires Evaluation of Significance |
| 13 | 1.11 | 4 | FOD7-2<br>(Fresh-moist Ash Lowland Deciduous | Feature 13 was a small deciduous woodland immediately adjacent to 2nd Concession Rd. on the southern side and separated from woodland feature | Snags were considered absent to rare.<br>Age structure mid-age (10 to | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | Forest) | 9 by 2nd Concession Rd. and a gap of approximately 50 m.<br>Land use immediately surrounding woodland feature 13 was comprised of pasture. | 24cm dbh).<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools were not observed within 120m.<br>No disturbance noted. | | |
| 14 | 3.24 | 4 | CUT1-4<br>(Gray dogwood Cultural Thicket)<br>SWD2-2<br>(Green Ash mineral Deciduous Swamp)<br>FOD7-2<br>(Fresh-Moist ash Lowland Deciduous Forest) | Feature 14 was a small culturally influenced woodland located on both sides of 2nd Concession Rd.<br>Land use immediately surrounding woodland feature 14 was actively managed agricultural land and 2nd concession rd. which bisects the feature. | Snags were considered rare to occasional in FOD, with more abundant snags <10cm dbh in CUT areas.<br>Age structure primarily young (most trees <10 to <24cm dbh)rarely >24 in FOD.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was variable>60%; in FOD | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | CUW1-3*<br>(Green Ash Mineral Cultural Woodland) | | characterized as closed canopy, CUT areas characterized as open canopy <60%.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools absent.<br>Some disturbance noted; garbage in FOD. | | |
| 15 | 19.5 | 5 | FOD7-2<br>(Fresh-moist Green Ash Lowland Deciduous Forest) | Woodland feature 15 is found south east of S Shore Rd. and is at the northwestern limit of the Long Point Marsh Provincially Significant Wetland.<br>Land use immediately surrounding the woodland feature is primarily managed agricultural lands, and some cultural meadow to the south west. | Snags were considered absent to rare.<br>Age structure mature (>10 to <50cm dbh.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools were not observed within 120m. | • Large woodland<br>• Close to other significant natural features<br>• Provides connectivity between significant natural features<br>• Provides water protection | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | No disturbance noted. | | |
| 16 | 1.54 | 5 | FOD5-2<br>(Dry-Fresh Sugar Maple-Beech Deciduous forest)<br>SWD2-2<br>(Green Ash mineral Deciduous Swamp) | Woodland feature 16 is a small isolated woodland found to the east of Stella 40 Foot Rd.<br>Land use immediately surrounding the woodland feature is primarily actively managed agricultural lands. | Snags were considered rare in all size classes and occasional in the >10 to 24 cm dbh.<br>Age structure primarily mature (most trees <10 to 50cm dbh).<br>Mature trees >50cm dbh generally considered rare.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools absent, no surface water present.<br>No disturbance noted. | | Unknown, requires Evaluation of Significance |
| 17 | 0.55 | 5 | FOD7-2<br>( Fresh-moist Green Ash | Woodland feature 17 is a small isolated woodland found west of Stella 40 Foot Rd. | Snags were considered rare.<br>Age structure primarily mid age | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | Lowland) | Land use immediately surrounding the woodland feature is primarily actively managed agricultural lands and till. | to mature (trees abundant at <10 to 24cm dbh).<br>Mature trees >25 dbh generally considered occasional.<br>No trees were observed. that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>Potential snake hibernacula located to the west of woodland 17, adjacent to stella 40 foot rd (17t 365327 4890104) No other specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools were not observed.<br>No disturbance noted. | | |
| 18 | 3.42 | 2 | SWD2-2<br>(Green Ash mineral Deciduous Swamp) | Woodland feature 18 is found directly south of 2nd Concession Rd.<br>Land use immediately surrounding the woodland feature is primarily managed | Snags were considered rare to occasional.<br>Age structure primarily mature (most trees 10 to 24cm dbh).<br>Mature trees >25 dbh generally | • Close to other significant natural features<br>• Provides water | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | FOD7-2<br>(fresh-Moist Ash Lowland Deciduous forest) | agricultural lands, and cultural meadow as well as some residences on the east side of the woodland feature. | considered rare to absent.<br>One trees was observed that was >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>Observed one potential bat roosting feature (large oak >50cm dbh, no cavities, decay class 1); no other significant habitat features observed.<br>Vernal pools absent.<br>No disturbance observations were noted. | protection | |
| 19 | 0.84 | 2 | SWD2-2<br>(Green Ash mineral Deciduous Swamp) | Woodland feature 19 is found south of 2nd Concession Rd. is to the east of woodland feature 18 with a gap of approximately 125m separating the woodlands.<br>Land use immediately surrounding the woodland feature is primarily actively managed agricultural lands. | Snags were considered rare to absent<br>Age structure primarily mature (most trees 10 to 24cm dbh).<br>Mature trees >25 dbh generally considered rare to absent.<br>No trees were observed that were >25 dbh and contained cavities. | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools absent.<br>Disturbance observed include a small inactive garbage dump. | | |
| 20 | 6.84 | 5 | CUT1-9*<br>(Willow Mineral Cultural Thicket)<br>CUW1-5*<br>(Ash mineral Cultural Woodland)<br>FOD7-2<br>( Fresh-Moist Ash Lowland deciduous Forest) | Woodland feature 20 is found east of Stella 40 Foot Rd. and north of S Shore Rd.<br>Land use immediately surrounding the woodland feature is primarily managed agricultural lands, pasture, till and woodland feature 21 which is located directly north. | Snags were considered rare in all communities.<br>Age structure primarily mid age (most trees <10 to 24cm dbh).<br>Mature trees >25 dbh generally considered rare to absent.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed. | • Large Woodland | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | Vernal pools were not observed.<br>Disturbance noted included: - moderate us of CUT and CUW areas as pasture with moderate grazing. | | |
| 21 | 197.93 | 3 | CUT1-4<br>(Gray Dogwood Cultural Thicket)<br>FOD7-2<br>(Fresh-moist Ash Lowland deciduous forest)<br>SWD3-3<br>(Swamp Maple mineral Deciduous Swamp)<br>SWT2-6<br>(Meadowsweet Mineral Thicket Swamp)<br>SWD<br>(Deciduous Swamp) | Woodland feature 21 is a very large contiguous swamp located north of S Shore Rd. and east of Marshall 40 Foot Rd. This feature is comprised of a mosaic of vegetation communities.<br>The majority of the feature is not within 120m of the Project Location.<br>Land use immediately surrounding the woodland feature is primarily actively managed agricultural lands and pasture. | Snags were considered rare to occasional (>25cm dbh,) throughout all communities. snags were abundant in FOD 7-2 community( <10cm dbh).<br>Age structure primarily young to mid age (most trees <10 to 24cm dbh); SWD community was mature and contained abundant trees >25 dbh, with ocassional trees >50cm dbh).<br>Mature trees >25 dbh generally considered rare with the exception of the SWD communities.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy. | • Large woodland<br>• Interior habitat<br>• Close to other significant natural features<br>• Provides connectivity between significant natural features<br>• Provides water protection | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools present, particularly in the more mature northern portion of the woodlot.<br>No disturbance noted. | | |
| 23 | 18.3 | 3 | FOD7-2<br>(Fresh-moist ash Lowland Deciduous Forest)<br>FOD5<br>(Dry-Fresh Sugar Maple Deciduous Forest)<br>FOC1-1<br>(Dry Jack Pine Coniferous Forest) *The Owl Woods | Woodland feature 23 is a moderately sized woodland found directly on the east side of Marshall 40 Foot Rd., between Front Rd. and S Shore Rd. This woodlot forms part of the Owl Woods.<br>Land use immediately surrounding the woodland feature is primarily managed agricultural lands.<br>The coniferous forest is a naturalized jack pine plantation that is used in the winter by large numbers of roosting owls. | Snags were considered occasional (<10 to 24cm dbh, and rare to absent >24cm dbh.<br>Age structure primarily mature (most trees <10 to 50cm dbh); abundant in the 10 to 24cm dbh range.<br>Mature trees >25 dbh generally considered occasional.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed. | • Large woodland<br>• Interior habitat<br>• Close to other significant natural features<br>• Provides linkage between significant features<br>• Provides water protection<br>• Forms part of the Owl Woods | Yes (Owl Woods) |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | One Vernal pool approximately 8m x 2m was observed (18 t 367916 4892621) it did not contain water at time of observation.<br>Disturbance noted included some trails extending throughout the community. | | |
| 24 | 0.26 | 4 | FOD4-4*<br>(Dry-Fresh Ironwood Deciduous Forest) | Woodland feature 24 is a small isolated woodlot found north of 2nd concession rd.<br>Land use immediately surrounding the woodland feature is primarily actively managed agricultural lands and cultural meadow. | Snags were considered rare.<br>Age structure primarily mid age (trees <10 to 24cm dbh).<br>Mature trees >25 dbh generally rare.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily <60%; characterized as open canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools absent.<br>No disturbances were noted within the community. | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 25 | 0.87 | 3 | CUP3-12*<br>(White Spruce Cultural Plantation) | Woodland feature 25 is a small plantation located to the west of Lower 40 Foot Rd. and north of woodland feature 26.<br>Land use immediately surrounding the woodland feature is primarily managed agricultural lands, cultural meadow and pasture. | Snags were considered absent.<br>Age structure primarily mid age (majority of tress 10 to 24cm dbh) rarely <10 or >25.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily <60%; characterized as open canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools were not observed.<br>No evidence of disturbance. | | Unknown, requires Evaluation of Significance |
| 26 | 0.39 | 3 | CUP3-12*<br>(White Spruce Cultural Plantation) | Woodland feature 26 is found east of Lower 40 Foot Rd. and is situated south of woodland feature 25.<br>Land use immediately surrounding the woodland | Snags were considered absent.<br>Age structure primarily mid age (majority of tress 10 to 24cm dbh) rarely <10 or >25.<br>No trees were observed that | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | feature is primarily managed agricultural lands, cultural meadow and pasture. | were >25 dbh and contained cavities.<br>Overall canopy cover was primarily <60%; characterized as open canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools were not observed.<br>No evidence of disturbance. | | |
| 28 | 7.80 | 1 | FOC2-1<br>(Dry-Fresh Red Cedar Coniferous Forest)<br>FOD7-2<br>(Fresh-Moist Ash Lowland Deciduous Forest) | Woodland feature 28 is located on the mainland adjacent to Jim Snow Dr. on the east side of the road.<br>Land use immediately surrounding the woodland feature is primarily industrial with some small areas of cultural meadow. | Snags were considered absent.<br>Age structure primarily young (most trees <10 to, ocassionaly, >24cm dbh).<br>-mature trees >25 dbh generally considered absent.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily <60%; characterized as open canopy. | • Large woodland<br>• Provides water protection | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | Due to lack of property access, identification of significant wildlife features could not be observed, including presence or absence of vernal pools.<br>No disturbance noted. | | |
| 29 | 0.57 | 4 | CUW1-6*<br>(Maple-Pine Mineral Cultural Woodland) | Woodland feature 29 is very small woodland located south of 2nd Concession Rd. and north of woodland feature 11.<br>Land use immediately surrounding the woodland feature is primarily managed agricultural lands. | Snags were considered rare.<br>Age structure primarily mature (most trees <10 to >50cm dbh); rarely <10cm dbh.<br>Mature trees >25 dbh generally considered occasional.<br>No trees were observed that were >25 dbh and contained cavities.<br>Overall canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools absent.<br>Disturbance includes a mowed path extending through the | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | community. | | |
| 30 | 2.13 | 2 | FOD7-2<br>(Fresh-Moist Ash Lowland Deciduous Forest)<br>CUT1-4<br>(Gray Dogwood cultural Thicket) | Woodland feature 30 is a small woodland located north of 2nd Concession Rd.<br>Land use immediately surrounding the woodland feature is primarily managed agricultural lands. | Snags were considered rare.<br>Age structure primarily mid age (most trees <10 to 24cm dbh).<br>Mature trees >25 dbh generally considered rare to absent.<br>No trees were observed that were >25 dbh and contained cavities.<br>Canopy cover was primarily >60%; characterized as open canopy in FOD community.<br>Canopy cover was primarily <60%; characterized as open canopy in CUT community.<br>One stick nest was observed in a green ash tree of approximately 40-50cm width, no species were observed using the feature.<br>Vernal pools absent, presence of surface water was primarily absent.<br>No disturbances noted within community. | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 32 | 0.47 | 3 | FOD5<br>(Dry-Fresh Sugar Maple Deciduous Forest) | This small deciduous forest is located adjacent to front rd. east of woodland 31, situated in a residential area.<br>Land use surrounding the community is comprised of residences and pasture to the south of the road. | Snags were considered rare to occasional<br>Age structure primarily mature (most trees 10 to 50cm dbh)<br>-mature trees >25 dbh generally considered occasional.<br>One tree was observed that was>25 dbh and contained cavities, although no cavities were seen as high as 10m.<br>Canopy cover was primarily >60%; characterized as closed canopy.<br>Due to limited access, significant wildlife features are unknown.<br>Vernal pools absent, drainage valley extends through the community.<br>No disturbances noted within community. | • Close to other significant natural features<br>• Provides water protection<br>• Woodland diversity representation | Unknown, requires Evaluation of Significance |
| 33 | 0.44 | 3 | FOD<br>(Deciduous Forest) | This small deciduous forest is located north of Front Rd. and adjacent to the lake Ontario shoreline.<br>Land use surrounding this community is comprised of | Snags were considered rare.<br>Age structure primarily mid age (most trees <10 to 24cm dbh).<br>Mature trees >25 dbh generally | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | residences and fragmented cultural woodland. | considered rare to absent.<br>No trees were observed that were >25 dbh and contained cavities.<br>Canopy cover was primarily >60%; characterized as open canopy in FOD community.<br>Canopy cover was primarily <60%; characterized as open canopy in CUT community.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools absent, presence of surface water was primarily absent.<br>No disturbances noted within community. | | |
| 35 | 0.28 | 5 | FOD7-2<br>(Fresh-Moist Ash Lowland Deciduous Forest) | This small community is located west of Stella 40 Foot Rd. and south of 3rd Concession Rd.<br>Land use surrounding this woodland consists of agricultural land including hay and pasture. | Snags were considered rare to occasional<br>Age structure primarily mature (most trees <10 to 50cm dbh).<br>Mature trees >25 dbh generally considered abundant.<br>No trees were observed that | | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
| | | | | | were >25 dbh and contained cavities.<br>Canopy cover was primarily >60%; characterized as closed canopy.<br>No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools absent, presence of surface water was primarily absent.<br>No disturbances noted within community. | | |
| 36 | 306.9 | 1 | FOD7-2<br>(Fresh-Moist Ash Lowland Deciduous Forest) | This large forest community is located on the mainland east of Jim Snow Drive.<br>Land use surrounding this woodland varies but includes some agricultural and industrial property. | Snags were considered rare to occasional<br>Age structure primarily mature (most trees <10 to 50cm dbh).<br>Mature trees >25 dbh generally considered abundant.<br>No trees were observed that were >25 dbh and contained cavities.<br>Canopy cover was primarily >60%; characterized as closed canopy. | • Large woodland<br>• Interior habitat<br>• Provides connectivity between significant natural features<br>• Provides water protection | Unknown, requires Evaluation of Significance |

**Table 7B: Site Investigation Results - Woodlands**

| Woodland # | Feature Size (ha) | Figure # | Composition | Description | Attributes | Functions | Significance |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  | No specialized wildlife habitat features (hibernacula, stick nests, etc.) observed.<br>Vernal pools not observed<br>No disturbances noted within community. |  |  |

**Table 8B: Description and Characterizations of Candidate Significant Wildlife Habitat found within 120 m of the Amherst Island Wind Project**

| Feature ID | Size (ha) | Type | Composition | Attributes | Function | Figure # | Significance |
|---|---|---|---|---|---|---|---|
| **Seasonal Concentration Areas** | | | | | | | |
| WT1 | 101.4 | Waterfowl Stopover and Staging Area (Terrestrial) | AG | Pasture and Hay | These fields with spring sheet water may provide important invertebrate foraging habitat for migrating waterfowl. | 4 | Unknown, requires Evaluation of Significance |
| WT2 | 2.7 | Waterfowl Stopover and Staging Area (Terrestrial) | CUM1-1 | Cultural Meadow | These fields with spring sheet water may provide important invertebrate foraging habitat for migrating waterfowl. | 4 | Unknown, requires Evaluation of Significance |
| WT3 | 32.6 | Waterfowl Stopover and Staging Area (Terrestrial) | AG | Pasture and Hay | These fields with spring sheet water may provide important invertebrate foraging habitat for migrating waterfowl. | 2 | Unknown, requires Evaluation of Significance |
| WT4 | 83.5 | Waterfowl Stopover and Staging Area (Terrestrial) | AG | Pasture | These fields with spring sheet water may provide important invertebrate foraging habitat for migrating waterfowl. | 2 | Unknown, requires Evaluation of Significance |
| WA1 | 370.4 | Waterfowl Stopover and Staging (Aquatic) | MAS3-1, MAS2-10 | Cattail Organic Shallow Marsh, Mineral Shallow Marsh | This shallow marsh may provide important invertebrate foraging habitat for migrating waterfowl. | 4 | Unknown, requires Evaluation of Significance |
| SM1 | 102.7 | Shorebird Migratory Stopover Area | Shoreline | Residential, Agriculture, Natural Features | This shoreline may provide important stopover habitat for migrating shorebirds. | 2, 3, 4, 5 | Unknown, requires Evaluation of Significance |
| RWA-1 | 136.6 | Raptor Wintering Area | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 4 | Unknown, requires Evaluation of Significance |
| RWA-2 | 567.0 | Raptor Wintering Area | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 2, 4 | Unknown, requires Evaluation of Significance |
| RWA-3 | 201.9 | Raptor Wintering Area | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 2, 4 | Unknown, requires Evaluation of Significance |
| RWA-4 | 229.1 | Raptor Wintering Area | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 2 | Unknown, requires Evaluation of Significance |
| RWA-5 | 969.8 | Raptor Wintering Area | AG | Pasture and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 5 | Unknown, requires Evaluation of Significance |
| RWA-6 | 471.3 | Raptor Wintering Area | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 2, 3 | Unknown, requires Evaluation of Significance |
| RWA-7 | 111.9 | Raptor Wintering Area | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 3 | Unknown, requires Evaluation of Significance |
| RWA-8 | 26.8 | Raptor Wintering Area | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 3 | Unknown, requires Evaluation of Significance |
| RWA-9 | 26.1 | Raptor Wintering Area | CUM1-1, AG | Cultural Meadow and Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 1 | Unknown, requires Evaluation of Significance |
| RWA-10 | 1027.8 | Raptor Wintering Area | AG | Hay | This agricultural land >15ha adjacent to a woodlot may provide feeding and roosting habitat for wintering raptors. | 1 | Unknown, requires Evaluation of Significance |
| TO1 | 349.8 | Turtle Overwintering | MAS3-1, MAS2-10 | Cattail Organic Shallow Marsh, Mineral Shallow Marsh | This pond may provide overwintering habitat for turtles, including northern map turtle and common snapping turtle. | 4 | Unknown, requires Evaluation of Significance |
| ML1 | 214.7 | Landbird Migratory Stopover Areas | FOD9-4, FOD5-1, CUW1-4, SWD3-2, SWD2-2, FOD9, CUT1-4, SWT2-9, SWD3-3, FOD9-4, FOD7-2, FOD5-2, SWT2-2, SWD | Fresh-Moist Shagbark Hickory Deciduous Forest, Dry-Fresh Sugar Maple Deciduous Forest, Maple Mineral Cultural Woodland, Silver Maple Mineral Deciduous Swamp, Green Ash Mineral swamp, Fresh-Moist Oak-Maple-Hickory Deciduous forest, Gray Dogwood Cultural Thicket, Gray Dogwood Mineral Thicket Swamp, Swamp Maple Mineral Deciduous Swamp, Fresh-Moist Shagbark Hickory Deciduous Forest, Fresh-Moist Ash Lowland Deciduous Forest, Dry-fresh Sugar Maple Beech Deciduous Forest, Willow Mineral thicket Swamp, Deciduous Swamp | This woodland located close to Lake Ontario may provide resting and foraging habitat for migrating landbirds. | 4 | Unknown, requires Evaluation of Significance |
| ML2 | 28.9 | Landbird Migratory Stopover Areas | FOD7-2 | Fresh-Moist Ash Lowland Deciduous Forest | This woodland located close to Lake Ontario may provide resting and foraging habitat for migrating landbirds. | 3 | Unknown, requires Evaluation of Significance |
| ML3 | 19.5 | Landbird Migratory Stopover Areas | MAS3-1, MAS2-10 | Cattail Organic Shallow Marsh, Mineral Shallow Marsh | This woodland located close to Lake Ontario may provide resting and foraging habitat for migrating landbirds. | 5 | Unknown, requires Evaluation of Significance |

**Table 8B: Description and Characterizations of Candidate Significant Wildlife Habitat found within 120 m of the Amherst Island Wind Project**

| Feature ID | Size (ha) | Type | Composition | Attributes | Function | Figure # | Significance |
|---|---|---|---|---|---|---|---|
| ML4 | 197.9 | Landbird Migratory Stopover Areas | CUT1-4, FOD7-2, SWD3-3, SWT2-6, SWD | Gray Dogwood Cultural Thicket, Fresh-moist Ash Lowland deciduous forest, Swamp Maple mineral Deciduous Swamp, Meadowsweet Mineral Thicket Swamp, Deciduous Swamp | This woodland located close to Lake Ontario may provide resting and foraging habitat for migrating landbirds. | 3 | Unknown, requires Evaluation of Significance |
| ML5 | 18.3 | Landbird Migratory Stopover Areas | FOD7-2, FOD5, FOC1-1 | Fresh-Moist Ash Lowland Deciduous Forest, Dry-Fresh Sugar Maple, and Dry Jack Pine Coniferous Forest | This woodland located close to Lake Ontario may provide resting and foraging habitat for migrating landbirds. | 3 | Unknown, requires Evaluation of Significance |
| MB2 | 43.0 | Migratory Butterfly Stopover Area | CUM1-1, MAM2-2, CUP3-12 | Cultural Meadow, Reed-Canary Grass Mineral Meadow Marsh, White Spruce Conifer Plantation | This combined field and forest habitat may provide resting and foraging habitat for migrating butterflies. | 3 | Unknown, requires Evaluation of Significance |
| MB3 | 20.8 | Migratory Butterfly Stopover Area | CUM1-1 | Cultural Meadow | This combined field and forest habitat may provide resting and foraging habitat for migrating butterflies. | 1 | Unknown, requires Evaluation of Significance |
| **Rare Vegetation Communities and Specialized Habitat for Wildlife** | | | | | | | |
| OGF1 | 3.8 | Old Growth Forest | FOD5-2 | Dry-fresh Sugar Maple Beech Deciduous Forest | This undisturbed, structurally-complex forest may provide habitat for a high diversity of wildlife species. | 4 | Significant |
| OGF2 | 16.9 | Old Growth Forest | FOD9-4, FOD5-1 | Fresh-Moist Shagbark Hickory Deciduous Forest and Dry-Fresh Sugar Maple Deciduous Forest | This undisturbed, structurally-complex forest may provide habitat for a high diversity of wildlife species. | 4 | Significant |
| OGF3 | 28.9 | Old Growth Forest | FOD7-2 | Fresh-Moist Ash Lowland Deciduous Forest | This undisturbed, structurally-complex forest may provide habitat for a high diversity of wildlife species. | 4 | Significant |
| WN1 | 5.4 | Waterfowl Nesting Area | MAS3-1, MAS2-10 | Cattail Organic Shallow Marsh, Mineral Shallow Marsh | These woodlands adjacent to a wetland may be used by waterfowl for nesting. | 5 | Unknown, requires Evaluation of Significance |
| WN2 | 2.7 | Waterfowl Nesting Area | CUM1-1 | Cultural Meadow | These woodlands adjacent to a wetland may be used by waterfowl for nesting. | 4 | Unknown, requires Evaluation of Significance |
| WR1 | 214.7 | Woodland Raptor Nesting | FOD9-4, FOD5-1, CUW1-4, SWD3-2, SWD2-2, FOD9, CUT1-4, SWT2-9, SWD3-3, FOD9-4, FOD7-2, FOD5-2, SWT2-2, SWD | Fresh-Moist Shagbark Hickory Deciduous Forest, Dry-Fresh Sugar Maple Deciduous Forest, Maple Mineral Cultural Woodland, Silver Maple Mineral Deciduous Swamp, Green Ash Mineral swamp, Fresh-Moist Oak-Maple-Hickory Deciduous forest, Gray Dogwood Cultural Thicket, Gray Dogwood Mineral Thicket Swamp, Swamp Maple Mineral Deciduous Swamp, Fresh-Moist Shagbark Hickory Deciduous Forest, Fresh-Moist Ash Lowland Deciduous Forest, Dry-fresh Sugar Maple Beech Deciduous Forest, Willow Mineral thicket Swamp, Deciduous Swamp | These woodlands >30ha with >4ha of interior habitat may provide specialized woodland raptor nesting habitat. | 4 | Unknown, requires Evaluation of Significance |
| WR2 | 197.9 | Woodland Raptor Nesting | CUT1-4, FOD7-2, SWD3-3, SWT2-6, SWD | Gray Dogwood Cultural Thicket, Fresh-Moist Ash Lowland Deciduous Forest, Swamp Maple mineral Deciduous Swamp, Meadowsweet Mineral Thicket Swamp, Deciduous Swamp | These woodlands >30ha with >4ha of interior habitat may provide specialized woodland raptor nesting habitat. | 3 | Unknown, requires Evaluation of Significance |
| ABWO1 | 3.3 | Amphibian Breeding Habitat (Woodland) | MAM2-2 | Reed-Canary Grass Mineral Meadow Marsh | These wetlands within 120m of a woodland may be used by several species of frogs and/or salamanders for breeding, including western chorus frog. | 4 | Unknown, requires Evaluation of Significance |
| ABWO2 | 43.6 | Amphibian Breeding Habitat (Woodland) | SWD2-2 | Green Ash Mineral Deciduous Swamp | These wetlands within 120m of a woodland may be used by several species of frogs and/or salamanders for breeding, including western chorus frog. | 4 | Unknown, requires Evaluation of Significance |
| ABWO3 | 1.2 | Amphibian Breeding Habitat (Woodland) | MAM2 | Graminoid Mineral Meadow Marsh | These wetlands within 120m of a woodland may be used by several species of frogs and/or salamanders for breeding, including western chorus frog. | 1 | Unknown, requires Evaluation of Significance |
| ABWE1 | 349.8 | Amphibian Breeding Habitat (Woodland) | MAS3-1, MAS2-10 | Cattail Organic Shallow Marsh, Mineral Shallow Marsh | These wetlands may be used by several species of frogs and/or salamanders for breeding, including western chorus frog. | 4 | Unknown, requires Evaluation of Significance |
| ABWE2 | 9.8 | Amphibian Breeding Habitat (Wetland) | MAM2-2 | Reed-Canary Grass Mineral Meadow Marsh | These wetlands may be used by several species of frogs and/or salamanders for breeding, including western chorus frog. | 4 | Unknown, requires Evaluation of Significance |
| **Habitat for Species of Conservation Concern** | | | | | | | |
| MBB1 | 349.8 | Marsh Bird Breeding Habitat | MAS3-1, MAS2-10 | Cattail Organic Shallow Marsh, Mineral Shallow Marsh | This marsh may provide nesting and foraging habitat for marsh breeding birds, including Green Heron. | 4 | Unknown, requires Evaluation of Significance |
| ABB1 | 214.7 | Woodland Area-Sensitive Breeding Bird Habitat | FOD9-4, FOD5-1, CUW1-4, SWD3-2, SWD2-2, FOD9, CUT1-4, SWT2-9, SWD3-3, FOD9-4, FOD7-2, FOD5-2, SWT2-2, SWD | Fresh-Moist Shagbark Hickory Deciduous Forest, Dry-Fresh Sugar Maple Deciduous Forest, Maple Mineral Cultural Woodland, Silver Maple Mineral Deciduous Swamp, Green Ash Mineral swamp, Fresh-Moist Oak-Maple-Hickory Deciduous forest, Gray Dogwood Cultural Thicket, Gray Dogwood Mineral Thicket Swamp, Swamp Maple Mineral Deciduous Swamp, Fresh-Moist Shagbark Hickory Deciduous Forest, Fresh-Moist Ash Lowland Deciduous Forest, Dry-fresh Sugar Maple Beech Deciduous Forest, Willow Mineral thicket Swamp, Deciduous Swamp | These large forested areas >30 ha with interior habitat may be used by area-sensitive breeding birds. | 4 | Unknown, requires Evaluation of Significance |
| ABB2 | 197.9 | Woodland Area-Sensitive Breeding Bird Habitat | CUT1-4, FOD7-2, SWD3-3, SWT2-6, SWD | Gray Dogwood Cultural Thicket, Fresh-moist Ash Lowland deciduous forest, Swamp Maple mineral Deciduous Swamp, Meadowsweet Mineral Thicket Swamp, Deciduous Swamp | These large forested areas >30 ha with interior habitat may be used by area-sensitive breeding birds. | 3 | Unknown, requires Evaluation of Significance |

**Table 8B: Description and Characterizations of Candidate Significant Wildlife Habitat found within 120 m of the Amherst Island Wind Project**

| Feature ID | Size (ha) | Type | Composition | Attributes | Function | Figure # | Significance |
|---|---|---|---|---|---|---|---|
| OCB-1 | 105.1 | Open Country Bird Breeding Habitat | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 4 | Unknown, requires Evaluation of Significance |
| OCB-2 | 912.8 | Open Country Bird Breeding Habitat | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 2, 4 | Unknown, requires Evaluation of Significance |
| OCB-3 | 492.8 | Open Country Bird Breeding Habitat | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 2, 4 | Unknown, requires Evaluation of Significance |
| OCB-4 | 160.5 | Open Country Bird Breeding Habitat | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 2 | Unknown, requires Evaluation of Significance |
| OCB-5 | 208.2 | Open Country Bird Breeding Habitat | AG | Pasture and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 5 | Unknown, requires Evaluation of Significance |
| OCB-6 | 238.2 | Open Country Bird Breeding Habitat | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 4 | Unknown, requires Evaluation of Significance |
| OCB-7 | 465.2 | Open Country Bird Breeding Habitat | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 3 | Unknown, requires Evaluation of Significance |
| OCB-8 | 418.6 | Open Country Bird Breeding Habitat | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 3 | Unknown, requires Evaluation of Significance |
| OCB-9 | 111.9 | Open Country Bird Breeding Habitat | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This large grassland area may provide nesting and foraging habitat for open country breeding birds. | 3 | Unknown, requires Evaluation of Significance |
| SSB1 | 14.3 | Shrub/Early Successional Bird Breeding Habitat | CUW1-3 | Green Ash Mineral Cultural woodland | This large natural field area with shrub/thicket habitat may provide nesting and foraging habitat for early successional breeding birds. | 4 | Unknown, requires Evaluation of Significance |
| SSB2 | 22.7 | Shrub/Early Successional Bird Breeding Habitat | CUT1-4 | Gray Dogwood Cultural Thicket | This large natural field area with shrub/thicket habitat may provide nesting and foraging habitat for early successional breeding birds. | 4 | Unknown, requires Evaluation of Significance |
| SSB3 | 11.6 | Shrub/Early Successional Bird Breeding Habitat | CUT1-4 | Gray Dogwood Cultural Thicket | This large natural field area with shrub/thicket habitat may provide nesting and foraging habitat for early successional breeding birds. | 3 | Unknown, requires Evaluation of Significance |
| SSB4 | 74.8 | Shrub/Early Successional Bird Breeding Habitat | CUT1-4, FOD7-2 | Gray Dogwood Cultural Thicket and Fresh-Moist Ash Lowland Deciduous Forest | This large natural field area with shrub/thicket habitat may provide nesting and foraging habitat for early successional breeding birds. | 3 | Unknown, requires Evaluation of Significance |
| SSB5 | 35.7 | Shrub/Early Successional Bird Breeding Habitat | CUT1-4, CUM1-1 | Gray Dogwood Cultural Thicket and Cultural Meadow | This large natural field area with shrub/thicket habitat may provide nesting and foraging habitat for early successional breeding birds. | 2 | Unknown, requires Evaluation of Significance |
| LW1 | 214.7 | Louisiana Waterthrush | FOD9-4, FOD5-1, CUW1-4, SWD3-2, SWD2-2, FOD9, CUT1-4, SWT2-9, SWD3-3, FOD9-4, FOD7-2, FOD5-2, SWT2-2, SWD | Fresh-Moist Shagbark Hickory Deciduous Forest, Dry-Fresh Sugar Maple Deciduous Forest, Maple Mineral Cultural Woodland, Silver Maple Mineral Deciduous Swamp, Green Ash Mineral swamp, Fresh-Moist Oak-Maple-Hickory Deciduous forest, Gray Dogwood Cultural Thicket, Gray Dogwood Mineral Thicket Swamp, Swamp Maple Mineral Deciduous Swamp, Fresh-Moist Shagbark Hickory Deciduous Forest, Fresh-Moist Ash Lowland Deciduous Forest, Dry-fresh Sugar Maple Beech Deciduous Forest, Willow Mineral thicket Swamp, Deciduous Swamp | This species prefers wooded ravines with running streams, woodlands swamps, and large tracts of mature deciduous or mixed forests. This habitat may provide nesting and foraging habitat for Louisiana Waterthrush. | 3 | Unknown, requires Evaluation of Significance |
| LW2 | 19.5 | Louisiana Waterthrush | FOD7-2 | Fresh-Moist Ash Lowland Deciduous Forest | This species prefers wooded ravines with running streams, woodlands swamps, and large tracts of mature deciduous or mixed forests. This habitat may provide nesting and foraging habitat for Louisiana Waterthrush. | 5 | Unknown, requires Evaluation of Significance |
| LW3 | 197.9 | Louisiana Waterthrush | CUT1-4, FOD7-2, SWD3-3, SWT2-6, SWD | Gray Dogwood Cultural Thicket, Fresh-moist Ash Lowland deciduous forest, Swamp Maple mineral Deciduous Swamp, Meadowsweet Mineral Thicket Swamp, Deciduous Swamp | This species prefers wooded ravines with running streams, woodlands swamps, and large tracts of mature deciduous or mixed forests. This habitat may provide nesting and foraging habitat for Louisiana Waterthrush. | 3 | Unknown, requires Evaluation of Significance |
| OCB-1 | 105.1 | Short-eared Owl | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 4 | Unknown, requires Evaluation of Significance |
| OCB-2 | 912.8 | Short-eared Owl | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 2, 4 | Unknown, requires Evaluation of Significance |
| OCB-3 | 492.8 | Short-eared Owl | CUM1-1. AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 2, 4 | Unknown, requires Evaluation of Significance |

**Table 8B: Description and Characterizations of Candidate Significant Wildlife Habitat found within 120 m of the Amherst Island Wind Project**

| Feature ID | Size (ha) | Type | Composition | Attributes | Function | Figure # | Significance |
|---|---|---|---|---|---|---|---|
| OCB-4 | 160.5 | Short-eared Owl | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 2 | Unknown, requires Evaluation of Significance |
| OCB-5 | 208.2 | Short-eared Owl | AG | Pasture and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 5 | Unknown, requires Evaluation of Significance |
| OCB-6 | 238.2 | Short-eared Owl | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 4 | Unknown, requires Evaluation of Significance |
| OCB-7 | 465.2 | Short-eared Owl | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 3 | Unknown, requires Evaluation of Significance |
| OCB-8 | 418.6 | Short-eared Owl | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 3 | Unknown, requires Evaluation of Significance |
| OCB-9 | 111.9 | Short-eared Owl | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This species prefers grasslands, open areas or meadows that are grassy or bushy. This habitat may provide nesting and foraging habitat for Short-eared Owl. | 3 | Unknown, requires Evaluation of Significance |
| WP1 | 111.9 | Wilson's Phalarope | CUM1-1, AG | Cultural Meadow, Pasture, and Hay | This species prefers open wetlands, ponds, lakes, marshes and sloughs with wet meadow vegetation; freshwater coastal marshes; nests on ground in loose colonies; sewage lagoons with grassy edges. | 3 | Unknown, requires Evaluation of Significance |
| **Generalized Significant Wildlife Habitats** | | | | | | | |
| MBB1 | 349.8 | Marsh Bird Breeding Habitat | MAS3-1, MAS2-10 | Cattail Organic Shallow Marsh, Mineral Shallow Marsh | This marsh may provide nesting and foraging habitat for marsh breeding birds, including Green Heron. | 4 | Generalized, treated as Significant |
| SN1 | <1 ha | Snake Hibernacula | Foundation/Stone Wall | Foundation/Stone Wall | This habitat may provide underground hibernaculum for snakes. | 3 | Generalized, treated as Significant |

**Table 9B Wetland Characteristics and Ecological Functions Assessment, Amherst Island Wind Energy**

| Feature # | Size (ha) | Wetland Type | Site Type | Vegetation Communities | Proximity to other wetlands (approximate) | Interspersion | Catchment Area | Open Water Types | Water Quality Improvement (short term) | Water Quality Improvement (long term nutrient trap) | Water Quality Improvement (groundwater discharge) | Shoreline Erosion | Groundwater Recharge | Summary of Hydrology | Significant Features | Fish Habitat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.8 | Marsh | Lacustrine | gc | 295m | 46 | Exposed to Lake; 85 hectare catchment | No Open water | permanent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | High proportion of ground cover / emergent vegetation | Lacustrine feature with Bottomland loam soil complex | Lacustrine wetland on bottomland loam soil complex with permanent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Present |
| 2a | 1.2 | Marsh | Palustrine | re | 125m | 33 | Headwater; 5 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly Loam soil | Palustrine wetland on loam soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 2b | 0.3 | Marsh | Palustrine | gc | 125m | | Headwater; 1 hectare catchment | Type 1 | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly Loam soil | Palustrine wetland on loam soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 3a | 4.0 | Marsh | Palustrine | gc, h | 15m | 62 | Mid-reach; 100 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on clay soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 3b | 2.4 | Marsh | Palustrine | gc, h | 15m | | Headwater; 80 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on clay soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 3c | 0.8 | Swamp | Palustrine | h | 15m | | Headwater; 1 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live trees. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on clay soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |

**Table 9B Wetland Characteristics and Ecological Functions Assessment, Amherst Island Wind Energy**

| Feature # | Size (ha) | Wetland Type | Site Type | Vegetation Communities | Proximity to other wetlands (approximate) | Interspersion | Catchment Area | Open Water Types | Water Quality Improvement (short term) | Water Quality Improvement (long term nutrient trap) | Water Quality Improvement (groundwater discharge) | Shoreline Erosion | Groundwater Recharge | Summary of Hydrology | Significant Features | Fish Habitat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4a | 105.0 | Swamp | Palustrine | h, gc, ne | 30m | 65 | Mid-reach; 387 hectare catchment | No Open water | Intermittent inflow and outflow; over 50% agricultural landscape; high proportion of live trees. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 4b | 1.2 | Swamp | Palustrine | h | 30m | | Headwater; 3 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live trees. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 4c | 0.3 | Marsh | Palustrine | gc | 15m | | Headwater; 1 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 4d | 0.2 | Swamp | Palustrine | ts | 140m | | Headwater; 1 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live shrubs. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine marsh on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 5a | 6.0 | Marsh | Palustrine | gc, ne | 20m | 50 | Mid-reach; 52 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 5b | 0.9 | Marsh | Palustrine | gc, ne | 20m | | Headwater; 13 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 5c | 1.4 | Marsh | Palustrine | gc, ne | 30m | | Headwater; 4 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |

**Table 9B Wetland Characteristics and Ecological Functions Assessment, Amherst Island Wind Energy**

| Feature # | Size (ha) | Wetland Type | Site Type | Vegetation Communities | Proximity to other wetlands (approximate) | Interspersion | Catchment Area | Open Water Types | Water Quality Improvement (short term) | Water Quality Improvement (long term nutrient trap) | Water Quality Improvement (groundwater discharge) | Shoreline Erosion | Groundwater Recharge | Summary of Hydrology | Significant Features | Fish Habitat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6a | 19.5 | Marsh | Palustrine | gc | 115m | 139 | Mid-reach; 82 hectare catchment | Type 1 | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly loam soil | Palustrine wetland on loam soil with intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Present (in pond) |
| 6b | 2.1 | Marsh | Palustrine | gc | 155m | | Headwater; 2 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge | Not applicable | Palustrine feature with predominantly loam soil | Palustrine wetland on loam soil with intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 6c | 4.4 | Marsh | Palustrine | gc | 155m | | Mid-reach; 22 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 6d | 2.7 | Marsh | Palustrine | gc | 115m | | Mid-reach; 64 hectare catchment | Type 1 | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly loam soil | Palustrine wetland on loam soil with intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 7 | 2.1 | Marsh | Palustrine | gc | 140m | 45 | Mid-reach; 273 hectare catchment | No Open water | permanent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on clay soil with permanent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 8 | 0.6 | Swamp | Palustrine | h, ts, gc | 630m | 84 | Headwater; 2 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay Soil | Palustrine wetland on clay soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 9a | 1.5 | Swamp | Palustrine | ts, ne, gc | 115m | 54 | Mid-reach; 94 hectare catchment | No Open water | Intermittent inflow and outflow; over 50% agricultural landscape; high proportion of live shrubs. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |

**Table 9B Wetland Characteristics and Ecological Functions Assessment, Amherst Island Wind Energy**

| Feature # | Size (ha) | Wetland Type | Site Type | Vegetation Communities | Proximity to other wetlands (approximate) | Interspersion | Catchment Area | Open Water Types | Water Quality Improvement (short term) | Water Quality Improvement (long term nutrient trap) | Water Quality Improvement (groundwater discharge) | Shoreline Erosion | Groundwater Recharge | Summary of Hydrology | Significant Features | Fish Habitat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9b | 5.0 | Swamp | Palustrine | ls, gc, ne | 115m | 34 | Headwater; 7 hectare catchment | No Open water | Intermittent inflow and outflow; over 50% agricultural landscape; high proportion of live trees. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 10b | 30.1 | Swamp | Palustrine | h, ts, gc | 100m | 130 | Headwater; 81 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live trees. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and surface water inflow. Situated in a predominantly agricultural watershed with minimal evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 11 | 1.0 | swamp | Palustrine | ts, re, ne, gc | 280m | 34 | Headwater; 2 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live shrubs. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and surface water inflow. Situated in a predominantly agricultural watershed with minimal evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 12 | 13.8 | Swamp | Palustrine | h, ts, gc, ne | 15m | 79 | Mid-reach; 434 hectare catchment | No Open water | permanent inflow; over 50% agricultural landscape; high proportion of live trees. | Swamp/ marsh with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with clay and loam soils | Palustrine wetland on clay and loam soil with permanent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 13 | 0.3 | Marsh | Palustrine | gc | 410m | 20 | Headwater; 13 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soils | No evidence of discharge observed | Not applicable | Palustrine feature with Clay Soils | Palustrine wetland on clay soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 14 | 0.7 | Swamp | Palustrine | h, ts, gc | 410m | 39 | Headwater; 24 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live trees. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on clay soil with intermittent inflow situated in a predominantly agricultural watershed. No evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |

**Table 9B Wetland Characteristics and Ecological Functions Assessment, Amherst Island Wind Energy**

| Feature # | Size (ha) | Wetland Type | Site Type | Vegetation Communities | Proximity to other wetlands (approximate) | Interspersion | Catchment Area | Open Water Types | Water Quality Improvement (short term) | Water Quality Improvement (long term nutrient trap) | Water Quality Improvement (groundwater discharge) | Shoreline Erosion | Groundwater Recharge | Summary of Hydrology | Significant Features | Fish Habitat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 2.6 | Swamp | Palustrine | h | 250m | 34 | Mid-reach; 69 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live trees. | Swamp with <50% coverage of organic soil | No evidence of discharge observed | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 16 | 1.7 | Marsh | Palustrine | gc | 250m | 44 | Mid-reach; 67 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soils | No evidence of discharge observed | Not applicable | Palustrine feature with Clay Soils | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 17 | 9.8 | Marsh | Palustrine | gc, ne | 210m | 50 | Mid-reach; 489 hectare catchment | No Open water | permanent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and permanent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 18 | 0.3 | Swamp | Palustrine | h, ts, ne, gc | 195m | 31 | Headwater; 1 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live tress. | Swamp with <50% coverage of organic soil | No evidence of discharge | Not applicable | Palustrine feature with Clay soils | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 19 | 0.9 | Marsh | Palustrine | gc | 195m | 31 | Mid-reach; 19 hectare catchment | No Open water | Intermittent inflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |
| 20 | 1.1 | Marsh | Palustrine | gc | 660m | 54 | Mid-reach; 20 hectare catchment | No Open water | Intermittent inflow and outflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |

**Table 9B Wetland Characteristics and Ecological Functions Assessment, Amherst Island Wind Energy**

| Feature # | Size (ha) | Wetland Type | Site Type | Vegetation Communities | Proximity to other wetlands (approximate) | Interspersion | Catchment Area | Open Water Types | Water Quality Improvement (short term) | Water Quality Improvement (long term nutrient trap) | Water Quality Improvement (groundwater discharge) | Shoreline Erosion | Groundwater Recharge | Summary of Hydrology | Significant Features | Fish Habitat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | 1.2 | Marsh | Palustrine | gc | 350m | 31 | Headwater; 5 hectare catchment | No Open water | Intermittent inflow and outflow; over 50% agricultural landscape; high proportion of live herbs. | Marsh with <50% coverage of organic soil | No evidence of discharge | Not applicable | Palustrine feature with predominantly clay soil | Palustrine wetland on soils with high clay content and intermittent inflow. Situated in a predominantly agricultural watershed with no evidence of groundwater discharge. Data based on surveys, air photo interpretation, and soil mapping*. | None known to be present | Absent |

**Table 10B: Evaluation of Significance – Woodlands**

| Woodland # | Size (>4 ha) | Woodland Interior | Proximity to Other Significant Woodlands or Habitats | Linkages | Water Protection | Woodland Diversity Representation | Uncommon Characteristics | Significant Woodland |
|---|---|---|---|---|---|---|---|---|
| | **Y/N** | **Y/N** | **Y/N** | **Y/N** | **Y/N** | **Y/N** | **Y/N** | **Y/N** |
| 1 | No | No | No | No | No | Yes | No | Yes |
| 2 | No | No | Yes | No | Yes | No | No | Yes |
| 3 | Yes | Yes | Yes | Yes | Yes | No | No | Yes |
| 4 | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| 5 | No | No | No | No | No | No | No | No |
| 6 | No | No | No | No | No | No | No | No |
| 7 | No | No | Yes | No | Yes | No | No | Yes |
| 8 | No | No | No | No | No | No | No | No |
| 9 | Yes | Yes | No | No | No | Yes | No | Yes |
| 10 | Yes | Yes | Yes | Yes | Yes | No | No | Yes |
| 11 | No | No | No | No | No | No | No | No |
| 12 | No | No | No | No | No | No | No | No |
| 13 | No | No | No | No | No | No | No | No |
| 14 | No | No | No | No | No | No | No | No |
| 15 | Yes | No | Yes | Yes | Yes | No | No | Yes |
| 16 | No | No | No | No | No | No | No | No |
| 17 | No | No | No | No | No | No | No | No |
| 18 | No | No | Yes | No | Yes | No | No | Yes |
| 19 | No | No | No | No | No | No | No | No |
| 20 | Yes | No | No | No | No | No | No | Yes |
| 21 | Yes | Yes | Yes | Yes | Yes | No | No | Yes |
| 23 | Yes | Yes | Yes | Yes | Yes | No | No | Yes |
| 24 | No | No | No | No | No | No | No | No |
| 25 | No | No | No | No | No | No | No | No |
| 26 | No | No | No | No | No | No | No | No |
| 28 | Yes | No | No | No | Yes | No | No | Yes |
| 29 | No | No | No | No | No | No | No | No |
| 30 | No | No | No | No | No | No | No | No |
| 32 | No | No | Yes | No | Yes | Yes | No | Yes |
| 33 | No | No | No | No | No | No | No | No |
| 35 | No | No | No | No | No | No | No | No |
| 36 | Yes | Yes | No | Yes | Yes | Yes | No | Yes |
| | | | | Total Significant Area Senstive Woodlands: | | | | 15 |

**Table 11B Construction Plan Schedule**

| Phase Details | Approximate Schedule |
|---|---|
| Surveying | 3-7 weeks |
| Delivery of construction materials, storage materials, site preparation, construction of access roads, crane pads and temporary dock | 5-9 months |
| Installation of tower foundations | 8-12 months |
| Tower/turbine delivery and erection | 6-8 months |
| Installation of submarine cables | 2-4 weeks |
| Installation of collector lines and transmission line | 6-9 months |
| Installation of substation | 4-7 months |
| Installation of operations and maintenance building | 1-3 months |
| Installation of interconnect facility and switching station | 1-4 months |
| Installation of switching station | 2-5 months |
| Installation of batch plant | 1-2 months |
| Installation of temporary site office | 1 -2 months |
| Reclamation of temporary work areas, final grading, topsoil replacement | 4-7 months |
| Project Testing/ Commission | 3-6 months |
| Commercial Operation | 1 week |

Note: Construction activities will take place during normal business hours. When construction is anticipated to be required outside of normal business hours, the timing will be discussed in advance with Loyalist Township. In the event changes are required to the proposed construction schedule, updated construction schedules will be provided to the public through postings on the Project website (www.amherstislandwindproject.com).

| **Table 12B:** | **Habitat Removal by Vegetation Community Type** | | |
|---|---|---|---|
| **Vegetation Community Type** | **Amount to be removed/disturbed short term duration (ha) (i.e. <1 year )** | **Amount to be removed for long term (ha) (Project duration)** | **Total (ha)** |
| Cultural Meadow/Hay/Pasture | 67.98 | 17.37 | 85.35 |
| Agriculture (Row Crops) | 1.70 | 1.07 | 2.76 |
| Cultural Thicket | 0.08 | 0.06 | 0.14 |
| Cultural Plantation | 0.08 | 0.05 | 0.12 |
| Cultural Savannah | 0.00 | 0.00 | 0.00 |
| Deciduous Forest | 0.16 | 0.09 | 0.25 |
| Coniferous Forest | 0.00 | 0.00 | 0.00 |
| Meadow Marsh | 0.16 | 0.10 | 0.26 |
| | | | |
| **Total** | **70.16** | **18.72** | **88.88** |

| **Table 13B:** | **Habitat Removal by Significant Natural Feature Type** | | |
|---|---|---|---|
| **Natural Feature Type** | **Amount to be removed short term duration (ha) (i.e. <1 year)** | **Amount to be removed for long term (ha) (Project duration)** | **Total (ha)** |
| Significant Wetlands | 0 | 0 | 0 |
| Significant Woodlands | 0.16 | 0.09 | 0.25 |
| Significant Wildlife Habitat-<br>Raptor Wintering Areas | 68.62 | 17.68 | 86.30 |
| Significant Wildlife Habitat-<br>Turtle Overwintering | 0 | 0 | 0 |
| Significant Wildlife Habitat-<br>Migratory Landbird Habitat | 0.06 | 0.03 | 0.09 |
| Significant Wildlife Habitat-<br>Old Growth Forest | 0 | 0 | 0 |
| Significant Wildlife Habitat-<br>Amphibian Breeding Habitat (Woodland) | 0 | 0 | 0 |
| Significant Wildlife Habitat-<br>Amphibian Breeding Habitat (Wetland) | 0 | 0 | 0 |
| Significant Wildlife Habitat-<br>Marsh Bird Breeding | 0 | 0 | 0 |
| Significant Wildlife Habitat-<br>Area-Sensitive Bird Breeding | 0.06 | 0.03 | 0.09 |
| Significant Wildlife Habitat-<br>Open Country Bird Breeding | 67.82 | 17.18 | 85.00 |
| Significant Wildlife Habitat-<br>Shrub/successional breeding bird habitat | 0 | 0 | 0 |
| Significant Wildlife Habitat-<br>Short-eared Owl | 67.82 | 17.18 | 85.00 |
| Significant Wildlife Habitat-<br>Snake Hibernacula | 0 | 0 | 0 |
| | | | |
| **Total** | **204.74** | **52.34** | **257.08** |

**Note the sum of the habitat to be removed of the various natural features does not equal the total amount of habitat to be removed as some vegetation community types are included in more than one natural feature category.

**Table 14B Summary of the Negative Environmental Effects of the Project on Significant Natural Features during Construction and Decommissioning Phases**

| Significant Natural Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Construction Monitoring Plan | | Contingency Measure |
|---|---|---|---|---|---|---|
| | | | | Monitoring Locations | Frequency of Monitoring | |
| **Significant Woodlands (1, 2, 3, 4, 7, 9, 10, 15, 18, 20, 21, 23, 28,32, and 36)** | Loss of woodland habitat<br>Accidental damage to root zones<br>Accidental damage to trees or damage to limbs<br>Dust generation, sedimentation and erosion during construction<br>Contamination through accidental spills during construction | Remove minimal amount of woodland<br>Prevent damage to the root zones<br>Prevent accidental damage to trees or damage to limbs<br>Minimize dust generation, prevent sedimentation and erosion<br>Manage the risk of accidental spills | Clearly delineate work area using a barrier such as a silt fence to avoid accidental encroachment on the feature that would lead to damage of trees and root zones.<br>Workers will be advised not to trespass beyond the boundary of the marked area. | -check silt fencing along the periphery of significant woodlands | -daily when construction activities occur within the immediate vicinity of significant woodlands and when inclement weather is anticipated (i.e. rain events) | Any tree limbs or root zones that are accidentally damaged by construction activities will be pruned using proper arboricultural techniques |
| | | | The boundaries of the limit of construction within Woodland 9 will be delineated and flagged / staked in the field by a qualified ecologist prior to construction to assist with the demarcation of the construction area, to ensure construction activities do not encroach beyond the limited construction area. | -check silt fencing along limits of construction through Woodland 9 | -daily when construction activities occur within the immediate vicinity of Woodland 9 | Any tree limbs or root zones that are accidentally damaged by construction activities will be pruned using proper arboricultural techniques |
| | | | Erect silt fencing to prevent sedimentation within critical root zones<br>Implement a sedimentation and erosion control plan.<br>Any issues should be resolved in a timely fashion. | -check silt fencing along the periphery of significant woodlands to make sure it is fully functional | -daily when construction activities occur within the immediate vicinity of significant woodlands and when inclement weather is anticipated (i.e. rain events) | Any build up of sediment beyond the silt fence will be cleaned up and removed to avoid risk of further spread of sediment. |
| | | | Implement dust suppression (i.e. watering) on access roads as required. | - access roads within 30m of significant woodlands | -ongoing when construction activities occur within the immediate vicinity of woodlands | Increase frequency of dust suppression measures |
| | | | Re-vegetate disturbed areas as soon as construction activity within the disturbed areas is complete. | -check that seed grows in areas of disturbance within one growing season | -once after seeding area | Replant areas where seed does not grow to ensure vegetation establishes within the growing season |
| | | | All maintenance activities, vehicle refueling or washing and chemical storage will be located more than 30m from significant woodlands. | Not required | Not required | Keep emergency spill kits on site<br>Implement MOE spill action plan if necessary<br>Dispose of waste material by authorized and approved offsite vendors |
| | | | Implement infiltration (i.e. minimize paved surfaces and design roads to promote infiltration) techniques to the maximum extent possible to avoid changes in soil moisture and compaction. | Not required | Not required | Not required |
| **Significant Wetlands (all except 6 and 7)** | Degradation of wetland through dust, erosion and/or sedimentation<br>Changes in surface water flow patterns which impacts vegetation growth.<br>Contamination through | Minimize dust generation, prevent erosion and sedimentation<br>Maintain existing surface water flow patterns<br>Manage the risk of accidental spills | Absolutely no encroachment into the wetland is permitted.<br>The boundaries of all wetlands within 30 m of the proposed construction area will be flagged / staked in the field by a qualified ecologist prior to construction to assist with the demarcation of the construction area, to ensure construction activities avoid these sensitive areas, and | -check silt fencing along the periphery of significant wetlands | -daily when construction activities occur within the immediate vicinity of wetlands and when inclement weather is anticipated (i.e. rain events) | Restoration of damaged or degraded wetland habitat, which may involve reseeding with a native wetland seed mix. |

**Table 14B Summary of the Negative Environmental Effects of the Project on Significant Natural Features during Construction and Decommissioning Phases**

| Significant Natural Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Construction Monitoring Plan | | Contingency Measure |
|---|---|---|---|---|---|---|
| | | | | Monitoring Locations | Frequency of Monitoring | |
| | accidental spills during construction.<br>New edge creation by vegetation removal close to wetlands. | Avoid encroachment into significant wetlands | to assist with the proper field installation of E&S controls.<br>Workers will be advised not to trespass beyond the boundary of the marked area. | | | |
| | | | Erect silt fencing to prevent sedimentation within critical root zones.<br>Implement a sedimentation and erosion control plan.<br>Any issues should be resolved in a timely fashion. | -check silt fencing along the periphery of each wetland to make sure it is fully functional | -daily when construction activities occur within the immediate vicinity of wetlands and when inclement weather is anticipated (i.e. rain events) | Any build up of sediment beyond the silt fence will be cleaned up and removed to avoid risk of further spread of sediment into the wetland. |
| | | | Implement dust suppression (i.e. watering) as required. | - access roads within 30m of significant wetlands | -ongoing when construction activities occur within the immediate vicinity of wetlands | Increase frequency of dust suppression measures |
| | | | Re-vegetate disturbed areas as soon as construction activity within the disturbed areas is complete. | -check that seed grows in areas of disturbance within one growing season | -once after seeding area | Replant areas where seed does not grow to ensure vegetation establishes within the growing season |
| | | | All maintenance activities, vehicle refueling or washing and chemical storage will be located more than 30m from wetlands. | Not required | Not required | Keep emergency spill kits on site<br>Implement MOE spill action plan if necessary<br>Dispose of waste material by authorized and approved offsite vendors |
| | | | Where possible, and as appropriate, access roads will be constructed at or near existing grade to maintain surface flow contributions to wetlands.<br>Limit changes in land contours to ensure natural drainage patterns are maintained. | -upon completion of grading and after rain event ensure that surface water drainage patterns consistent with drainage patterns that occurred before grading | -once post-grading activity and after rain event | Adjust grading to achieve natural drainage patterns |
| | | | Where new access roads cross existing drainage features, design will include culverts or other appropriate structures of sufficient size to accommodate flow. | -upon installation of culverts and after rain event ensure that surface water drainage patterns consistent with drainage patterns that occurred before grading | -once post-grading activity and after rain event | Adjust grading to achieve natural drainage patterns |
| **Raptor Wintering Areas (RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7, RWA8)** | Loss of habitat<br>Disturbance due to increased traffic and noise<br>Dust generation, sedimentation and erosion during construction. | Habitat compensation measures<br>Prevent habitat avoidance/disturbance of caused by noise and dust generation | Development of a management strategy with agencies, interested landowners and other interested parties to implement some of the recommendations provided in the Owl Woods Management Plan (Ecological Services 2011). | As will be outlined in the management strategy. | As will be outlined in the management strategy. | Not required. |
| | | | The boundaries of the limit of construction within grassland habitat will be delineated and flagged / staked in the field by a qualified ecologist prior to construction to assist with the demarcation of the construction area, to ensure construction activities do not encroach beyond the limited construction area. | -check limits of construction through significant grassland habitat is respected. | -daily when construction activities are ongoing in grassland habitat. | Immediately restore disturbed areas by reseeding. |

**Table 14B Summary of the Negative Environmental Effects of the Project on Significant Natural Features during Construction and Decommissioning Phases**

| Significant Natural Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Construction Monitoring Plan | | Contingency Measure |
|---|---|---|---|---|---|---|
| | | | | Monitoring Locations | Frequency of Monitoring | |
| | | | Limit tree clearing in hedgerows to maintain perch and roost sites. | Not required | Not required | Not required |
| | | | Implement dust suppression (i.e. watering) on access roads as required. | - all access roads | -ongoing during construction | Increase frequency of dust suppression measures |
| **Turtle Overwintering Area (TO1**)** | Wetland degradation due to dust, siltation or accidental spill | Minimize dust generation, prevent sedimentation and erosion<br>Manage the risk of accidental spills | Turtle overwintering area is contained within the Long Point Marsh Provincially Significant Wetland. Implementation of mitigation measures for significant wetlands outlined above, will limit disturbance to stopover habitat. | Monitoring as outlined in significant wetlands (above) | Monitoring as outlined in significant wetland (above) | Contingency Plan as outlined in significant wetlands (above) |
| **Migratory Landbird Stopover Area (ML1, ML2, ML3, ML4, ML5)** | Disturbance due to increased traffic, noise, or dust | Minimize disturbance to wildlife<br>Minimize dust generation | Each of the migratory landbird stopover areas occurs within significant woodlands. Implementation of mitigation measures for significant woodlands outlined above, will limit disturbance to stopover habitat. | Monitoring as outlined in significant woodland (above) | Monitoring as outlined in significant woodland (above) | Contingency Plan as outlined in significant woodlands (above) |
| **Old Growth Forest (OGF1, OGF2, OGF3)** | Woodland degradation due to dust or siltation. | Minimize dust generation and siltation. | Each of the old growth forest habitats occur within significant woodlands. Implementation of mitigation measures for Significant Woodlands outlined above, will limit disturbance to stopover habitat. | Monitoring as outlined in significant woodland (above) | Monitoring as outlined in significant woodland (above) | Contingency Plan as outlined in significant woodlands (above) |
| **Amphibian Breeding (Woodland and Wetland) (ABWO2, ABWO3, ABWE1, ABWE2)** | Wetland degradation due to dust, siltation or accidental spill | Minimize dust generation, prevent sedimentation and erosion<br>Manage the risk of accidental spills | Amphibian breeding habitat is contained within provincially significant wetlands. Implementation of mitigation measures for significant wetlands outlined above, will limit disturbance to stopover habitat. | Monitoring as outlined in significant wetlands (above) | Monitoring as outlined in significant wetland (above) | Contingency Plan as outlined in significant wetlands (above) |

## Table 14B Summary of the Negative Environmental Effects of the Project on Significant Natural Features during Construction and Decommissioning Phases

| Significant Natural Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Construction Monitoring Plan | | Contingency Measure |
|---|---|---|---|---|---|---|
| | | | | Monitoring Locations | Frequency of Monitoring | |
| | | | The boundaries of the amphibian breeding habitat at AB4 should be delineated and flagged / staked in the field by a qualified ecologist accurately demark where erosion and siltation controls should be installed. | -check silt fencing along limited of construction adjacent to AB4. | -daily when construction activities occur within the immediate vicinity of AB4. | Restoration of damaged or degraded wetland habitat, which may involve reseeding with a native wetland seed mix. |
| **Marsh Breeding Bird Habitat (MBB1)** | Disturbance due to increased traffic, noise, or dust<br>Dust generation, sedimentation and erosion during construction.<br>Contamination through accidental spills during construction | Minimize disturbance to wildlife<br>Minimize dust generation, prevent sedimentation and erosion<br>Manage the risk of accidental spills | Limited encroachment into the marsh breeding bird habitat. | -check silt fencing along the periphery of significant woodlands | -daily when construction activities occur within the immediate vicinity of significant woodlands and when inclement weather is anticipated (i.e. rain events) | Any limbs or root zones that are accidentally damaged by construction activities will be pruned using proper arboricultural techniques |
| | | | The marsh breeding bird habitat occurs within significant woodlands. Implementation of mitigation measures for significant woodlands outlined above, will limit disturbance to breeding habitat. | Monitoring as outlined in significant woodland (above) | Monitoring as outlined in significant woodland (above) | Contingency Plan as outlined in significant woodlands (above) |
| **Woodland Area-Sensitive Breeding Bird Habitat (ABB1)** | Disturbance due to increased traffic, noise, or dust<br>Dust generation, sedimentation and erosion during construction.<br>Contamination through accidental spills during construction | Minimize disturbance to wildlife<br>Minimize dust generation, prevent sedimentation and erosion<br>Manage the risk of accidental spills | Limited encroachment into the woodland area-sensitive breeding bird habitat. | -check silt fencing along the periphery of significant woodlands | -daily when construction activities occur within the immediate vicinity of significant woodlands and when inclement weather is anticipated (i.e. rain events) | Any limbs or root zones that are accidentally damaged by construction activities will be pruned using proper arboricultural techniques |
| | | | The woodland area-sensitive breeding bird habitat occurs within significant woodlands. Implementation of mitigation measures for significant woodlands outlined above, will limit disturbance to breeding habitat. | Monitoring as outlined in significant woodland (above) | Monitoring as outlined in significant woodland (above) | Contingency Plan as outlined in significant woodlands (above) |
| **Open Country Breeding Bird Habitat and Short-eared Owl Habitat (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8, OCB9)** | Harm to breeding birds or damage to nests<br>Loss of habitat<br>Disturbance due to increased traffic and noise | Avoid harm to breeding birds or damage to nests<br>Limit vegetation clearing in grassland habitat.<br>Minimize disturbance to wildlife | Complete vegetation removal outside of the breeding bird and Short-eared Owl breeding season March 1st to July 31th. | -Not required | -Not required | -Not required |
| | | | Identification of potential Short-eared Owl breeding territories. Restricted construction activities in proximity to potential breeding territories. | Monitoring of Short-eared Owl behavior by qualified biologist. | Bi-weekly during construction activities throughout breeding season in proximity to nesting territories. | Further limit construction activities. |

## Table 14B Summary of the Negative Environmental Effects of the Project on Significant Natural Features during Construction and Decommissioning Phases

| Significant Natural Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Construction Monitoring Plan | | Contingency Measure |
|---|---|---|---|---|---|---|
| | | | | Monitoring Locations | Frequency of Monitoring | |
| | Dust generation, sedimentation and erosion during construction. | Minimize dust generation, prevent sedimentation and erosion | The boundaries of the limit of construction within grassland habitat will be delineated and flagged / staked in the field by a qualified ecologist prior to construction to assist with the demarcation of the construction area, to ensure construction activities do not encroach beyond the limited construction area. | -check limited of construction through grassland habitat is respected. | -daily when construction activities are ongoing in grassland habitat. | Immediately restore disturbed areas by reseeding. |
| | | | Implement dust suppression (i.e. watering) on access roads as required. | - all access roads | -ongoing during construction | Increase frequency of dust suppression measures |
| **Shrub/Early Successional Bird Breeding Habitat (SSB1, SSB3, SSB4, SSB5)** | Disturbance due to increased traffic, noise, or dust<br>Dust generation, sedimentation and erosion during construction.<br>Contamination through accidental spills during construction | Minimize disturbance to wildlife<br>Minimize dust generation, prevent sedimentation and erosion<br>Manage the risk of accidental spills | Erect silt fencing to prevent sedimentation<br>Implement a sedimentation and erosion control plan<br>Any issues should be resolved in a timely fashion | -check silt fencing along the periphery of feature significant shrub/early successional to make sure it is fully functional | -daily when construction activities occur within the immediate vicinity of significant shrub/early successional to and when inclement weather is anticipated (i.e. rain events) | Any build-up of sediment beyond the silt fence will be cleaned up and removed to avoid risk of further spread of sediment. |
| | | | Implement dust suppression (i.e. watering) on access roads as required. | - access roads within 30m of significant woodlands | -ongoing when construction activities occur within the immediate vicinity of woodlands | Increase frequency of dust suppression measures |
| | | | All maintenance activities, vehicle refueling or washing and chemical storage will be located more than 30m from significant woodlands | Not required | Not required | Keep emergency spill kits on site<br>Implement MOE spill action plan if necessary<br>Dispose of waste material by authorized and approved offsite vendors |
| | | | All maintenance activities, vehicle refueling or washing and chemical storage will be located more than 30m from significant woodlands | Not required | Not required | Keep emergency spill kits on site<br>Implement MOE spill action plan if necessary<br>Dispose of waste material by authorized and approved offsite vendors |

**Table 15B: Mitigation Measures by Wetland Feature**

| Wetland Feature No. | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Significance** | Significance assumed and assessed as per WCEFA | X | X | X | X | X | | | X | X | | X | X | X | X | X | X | X | X | X | X | | X |
| | OWES evaluated as non-PSW | | | | | | X | X | | | | | | | | | | | | | | | |
| | Designated PSW | | | | | | | | | | X | | | | | | | | | | | X | |
| **Project Component(s) located within 120 m (m)** | Turbine base | >120 | 96 | >120 | >120 | 60 | 55 | >120 | >120 | >120 | 55 | 105 | 65 | >120 | >120 | >120 | >120 | >120 | >120 | 106 | >120 | >120 | >120 |
| | Substation | >120 | >120 | 3 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 | >120 |
| | Access Road | 94 | 52 | >120 | 38 | 11 | 0 | 0 | >120 | 99 | 74 | 77 | 7 | 100 | 44 | >120 | 15 | >120 | 58 | 107 | 42 | 78 | >120 |
| | Collector Line | 74 | 96 | 41 | <1 | 3 | 0 | >120 | 28 | 18 | 13 | 115 | 4 | 1 | 40 | 18 | 19 | 3 | 62 | 102 | 24 | >120 | >120 |
| **Potential for Impacts** | Direct Impacts | nil | nil | nil | low | nil | mod | mod | nil | nil | nil | nil | nil | mod | nil | nil | nil | nil | nil | nil | nil | nil | low |
| | Dust contamination, sedimentation or contamination from accidental spills during construction. | low | low | high | high | mod | high | high | low | low | low | low | mod | high | low | low | low | mod | low | low | low | low | mod |
| | Change in surface water input to wetlands. | low | low | high | high | mod | high | high | low | low | low | low | mod | high | low | low | low | mod | low | low | low | low | mod |
| **Mitigation** | No development in wetland boundary. | X | X | X | X | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| | Boundary of wetlands within 30 m of construction areas to be staked. | | | X | X | X | X | X | X | X | X | | X | X | | X | X | X | | | X | | X |
| | Mitigation measures for vegetation removal will be implemented as outlined in Section 6.4.1.1 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| | No refuelling or maintenance of vehicles in, or adjacent to the wetland. In the event of an accidental spill, the MOE Spills Action Centre should be contacted and emergency spill procedures implemented immediately. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| | Mitigation measures for sediment and erosion control will be implemented as outlined in Section 6.4.1.2 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| | Mitigation measures for dewatering will be implemented as outlined in Section 6.4.1.3. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| | New access road will be built at existing grades where possible. | X | X | | X | X | X | X | | X | X | X | X | X | X | | X | | X | X | X | X | |
| | Drainage will be maintained via culverts or equivalent at watercourse crossings | | | | X | | X | X | | | | | | X | | | | | | | | | |

**Table 16B: Potential Impacts and Mitigation Measures by Significant Wildlife Habitat Feature (pg 1 of 2)**

| **Wildlife Habitat Feature No.** | | | ABB1 | ABWE1 | ABWE2 | ABWO2 | ABWO3 | MBB1 | ML1 | ML2 | ML3 | ML4 | ML5 | OCB1 | OCB2 | OCB3 | OCB4 | OCB5 | OCB6 | OCB7 | OCB8 | OCB9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Wildlife Habitat Feature Size (ha)** | | | 215 | 350 | 9.8 | 43.6 | 1.2 | 349.7 | 214.7 | 28.9 | 19.5 | 197.9 | 18.3 | 105.1 | 912.8 | 492.8 | 160.5 | 208.2 | 238.2 | 465.2 | 418.6 | 111.9 |
| **Habitat to be removed** | Temporarily (ha) | | 0.06 | n/a | n/a | n/a | n/a | n/a | 0.06 | n/a | n/a | n/a | n/a | 3.47 | n/a | 8.85 | 5.75 | 3.86 | 8.68 | 8 | 5.02 | n/a |
| | Permanent (ha) | | 0.03 | n/a | n/a | n/a | n/a | n/a | 0.03 | n/a | n/a | n/a | n/a | 0.75 | n/a | 1.98 | 1.17 | 0.99 | 2.15 | 1.49 | 1.42 | n/a |
| **Project Component(s) located in and within 120 m** | Turbine base[3] | In Feature | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Within 120m Zone | X | - | - | - | - | - | X | - | - | X | - | X | X | X | X | X | X | X | X | - |
| | Turbine Construction Area | In Feature | - | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X | X | X | X | - |
| | | Within 120m Zone | X | X | - | - | - | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | Turbine Blade Tips | In Feature | - | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X | X | X | X | - |
| | | Within 120m Zone | X | X | - | - | - | X | X | X | X | X | - | X | X | X | X | X | X | X | X | - |
| | Access Road | In Feature | - | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X | X | X | X | - |
| | | Within 120m Zone | X | X | - | X | - | X | X | - | - | X | X | X | X | X | X | X | X | X | X | X |
| | Collector Line | In Feature | X | - | X | - | - | - | X | - | - | X | - | X | X | X | X | X | X | X | X | - |
| | | Within 120m Zone | X | X | X | X | - | - | X | - | - | X | X | X | X | X | X | X | X | X | X | X |
| **Potential for Impacts** | Dust generation, sedimentation and erosion during construction (No if activity >30m away) | | Yes | No | Yes | No | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Disturbance to vegetation during construction (in feature) (No if activity >30m away) | | Yes | No | Yes | No | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Direct removal of vegetation(in feature) | | Yes | No | Yes | No | No | No | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| | Contamination through accidental spills during construction or operation (No if activity>30m away) | | Yes | No | Yes | No | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Potential for changes to hydrology during operation (i.e. turbine foundation and/or access road within 30m of feature) | | Yes | No | No | No | Yes | No | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Potential for edge effects and/or requirement of invasive species.(veg removal) | | Yes | No | Yes | No | No | No | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| **Mitigation** | Mitigation measures for vegetation removal will be implemented as outlined in Section 5.4.1 | | Yes | No | Yes | No | No | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| | Mitigation measures for sediment and erosion control will be implemented as outlined in Section 5.4.2 | | Yes | No | Yes | No | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Mitigation measures for dewatering will be implemented as outlined in Section 5.4.3 | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Where possible, and as appropriate, access roads should be constructed at or near existing grade.) | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | No refuelling or maintenance of vehicles in, or adjacent to the feature. In the event of an accidental spill, the MOE Spills Action Centre should be contacted and emergency spill procedures implemented immediately. (anything within 30m of a feature) | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Creation of a Replanting and Restoration Plan | | Yes | No | Yes | No | No | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| | Creation of an Invasive Species Management Plan | | Yes | No | Yes | No | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| | Creation of a Vegetation Monitoring Plan | | Yes | No | Yes | No | No | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |

**Table 16B: Potential Impacts and Mitigation Measures by Significant Wildlife Habitat Feature (pg 2 of 2)**

| **Wildlife Habitat Feature No.** | | | OGF1 | OGF2 | OGF3 | RWA1 | RWA2 | RWA3 | RWA4 | RWA5 | RWA6 | RWA7 | RWA8 | SM1 | SN1 | SSB1 | SSB3 | SSB4 | SSB5 | T01 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Wildlife Habitat Feature Size (ha)** | | | 3.8 | 16.9 | 28.9 | 136.6 | 1027.8 | 567 | 201.9 | 229.1 | 969.8 | 471.3 | 111.9 | 42.9 | n/a | 14.3 | 11.6 | 74.8 | 35.7 | 349.8 |
| **Habitat to be removed** | Temporarily (ha) | | n/a | n/a | n/a | 3.47 | 24.12 | 9.23 | 5.9 | 3.86 | 16.77 | 5.2 | n/a | 0.25 | n/a | n/a | n/a | n/a | n/a | n/a |
| | Permanent (ha) | | n/a | n/a | n/a | 0.75 | 7.24 | 2.23 | 1.25 | 0.99 | 3.69 | 1.53 | n/a | 0.19 | n/a | n/a | n/a | n/a | n/a | n/a |
| **Project Component(s) located in and within 120 m** | Turbine base[3] | In Feature | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Within 120m Zone | - | X | - | X | X | X | X | X | X | X | - | - | - | - | - | X | X | - |
| | Turbine Construction Area | In Feature | - | - | - | X | X | X | X | X | X | X | - | - | - | - | - | - | - | - |
| | | Within 120m Zone | - | X | X | X | X | X | X | X | X | X | - | - | - | - | X | X | X | X |
| | Turbine Blade Tips | In Feature | - | - | - | X | X | X | X | X | X | X | - | - | - | - | - | - | - | - |
| | | Within 120m Zone | - | X | X | X | X | X | X | X | X | X | - | - | - | - | - | X | X | X |
| | Access Road | In Feature | - | - | - | X | X | X | X | X | X | X | - | X | - | - | - | - | - | - |
| | | Within 120m Zone | - | X | - | X | X | X | X | X | X | X | X | X | - | X | X | X | X | - |
| | Collector Line | In Feature | - | - | - | X | X | X | X | X | X | X | - | X | - | - | - | - | - | - |
| | | Within 120m Zone | X | X | - | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| **Potential for Impacts** | Dust generation, sedimentation and erosion during construction (No if activity >30m away) | | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| | Disturbance to vegetation during construction (in feature) (No if activity >30m away) | | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| | Direct removal of vegetation(in feature) | | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | No | No | No | No |
| | Contamination through accidental spills during construction or operation (No if activity>30m away) | | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| | Potential for changes to hydrology during operation (i.e. turbine foundation and/or access road within 30m of feature) | | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | No | No |
| | Potential for edge effects and/or requirement of invasive species.(veg removal) | | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | No | No | No | No |
| **Mitigation ( highlight uncertain ones)** | Mitigation measures for vegetation removal will be implemented as outlined in Section 5.4.1 | | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | No | No | No | No |
| | Mitigation measures for sediment and erosion control will be implemented as outlined in Section 5.4.2 | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Mitigation measures for dewatering will be implemented as outlined in Section 5.4.3 | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Where possible, and as appropriate, access roads should be constructed at or near existing grade.) | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | No refuelling or maintenance of vehicles in, or adjacent to the feature. In the event of an accidental spill, the MOE Spills Action Centre should be contacted and emergency spill procedures implemented immediately. (anything within 30m of a feature) | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Creation of a Replanting and Restoration Plan | | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | No | No | No | No |
| | Creation of an Invasive Species Management Plan | | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | No | No | No | No |
| | Creation of a Vegetation Monitoring Plan | | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | No | No | No | No |

**Table 17B. Summary of the Environmental Effects Monitoring Plan for Significant Natural Features**

| Significant Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Environmental Effects Monitoring Plan | | | | | Contingency Measure |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Methods | Monitoring Locations | Frequency and Duration of Sample Collection | Rationale | Reporting Requirements | |
| **CONSTRUCTION** | | | | | | | | | |
| Entire Project | Dust generation, sedimentation and erosion during construction to wetland and woodland habitat | Silt barriers to remain in good repair<br>No deposition or erosion > 1cm outside silt barriers | Silt barriers to be erected along wetland, woodland and alvar edges that occur within 30m of construction work | Visual inspection of silt barriers | All silt barriers | Weekly | n/a | Monthly | Repair any gaps or holes in silt barriers<br>Remove any silt accumulations or backfill eroded areas, and replant or reseed (if existing vegetation has been affected) |
| | Disturbance, fragmentation and removal of wetland and woodland habitats | No clearing beyond staked limits | Limits of vegetation clearing to be staked in the field | Visual inspections to ensure stakes are present and works stay within demarcated areas | All clearing areas in woodland | Weekly | n/a | Monthly | Replace any missing stakes<br>Immediately stop work in off-limit areas and replant or reseed as needed |
| | Disturbance, fragmentation and removal of wetland and woodland habitats | Restoration of disturbed areas of the construction site back to grassland or wetland habitats. | Reseeding Plan to be developed for grassland and wetland communities. | Visual inspection of rehabilitated areas including botanical inventory | Disturbed areas within 120m of Project Location | Twice yearly (spring/summer and fall) for one year or until performance objectives are met | Ability to calculate percentage of species successfully seeded and measure ground coverage. | Annually | Repeat seeding if initial restoration efforts do not meet performance objective. |
| | Contamination of natural heritage features through accidental spill | Minimize likelihood of spill<br>Contain spill material | Proper storage of materials off-site in storage containers<br>Adherence to Emergency Response Plan<br>Contact MOE Spills Action Centre | Visual inspections to ensure proper storage | Storage areas | Weekly | n/a | Monthly | Follow-up monitoring /inspections in the event of an accidental spill/leak<br>Remedial actions may be required in the event monitoring indicates a negative effect to natural features |
| | Disturbance to breeding birds due to increased traffic, noise, dust during construction<br>Direct loss of birds' nests during vegetation clearing | Protect all known birds' nests from direct loss, and a suitable buffer to minimize disturbance effects | To the extent practical, tree and/or brush clearing will be completed prior to or after May 1 to July 23. | Not necessary if timing window is respected. | n/a | n/a | n/a | n/a | Should clearing be required during these dates, prior to construction, surveys will be undertaken to identify the presence/ absence of nesting birds. If a nest is located, a designated buffer will be marked off within which no construction activity will be allowed while the nest is active. |
| | Changes to woodland or wetland hydrology due to roads and crane pads | Minimal change to existing hydrologic conditions; no significant ponding or drying | Access roads to be constructed at grade<br>Use of permeable materials | Visual inspection | Access roads, crane pads | Weekly through spring during construction | n/a | Monthly | To be developed based on site-specific conditions; may include installation of additional culverts, |

**Table 17B. Summary of the Environmental Effects Monitoring Plan for Significant Natural Features**

| Significant Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Environmental Effects Monitoring Plan | | | | | Contingency Measure |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Methods | Monitoring Locations | Frequency and Duration of Sample Collection | Rationale | Reporting Requirements | |
| | | | Installation of equalization culverts where appropriate | | | | | | |
| **OPERATION** | | | | | | | | | |
| **Significant Feature ID** | **Potential Negative Environmental Effects** | **Performance Objective** | **Mitigation Strategy** | **Environmental Effects Monitoring Plan** | | | | | **Contingency Measure** |
| | | | | **Methods** | **Monitoring Locations** | **Frequency and Duration of Sample Collection** | **Rationale** | **Reporting Requirements** | |
| **Raptor Wintering Area (RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7, RWA8)** | Disturbance to wintering raptors during operation within the Study Area | The number of species and the number of individual wintering raptors within the Study Area will be monitored and compared to pre-construction conditions<br>MNR, along with the proponent and other relevant agencies, will collectively review the results of the post-construction monitoring to determine if an ecologically significant disturbance/avoidance effect to wintering raptors is occurring, and whether such effect is attributed to the wind turbines and not external factors. These discussions will determine whether contingency measures will be undertaken. | Post-construction Disturbance Monitoring Program | Area searches by vehicle and by foot using pre-construction methodology. | Within features RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7 and RWA8 | Twice monthly surveys in November through March for three years. | Compare numbers of species and individuals between years. | Annually | Should performance objectives not be met:<br>1. Compare declines to population trends noted through province or continent-wide breeding bird surveys<br>2. Compare annual fluctuations to local and provincial trends (Christmas Bird Counts)<br>3. Develop additional studies to determine extent of disturbance effect<br>4. Investigate habitat management means to increase breeding density<br>Additional monitoring and/or mitigation may be required where post-construction monitoring identifies ecologically significant disturbance/avoidance effects associated with wintering raptors. Mitigation techniques may include (but are not limited to) operational controls, such as periodic shut-down and/or blade feathering as per MNR's Bird and Bird Habitat Guidelines (2011). Results will be reviewed collectively by the proponent, MNR and other relevant agencies to determine if and when additional monitoring and/or mitigation is required. The best available science and information should be considered when determining appropriate mitigation. |
| | Avoidance by wintering raptors in proximity to operating wind turbines | Measure the potential degree of disturbance effects to hunting raptors (particularly Short-eared Owls) in proximity to operating wind turbines. | Post-construction Disturbance Monitoring Program | Behavioral studies in proximity to operations wind turbines. | Within features RWA1, RWA2, RWA3, RWA4, RWA5, RWA6, RWA7 and RWA8 | Twice monthly surveys in November through March for three years. | Evaluate extend of potential disturbance by wind turbines. | Annually | |
| **Landbird Migratory Stopover Area (ML1, ML2, ML3, ML4, ML5)** | Disturbance to migrating landbirds during operation | The number of species and the number of individual migratory landbirds will be monitored and compared to pre-construction conditions<br>MNR, along with the proponent and other relevant agencies, will collectively review the results of the post-construction monitoring to determine if an ecologically significant disturbance/avoidance effect to migratory landbirds is occurring, and | Post-construction Disturbance Monitoring Program | Transect survey using pre-construction methods (see NHA Section 4.1.3). | Within features ML1, ML2, ML3, ML4 | Weekly surveys in May and in September through October, for three years. | Ability to directly compare numbers of species and individuals between years | Annually | Should performance objectives not be met:<br>1. Compare declines to population trends noted through local or province-wide migration monitoring<br>2. Develop additional control/impact studies to assess whether decline is due to turbine disturbance, and determine extent of disturbance effect |

## Table 17B. Summary of the Environmental Effects Monitoring Plan for Significant Natural Features

| Significant Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Environmental Effects Monitoring Plan | | | | | Contingency Measure |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Methods | Monitoring Locations | Frequency and Duration of Sample Collection | Rationale | Reporting Requirements | |
| | | whether such effect is attributed to the wind turbines and not external factors. These discussions will determine whether contingency measures will be undertaken.<br>For monitoring and comparison purposes, the list of species should be refined to only include migratory landbirds. | | | | | | | Additional monitoring and/or mitigation may be required where post-construction monitoring identifies ecologically significant disturbance/avoidance effects associated with landbird migration stopover habitat. Mitigation techniques may include (but are not limited to) operational controls, such as periodic shut-down and/or blade feathering as per MNR's Bird and Bird Habitat Guidelines (2011). Results will be reviewed collectively by the proponent, MNR and other relevant agencies to determine if and when additional monitoring and/or mitigation is required. The best available science and information should be considered when determining appropriate mitigation. |
| **Woodland Area-Sensitive Breeding Bird Habitat (ABB1)** | Disturbance to woodland area sensitive breeding birds during operation | The breeding woodland area-sensitive species (combined and individual), within the habitat, will be monitored and compared to pre-construction conditions.<br>MNR, along with the proponent and other relevant agencies, will collectively review the results of the post-construction monitoring to determine if an ecologically significant disturbance/avoidance effect to woodland area-sensitive breeding birds is occurring, and whether such effect is attributed to the wind turbines and not external factors. These discussions will determine whether contingency measures will be undertaken. | Post-construction Disturbance Monitoring Program | Area searches using pre-construction methods (see NHA Section 4.1.3). | Within feature ABB1 | Three rounds of surveys annually for 3 years. | Breeding diversity can be compared among years or between control/impact sites | Annually | Should performance objectives not be met:<br>1. Compare declines to population trends noted through province or continent-wide breeding bird surveys<br>2. Develop additional studies to determine extent of disturbance effect<br>3. Investigate habitat management means to increase breeding density<br>Additional monitoring and/or mitigation may be required where post-construction monitoring identifies ecologically significant disturbance/avoidance effects associated with woodland area-sensitive breeding bird habitat. Mitigation techniques may include (but are not limited to) operational controls, such as periodic shut-down and/or blade feathering as per MNR's Bird and Bird Habitat Guidelines (2011). Results will be reviewed collectively by the proponent, MNR and other relevant agencies to determine if and when additional monitoring and/or mitigation is required. The best available science and information should be considered when determining appropriate mitigation. |
| **Open Country Breeding Bird and Short-eared Owl Breeding Habitat (OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8,** | Disturbance to open country breeding birds, including Short-eared Owls, during operation. | The breeding density of open country breeding birds and sensitive species (combined and individual), within the habitat, will be monitored and compared to pre-construction conditions.<br>MNR, along with the proponent and other relevant agencies, will collectively review | Post-construction Disturbance Monitoring Program | Point count survey and area searches using pre-construction methods (see NHA Section 4.1.3). | Within features OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8 and OCB9 | Three rounds of surveys annually for 3 years. | Breeding pair density is a standard measure that can be compared among years or between control/impact sites | Annually | Should performance objectives not be met:<br>1. Compare declines to population trends noted through province or continent-wide breeding bird surveys<br>2. Develop additional studies to determine extent of disturbance |

## Table 17B. Summary of the Environmental Effects Monitoring Plan for Significant Natural Features

| Significant Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Environmental Effects Monitoring Plan | | | | | Contingency Measure |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Methods | Monitoring Locations | Frequency and Duration of Sample Collection | Rationale | Reporting Requirements | |
| **OCB9)** | | the results of the post-construction monitoring to determine if an ecologically significant disturbance/avoidance effect to open country breeding birds, including Short-eared Owls, is occurring, and whether such effect is attributed to the wind turbines and not external factors. These discussions will determine whether contingency measures will be undertaken. | | | | | | | effect<br>3. Investigate habitat management means to increase breeding density<br>Additional monitoring and/or mitigation may be required where post-construction monitoring identifies ecologically significant disturbance/avoidance effects associated with open country breeding bird and Short-eared Owl habitat. Mitigation techniques may include (but are not limited to) operational controls, such as periodic shut-down and/or blade feathering as per MNR's Bird and Bird Habitat Guidelines (2011). Results will be reviewed collectively by the proponent, MNR and other relevant agencies to determine if and when additional monitoring and/or mitigation is required. The best available science and information should be considered when determining appropriate mitigation. |
| | Avoidance from open country breeding birds, including Short-eared Owls in proximity to operational wind turbines. | The breeding density of open country breeding birds and sensitive species will be monitored and compared at different distance regimes from operating wind turbines.<br>MNR, along with the proponent and other relevant agencies, will collectively review the results of the post-construction monitoring to determine if an ecologically significant disturbance/avoidance effect to open country breeding birds, including Short-eared Owls, is occurring, and whether such effect is attributed to the wind turbines and not external factors. These discussions will determine whether contingency measures will be undertaken. | Post-construction Disturbance Monitoring Program | Paired point counts extending from the base of wind turbine generators located in grassland habitat with an equal number of paired point counts located more than 120 m from wind turbine generators in grassland | Within features OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8 and OCB9 | Three rounds of surveys annually for 3 years. | Breeding pair density is a standard measure that can be compared between distance regimes. | Annually | |
| **Shrub/early Successional Bird Breeding Habitat (SBB4, SBB5)** | Disturbance to shrub/early successional bird breeding habitat, during operation. | The breeding density of shrub/early successional breeding birds, within the habitat, will be monitored and compared to pre-construction conditions.<br>MNR, along with the proponent and other relevant agencies, will collectively review the results of the post-construction monitoring to determine if an ecologically significant disturbance/avoidance effect to shrub/early successional, is occurring, and whether such effect is attributed to the wind turbines and not external factors. These discussions will determine whether contingency measures will be undertaken. | Post-construction Disturbance Monitoring Program | Area searches using pre-construction methods (see NHA Section 4.1.3). | Within features SBB4 AND SBB5. | Three rounds of surveys annually for 3 years. | Breeding diversity can be compared among years or between control/impact sites | Annually | Should performance objectives not be met:<br>1. Compare declines to population trends noted through province or continent-wide breeding bird surveys<br>2. Develop additional studies to determine extent of disturbance effect<br>3. Investigate habitat management means to increase breeding density<br>Additional monitoring and/or mitigation may be required where post-construction monitoring identifies ecologically significant disturbance/avoidance effects associated with shrub/early successional breeding bird habitat. Mitigation techniques may include (but are not limited to) operational controls, such as periodic shut-down and/or blade feathering as per MNR's Bird and Bird Habitat Guidelines (2011). Results will be reviewed collectively by the proponent, MNR and other relevant agencies to determine if and when additional monitoring and/or mitigation is required. The best available science and information should be considered when determining appropriate |

## Table 17B. Summary of the Environmental Effects Monitoring Plan for Significant Natural Features

| Significant Feature ID | Potential Negative Environmental Effects | Performance Objective | Mitigation Strategy | Environmental Effects Monitoring Plan | | | | | Contingency Measure |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Methods | Monitoring Locations | Frequency and Duration of Sample Collection | Rationale | Reporting Requirements | |
| | | | | | | | | | mitigation. |

**Table 18B. Summary of Potential Effects and Mitigation Measures for Generalized Wildlife Habitat during the Construction and Decommissioning Phases**

| Project Component | Project Activity | Potential Negative Effects | Mitigation Measures | Objectives, Monitoring, and Contingency Plans |
|---|---|---|---|---|
| Wind Turbine Erection | Clearing, grubbing, grading, and topsoil removal | • Increased erosion and sedimentation into significant woodlands, significant wetlands, and other significant natural features,<br>• Soil compaction | • Develop and implement an erosion and sediment control plan,<br>• Utilize erosion blankets, silt fencing, straw bales, etc for construction activities within 30m of a significant wetland, significant woodland, or water body,<br>• Maintain erosion control measures for the duration of construction or decommissioning activities,<br>• Suspend work if high runoff volume is noted or excessive sediment discharge occurs,<br>• Any stockpiled material will be stored more than 30m from a significant wetland, significant woodland, or water body,<br>• No vehicle traffic on exposed soils, and no heavy machinery traffic on sensitive slopes | • Minimize direct impacts on vegetation communities and protect rare/sensitive habitats,<br>• Maintain vegetated buffers, particularly within riparian zones,<br>• Minimize the impacts of sedimentation on nearby significant natural features |
| | Noise/human activity and vehicle traffic | • Disturbance and/or mortality to local wildlife | • Clearly post construction speed limits | • Limit potential wildlife road mortalities |
| | Accidental damage to vegetation | • Damage or removal of vegetation adjacent to the project location | • Where construction activity occurs within 30m of a significant feature , the construction area should be clearly delineated with protective fencing, such as silt fencing,<br>• Damaged trees should be pruned through implementation of proper arboricultural techniques | • Minimize impacts to natural vegetation |
| | Chemical spills or accidental fluid release (ie oil, gasoline, grease, etc) | • Soil or water contamination | • Implement best management practices,<br>• Develop a spill response plan and train staff on appropriate procedures,<br>• Keep emergency spill kits on site,<br>• Vehicle washing, refueling stations, and chemical storage will all be located more than 30m from significant natural features or water bodies,<br>• Dispose of waste material by authorized and approved offsite vendors | • Minimize impacts to natural features and wildlife habitats,<br>• Avoid contamination of water or significant wetland features |
| | Dewatering activities (if necessary) | • Reduced stream flow rate,<br>• Increased water temperature | • Control rate and timing of water pumping,<br>• Pump from deep wells to infiltration galleries adjacent to water bodies or significant wetlands or use off-site water, | • Maintain ground and surface water conditions with those near pre-construction conditions |

**Table 18B. Summary of Potential Effects and Mitigation Measures for Generalized Wildlife Habitat during the Construction and Decommissioning Phases**

| Project Component | Project Activity | Potential Negative Effects | Mitigation Measures | Objectives, Monitoring, and Contingency Plans |
|---|---|---|---|---|
| | | | • Do not take water during periods of extreme low flow | |
| | Installation of impervious surfaces | • Increase surface run-off,<br>• Changes in surface water drainage | • Maintain vegetative buffers around water bodies,<br>• Control quantity and quality of stormwater discharge using best management practices,<br>• Minimize grading activities to maintain existing drainage patterns as much as possible | • Limit disturbances to surface water drainage patterns |
| Temporary Access Roads, Crane Paths, and Turnaround Areas | Clearing, grubbing, grading, and topsoil removal | • Increased erosion and sedimentation into significant woodlands, significant wetlands, and other natural features,<br>• Soil compaction | • Develop and implement an erosion and sediment control plan,<br>• Utilize erosion blankets, silt fencing, straw bales, etc for construction activities within 30m of a significant wetland, significant woodland, or water body,<br>• Maintain erosion control measures for the duration of construction or decommissioning activities,<br>• Any stockpiled material will be stored more than 30m from a significant wetland, significant woodland, or water body,<br>• No vehicle traffic on exposed soils, or heavy machinery traffic on sensitive slopes,<br>• Re-vegetate temporary roads to pre-construction conditions as soon as possible after construction activities are complete | • Minimize direct impacts on vegetation communities and protect rare/sensitive habitats,<br>• Maintain vegetated buffers, particularly within riparian zones,<br>• Minimize the impacts of sedimentation on nearby significant natural features |
| | Noise/human activity | • Disturbance and/or mortality to local wildlife | • Avoid construction or decommissioning activities during sensitive time periods (ie breeding bird season), wherever possible,<br>• Conduct nest searches if vegetation removal will occur during the breeding bird season (May 1-July 31)<br>• Construction and decommissioning activities within 30m of significant woodlands or significant wetlands should occur during daylight hours, wherever possible,<br>• Clearly post construction speed limits | • Limit potential wildlife road mortalities |
| | Accidental damage to vegetation | • Damage or removal of vegetation adjacent to the project location | • Where construction activity occurs within 30m of a naturally vegetated feature (ie significant woodland or significant wetland), the | • Minimize impacts to natural vegetation |

## Table 18B. Summary of Potential Effects and Mitigation Measures for Generalized Wildlife Habitat during the Construction and Decommissioning Phases

| Project Component | Project Activity | Potential Negative Effects | Mitigation Measures | Objectives, Monitoring, and Contingency Plans |
|---|---|---|---|---|
| | | | construction area should be clearly delineated with protective fencing, such as silt fencing,<br>• Damaged trees should be pruned through implementation of proper arboricultural techniques | |
| | Chemical spills or accidental fluid release (ie oil, gasoline, diesel fuel, grease, etc) | • Soil or water contamination | • Implement best management practices,<br>• Develop a spill response plan and train staff on appropriate procedures,<br>• In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately.<br>• Keep emergency spill kits on site,<br>• Vehicle washing, refueling stations, and chemical storage will all be located more than 30m from significant natural features or water bodies,<br>• Dispose of waste material by authorized and approved offsite vendors | • Minimize impacts to significant natural features and wildlife habitats,<br>• Avoid contamination of water or significant wetland features |
| | Installation of impervious surfaces | • Increase surface run-off,<br>• Changes in surface water drainage | • Maintain vegetative buffers around water bodies,<br>• Control quantity and quality of stormwater discharge using best management practices,<br>• Minimize grading activities to maintain existing drainage patterns as much as possible | • Limit disturbances to surface water drainage patterns |
| Permanent Access Roads | Clearing, grubbing, grading, and topsoil removal | • Increased erosion and sedimentation into significant woodlands, significant wetlands, and other significant natural features,<br>• Soil compaction | • Develop and implement an erosion and sediment control plan,<br>• Utilize erosion blankets, silt fencing, straw bales, etc for construction activities within 30m of a significant wetland, significant woodland, or water body,<br>• Maintain erosion control measures for the duration of construction or decommissioning activities,<br>• Any stockpiled material will be stored more than 30m from a significant wetland, significant woodland, or water body,<br>• No vehicle traffic on exposed soils, and no heavy machinery traffic on sensitive slopes | • Minimize direct impacts on vegetation communities and protect rare/sensitive habitats,<br>• Maintain vegetated buffers, particularly within riparian zones,<br>• Minimize the impacts of sedimentation on nearby significant natural features |

### Table 18B. Summary of Potential Effects and Mitigation Measures for Generalized Wildlife Habitat during the Construction and Decommissioning Phases

| Project Component | Project Activity | Potential Negative Effects | Mitigation Measures | Objectives, Monitoring, and Contingency Plans |
|---|---|---|---|---|
| | Noise/human activity | • Disturbance and/or mortality to local wildlife | • Avoid construction or decommissioning activities during sensitive time periods (ie breeding bird season), wherever possible,<br>• Conduct nest searches if vegetation removal will occur during the breeding bird season (May 1-July 31)<br>• Construction and decommissioning activities within 30m of significant woodlands or significant wetlands should occur during daylight hours, wherever possible,<br>• Clearly post construction speed limits | • Limit potential wildlife road mortalities |
| | Accidental damage to vegetation | • Damage or removal of vegetation adjacent to the project location | • Where construction activity occurs within 30m of a naturally vegetated feature (ie significant woodland or significant wetland), the construction area should be clearly delineated with protective fencing, such as silt fencing,<br>• Damaged trees should be pruned through implementation of proper arboricultural techniques | • Minimize impacts to natural vegetation |
| | Chemical spills or accidental fluid release (ie oil, gasoline, grease, etc) | • Soil or water contamination | • Implement best management practices,<br>• Develop a spill response plan and train staff on appropriate procedures,<br>• Keep emergency spill kits on site,<br>• Vehicle washing, refueling stations, and chemical storage will all be located more than 30m from significant natural features or water bodies,<br>• Dispose of waste material by authorized and approved offsite vendors | • Minimize impacts to significant natural features and wildlife habitats,<br>• Avoid contamination of water or significant wetland features |
| | Installation of impervious surfaces | • Increase surface run-off,<br>• Changes in surface water drainage | • Maintain vegetative buffers around water bodies,<br>• Control quantity and quality of stormwater discharge using best management practices,<br>• Minimize grading activities to maintain existing drainage patterns as much as possible | • Limit disturbances to surface water drainage patterns |
| Underground/ overhead Cabling | Clearing, grubbing, grading, and topsoil removal | • Increased erosion and sedimentation into significant woodlands, significant wetlands, and | • Develop and implement an erosion and sediment control plan,<br>• Locate all entry and exit pits at least 30m from significant natural features (ie significant | • Minimize direct impacts on vegetation communities and protect rare/sensitive habitats, |

## Table 18B. Summary of Potential Effects and Mitigation Measures for Generalized Wildlife Habitat during the Construction and Decommissioning Phases

| Project Component | Project Activity | Potential Negative Effects | Mitigation Measures | Objectives, Monitoring, and Contingency Plans |
|---|---|---|---|---|
| | | other significant natural features | woodlands, significant wetlands) or water bodies,<br>• Any stockpiled material will be stored more than 30m from a significant wetland, significant woodland, or water body<br>• Horizontal directional drill entry/exit pits should be located at least 30m from any significant natural feature<br>• Restore and re-vegetate entry/exit pits to pre-construction conditions as soon as possible after construction | • Maintain vegetated buffers, particularly within riparian zones,<br>• Minimize the impacts of sedimentation on nearby significant natural features<br>• Minimize the presence of exposed soil to reduce the potential for erosion |
| | Noise/human activity | • Disturbance and/or mortality to local wildlife | • Avoid construction or decommissioning activities during sensitive time periods (ie breeding bird season), wherever possible,<br>• Construction and decommissioning activities within 30m of significant woodlands or significant wetlands should occur during daylight hours, wherever possible,<br>• Restore and re-vegetate entry and exit pits to pre-construction conditions as soon as possible after construction | • Limit potential wildlife road mortalities |
| | Accidental damage to vegetation | • Damage or removal of vegetation adjacent to the project location | • Where construction activity occurs within 30m of a naturally vegetated feature (ie significant woodland or significant wetland), the construction area should be clearly delineated with protective fencing, such as silt fencing,<br>• Damaged trees should be pruned through implementation of proper arboricultural techniques | • Minimize impacts to natural vegetation |
| | Chemical spills or accidental fluid release (ie oil, gasoline, grease, etc) | • Soil or water contamination | • Implement best management practices,<br>• Develop a spill response plan and train staff on appropriate procedures,<br>• Keep emergency spill kits on site,<br>• Vehicle washing, refueling stations, and chemical storage will all be located more than 30m from significant natural features or water bodies,<br>• Ensure drill depth is at an appropriate level below the watercourse. | • Minimize impacts to significant natural features and wildlife habitats,<br>• Avoid contamination of water or significant wetland features |

## Table 18B. Summary of Potential Effects and Mitigation Measures for Generalized Wildlife Habitat during the Construction and Decommissioning Phases

| Project Component | Project Activity | Potential Negative Effects | Mitigation Measures | Objectives, Monitoring, and Contingency Plans |
|---|---|---|---|---|
| | | | • Drill entry and exit pits should be at least 30m from significant natural features (ie significant woodland or significant wetland) or water bodies,<br>• Dispose of waste material by authorized and approved offsite vendors<br>• | |
| Operation of Substation | Clearing, grubbing, grading, and topsoil removal | • Increased erosion and sedimentation into significant woodlands, significant wetlands, and other significant natural features,<br>• Soil compaction | • Develop and implement an erosion and sediment control plan,<br>• Utilize erosion blankets, silt fencing, straw bales, etc for construction activities within 30m of a significant wetland, significant woodland, or water body,<br>• Maintain erosion control measures for the duration of construction or decommissioning activities,<br>• Suspend work if high runoff volume is noted or excessive sediment discharge occurs,<br>• Any stockpiled material will be stored more than 30m from a significant wetland, significant woodland, or water body,<br>• No vehicle traffic on exposed soils, and no heavy machinery traffic on sensitive slopes | • Minimize direct impacts on vegetation communities and protect rare/sensitive habitats,<br>• Maintain vegetated buffers, particularly within riparian zones,<br>• Minimize the impacts of sedimentation on nearby significant natural features |
| | Noise/human activity | • Disturbance and/or mortality to local wildlife | • Avoid construction or decommissioning activities during sensitive time periods (ie breeding bird season), wherever possible,<br>• Construction and decommissioning activities within 30m of significant woodlands or significant wetlands should occur during daylight hours, wherever possible,<br>• Clearly post construction speed limits | • Limit potential wildlife road mortalities |
| | Accidental damage to vegetation | • Damage or removal of vegetation adjacent to the project location | • Where construction activity occurs within 30m of a naturally vegetated feature (ie significant woodland or significant wetland), the construction area should be clearly delineated with protective fencing, such as silt fencing,<br>• Damaged trees should be pruned through implementation of proper arboricultural techniques | • Minimize impacts to natural vegetation |

## Table 18B. Summary of Potential Effects and Mitigation Measures for Generalized Wildlife Habitat during the Construction and Decommissioning Phases

| Project Component | Project Activity | Potential Negative Effects | Mitigation Measures | Objectives, Monitoring, and Contingency Plans |
|---|---|---|---|---|
| | Chemical spills or accidental fluid release (ie oil, gasoline, grease, etc) | • Soil or water contamination | • Implement best management practices,<br>• Develop a spill response plan and train staff on appropriate procedures,<br>• Keep emergency spill kits on site,<br>• Vehicle washing, refueling stations, and chemical storage will all be located more than 30m from significant natural features or water bodies,<br>• Dispose of waste material by authorized and approved offsite vendors | • Minimize impacts to significant natural features and wildlife habitats,<br>• Avoid contamination of water or significant wetland features |

# Appendix C

## Field Notes

(CD)

# Memo

Stantec

To: Andrew Taylor From: James Leslie

File: 160960595 Date: February 09, 2012

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**Reference: General ELC Description and Botanical Summary; Amherst Island Wind Energy Project**

This memo has been prepared to provide a summary of the field investigations conducted in July and August 2011. James Leslie completed site assessments July 26th to 29th, August 2nd to 5th, and again from August 17th to 19th, 2011. Matthew Ross also completed site assessments from August 2nd to 4th. The purpose of these site assessments was to develop ELC mapping, identify wetland boundaries based on OWES, and compile a summer botanical inventory with particular attention to possible rare species. Further, surveyors also documented all observed significant woodland and wildlife features (e.g. vernal pools, potential hibernacula, stick nests, etc.).

Vegetation communities were delineated on aerial photographs and checked in the field; community characterizations were then based on the ELC system (Lee et al., 1998). Nomenclature largely follows Newmaster et al. (1998), with updates increasingly taken from published volumes of the Flora of North America Editorial Committee (1993+). Additional sources include Michigan Flora Online (2011), Tropicos, and Brouillet et al. (2010+). English colloquial names generally follow Newmaster et al. (1998).

In-field wetland delineations followed protocols outlined in the Ontario Wetland Evaluation System (OWES) 3rd Edition. Based on this, the principal criterion for determining the boundary of wetlands is the vegetation composition. In general, the wetland – upland boundary was drawn through the zone of transition where upland species of trees and shrubs represent 50% of the woody species present. Where tree and shrub species were either not present or were inconclusive, the herbaceous layer is then used to assist in identifying the boundary. These boundaries were based on air photo interpretation and ground-truthing of most communities.

Natural heritage information collected from the subject lands was evaluated to confirm potential significance. Provincial significance of vegetation communities was based on the draft rankings assigned by the Natural Heritage Information Centre (Bakowsky, 1996). The provincial status of all plant species is based on Newmaster et. al (1998), with updates from the database of the Natural Heritage Information Centre (NHIC, 2001). Identification of potentially sensitive plant species is based on assignment of a coefficient of conservatism value (CC) to each native species in southern Ontario (Oldham et al., 1995). The value of CC, ranging from 0 (low) to 10 (high), is based on a species' tolerance of disturbance and fidelity to a specific natural habitat. Species with a CC value of 9 or 10 generally exhibit a high degree of fidelity to a narrow range of habitat parameters.

## Vegetation Communities

The vegetation communities, based on the ELC system for Southern Ontario, are shown on **Figures 2.0-2.5, Appendix A**.

A generalized description of each vegetation community type is described in **Table 1** below.

**Table 1 Ecological Land Classification (ELC) Vegetation Types**

| ELC TYPE | Community Description |
|---|---|
| **Forest (FO)** | |
| **Coniferous Forest (FOC)** | |
| FOC2-1<br>Dry-Fresh Red Cedar Coniferous Forest | This young community was only observed on the mainland and was assessed from the roadside. Red cedar was the dominant canopy species with scattered occurrences of green ash. Understory species included canopy saplings, but largely consisted of grey dogwood. Ground cover included species such as goldenrods, asters, and common milkweed. |
| **Deciduous Forest (FOD)** | |
| FOD4-4*<br>Dry-Fresh Ironwood Deciduous Forest | Only one of these community types was observed in the Study Area. The canopy was mid-age and consisted primarily of ironwood in association with green ash; ironwood was particularly abundant in the sub-canopy. Understory and ground cover species were sparse (i.e. <25% cover) but included wild red raspberry, lamb's quarters, Canada goldenrod, herb robert, and enchanter's nightshade. Based on this community's size, location, and composition, it has likely been subject to cattle grazing in the recent past. |
| FOD5<br>Dry-Fresh Sugar Maple Deciduous Forest | Access limitations prevented thorough assessments of these communities. Based on accessible sections or roadside assessments these communities often contained an abundance of sugar maple with admixtures of American basswood, and hickory, and ash. Understory and ground cover species observed may be more indicative of edge effect conditions and less reflective of their interiors as species often consisted of tatarian honeysuckle, common buckthorn, and garlic mustard. |
| FOD5-1<br>Dry-Fresh Sugar Maple Deciduous Forest | One of these community types was identified within the Study Area. This was a mature community dominated by sugar maple, with infrequent associations of red oak, and white birch. Understory species were typically limited to saplings and wild red raspberry, while ground cover often included woolly sweet-cicely, black snakeroot, stellate sedge, enchanter's nightshade, and herb-robert. |
| FOD5-2<br>Dry-Fresh Sugar Maple – Beech Deciduous Forest | These were mature communities with an abundance of sugar maple and varying abundances of American beech, and American basswood. Understory species consisted of canopy saplings with associations of choke cherry and prickly gooseberry, while ground cover commonly included jack-in-the-pulpit, |

**Table 1 Ecological Land Classification (ELC) Vegetation Types**

| ELC TYPE | Community Description |
|---|---|
| | enchanter's nightshade, woodland strawberry, and sedges. |
| FOD7-2<br>Fresh-Moist Ash Lowland Deciduous Forest | These were among the most commonly encountered community types, where canopy maturity varied from young to mature. Canopy species were occasionally dominated by green ash, but did included associations of white elm, slippery elm, and freeman's maple. The two most commonly observed shrubs in these communities were gray dogwood and narrow-leaved meadowsweet. Herbaceous species varied with soil moisture but often included scarlet strawberry, violets, white panicled aster, Canada goldenrod, Kentucky bluegrass, and fox sedge. |
| FOD9<br>Fresh-Moist Oak – Maple – Hickory Deciduous Forest | These communities were generally mid-age to mature with canopies inclusive of bur oak, green ash, shagbark hickory, and freeman's maple – varying in abundance. Understory composition included common buckthorn, and nannyberry, while ground cover often included white avens, woodland strawberry, hog peanut, violets, sedges, and wood reed grass. |
| FOD9-3<br>Fresh-Moist Bur Oak Deciduous Forest | These communities consistently included bur oak with frequent associations of green ash. Understory species often included saplings with fewer occurrences of nannyberry. Ground cover species often included sensitive fern, dwarf raspberry, hog peanut, white panicled aster, sedges and grasses. |
| FOD9-4<br>Fresh-Moist Shagbark Hickory Deciduous Forest | This community type was similar in composition to FOD9-3 but instead contained frequent occurrences of shagbark hickory in the canopy, with fewer occurrences of bur oak and green ash. |
| **Cultural (CU)** | |
| **Cultural Plantation (CUP)** | |
| CUP3-12*<br>White Spruce Coniferous Plantation | These were generally mid-age communities with a canopy cover of approximately 60-70% consisting predominantly of white spruce. Understory and ground cover species included primarily common buckthorn and reed canary grass with pockets of cultural meadow habitat. Assessments were completed remotely. |
| **Cultural Meadow (CUM)** | |
| CUM1-1<br>Old Field Mineral Cultural Meadow | Cultural meadow habitat typically consisted of inactive or infrequently used agricultural land that had a mix of forb and graminoid species. Species composition varied with soil moisture but most commonly included awnless brome, timothy, Kentucky blue-grass, Canada goldenrod, calico aster, wild carrot, common milkweed, bird's foot trefoil, tufted vetch, and scarlet strawberry. Admixtures of straw sedge, bebb's sedge, red-top grass, and reed-canary grass were often observed where soil had higher moisture content. |
| **Cultural Thicket (CUT)** | |
| CUT1-4<br>Gray Dogwood Cultural Thicket | This was the most commonly observed cultural thicket community. Tree cover was sparse but commonly included green ash and white elm. Gray dogwood was abundant to dominant with less common admixtures of narrow-leaved meadowsweet. Ground cover varied but consistently included Kentucky bluegrass, Canada bluegrass, timothy, red-top grass, wild carrot, scarlet strawberry, flat-topped bushy goldenrod, Canada goldenrod, common heal-all, and path rush. |
| CUT1-7* | This community type contained an abundance of prickly ash, with fewer associations of gray dogwood and Eastern red cedar. Ground cover typically |

**Table 1 Ecological Land Classification (ELC) Vegetation Types**

| ELC TYPE | Community Description |
|---|---|
| Prickly Ash Cultural Thicket | included wild carrot, black medic, tufted vetch, timothy, and Canada bluegrass. |
| CUT1-8*<br>Meadowsweet Cultural Thicket | Narrow-leaved meadowsweet sweet typically dominated these communities, which were often associated with varying degrees of livestock disturbance. Sparse tree cover included green ash, bur oak, and white elm, while ground cover generally included path rush, straw sedge, red-top grass, bluegrass, giant goldenrod, and flat-topped bushy goldenrod. |
| CUT1-9*<br>Willow Cultural Thicket | Only one of these communities was observed, which occurred at a higher elevation than the surrounding terrain. Long-beaked willow, although normally found in wetland habitat was the dominant shrub with few associations of gray dogwood and red-osier dogwood. Ground cover most commonly consisted of timothy grass, with associations of awnless brome, red-top grass, wild red raspberry, wild carrot, bull thistle, and curly-leaf dock. No evidence of surface water accumulation was observed, and soil appeared to be dry to fresh. This community was moderately grazed by cattle. |
| **Cultural Savannah (CUS)** | |
| CUS1-1<br>Hawthorn Cultural Savannah | Only one of these communities was observed, consisting of approximately 25-30% cover of predominantly hawthorn species. Confirmation of hawthorn species could not be determined due to property access constraints. Ground cover species included wild carrot, bird's foot trefoil, blueweed, and awnless brome. |
| **Cultural Woodland (CUW)** | |
| CUW1-1<br>Red Cedar Cultural Woodland | This community, assessed remotely contained primarily mid-age red cedar scattered throughout. Understory species included patchy occurrences of prickly ash, lilac, and gray dogwood, while the herbaceous layer was composed largely of species consistent with dry cultural meadow communities. |
| CUW1-3*<br>Mixed Cultural Woodland | These young to mid-age communities contained a mix of canopy species, including eastern red cedar, green ash, sugar maple, and American basswood. Understory species included prickly ash, gray dogwood, and less commonly lilac. Ground cover generally consisted of species consistent with dry cultural meadow communities. |
| CUW1-4*<br>Sugar Maple Cultural Woodland | While this community contained a canopy cover adequate for "forest" classification, it did not have a typical forest structure as it was heavily grazed by cattle. Canopy species included sugar maple, with infrequent occurrences of shagbark hickory and ash. No shrub species were observed, and the herbaceous layer, where identifiable, consisted of common dandelion, common burdock, and common motherwort. |
| CUW1-5*<br>Green Ash Cultural Woodland | These communities were typically young to mid-age and either associated with open canopies or heavy livestock grazing. Understory and ground cover species varied in abundance in density but generally included gray dogwood, prickly ash, common buckthorn, wild red raspberry, enchanter's nightshade, scarlet strawberry, avens, and Canada goldenrod. Soil generally had a moisture regime of 4-5. |
| CUW1-6*<br>Sugar Maple – White Pine Cultural | While not actively grazed, this mature community was split by mowed paths up to 4m wide. Canopy species included sugar maple, white birch, and white pine with an understory often dense with choke cherry. Ground cover was often limited in extent by wild red raspberry, but included enchanter's nightshade, common |

**Table 1 Ecological Land Classification (ELC) Vegetation Types**

| ELC Type | Community Description |
|---|---|
| Woodland | dandelion, common burdock, with fewer occurrences of herb-robert and common heal-all. |
| CUW1-7*<br>Black Locust Cultural Woodland | Black locust was the dominant species in this canopy, with fewer occurrences of green ash. Understory species often included tatarian honeysuckle, lilac, and wild red raspberry, while ground cover was composed of species consistent with cultural meadow communities. The north half of this community occurred alongside residential property, while the south half was situated within active pasture land. |
| **Swamp (SW)** | |
| **Deciduous Swamp (SWD)** | |
| SWD1-2<br>Bur Oak Mineral Deciduous Swamp | This community consisted of a dense, mature canopy made up of green ash, bur oak, and Freeman's maple, with fewer occurrences of shagbark hickory and trembling aspen. The subcanopy also consisted of green ash and bur oak, but black ash and slippery elm were also common. Nannyberry, shagbark hickory, bur oak, and blue beech formed a thick understory, and the ground layer was dominated by sensitive fern along with dwarf raspberry, sedges, American hog-peanut, and fowl meadow grass. |
| SWD2-2<br>Green Ash Mineral Deciduous Swamp | These communities generally ranged from mid-age to mature stands with fairly thick canopy and ground layers, and patchy understories. The dominant canopy species was typically green ash, followed by lower abundances of Freeman's maple, and occasionally white elm. Typical understory species ranged through silky dogwood, narrow-leaved meadowsweet, and nannyberry, while the ground layers consisted mainly of fowl meadow grass, fox sedge and other sedges, Northern water-horehound, panicled aster, and Virginia wild rye. Soil was moist throughout, with some surface pools of no more than 10 to 15cm depth in the wettest communities. |
| SWD3-3<br>Swamp Maple Mineral Deciduous Swamp | These mature communities generally consisted of canopies dominated by Freeman's maple and green ash; American basswood was an occasional to rare occurrence among them. The subcanopy composition typically included canopy species as well as blue beech and elm species. Shrub species were infrequent and varied between communities but included gray dogwood, narrow-leaved meadowsweet, winterberry, and red-osier dogwood. The ground layers were dense and consisted mainly of sedges, spotted touch-me-not, fowl meadow grass, sensitive fern, wood nettle, jack-in-the-pulpit, and panicled aster. |
| **Thicket Swamp (SWT)** | |
| SWT2-2<br>Willow Mineral Thicket Swamp | This community consisted of a dense canopy of slender willow with infrequent occurrences of green ash. The understory was a moderately thick layer of narrow-leaved meadowsweet, while the ground layer included redtop grass, fox sedge, timothy grass, and daisy fleabane. This community type was generally associated with or adjacent to culturally influenced habitat. |
| SWT2-6<br>Meadowsweet Mineral Thicket Swamp | These communities consisted of thick canopies of narrow-leaved meadowsweet above ground layers consisting primarily of reed-canary grass and grass-leaved goldenrod. Other less frequently observed species included swamp milkweed, sedges, and bulrushes. |
| SWT2-9 | This mid-age community was dominated by a dense understory layer of gray dogwood with scattered occurrences of narrow-leaved meadowsweet. Rare to |

**Table 1 Ecological Land Classification (ELC) Vegetation Types**

| ELC TYPE | Community Description |
|---|---|
| Gray Dogwood Mineral Thicket Swamp | occasional occurrences of green ash, Freeman's maple, and white elm made up a sparse canopy. The ground layer was thick and dominated by reed-canary grass, giant goldenrod, wild carrot, and an aster species. |
| **Marsh (MA)** | |
| **Meadow Marsh (MAM)** | |
| MAM2-2<br>Reed-canary Grass Mineral Meadow Marsh | These communities generally consisted of a thick layer of reed-canary grass accompanied by varying mixtures of less commonly observed species such as wool-grass, sedges, grass-leaved goldenrod, swamp milkweed, and hedge bindweed. Woody species were rare occurrences and consisted primarily of green ash, gray dogwood, and narrow-leaved meadowsweet. |
| MAM2-5<br>Narrow-leaved Sedge Mineral Meadow Marsh | This young community consisted of a ground layer of herbaceous species with obvious evidence of livestock grazing. The most abundant species were woolly sedge, redtop, path rush, blue vervain, Canada goldenrod, American water-horehound, heal-all, grass-leaved goldenrod, fox sedge, and ragweed. The community contained very small and shallow pockets of surface water as well as a natural drainage channel. |
| **Shallow Marsh (MAS)** | |
| MAS2-2<br>Bulrush Mineral Shallow Marsh | This mid-age community consisted of a thick ground layer dominated by wool-grass and containing occasional occurrences of path rush, soft rush, grass-leaved goldenrod, and a sedge species. There was no evidence of surface water at the time of the survey. |
| MAS2-10*<br>Sweet Manna Grass Shallow Marsh | This mid-age community was dominated by a thick ground layer of sweet manna grass. Green ash formed a very sparse canopy layer along with rare occurrences of Freeman's maple and bur oak. Snags were abundant throughout and some surface water was present. |
| MAS3-1<br>Cattail Organic Shallow Marsh | This community was dominated by a ground layer consisting entirely of cattail, and was part of a PSW for which no property access was available. |

*ELC code not included in the First Approximation of ELC for Southern Ontario

## Vascular Plant Species

258 species of vascular plants were recorded from the Study Area during the summer botanical inventory. It must be recognized, however, that this number reflects all optioned properties surveyed, including property outside of the current 120m Zone of Investigation. 74% of these species are considered native.

179 of the native species (95%) are ranked as S5 (common, widespread, and abundant in Ontario); 8 species are S4 (uncommon but not rare), and one species is S3 (vulnerable in Ontario). The S3 species observed was butternut (Juglans cinerea), an endangered species of tree with a declining population due to a non-native fungal

pathogen. No additional surveys are required for the specimens observed as the 120m Zone of Investigation does not currently overlap with their locations.

With the exception of the butternut, no nationally or provincially rare, threatened or endangered species were found.

Many native plants have a numerical rank assigned to them (0 to 10) that signifies their fidelity to specific habitat or tolerance to disturbance. This value is referred to as a Coefficient of Conservatism and was developed by Oldham et al. (1995). Species found in a wide variety of plant communities, including disturbed sites, are assigned ranks of 0 to 3, while plants with a high degree of fidelity to a narrow range of synecological parameters are assigned a value of 9 to 10. Of the 182 species within the Study Area that have a CC value assigned to them, two of them have a value between 9 and 10. These species were:

- Jack Pine (Pinus banksiana) – This S5 species has a CC value of 9. A small stand of Jack pine was observed in “Owl Woods”, situated outside of the 120m Zone of Investigation. South of this woodland, three hedgerows were observed within a Cultural Meadow community where Jack pine was a co-dominant species (Tile 3). These hedgerows extend into the 120m Zone of Investigation along South Shore Road (east of Marshall Forty Foot Rd).

- Torrey’s Bulrush (Schoenoplectus torreyi) – This is an S4 species with a CC value of 10. This species was not observed within the 120m Zone of Investigation. It was observed only within the Amherst Bay ANSI.

## Incidental Wildlife Observations

Wildlife species observed during field surveys were Giant Swallowtail, Northern Cardinal, Killdeer, Northern Leopard Frog, Eastern Cottontail, White-tailed Deer, Muskrat, Gray Catbird, American Robin, Red-tailed Hawk, Barn Swallow, Mourning Dove, Black-capped Chickadee, Field Sparrow, Turkey Vulture, Red Squirrel, Cedar Waxwing, Red-winged Blackbird, Green Frog, Monarch, House Wren, Song Sparrow, Black-billed Cuckoo, Blue Jay, Gray Tree Frog, American Woodcock, Eastern Chipmunk, American Crow, Eastern Kingbird, Eastern Wood-Pewee, Red-eyed Vireo, American Goldfinch, White Breasted Nuthatch, Rose Breasted Grosbeak, Bobolink, Eastern Towhee, Eastern Meadowlark, Yellow Winged Warbler, Common Yellowthroat, Alder Flycatcher, Hairy Woodpecker, Swamp Sparrow, Meadow Vole, and Rough-legged Hawk.

**STANTEC CONSULTING LTD.**

James Leslie, BES
Terrestrial Ecologist
james.leslie@stantec.com

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|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Mainland | | | **POLYGON:** CUM1 | |
| | **SURVEYOR(S):** Morrell | | **DATE:** [illegible] | | **UTME:** |
| | **START:** | **END:** | | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☐ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☒ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | n/a |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** n/a. | | | | | | | | **BA:** |
| **SIZE CLASS ANALYSIS:** | | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| **STANDING SNAGS:** n/a | | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| **DEADFALL/LOGS:** | | <10 | | 10 – 24 | | 25 – 50 | | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| **COMM. AGE:** | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** n/a | **DEPTH TO MOTTLES/GLEY** | g= | G= |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | (cm) | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | Cultural | **CODE:** CU |
| **COMMUNITY SERIES:** | Cultural Meadow | **CODE:** CUM |
| **ECOSITE:** | Mineral CUM | **CODE:** CUM1 |
| **VEGETATION TYPE:** | | **CODE:** |
| **INCLUSION** | n/a | **CODE:** |
| **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:**

---

TILE 1 – JIM SNOW DRIVE & TAYLOR KIDD BLVD.

| | | |
|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** | |
| | **POLYGON:** | |
| | **DATE:** | |
| | **SURVEYOR(S):** | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grass sp. | | | D | | | | | | | | |
| Aster sp. | | | A | | | | | | | | |
| Solidago sp. | | | A | | | | | | | | |
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Page 1 of 1

Signature: ______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Armow

Date: 11/11/11

Field Personnel: [illegible]

**Weather Conditions:**

| TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 1 | 1-2 | 60% | 0 | 0 |

**ELC Polygon: #** ______ **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

no access.

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | |
|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Mon. Land | | **POLYGON:** FOC2-1 | |
| | **SURVEYOR(S):** Mansell | **DATE:** 11/11/11 | | **UTME:** |
| | **START:** | **END:** | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☐ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☒ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 3 | R. Cedar, G. Dogwood, G. Ash |
| 2 | SUB-CANOPY | 4 | 4 | G. Dogwood, Goldenrod Spp., Aster. |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** Red Cedar 90% G. Ash 10% | | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | A | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 | |
| **STANDING SNAGS:** | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 | |
| **DEADFALL/LOGS:** | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 | |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | / | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS: n/a

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | **g=** | **G=** |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | (cm) | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** Forest | **CODE:** FO | |
| **COMMUNITY SERIES:** Coniferous Forest | **CODE:** FOC | |
| **ECOSITE:** Dry-Fresh Cedar FOC | **CODE:** FOC2 | |
| **VEGETATION TYPE:** Red Cedar | **CODE:** FOC2-1 | |
| **INCLUSION** | | **CODE:** |
| **COMPLEX** | N/a | **CODE:** N/a. |

**Evidence of Disturbance / Notes:**

---

Jim Snow

TILE 1 - JIM SNOW DRIVE & TAYLOR KIDD BLVD.

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** |
| | **POLYGON:** |
| | **DATE:** |
| | **SURVEYOR(S):** |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| R. Cedar | | D | O | | |
| G. Dogwood | | | D | | |
| Goldenrod | | | A | O | |
| Aster | | | A | | |
| G. Ash | | A | | | |
| W. Elm | | R | | | |
| Motherwort | | | R | | |
| C. Milkweed | | | R | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|

Page 1 of 1

Signature:

(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst
Date: 11/11/11
Field Personnel: Mossell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 1 | 1-2 | 60% | 0 | 0 |

**ELC Polygon: #** ____ **Assessment Type:** ☐-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| **UTM** | **Feature Description** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **DBH** | **Photo No.** | **Decay Class (1-5)** | **No. of Cavities** | **Height and Type of Cavities** |
| | | | | | | | |

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**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **Nest Size** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| **UTM** | **Feature No. & Type** | **Feature Size** (Diameter) | **Water Depth** | **Photo No.** | **Sub/Emergent Veg. Spp. Present?** | **Shrubs/ Logs at Edge Present?** |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| - no access. |

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 1 - JIM SNOW + TAYLOR KIDD

| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | | | |
|---|---|---|---|
| **SITE:** Amherst Island Mainland | | **POLYGON:** [illegible] N-NW | |
| **SURVEYOR(S):** Morsell | **DATE:** May 18/2012 | | **UTME:** |
| **START:** 1800 | **END:** 1900 | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| **SYSTEM** | **SUBSTRATE** | **TOPOGRAPHIC FEATURE** | **HISTORY** | **PLANT FORM** | **COMMUNITY** |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☒ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☒ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 3 | FRAXPENN >> ULMUAMER |
| 2 | SUB-CANOPY | 3 | 1 | SB Hickory > PINUSTRO = JUNIVIRG = C. Cherry |
| 3 | UNDERSTOREY | 4 | 2 | QA Lace > Solidago = Aster > P. Parsnip = Sedge Spp |
| 4 | GRD. LAYER | 6 | 2 | Wild Strawberry > Tall Buttercup > Grass Spp > May Apple |

**HT CODES:** **1**=>25m **2**=10<HT≤25m **3**=2<HT≤10m **4**=1<HT≤2m **5**=0.5<HT≤1m **6**=0.2<HT≤0.5m **7**=HT<0.2m

**CVR CODES:** 0=NONE **1**=0%<CVR≤10% **2**=10<CVR≤25% **3**=25<CVR≤60% **4**=CVR>60%

| | |
|---|---|
| **STAND COMPOSITION:** | **BA:** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SIZE CLASS ANALYSIS:** | A | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: **N**=NONE **R**=RARE **O**=OCCASIONAL **A**=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS: N/A

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | **g=** | **G=** |
| **MOISTURE:** | ~~**DEPTH OF ORGANICS:**~~ | (cm) | |
| ~~**HOMOGENEOUS**~~ **/ VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION: FOD7-2

| | | |
|---|---|---|
| **COMMUNITY CLASS:** Forest | | **CODE:** FO |
| **COMMUNITY SERIES:** Deciduous Forest | | **CODE:** FOD |
| **ECOSITE:** Fresh-Moist Lowland Deciduous | | **CODE:** FOD7 |
| **VEGETATION TYPE:** Ash (Green Ash) | | **CODE:** FOD7-2 |
| **INCLUSION** | n/c | **CODE:** n/c |
| **COMPLEX** | n/c | **CODE:** n/c |

**Evidence of Disturbance / Notes:**

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| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | |
|---|---|
| **SITE:** | |
| **POLYGON:** | |
| **DATE:** | |
| **SURVEYOR(S):** | |

**LAYERS:** **1**=CANOPY>10m **2**=SUB-CANOPY **3**=UNDERSTOREY **4**=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** **N**=NONE **R**=RARE **O**=OCCASIONAL **A**=ABUNDANT **D**=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| FRAXPENN | D | | | | | | | | | | |
| ULMUAMER | R | | | | | | | | | | |
| CARYOVAT | | O | | | | | | | | | |
| PINUSTRO | | R | | | | | | | | | |
| PRUNVIRG | | | O | | | | | | | | |
| LONICSPP | | | R | | | | | | | | |
| JUNIVIRG | | | O | | | | | | | | |
| SPIRESPP | | | R | | | | | | | | |
| May Apple | | | | R | | | | | | | |
| Grass Spp | | | | O | | | | | | | |
| QA Lace | | | | A | | | | | | | |
| [illegible] Parsnip | | | | A | | | | | | | |
| Solidago Spp | | | | A | | | | | | | |
| Wild Strawberry | | | | O | | | | | | | |
| Tall Buttercup | | | | O | | | | | | | |

Page 1 of 1

Signature: ____________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________ (Project Manager)

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TILE 1 - JIM SHAW & TAYLOR KIDD

**ELC** COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: Amherst Island Mowland | | POLYGON: [illegible] West | |
| SURVEYOR(S): Morrell | DATE: May 18/2012. | | UTME: 362526 |
| START: 1530 | END: 1545 | UTMZ: 18T | UTMN: 4896270 |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☒ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 5 | 4 | RC Grass >> Solidago Spp = P. Parsnip = BARBVULG |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: n/a | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | X PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS: N/A

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION: CUM1

| | | |
|---|---|---|
| COMMUNITY CLASS: Cultural | | CODE: CU |
| COMMUNITY SERIES: Cultural Meadow | | CODE: CUM |
| ECOSITE: Mineral Cultural Meadow | | CODE: CUM1 |
| VEGETATION TYPE: n/a | | CODE: n/a |
| INCLUSION | n/a | CODE: n/a |
| COMPLEX | n/a | CODE: n/a. |

Evidence of Disturbance / Notes:

**ELC** COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |
| Poison Parsnip | | | | O | |
| RC Grass | | | | D | |
| Solidago Spp | | | | O | |
| Thistle Spp | | | | R | |
| C. [illegible] | | | | O | |
| BARBVULG | | | | O | |
| Dandelion | | | | R | |
| Cow Vetch | | | | R | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|

Page 1 of 1

Signature: ______ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______ (Project Manager)

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| | | | | |
|---|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island Mainland | | POLYGON: Cruickshank E | |
| | SURVEYOR(S): Morrell | DATE: May 18/2008 | | UTME: 368097 |
| | START: 1730 | END: 1800 | UTMZ: 18T | UTMN: 4887426 |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☒ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☒ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | FRAXPENN > ULMUAMER |
| 2 | SUB-CANOPY | 3 | 3 | PICEGLAU >> JUNIVIRG |
| 3 | UNDERSTOREY | 4 | 1 | G.Dogwood >> Nannyberry = C.Cherry = Spirea Spp |
| 4 | GRD. LAYER | 6 | 1 | Grass Spp = Aster Spp > Solidago Spp = P.Rasp |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS: N/A

| | | | |
|---|---|---|---|
| ~~TEXTURE:~~ | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | ~~DEPTH OF ORGANICS:~~ | | (cm) |
| ~~HOMOGENEOUS~~ / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION: CUP3-2

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | Cultural | CODE: | CU |
| COMMUNITY SERIES: | Plantation | CODE: | CUP |
| ECOSITE: | Coniferous Plantations | CODE: | CUP3 |
| VEGETATION TYPE: | White Pine | CODE: | CUP3-2 |
| INCLUSION | n/a | CODE: | n/a |
| COMPLEX | n/a | CODE: | n/a |

**Evidence of Disturbance / Notes:**

TILE 1 - JIM SNOW & TAYLOR KIDD

| | | |
|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. | SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| ULMUAMER | R | | | | | | | | | | |
| FRAXPENN | A | | | | | | | | | | |
| PICEGLAU | | O | | | | | | | | | |
| JUNIVIRG | | O | | | | | | | | | |
| G.Dogwood | | | A | | | | | | | | |
| Spirea Spp | | | O | | | | | | | | |
| Nannyberry | | | R | | | | | | | | |
| Choke Cherry | | | R | | | | | | | | |
| Grass Spp | | | | A | | | | | | | |
| Solidago Spp | | | | O | | | | | | | |
| Cow Vetch | | | | R | | | | | | | |
| Aster Spp | | | | A | | | | | | | |
| [illegible] Rasp | | | | O | | | | | | | |
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Page 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst Island Mainland | | POLYGON: Cruickshank | |
| SURVEYOR(S): Morrell | DATE: May.18/2008 | | UTME: 362849 |
| START: 1600 | END: 1645 | UTMZ: 18T | UTMN: 4887741 |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☒ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 4 | 1 | TYPHLATI >> SALIX SPP |
| 2 | SUB-CANOPY | 5 | 3 | RC Grass >> Purple Loosestrife = Aster Spp > Spirea Spp |
| 3 | UNDERSTOREY | 6 | 2 | Poison Parsnip = Carex Spp > Solidago Spp > |
| 4 | GRD. LAYER | | | Common Watercress = Cow Vetch |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: No Trees | | | | | | | BA: n/a | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | X | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

**SOIL ANALYSIS:** N/A

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

**COMMUNITY CLASSIFICATION:** MAM2

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | Marsh | CODE: | MA |
| COMMUNITY SERIES: | Meadow Marsh | CODE: | MAM |
| ECOSITE: | Mineral | CODE: | MAM2 |
| VEGETATION TYPE: | n/a | CODE: | n/a |
| INCLUSION | n/a | CODE: | n/a |
| COMPLEX | n/a | CODE: | n/a |

**Evidence of Disturbance / Notes:**

[redacted]

---

TILE 1 - JIM SNOW & TAYLOR KIDD

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |
| Bl. Cattail | | | | A | |
| Willow Spp. | | | | R | |
| Purple Loosestrife | | | | A | |
| Aster Spp | | | | A | |
| Spirea Spp | | | | O | |
| C. Watercress | | | | O | |
| Poison Parsnip | | | | O | |
| Solidago Spp | | | | O | |
| Cow Vetch | | | | O | |
| Carex Spp | | | | A | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Mon Land | | | **POLYGON:** CUT1-4 | |
| | **SURVEYOR(S):** Mansell | | **DATE:** | | **UTME:** |
| | **START:** | **END:** | | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☐ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☒ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 2 | G Ash, W Elm |
| 2 | SUB-CANOPY | 3 | 4 | G Dogwood |
| 3 | UNDERSTOREY | 4 | 4 | G Dogwood |
| 4 | GRD. LAYER | 5 | 2 | Solidago Aster Sp Grass Spp |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | G. Ash 30% - W. Elm 10% - G. Dogwood 60% | | | | | | | **BA:** |
| **SIZE CLASS ANALYSIS:** | O | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | / | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS: n/a.

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | g= | G= |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | (cm) | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | Cultural | **CODE:** CU |
| **COMMUNITY SERIES:** | Cultural Thicket | **CODE:** CUT |
| **ECOSITE:** | Mineral CUT | **CODE:** CUT1 |
| **VEGETATION TYPE:** | Gray Dogwood | **CODE:** CUT1-4 |
| **INCLUSION** | N/A | **CODE:** N/A |
| **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:**

---

TILE 1 - JIM SNOW DRIVE & TAYLOR KIDD BLVD.

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** |
| | **POLYGON:** |
| | **DATE:** |
| | **SURVEYOR(S):** |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| G Ash | | D | | | |
| G Dogwood | | A | D | | |
| Goldenrod | | | D | | |
| Aster | | | A | | |
| Grass Sp. | | | A | | |
| W. Elm | | O | | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |

Page 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960045

Project Name: Amherst

Date: 11/11/11

Field Personnel: Horsell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 1 | 1-2 | 65% | 0 | 0 |

**ELC Polygon: #** ____ **Assessment Type:** ■-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ■-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☐-N / ■-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ■-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ■-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ■-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- no access.

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 1 - JIM SNOW DRIVE & TAYLOR KIDD BLVD.

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** AI MAITLAND | | | **POLYGON:** MA3 | |
| | **SURVEYOR(S):** JD | | **DATE:** MAR 27 - 12 | | **UTME:** |
| | **START:** | **END:** | | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 1 | FRAPENN |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | TYPHA > CORNUS |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 | |
| **STANDING SNAGS:** | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 | |
| **DEADFALL/LOGS:** | / | <10 | / | 10 – 24 | / | 25 – 50 | / | >50 | |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| **COMM. AGE:** | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | **g=** | **G=** |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | (cm) | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** |
| **COMMUNITY SERIES:** | | **CODE:** |
| **ECOSITE:** | | **CODE:** |
| **VEGETATION TYPE:** CATTAIL MINERAL SHALLOW MARSH | | **CODE:** MAS2-1 |
| **INCLUSION** | | **CODE:** |
| **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:** - COULD NOT ACCESS DUE TO DRAINAGE CHANNEL

---

| | | | |
|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** | | |
| | **POLYGON:** | | |
| | **DATE:** | | |
| | **SURVEYOR(S):** | | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FRAPENN | R | | | | | TYPHA SP. | | | | D | |
| CORNUS SP. | | | | R | | | | | | | |
| SALIX SP. | | | | R | | | | | | | |

Page ___ of ___

Signature: ____________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________ (Project Manager)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595

Project Name: AI - MAINLAND

Date: MAR 27-12

Field Personnel: JR

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 4°C | 1-2 | 10% | 0 | 0 |

**ELC Polygon: #** / **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Eves Farm A-I | | POLYGON: MAM2-2 | |
| SURVEYOR(S): Mansell | DATE: 11/11/11 | | UTME: |
| START: 1000 | END: 1005 | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| | | ☐ RIVERINE | | ☐ SUBMERGED | ☐ POND |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ BOTTOMLAND | ☒ CULTURAL | ☐ FLOATING-LVD. | ☐ RIVER |
| | | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ VALLEY SLOPE | | ☒ FORB | ☐ MARSH |
| | | ☐ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | ☐ ACIDIC BEDRK. | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☐ DECIDUOUS | ☐ BOG |
| | ☐ BASIC BEDRK. | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| **SITE** | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☒ MEADOW |
| ☐ OPEN WATER | ☐ CARB. BEDRK. | ☐ ALVAR | ☒ OPEN | | ☐ PRAIRIE |
| ☐ SHALLOW WATER | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| ☒ SURFICIAL DEP. | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| ☐ BEDROCK | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | n/a. |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: n/a. | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| STANDING SNAGS: | R | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| DEADFALL/LOGS: | N | <10 | | 10 – 24 | | 25 – 50 | | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | ✓ | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS: n/a.

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | ~~Meadow~~ Marsh | CODE: MA |
| COMMUNITY SERIES: | Meadow Marsh | CODE: MAM |
| ECOSITE: | Mineral Meadow Marsh | CODE: MAM2 |
| VEGETATION TYPE: | Reed-canary Grass | CODE: MAM2-2 |
| ☐ INCLUSION | | CODE: |
| ☐ COMPLEX | n/a | CODE: |

Evidence of Disturbance / Notes:

---

TILE 2:
SO6 & POTENTIAL CABLE LANDING

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reed Canary | | | D | | | | | | | | |
| Solidago | | | O | | | | | | | | |
| Aster | | | O | | | | | | | | |
| NL Cattail | | | O | | | | | | | | |
| Salix nigra | R | | | | | | | | | | |
| Salix spp | | R | | | | | | | | | |
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Page 1 of 1

Signature: ______ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______ (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: A.I.
Date: 11/11/11
Field Personnel: J. MANSELL

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 1 | NW 10 km/h | 60% | 0 | 0 |

**ELC Polygon:** # MAM2-2 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| **UTM** | **Feature Description** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **DBH** | **Photo No.** | **Decay Class (1-5)** | **No. of Cavities** | **Height and Type of Cavities** |
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **Nest Size** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| **UTM** | **Feature No. & Type** | **Feature Size** (Diameter) | **Water Depth** | **Photo No.** | **Sub/Emergent Veg. Spp. Present?** | **Shrubs/ Logs at Edge Present?** |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| Terrestrial\Aquatic Interface. |

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 2:
506 + POTENTIAL CABLE LANDING

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Eves Farm
POLYGON: CUM1
SURVEYOR(S): Morrell
DATE:
UTME:
START: 1020
END: 1030
UTMZ:
UTMN:

### POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☐ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☐ NATURAL
- ☒ CULTURAL

**COVER**
- ☒ OPEN
- ☐ SHRUB
- ☐ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☐ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☒ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

### STAND DESCRIPTION: n/a

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG [✓ MID-AGE] MATURE OLD GROWTH

### SOIL ANALYSIS: n/a

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

### COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | Cultural | CODE: | CU |
| COMMUNITY SERIES: | Cultural Meadow | CODE: | CUM |
| ECOSITE: | Mineral CUM | CODE: | CUM1 |
| VEGETATION TYPE: | n/a | CODE: | |
| INCLUSION | n/a. | CODE: | |
| COMPLEX | | CODE: | |

Evidence of Disturbance / Notes:

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Grass Spp | | | D | O | |
| Aster Spp | | | A | | |
| Solidago Spp | | | A | | |
| C. Milkweed | | | O | | |
| C. Mullein | | | R | | |
| Juniper | | R | | R | |
| Willow Spp | R | | | | |
| Green Ash | R | O | | | |
| White Elm | | R | | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|

Page 1 of 1
Signature: ______ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: ______ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960545

Project Name: Amherst island

Date: 11/11/11

Field Personnel: J. Manzell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 1 | 10 NW/km/h | 70% | 0 | 0 |

**ELC Polygon:** # CUM1 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 2: S06 @ POTENTIAL CABLE LANDING

| | | | |
|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | POLYGON: 10-4 | |
| | SURVEYOR(S): JR | DATE: AUG 18-11 | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3-4 | 1 | Frapenn = Ulmame = Corrace |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 5-7 | 4 | Phaarun > elecampane = aster sp = Solcana |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: Reed Canary mineral meadow marsh | CODE: MAM 2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: CUM 1-1 |

Evidence of Disturbance / Notes:

- SOIL MESIC / DRY
- NO SURFACE H2O
- GENERALLY MIXED BUT WITH SMALL AREAS +/- DOMINATED BY PHAARUN.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | | | | | | | | |
| | POLYGON: | | | | | | | | |
| | DATE: | | | | | | | | |
| | SURVEYOR(S): | | | | | | | | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | | |
| ULM AMER | R | | | | |
| COR RACE | R | | | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | ~~O~~ A | |
| ELECAMPANE | | | | O | |
| Aster sp. | | | | O | |
| VIC CRAC | | | | R | |
| MED LUPU | | | | R | |
| SOL CANA | | | | O | |
| ASC SYRI | | | | O | |
| LOT CORN | | | | R | |
| HEAL-ALL | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: August 18, 2011

Field Personnel: J. Leslie

| | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| **Weather Conditions:** | 26°C | 2-3 | 40% | 0 | 0 |

**ELC Polygon:** # 10-4 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

[illegible] DP=distinctive parts, [illegible] [illegible] OB=observed, [illegible] VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 9-1 | |
| SURVEYOR(S): J. leslie | DATE: AUG. 02 - 11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☒ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 1 | ulmamer > crataegus |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 2 | Junvirg < corrace |
| 4 | GRD. LAYER | 5-7 | 4 | Solcana > daucaro > phepat |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: Old field cultural meadow | | CODE: CUM1-1 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

---

TILE 2- S31

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| JUN VIRG | | | R | R | |
| ULM AMER | R | | | | |
| SPI ALBA | | | R | | |
| CRATAEGUS | R | | | | |
| COR RACE | | | O | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| DAU CARO | | | | O | |
| PHL PRAT | | | | O | |
| SOL CANA | | | | O-A | |
| AGR STOL | | | | O | |
| VIC CRAC | | | | O | |
| ASC SYRI | | | | R-O | |
| MED LUPU | | | | O | |
| POA REPTA | | | | R | |
| FRA VIRG | | | | O | |
| CAREX OVALES | | | | R-O | |
| SOL GIGA | | | | R-O | |
| BRO INUR | | | | O | |
| AST ERIC | | | | R-O | |
| ELECAMPANE | | | | R | |
| TRA DUBIUS | | | | R | |
| YARROW | | | | O | |
| HYC PERF | | | | R-O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: August 2, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 10% | 0 | 0 |

**ELC Polygon:** #9.1 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | |
|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island | | POLYGON: 9-9 | |
| | SURVEYOR(S): JTL | DATE: AUG. 2-11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 5-7 | 4 | Phaarun > leeoryz = Carbebb = Bidfron = Typangu |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | | CODE: | |
| COMMUNITY SERIES: | | CODE: | |
| ECOSITE: | | CODE: | |
| VEGETATION TYPE: Reed canary grass Mineral meadowmarsh | | CODE: | MAM2-2 |
| ☐ INCLUSION | | CODE: | |
| ☐ COMPLEX | | CODE: | |

Evidence of Disturbance / Notes: -SOIL MOIST TO INUNDATED TOWARD MIDDLE, DEPTH ~15cm

---

TILE 2-531

| | |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE:<br>POLYGON:<br>DATE:<br>SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | A | |
| LEE ORYZ | | | | O | |
| CAR VULP | | | | R-O | |
| CAR BEBB | | | | O | ✓ |
| SCI CYPE | | | | R | |
| ALI PLA-AQU | | | | R | |
| CAR AQUA | | | | R-O | |
| BID FRON | | | | O | |
| TYP ANGU | | | | O | |
| JUN EFFU | | | | R | |

Page ___ of ___

Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature:
(Project Manager)

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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: August 2, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 10% | 0 | 0 |

**ELC Polygon:** #9-9 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- GRFR
- NOLF

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

S31 - TILE 2

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | | POLYGON: 9-8 | |
| | SURVEYOR(S): J. Leslie | | DATE: Aug 2-11 | | UTME: |
| | START: | END: | | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | / | / | |
| 2 | SUB-CANOPY | / | / | |
| 3 | UNDERSTOREY | / | / | |
| 4 | GRD. LAYER | 4-7 | 4 | Scicype >> Junteno = Juneffu = eutgram = carcula. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: NARROW-LVD SEDGE MINERAL MEADOW MARSH | CODE: MAM2-5 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- NO SURFACE H2O - SOIL MESIC

| | | |
|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SALIX SP. | | | R | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SCI CYPE | | | | D | |
| JUN TENU | | | | O | |
| JUN EFFU | | | | O | |
| EUT GRAM | | | | O | |
| CAR OVALES | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

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Stantec

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 16096059S

Project Name: Amherst island

Date: August 2, 2011

Field Personnel: J. leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 10% | 0 | 0 |

**ELC Polygon:** #9-6 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 2 - S31

| | | | | | |
|---|---|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | | POLYGON: 9-⑦ | |
| | SURVEYOR(S): J. leslie | | DATE: August 2, 2011 | | UTME: |
| | START: | END: | | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☐ NATURAL
- ☒ CULTURAL

**COVER**
- ☐ OPEN
- ☒ SHRUB
- ☐ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☒ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 2 | FRAPENN >> ULMAMER |
| 2 | SUB-CANOPY | — | | |
| 3 | UNDERSTOREY | 3-4 | 4 | CORRACE >> SPI ALBA = FRAPENN |
| 4 | GRD. LAYER | 5-7 | 4 | SOL GIGA > CYPERACEAE > YEL. PARS. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GRAY DOGWOOD CULTURAL THICKET | CODE: CUT1-4 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

| | |
|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| ULM RUBR | R | | | | |
| FRAPENN | D | | | | |
| RUBIDAE | | | O | | |
| ROSA SP. | | | | R | |
| CRATAEGUS | R-O | | | | |
| VIT RIPA | | | | O-A | |
| SPI ALBA | | | O | | |
| RHU RADI | | | | O-A | |
| COR RACE | | | A | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| AMP PERF | | | | O | |
| CAR GRAC | | | | O | |
| YARROW | | | | O | |
| RUM CRISP | | | | O | |
| SOL GIGA | | | | O | |
| VIC CRAC | | | | O | |
| VI. AVERS | | | | O | |
| IMP CAPE | | | | R | |
| DAU CARO | | | | O | |
| ELECAMPANE | | | | R-O | |
| YEL. PARS | | | | O | |
| CAR VULP | | | | O | |
| MEL ALBA | | | | R | |
| PHA ARUN | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: August 2, 2011
Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>26 | WIND:<br>2-3 | CLOUD:<br>10% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**ELC Polygon:** # 7 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| **UTM** | **Feature Description** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **DBH** | **Photo No.** | **Decay Class (1-5)** | **No. of Cavities** | **Height and Type of Cavities** |
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **Nest Size** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| **UTM** | **Feature No. & Type** | **Feature Size** (Diameter) | **Water Depth** | **Photo No.** | **Sub/Emergent Veg. Spp. Present?** | **Shrubs/ Logs at Edge Present?** |
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

HOWR
SOSP
BBCU
AMRO

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** A.J. | | **POLYGON:** 9-⑥ | | |
| | **SURVEYOR(S):** JR | | **DATE:** AUG 2-11 | **UTME:** | |
| | **START:** | **END:** | **UTMZ:** | **UTMN:** | |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | FRA PENN >> ULM AMER |
| 2 | SUB-CANOPY | 3 | 4 | ULM AMER > FRA PENN |
| 3 | UNDERSTOREY | 4-5 | 3 | RHA CATH = VIB LENT |
| 4 | GRD. LAYER | 6-7 | 4 | POA COMP > AVENS = HEAL-ALL |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | A | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | g= | G= |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | | (cm) |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** | |
| **COMMUNITY SERIES:** | | **CODE:** | |
| **ECOSITE:** | | **CODE:** | |
| **VEGETATION TYPE:** F-M ASH LOWLAND DECID. FOREST | | **CODE:** | FOD7-2 |
| **INCLUSION** | | **CODE:** | |
| **COMPLEX** | | **CODE:** | |

**Evidence of Disturbance / Notes:**

- SOIL DRY, ALTHOUGH W/ FEW BARREN AREAS.
- SPRING H2O DEPTH LIKELY NO MORE THAN 10CM IN SPOTS

---

TILE 2 - 531

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** |
| | **POLYGON:** |
| | **DATE:** |
| | **SURVEYOR(S):** |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ULM AMER | O | O-A | R | | |
| FRA PENN | A | O | R | | |
| PRU VIRG | | | R | | |
| VIB LENT | | | O | O | |
| COR RACE | | | O | | |
| RIBES SP. | | | | O | |
| RHA CATH | | | O | | |
| RHU RADI | | | | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| POA COMP | | | | O-A | |
| N. AVENS | | | | O | |
| FRA VESC | | | | O | |
| CIR LUTE | | | | O | |
| CAREX SP. | | | | O | |
| HEAL-ALL | | | | O | |
| AST LANC | | | | O | |
| CAREX [illegible] | | | | O | |
| CAR VULP | | | | R-O | |
| AST LATE | | | | R | |
| CAR GRAC | | | | O | |
| GAL TRIF | | | | O | |
| VIOLA SP. | | | | R-O | |

Page ___ of ___

Signature: ________________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ________________ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 2, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 10% | 0 | 0 |

**ELC Polygon:** #9-6 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☒-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| 362595, 4890757 | A | FRAPENN | 40-50CM WIDE | 2 | NONE - POSSIBLE OLD / UNUSED |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** A.J. | | | **POLYGON:** 16-1 | |
| | **SURVEYOR(S):** JR | | **DATE:** JULY 27-11 | | **UTME:** |
| | **START:** 1:40 | **END:** 1:55 | PM | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| **SYSTEM** | **SUBSTRATE** | **TOPOGRAPHIC FEATURE** | **HISTORY** | **PLANT FORM** | **COMMUNITY** |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| | | ☐ RIVERINE | | ☐ SUBMERGED | ☐ POND |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ BOTTOMLAND | ☒ CULTURAL | ☐ FLOATING-LVD. | ☐ RIVER |
| | | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ VALLEY SLOPE | | ☒ FORB | ☐ MARSH |
| | | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | ☐ ACIDIC BEDRK. | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☐ DECIDUOUS | ☐ BOG |
| | ☐ BASIC BEDRK. | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| **SITE** | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☒ MEADOW |
| ☐ OPEN WATER | ☐ CARB. BEDRK. | ☐ ALVAR | ☒ OPEN | | ☐ PRAIRIE |
| ☐ SHALLOW WATER | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| ☒ SURFICIAL DEP. | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| ☐ BEDROCK | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | TILAMER = ULMAMER |
| 2 | SUB-CANOPY | — | — | |
| 3 | UNDERSTOREY | 3 | 1 | CRATAEGUS |
| 4 | GRD. LAYER | 4-7 | 4 | SOLIDAGO > BROINER > VIC CRAC |

**HT CODES:** **1**=>25m **2**=10<HT≤25m **3**=2<HT≤10m **4**=1<HT≤2m **5**=0.5<HT≤1m **6**=0.2<HT≤0.5m **7**=HT<0.2m

**CVR CODES:** **0**=NONE **1**=0%<CVR≤10% **2**=10<CVR≤25% **3**=25<CVR≤60% **4**=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** **N**=NONE **R**=RARE **O**=OCCASIONAL **A**=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | **g=** | **G=** |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | **(cm)** | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | **(cm)** | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** |
| **COMMUNITY SERIES:** | | **CODE:** |
| **ECOSITE:** | | **CODE:** |
| **VEGETATION TYPE:** OLD FIELD CULTURAL MEADOW | | **CODE:** CUM1-1 |
| **INCLUSION** | | **CODE:** |
| **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:**

---

TILE 3 - SOUTH OF S13

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** |
| | **POLYGON:** |
| | **DATE:** |
| | **SURVEYOR(S):** |

**LAYERS:** **1**=CANOPY>10m **2**=SUB-CANOPY **3**=UNDERSTOREY **4**=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** **N**=NONE **R**=RARE **O**=OCCASIONAL **A**=ABUNDANT **D**=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TIL AMER | R | | | | | SOL CANA | | | | A | |
| ULM AMER | R | | | | | PHL PRAT | | | | O | |
| | | | | | | BRO INER | | | | O | |
| | | | | | | CIR ARVE | | | | O | |
| | | | | | | ASC SYRI | | | | O | |
| | | | | | | DAUCARO | | | | O | |
| | | | | | | TRIFOL. AUR. | | | | R | |
| | | | | | | VIC CRAC | | | | O | |
| | | | | | | PHA ARUN | | | | R | |
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| | | | | | | | | | | | |
| CRATAEGUS | | | R | | | | | | | | |
| SPI ALBA | | | | R-O | | | | | | | |
| COR RACE | | | | O | | | | | | | |
| RUBIDAE | | | | O | | | | | | | |

Page ___ of ___

Signature: ______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________ (Project Manager)

Stantec

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Guelph, ON
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Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: JULY 22-11

Field Personnel: J. leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 25°C | WIND: 2-3 | CLOUD: 20% | PPT: 0 | PPT (in last 24 hrs): 0 |

**ELC Polygon:** #16-1 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

VARIOUS BIRDS - OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island | | POLYGON: 16-2 | |
|---|---|---|---|---|
| | SURVEYOR(S): J. Leslie | DATE: JULY 28-11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☒ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| **SITE** | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| ☐ OPEN WATER | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| ☐ SHALLOW WATER | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| ☒ SURFICIAL DEP. | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ BEDROCK | | ☐ ALVAR | ☐ OPEN | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | ☒ SHRUB | | ☒ THICKET |
| | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 2 | ULM RUBR > FRAPENN |
| 2 | SUB-CANOPY | — | — | |
| 3 | UNDERSTOREY | 4 | 3 | SPI ALBA > CORSTOL > RUBIDAE |
| 4 | GRD. LAYER | 5-7 | 4 | VIC CRAC > POAPRAT > SOLIDAGO SP > CAR VULP |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | BA: | |
| **SIZE CLASS ANALYSIS:** | O | <10 | R-O | 10 – 24 | N | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | O | <10 | R-O | 10 – 24 | R | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| **COMM. AGE:** | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | g= | G= |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | | (cm) |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** |
| **COMMUNITY SERIES:** | | **CODE:** |
| **ECOSITE:** | | **CODE:** |
| **VEGETATION TYPE:** MEADOWSWEET CULTURAL THICKET | | **CODE:** CUT1-8 |
| **INCLUSION** | | **CODE:** |
| **COMPLEX** | SPIREA | **CODE:** SWT2-6 |

**Evidence of Disturbance / Notes:** PICS 26,27

* = FOUND PRIMARILY IN SWT INCLUSIONS
- HIGHLY VARIABLE MOIST/DRY CONDITIONS
- NO SURFACE H2O OBSERVED

---

TILE 3 - EAST & WEST OF S18 & S13

| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | R-O | | O | | |
| ULM RUBR | O | | | | |
| CORSTOL | | | O | | |
| SPI ALBA | | | O-A | | |
| RUBIDAE | | | O | O | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| MEL ALBA | | | | R | |
| VIC CRAC | | | | A | |
| PHL PRAT | | | | O | |
| RAGWEED | | | | O | |
| CAR OVALES | | | | O | |
| AGR GIGA | | | | O | |
| DAU CARO | | | | R | |
| HYP PERF | | | | R-O | |
| PHA ARUN | | | | R-O | * |
| EUTH GRAM | | | | O | |
| POA PRAT | | | | O | |
| TEL PARC | | | | O | |
| W. AVENS | | | | O | |
| RUM CRIS | | | | R-O | |
| ASC SYRI | | | | O | |
| SOL CANA | | | | R-O | |
| SOL GIGA | | | | O | |
| AST PUNI | | | | R-O | * |
| HEAL-ALL | | | | O | |
| FRA VIRG | | | | O | |
| BRI. KNAPW. | | | | R | |
| OX EYE | | | | R | |
| SCI ATRO | | | | O | * |
| BL VERVAIN | | | | O | * |
| CAR VULP | | | | O-A | * |
| TRI AURE | | | | O | |
| GLY STRI | | | | R-O | * |
| JUN TENU | | | | O | * |
| FR. LOOSE. | | | | R | * |

Page ___ of ___

Signature: ______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: ______________ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: July 28, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>25° | WIND:<br>2-3 | CLOUD:<br>20% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**ELC Polygon:** # 16-2 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

AMRO - OB
MONARCH - OB

- STANDING SNAGS PRESENT IN THIS COMMUNITY, ALTHOUGH NONE WITH SUITABLE CAVITIES / BARK.

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island | | | POLYGON: 15-2 | |
| | SURVEYOR(S): JTC | | DATE: July 28, 2011 | | UTME: |
| | START: | END: | | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | frapenn > ulmamer > tilamer > caraovat |
| 2 | SUB-CANOPY | 3 | 4 | frapenn > ulmamer > caraovat > tilamer |
| 3 | UNDERSTOREY | 4 | 3 | frapenn > ulmamer = tilamer > crataegus sp |
| 4 | GRD. LAYER | 5-7 | 4 | cirlute = cargrac = elyvirg = Hog peanut |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | BA: | |
| **SIZE CLASS ANALYSIS:** | A | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | / | MID-AGE | X | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | | |
|---|---|---|---|---|
| **TEXTURE:** SiC | **DEPTH TO MOTTLES/GLEY** | g= 7cm | G= | |
| **MOISTURE:** 4 | **DEPTH OF ORGANICS:** | 0 | | (cm) |
| [✓ HOMOGENEOUS] / VARIABLE | **DEPTH TO BEDROCK:** | 53 - CLAY 109 DENSE | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | CODE: |
| **COMMUNITY SERIES:** | CODE: |
| **ECOSITE:** | CODE: |
| **VEGETATION TYPE:** F-M ASH LOWLAND DECID. FOREST | CODE: FOD7-2 |
| **INCLUSION** | CODE: |
| **COMPLEX** | CODE: |

**Evidence of Disturbance / Notes:**

---

TILE 3 - EAST & WEST OF 526

| | | |
|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | D | A | A | | |
| ULM AMER | O | O | O | | |
| CAR OVAT | R | O | R | | |
| TIL AMER | O | O | O | | |
| VIB (MAPLE-LEAF) | | | | R | |
| CRATAEGUS SP. | | R | R-O | | |
| RHU RADI | | | | O | |
| RHA CATH | | | R | | |
| RIBES | | | | O | |
| COR RACE | | | | R-O | |
| RUB IDAE | | | | R-O | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| VULPINOIDEA SP-LIKE | | | | R | ✓ |
| CAR VULP | | | | O | |
| W. AVENS | | | | O | |
| LYC AMER | | | | O | |
| HOAL ALC | | | | O | |
| AST LANCE | | | | O | |
| SOL CANA | | | | R | |
| SOL GIGA | | | | R-O | |
| CAR SPIC | | | | R | |
| BL. VERVAIN | | | | R | |
| VIOLA SPP | | | | O | |
| FRA VIRG | | | | R-O | |
| W. V. CREEPER | | | | O | |
| CIR LUTE | | | | O-A | |
| IMP CAPE | | | | R-O | |
| CAR GRAC | | | | O-A | |
| SOL JUNCE. | | | | R-O | |
| HYP PERF | | | | R | |
| CLEAVERS | | | | O | |
| POA PRAT | | | | O | |
| RED FESC | | | | R | |
| BOTTLEBRUSH GR. | | | | O | |
| J. PULPIT | | | | O | |
| ELY VIRG | | | | O-A | |
| HOG PEANUT | | | | O-A | |

Page ___ of ___

Signature: ______________________
(Field Personnel)

Quality Control:This form is complete ☐ & legible ☐

Signature: ______________________
(Project Manager)

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: July 28, 2011
Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C):<br>26° | WIND:<br>2 | CLOUD:<br>70% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

ELC Polygon: #15-2 Assessment Type: ☐-Visual; roadside, no access / ☑-Physical; walk through feature

Extent of Physical Investigation of Feature: ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

GRCA . VO

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

REV: 2011-07-18

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Amherst island
POLYGON: 15-5
SURVEYOR(S): JTL
DATE: JULY 27-11
UTME:
START:
END: 4:38 PM
UTMZ:
UTMN:

## POLYGON DESCRIPTION

**SYSTEM**
- ☐ TERRESTRIAL
- ☒ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☐ NATURAL
- ☒ CULTURAL

**COVER**
- ☒ OPEN
- ☐ SHRUB
- ☐ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☒ GRAMINOID
- ☒ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☐ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☒ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | Frapenn = Ulmamer |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 3 | 1 | SALIX |
| 4 | GRD. LAYER | 4-7 | 4 | CARPELL > SCICYPE > LEEORYZ > OVALES |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: MINERAL MEADOW MARSH | CODE: MAM2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
- ACTIVELY GRAZED BY SHEEP
- NO SURFACE H2O; SOIL DRY-MESIC
- COMPLEXED (POCKETS OF CAR PELL - BIGGEST AREA, SCICYPE, & LEEORYZ)

PIC# 102

---

TILE 3 - SOUTH OF S30

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

LUSA V SHAPE 2-3MM WIDE

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | | |
| ULM AMER | R | | | | |
| SALIX | | | R | | |
| VIT RIPA | | | | R | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CAR PELL | | | | A | ✓ |
| PHA ARUN | | | | R-O | |
| SCI CYPE | | | | O-A | |
| POLYGONUM SP. | | | | O | ✓ |
| BL. VERVAIN | | | | O | |
| AGRO GIGA | | | | O | |
| MEN ARVE | | | | O | |
| POA PRAT | | | | O | |
| W. AVENS | | | | R-O | |
| RAGWEED | | | | R | |
| CAR VULP | | | | O | |
| CAR (OVALES) | | | | O | |
| CAR SPIC | | | | R | |
| FOXTAIL SP | | | | R | |
| LEE ORYZ | | | | O-A | |
| CAL BEBB | | | | R | |
| TYP LATI | | | | R | |
| JUN TENU | | | | R-O | |

Page ___ of ___
Signature: ______ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐
Signature: ______ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL, 1998)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: July 28, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>26 | WIND:<br>2 | CLOUD:<br>70% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**ELC Polygon:** # 15-5 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

RTHA - OB
NOLF

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

REV: 2011-07-18

TILE 3 - S12, S33, S28

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: Amherst island | | | POLYGON: 17-1 | |
| | SURVEYOR(S): J. leslie | | DATE: JULY 27-11 | | UTME: |
| | START: | END: | | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | Fra penn |
| 2 | SUB-CANOPY | — | — | |
| 3 | UNDERSTOREY | — | — | |
| 4 | GRD. LAYER | 4-7 | 4 | PHA ARUN >> CAR PELL > SCIRPUS SPP. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: CL | DEPTH TO MOTTLES/GLEY | g= 18cm | G= NONE |
| MOISTURE: 6 | DEPTH OF ORGANICS: | — | (cm) |
| [✓ HOMOGENEOUS] / VARIABLE | DEPTH TO BEDROCK: | 50-120cm | (cm) |

↳ CLAY TOO DENSE

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | | CODE: | |
| COMMUNITY SERIES: | | CODE: | |
| ECOSITE: | | CODE: | |
| VEGETATION TYPE: REED CANARY MINERAL MEADOW MARSH | | CODE: | MAM2-2 |
| INCLUSION | N.C. CATTAIL | CODE: | MAS2 |
| COMPLEX | CAREX PELLITA | CODE: | MAM2 |

Evidence of Disturbance / Notes:

PIC 21

- NO SURFACE H2O · SOIL MESIC
- EXCEPT IN SMALL CATTAIL MAS.

---

| | | |
|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | R | | | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHA ARUN | | | | A-D | |
| BL. VERVAIN | | | | O | |
| CAR PELL | | | | O-A | |
| SCI ATRO | | | | O | |
| TYP ANGU | | | | R | |
| CAR VULP | | | | O | |
| CAR OVALES | | | | O | |
| POLY. PERSIC. | | | | R-O | |
| LYC UNIF | | | | O | |
| AGR STOL | | | | O | |
| SCI CYPE | | | | O | |
| SUC TERN | | | | O | |
| RAGWEED | | | | O | |
| HYP PERF | | | | R-O | |
| MEADOW SEDGE | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

★ ONE ELC CARD FOR ENTIRE PROPERTY

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

Stantec
**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: July 27, 2011
Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 25 | WIND: 2-3 | CLOUD: 20% | PPT: 0 | PPT (in last 24 hrs): 0 |

**ELC Polygon:** #17-1 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 3 - NE OF 528

**Stantec**
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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: Aug 15 2012
Field Personnel: Katherine S

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 28 | 2 | 60 | none | light rain |

## POLYGON DESCRIPTION

**ELC COMMUNITY DESCRIPTION & CLASSIFICATION**

POLYGON: WOD-007
START TIME: 13:24
END TIME: 13.40

TOPOGRAPHIC FEATURE:
☐ LACUSTRINE
☐ RIVERINE
☐ BOTTOMLAND
☐ TERRACE
☐ VALLEY SLOPE
☐ TABLELAND
☒ ROLL. UPLAND
☐ CLIFF
☐ TALUS
☐ CREVICE / CAVE
☐ ALVAR
☐ ROCKLAND
☐ BEACH / BAR
☐ SAND DUNE
☐ BLUFF

HISTORY:
☒ NATURAL
☐ CULTURAL

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Ash sp >> Am elm |
| 2 | SUB-CANOPY | 3 | 3 | Ash sp >> Am elm |
| 3 | UNDERSTOREY | 4 | 4 | White elder > riverbank grape > w. spruce |
| 4 | GRD. LAYER | 5 | 3 | Reed canary > V. creeper |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% N/O=not observed

| STANDING SNAGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
|---|---|---|---|---|---|---|---|---|

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY: ☐ PIONEER ☑ YOUNG ☐ MID-AGE ☐ MATURE ☐ OLD GROWTH

| | | | |
|---|---|---|---|
| VEGETATION TYPE: | Green ash mineral deciduous swamp | CODE: | SWD2-2 |
| COMPLEX | | CODE: | |

Evidence of Disturbance / Notes:

LAYERS: 1=CANOPY >10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT N/O=Not observed

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | DISTANCE FROM RD. ≤5 m | DISTANCE FROM RD. >5 m | COLL. |
|---|---|---|---|---|---|---|---|
| TREES: | | | | | | | |
| Ash sp. | D | D | | | | | |
| Am elm | R | O | | | | | |
| SHRUBS: | | | | | | | |
| Riverbank grape | | | O | | | | |
| Red osier dogwood | | | R | | | | |
| Virginia creeper | | | | A | | | |
| Hawthorn sp. | | R | | | | | |
| Gray dogwood | | | A | | | | |
| White spruce | | | O | | | | |
| Red cedar | | | R | | | | |
| GROUND: | | | | | | | |
| Wild carrot | | | | O | | | |
| English ivy | | | | R | | | |
| Cow parsnip | | | | R | | | |
| Reed canary | | | | A | | | |
| Woodland strawberry | | | | O | | | |

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Field Personnel)

Signature: (Project Manager)

**ELC Polygon: #** WOD-001 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Stick Nests:** Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 3 - S12, S33, S28

| | | | |
|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Amherst island | | **POLYGON:** 17-2 |
| | **SURVEYOR(S):** J. leslie | **DATE:** JULY 27 - 11 | **UTME:** |
| | **START:** | **END:** | **UTMZ:** / **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☒ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☒ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 4 | Picglau |
| 2 | SUB-CANOPY | / | / | |
| 3 | UNDERSTOREY | / | / | |
| 4 | GRD. LAYER | 4-7 | 4 | Phaaru > Crataegus |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | | **BA:** |
| **SIZE CLASS ANALYSIS:** | R | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | N | <10 | r | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | g= | G= |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | (cm) | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** |
| **COMMUNITY SERIES:** | | **CODE:** |
| **ECOSITE:** | | **CODE:** |
| **VEGETATION TYPE:** WHITE SPRUCE CONIFER PLANTATION | | **CODE:** CUP3-12* |
| **INCLUSION** | | **CODE:** |
| **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:**

- NO ACCESS

| | | |
|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** | |
| | **POLYGON:** | |
| | **DATE:** | |
| | **SURVEYOR(S):** | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PIC GLAU | D | | | | | PHAARUN | | | | A | |
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| | | | | | | | | | | | |
| CRATAEGUS | R-O | | | | | | | | | | |

Page ___ of ___

Signature: ____________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: ____________ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: July 27, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25°C | 2-3 | 20% | 0 | 0 |

**ELC Polygon:** #T17-2 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)* No access

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

STICK NEST(S) IDENTIFIED

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 3 - WEST OF S07

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 16-4 | |
| SURVEYOR(S): J. leslie | DATE: JULY 28-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
- ☐ TERRESTRIAL
- ☒ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☒ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☐ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☐ OPEN
- ☐ SHRUB
- ☒ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☒ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 1 | 4 | Acefree > Frapenn |
| 2 | SUB-CANOPY | 2 | 4 | Acefree > Frapenn |
| 3 | UNDERSTOREY | 3-4 | 2 | Acefre = Ulmrug > Frapenn |
| 4 | GRD. LAYER | 5-7 | 4 | onosens > impcape = Glystri > woodnett/C |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | |
|---|---|
| STAND COMPOSITION: | BA: |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | R-O | <10 | O-A | 10 – 24 | A | 25 – 50 | O | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | O | 25 – 50 | R | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER | YOUNG | MID-AGE | [✓ MATURE] | OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: SWAMP MAPLE MINERAL DECID. SWAMP | CODE: SWD3-3 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

SOIL MESIC - NO SURFACE H2O
- MANY AREAS OF BARREN SOIL
- OLD MATURE WOODLAND

---

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACEFREE | A | A | R-O | | |
| FRAPENN | O | O | R | | |
| ULM RUG | / | / | R-O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ONOSENS | | | | A | |
| HOG PEANUT | | | | O | |
| J PULPIT | | | | O | |
| CAR INTE | | | | O | |
| IMPCAPE | | | | O-A | |
| LYC UNIF | | | | O | |
| CAR [illegible] | | | | O | |
| CAREX SP. - ~LKE POLYGYNIA | | | | R | ✓ |
| GLYSTRI | | | | O-A | |
| FALSE NETTLE | | | | O | |
| AST LATE | | | | R-O | |
| WOOD NETTLE | | | | O-A | |
| CIR LUTE | | | | O | |
| GRASS SP. | | | | O | |
| CAR SPIC | | | | R | |
| LYC EURO | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: July 28, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 25° | 2-3 | 20% | 0 | 0 |

**ELC Polygon:** # 16.4 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☒-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| NUMEROUS | VERNAL POOLS | - SEE | NOTE | BELOW | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- POTENTIALLY SUITABLE AMPHIB BREEDING HABITAT
- NORTH HALF MATURE, GRADUALLY BECOMING MIDAGE/YOUNG FURTHER SOUTH
- V. POOLS PRIMARILY RESTRICTED TO NORTH HALF (ABSENT OF WATER)

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 3 - WEST OF S14

| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | | | |
|---|---|---|---|
| **SITE:** Amherst Island | | **POLYGON:** 16-3 | |
| **SURVEYOR(S):** J.leslie | **DATE:** JULY 28-11 | | **UTME:** |
| **START:** | **END:** | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☐ OPEN
- ☐ SHRUB
- ☒ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☒ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | fraxpenn >>ulmruer >Acefree |
| 2 | SUB-CANOPY | 3 | 4 | fraxpenn >>ulmrugr >Acefree |
| 3 | UNDERSTOREY | 4 | 2 | Spialba >fraxpen =ulmrugr =corsiace |
| 4 | GRD. LAYER | 5-7 | 4 | caruvulp >fravirg =astlance =healall |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | |
|---|---|---|
| **STAND COMPOSITION:** | | **BA:** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SIZE CLASS ANALYSIS:** | A | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | O-A | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | X | YOUNG | X | MID-AGE | | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** SiC | **DEPTH TO MOTTLES/GLEY** | g= 14 cm | G= 65 cm |
| **MOISTURE:** 4 | **DEPTH OF ORGANICS:** | 1 cm | (cm) |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | 75 cm BEFORE CLAY TOO DENSE | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| **COMMUNITY CLASS:** | **CODE:** |
| **COMMUNITY SERIES:** | **CODE:** |
| **ECOSITE:** | **CODE:** |
| **VEGETATION TYPE:** F-M Ash lowland deciduous forest | **CODE:** FOD7-2 |
| **INCLUSION** | **CODE:** |
| **COMPLEX** | **CODE:** |

**Evidence of Disturbance / Notes:** PIC 28

- VARIABLE HERBACEOUS COMPOSITION
- USING OWES >50% WOULD BE WETLAND
- MIXED AGE; MANY STANDING SNAGS

---

| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | |
|---|---|
| **SITE:** | |
| **POLYGON:** | |
| **DATE:** | |
| **SURVEYOR(S):** | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | O-A | O | | |
| ULM RUGR | O | O-A | O | | |
| ACE FREE | R | R | R | | |
| SPI ALBA | | | O-A | | |
| COR RACE | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRA VIRG | | | | O | |
| AST LANC | | | | O | |
| YARROW | | | | R-O | |
| CAR OVALE | | | | O | |
| TAR OFFI | | | | O | |
| HOA L-AU | | | | O | |
| DAU CARO | | | | R-O | |
| CAR VULP | | | | O-A | |
| POA PRAT | | | | O | |
| PLA RUGEL | | | | O | |
| OXA STRIC | | | | R-O | |
| GLY STRI | | | | R-O | |
| ERI PHILA | | | | O | |
| EPILOB GLAND | | | | R | |
| GAL TRIF | | | | R-O | |
| VIOLA SP. | | | | O | |
| CAR GRAC | | | | O | |
| LYC AMER | | | | O | |

Page ___ of ___

Signature: ____________________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________________ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

Stantec

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: July 28, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>25 | WIND:<br>2-3 | CLOUD:<br>20% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**ELC Polygon:** # 16-3 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

VARIOUS BIRD SPP.

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | |
|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | POLYGON: 13-4 |
| | SURVEYOR(S): J. leslie | DATE: AUG 3-11 | UTME: |
| | START: | END: | UTMZ: |
| | | | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | frapenn > Acefree |
| 2 | SUB-CANOPY | 3 | 4 | |
| 3 | UNDERSTOREY | 4 | 3 | Spialba |
| 4 | GRD. LAYER | 5-7 | 4 | AstLate > clystri = Satingrass = lycunif |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | ✓ | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: green ash mineral dec swamp | CODE: SWD2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- SOIL MOIST, INFREQUENT SURFACE POOLS (<10CM DEEP)

---

TILE 3 - SOUTH OF S24

| | |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | | | | |
| ACEFREE | O | | | | |
| SPI ALBA | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| AST LATE | | | | O | |
| JUN EFFUS | | | | R | |
| CAR "REPR" | | | | O | ✓ |
| ELY STRI | | | | O | |
| "SATIN" GRASS | | | | O | ✓ |
| LYC UNIF | | | | O | |
| EQU ARVE | | | | R | |
| ONO SENS | | | | R-O | |
| J. PULPIT | | | | R | |

Page ___ of ___

Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:
(Project Manager)

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Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: Aug 3, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 1-2 | 0 | 0 | rain |

**ELC Polygon:** # 13-4 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | |
|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | POLYGON: 12 2 | |
| | SURVEYOR(S): J. leslie | DATE: AUG 3 11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☒ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☒ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 4-5 | 4 | Spialba |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 6-7 | 4 | Scicype = Carex ovales > eutgram = phaarun |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: MEADOWSWEET MINERAL THICKET SWAMP | CODE: SWT 2-6 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

TILE 3 - SOUTHEAST OF S24

| | |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| SPI ALBA | | | A | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| SCICYPE | | | | O-A | |
| EUTGRAM | | | | D | |
| CAREX OVALES | | | | O-A | |
| HYPPERF | | | | R | |
| SWMP. MILK | | | | R | |
| PHAARUN | | | | O | |

Page ___ of ___

Signature: ______ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______ (Project Manager)

Stantec
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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: August 3, 2011
Field Personnel: J. leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 1-2 | 0 | 0 | rain |

**ELC Polygon:** # B-2 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island | | | POLYGON: 13-3 | |
| | SURVEYOR(S): J. leslie | | DATE: Aug 3, 2011 | UTMZ: | UTME: |
| | START: | END: | | | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☒ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

|  | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | Carex ovales > Daucus = Agrstol - lotcorn |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

|  |  |
|---|---|
| STAND COMPOSITION: | BA: |

|  |  |  |  |  |
|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | <10 | 10 – 24 | 25 – 50 | >50 |
| STANDING SNAGS: | <10 | 10 – 24 | 25 – 50 | >50 |
| DEADFALL/LOGS: | <10 | 10 – 24 | 25 – 50 | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

|  |  |  |  |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

|  |  |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: OLD-FIELD MINERAL CULTURAL | CODE: CUM1-1 |
| INCLUSION: MOADOW | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes: -HIGHER ELEVATION THAN SURROUNDING HABITAT.

---

TILE 3 - SW OF 524

|  |  |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SP. ALBA | | | | RO | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| DAU CARO | | | | O | |
| AGR STOL | | | | O | |
| LOT CORN | | | | O | |
| VIC CRAC | | | | O | |
| SOL CANA | | | | O | |
| CAREX OVALES | | | | O-A | |
| PHA ARUN | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

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1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: August 3, 2011
Field Personnel: S. leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 1-2 | 0 | 0 | rain |

**ELC Polygon:** # 13-3 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 3 - NE OF S24

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | | POLYGON: 13-1 | |
| | SURVEYOR(S): J. leslie | | DATE: August 3, 2011 | | UTME: |
| | START: | END: | | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 1 | frapenn>Acefrea |
| 2 | SUB-CANOPY | — | — | |
| 3 | UNDERSTOREY | — | — | |
| 4 | GRD. LAYER | 4-7 | 4 | Phaarun>eutgram>Spialba>Purple loosestrife |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | CODE: | |
| COMMUNITY SERIES: | CODE: | |
| ECOSITE: | CODE: | |
| VEGETATION TYPE: REED CANARY MINERAL MEADOW MARSH | CODE: | MAM2-2 |
| INCLUSION: GRASMAN | CODE: | SWD 3-3 |
| COMPLEX | CODE: | SWT 2-6 |

Evidence of Disturbance / Notes:
- SMALL GREEMAN SWAMP ON EAST END
- REMAINDER IS COMPLEX OF MAM2-2 & SWT2-6

| | | |
|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| ACE FREE | R | | | | |
| FRAPENN | RO | | | | |
| SPI ALBA | | | | O | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | D | |
| EUTGRAM | | | | O | |
| SWAMP MILK. | | | | R | |
| CAREX SP. | | | | R | |
| SCI CYPE | | | | R-O | |
| P. LOOSE. | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

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Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 3, 2011

Field Personnel: S. leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C):<br>26 | WIND:<br>1-2 | CLOUD:<br>0 | PPT:<br>0 | PPT (in last 24 hrs):<br>rain |

**ELC Polygon:** #13-1 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | |
|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: Amherst Island | POLYGON: 4-2 | |
| | SURVEYOR(S): STL | DATE: AUG 5-11 | UTME: |
| | START: | END: | UTMZ: | UTMN: |

**POLYGON DESCRIPTION**

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☒ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☒ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☐ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☒ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☐ TABLELAND | | ☐ LICHEN | ☒ SWMAP |
| | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| **SITE** | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ OPEN WATER | | ☐ ALVAR | ☐ OPEN | | ☐ PRAIRIE |
| ☐ SHALLOW WATER | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| ☒ SURFICIAL DEP. | | ☐ BEACH / BAR | ☒ TREED | | ☐ SAVANNAH |
| ☐ BEDROCK | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

**STAND DESCRIPTION:**

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | AceFree>Frapen>Crack willow |
| 2 | SUB-CANOPY | 3 | 3 | Frappen>Ulmamer>Crack willow |
| 3 | UNDERSTOREY | 4 | 3 | Ulmamer>Frapen>Corace |
| 4 | GRD. LAYER | 5-7 | 4 | Poapalus>Galipalust>glystri |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | R | 25 – 50 | R | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | [✓ MATURE] | OLD GROWTH |

**SOIL ANALYSIS:**

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

**COMMUNITY CLASSIFICATION:**

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: GREEN ASH MINERAL DECID. SWAMP | | CODE: SWD2-2 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes: -SOIL MOIST; NO SURFACE $H_2O$

-MORE OF A LOWLAND AROUND PERIMETER

---

TILE 4 - SOUTH OF SOI

| | | |
|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER | | | | COLL. |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | |
| ACE FREE | A | / | / | | |
| FRAPEN | O | O | R | | |
| CRK. WILLOW | R | R | / | | |
| ULMAMER | / | O | O | | |
| COR RACE | | | R | | |
| SPI ALBA | | | | R | |

| SPECIES CODE | LAYER | | | | COLL. |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | |
| GLYSTRI | | | | O | |
| CAREX SP | | | | O | |
| AST LATE | | | | O | |
| CAR VULP | | | | O | |
| POA COMP | | | | O | |
| IMP CAPE | | | | O | |
| LYC UNIF | | | | O | |
| CAR BEBB | | | | O | |
| GALI PALUST. | | | | O-A | |
| CAR SPIC | | | | R | |
| PANICUM SP | | | | R | |
| HEAL-AZL | | | | R-O | |
| PHA ARUN | | | | R | |
| POA PALU | | | | A | |
| ELECAMPAGNE | | | | R | |

Page ___ of ___

Signature: ____________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________ (Project Manager)

Stantec

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 5, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 20°c | 1 | 5% | 0 | 0 |

**ELC Polygon:** #4-2 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Amherst Island
POLYGON: 4-4
SURVEYOR(S): J. Leslie
DATE: AUG 5-11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☐ OPEN
- ☐ SHRUB
- ☒ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☒ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 2 | FRAPENN = OSTVIRG > TILAMER |
| 2 | SUB-CANOPY | 3 | 4 | OSTVIRG >> TILAMER |
| 3 | UNDERSTOREY | 4-5 | 2 | Rubidae > Rubocci > Corrace |
| 4 | GRD. LAYER | 6-7 | 1 | Daucaro = Sonchus Arv = Solcana |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | R | 25 – 50 | R | >50 |
| STANDING SNAGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: D-F Ironwood Decid. Forest | CODE: FOD 4-4* |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes: - MAINLY LEAF LITTER & TWIGS FOR GROUND COVER

---

TILE 4 — SOUTH OF SOL

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| OST VIRG | O | A | | | |
| FRA PENN | O | / | | | |
| TIL AMER | R | R | | | |
| ACE FRSE | R | / | | | |
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| RUB OCCI | | | R | | |
| COR RACE | | | R | | |
| RUB IDAE | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| DAUCARO | | | | R | |
| SONCHUS ARV. | | | | R | |
| LAMB'S QUART | | | | R | |
| SOL CANA | | | | R | |
| CIR LUTE | | | | R | |
| GER ROBE | | | | R | |
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Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐
Signature:
(Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: Aug 5, 2011
Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 20 | 1 | 5% | 0 | 0 |

**ELC Polygon:** #4-4 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 4 – BETWEEN S01 + S29

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Amherst Island
POLYGON: 4 – a
SURVEYOR(S): J.Leslie
DATE: Aug 5 – 11
UTME:
START:
END:
UTMZ:
UTMN:

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☒ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☒ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☒ TREED | | |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 3 | Junvig >> malus |
| 2 | SUB-CANOPY | – | – | |
| 3 | UNDERSTOREY | 4 | 2 | Corrace > Rhutypa = Rhacath = Rubidae |
| 4 | GRD. LAYER | 5-7 | 4 | Daucaro > Bromur = philprat > Ascsyri |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER | YOUNG | [✓ MID-AGE] | MATURE | OLD GROWTH

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: RED CEDAR CULTURAL WOODLAND | CODE: CUW1-1 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
– WITHIN AN ACTIVE CATTLE PASTURE
– SUBJECT TO HEAVY GRAZING

---

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| MALUS | R | / | / | | |
| JUN VIRG | O | / | O | | |
| RHU TYPH | | | R | R | |
| RHA CATH | | | R | | |
| COR RACE | | | R-O | | |
| RUBI IDAE | | | R | R | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| DAU CARO | | | | O-A | |
| [illegible] | | | | R | |
| MEL ALBA | | | | R | |
| ASC SYRI | | | | R | |
| BRO INER | | | | O | |
| YARROW | | | | O | |
| AST NOVA- | | | | R-O | |
| VIC CRAC | | | | O | |
| LOT CORN | | | | R | |
| PHL PRAT | | | | R-O | |
| POA COMP | | | | O | |

Page ___ of ___
Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐
Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: AUG-5-11

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): 26 | WIND: 2-3 | CLOUD: 10% | PPT: 0 | PPT (in last 24 hrs): 0 |

ELC Polygon: #4-a  Assessment Type: ☐-Visual; roadside, no access / ☑-Physical; walk through feature

Extent of Physical Investigation of Feature: ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass, DP=distinctive parts, FE=feeding evidence, [illegible]

REV: 2011-07-18

| | | | |
|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: AI | | POLYGON: 4-3 |
| | SURVEYOR(S): JTR | DATE: AUG 5-11 | UTME: |
| | START: | END: | UTMZ: |
| | | | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☐ NATURAL
- ☒ CULTURAL

**COVER**
- ☐ OPEN
- ☒ SHRUB
- ☐ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☒ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 1 | Frapenn |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 3 | corrace >> Spialba = rubidae |
| 4 | GRD. LAYER | 5-7 | 4 | SOLGIGA > EUTGRAM > AGROSTIS |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:

BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER [✓ YOUNG] MID-AGE MATURE OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GRAY DOGWOOD CULTURAL | CODE: CUT 1-4 |
| INCLUSION THICKET | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

TILE 4 – SOUTH OF SOI

| | |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | R | | |
| SPI ALBA | | | R | O | |
| COR RACE | | | OA | O | |
| RUBIDAE | | | R | R | |

Page ___ of ___

Signature:

(Field Personnel)

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| EUT GRAM | | | | OA | |
| SOL CANA | | | | R-O | |
| DAU CARO | | | | R | |
| ASC SYRI | | | | O | |
| VIC CRAC | | | | O | |
| FIELD BINDW. | | | | O | |
| AST NOVA-AN. | | | | O | |
| PHA ARUN | | | | O | |
| CAR VULP | | | | O | |
| AGRO STOL | | | | O | |
| SCI CYPE | | | | R | |
| SOL GIGA | | | | A | |
| CAREX OVALES | | | | R | |

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Project Manager)

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: Aug 5-11

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 25 | 1-2 | 5% | 0 | 0 |

ELC Polygon: # 4-3 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

[illegible]

| | | | | |
|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: Amherst Island (Tile 7 of 17) | | POLYGON: G | |
| | SURVEYOR(S): Matt Ross | DATE: Aug 4/11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☑ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☑ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☑ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☑ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☑ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☑ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☑ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☑ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 2 | Gr. Ash > Am. Elm |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 3 | Gray Dogwood |
| 4 | GRD. LAYER | 5-7 | 2 | Spirea alba > Poa compressa > Frag vir > Wild Carrot |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | N/A (too few trees) | | | | | | BA: N/A | |
| SIZE CLASS ANALYSIS: | 0 | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | ✓ YOUNG | MID-AGE | MATURE | OLD GROWTH |

**SOIL ANALYSIS:** → INCLUSION ONLY (FOD 7-2)

| | | | |
|---|---|---|---|
| TEXTURE: Clay | DEPTH TO MOTTLES/GLEY | g= 15cm | G= |
| MOISTURE: | DEPTH OF ORGANICS: | 0.5cm litter | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | Unknown | (cm) |

**COMMUNITY CLASSIFICATION:**

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: gray dogwood cultural thicke | CODE: CUT 1-4 |
| INCLUSION: ash lowland dec forest | CODE: FOD 7-2 |
| COMPLEX | CODE: |

**Evidence of Disturbance / Notes:**

---

TILE 4 — SOUTH OF S04

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: Amherst Island (Tile 7 of 17) |
| | POLYGON: G |
| | DATE: Aug 4/11 |
| | SURVEYOR(S): Matthew Ross |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Gr. Ash | O | | | | |
| Am Elm | R-O | | | | |
| Spirea Alba | | | | O-A | |
| Gray Dogwood | | | A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Giant Goldenrod | | | | O | |
| Hog Peanut | | | | R | |
| Wild carrot | | | | O | |
| Avens sp | | | | ~~R~~O | |
| Lycopus amer. | | | | R-O | |
| Heal All | | | | ~~R~~O | |
| Poa Compressa | | | | A | |
| Frag. vir | | | | A | |
| Timothy | | | | O | |
| Yarrow | | | | R-O | |
| Com. St John's wort | | | | R | |
| Cow Vetch | | | | O | |
| Comm. Milkweed | | | | O | |
| Canada Goldenrod | | | | O | |
| Red clover | | | | O | |
| INCLUSION | | | | | |
| Gr. Ash | | D | R | | |
| Poa compressa | | | | A | |
| Poa sp | | | | A | |
| Reed Canary Grass | | | | R | |
| Avens sp | | | | R | |
| Fox sedge | | | | O | |

Page 2 of 3

Signature: Matt (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

BCCH EAKI BBCU
SOSP GRCA
HOWR BARS
[illegible]

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 4/11

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 19-26 | WIND: 3-4 | CLOUD: 0-30% | PPT: None | PPT (in last 24 hrs): Rain |

**ELC Polygon:** # 6 **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☑-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

BCCH BBCU
HOWR
SOSP
AMGO
EAKI
GRCA
BARS

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Amherst Island (Tile 7 of 17) | | **POLYGON:** F | | |
| | **SURVEYOR(S):** Matthew Ross | | **DATE:** Aug 4/11 | **UTME:** | |
| | **START:** | **END:** | **UTMZ:** | **UTMN:** | |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☑ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☑ NATURAL | ☐ PLANKTON | ☐ LAKE |
| | | ☐ RIVERINE | | ☐ SUBMERGED | ☐ POND |
| ☐ WETLAND | ☑ MINERAL SOIL | ☐ BOTTOMLAND | ☐ CULTURAL | ☐ FLOATING-LVD. | ☐ RIVER |
| | | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | | ☑ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | ☐ ACIDIC BEDRK. | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☑ DECIDUOUS | ☐ BOG |
| **SITE** | ☐ BASIC BEDRK. | ☐ TALUS | **COVER** | ☐ CONIFEROUS | ☐ BARREN |
| ☐ OPEN WATER | ☐ CARB. BEDRK. | ☐ CREVICE / CAVE | ☐ OPEN | ☐ MIXED | ☐ MEADOW |
| ☐ SHALLOW WATER | | ☐ ALVAR | ☐ SHRUB | | ☐ PRAIRIE |
| ☑ SURFICIAL DEP. | | ☐ ROCKLAND | ☑ TREED | | ☐ THICKET |
| ☐ BEDROCK | | ☐ BEACH / BAR | | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☑ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 1 | 4 | Shagbark Hick > Bur oak >> Green ash 7 Acer Fre |
| 2 | SUB-CANOPY | 2 | 3 | Shagbark Hick > Acer Fre >> Green Ash |
| 3 | UNDERSTOREY | 3 | 2 | Bl. Beech > Nannyberry > Gray Dogwood >> Gr Ash |
| 4 | GRD. LAYER | 5-7 | 3 | Frag. Vir > Calico aster > Avens > Blue Beech |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** Shagbark Hick > Bur oak > G. ash > A. Fre | | | | | | | **BA:** N/A | |
| **SIZE CLASS ANALYSIS:** | O | <10 | A | 10 – 24 | O | 25 – 50 | R | >50 |
| **STANDING SNAGS:** | O | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | A | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | ✓ | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** Clay | **DEPTH TO MOTTLES/GLEY** | **g=** ~10cm | **G=** |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | litter: 1cm | **(cm)** |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | unknown | **(cm)** |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** |
| **COMMUNITY SERIES:** | | **CODE:** |
| **ECOSITE:** | | **CODE:** |
| **VEGETATION TYPE:** F-M Shagbark hickory deciduous forest | | **CODE:** FOD 9-4 |
| ☐ **INCLUSION** | | **CODE:** |
| ☐ **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:**

ADJACENT "FOD" HAS SIMILAR COMP.

---

TILE 4 – SOUTH OF SAY

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Amherst Island (Tile 7 of 17) |
| | **POLYGON:** F |
| | **DATE:** Aug 4/11 |
| | **SURVEYOR(S):** Matthew Ross |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Bur Oak | A | R | | | |
| Basswood | | R | | | |
| Cottonwood ~~[illegible]~~ | R | | | | |
| White Pine | R-O | | | | |
| Shagbark Hick | A | A | | O | |
| Blue Beech | | O | A | O-A | |
| Am Elm | | R | | | |
| Acer Fre | R | R-O | | | |
| Red Oak | R | | | | |
| Green ash | R-O | | O | | |
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| | | | | | |
| Ribes sp | | | | R-O | |
| Serviceberry sp | | | R | | |
| Comm Buckthorn | | | R | | |
| Virginia Creeper | | | | O | |
| Gray Dogwood | | | O | | |
| Nannyberry | | O | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Frag vir | | | | A | |
| Avens sp | | | | O-A | |
| Heal All | | | | R-O | |
| Jack in the Pulpit | | | | O | |
| Calico Aster | | | | O-A | |
| Enchanters Nightshade | | | | O | |
| Jewelweed | | | | R-O | |
| Rubus Ideaus | | | | R-O | |
| Poison Ivy | | | | O | |
| Largeleaved Aster | | | | O | |
| Galium triflorum | | | | O | |
| Carex retrorsa | | | | R-O | ✓ |
| Hog peanut | | | | O | |
| Sensitive Fern | | | | R-O | |
| Oxalis sp | | | | R | |
| Running Strawberry Bush | | | | R-O | |
| Lycopus americanus | | | | R | |
| Barren Strawberry | | | | R-O | |
| ~~Grass sp.~~ Wood Reed | | | | O | ✓ |
| Glyceria striata | | | | R-O | |
| Herb robert | | | | R | |
| | | | | | |
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| | | | | | |

Page 1 of 3

Signature: _______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _______________ (Project Manager)

EAWP RBGR
MODO BLJA E. Chipmunk
REVI WBNU R. Squirrel
AMRO

Stantec
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1 – 70 Southgate Drive
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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 4/11

Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 19 - 26 | 3 - 4 | 0 - 30% | None | Rain |

**ELC Polygon:** # F **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☑-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

EAWP
MODO
REVI
AMGO
AMRO
RBGR
BLJA
WBNU

E. chipmunk
Red squirrel

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: A.J. | | POLYGON: 2-1 | |
|---|---|---|---|---|
| | SURVEYOR(S): J.leslie | DATE: AUG 3-11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Caruvat> Frapenn> Quemacr |
| 2 | SUB-CANOPY | 3 | 4 | Frapenn=Caruvat=Quemacr |
| 3 | UNDERSTOREY | 4 | 4 | Rhuradi |
| 4 | GRD. LAYER | 5-7 | 4 | RubePUBE = J.Pulpit=Cirlute = Vidasp=Fravirg |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| STAND COMPOSITION: | BA: |
|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | A | 25 – 50 | R | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | A | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | X | MATURE | | OLD GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|

## SOIL ANALYSIS:

| | | | | | |
|---|---|---|---|---|---|
| TEXTURE: SiC | DEPTH TO MOTTLES/GLEY | g= 20cm | | G= NONE | |
| MOISTURE: 6 | DEPTH OF ORGANICS: | 0 | | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | >120cm | | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: F-M SHAGBARK HICKORY DECID. FOREST. | CODE: FOD 9-4 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- LIKELY TRANSITION INTO SWD FURTHER SOUTH.

---

TILE 4 - SW OF S10

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CAR OVAT | O-A | O | | | |
| QUE RUBR | R-O | R | | | |
| QUE MACR | O | O | | | |
| ACE FREE | R | R | | | |
| FRA PENN | O | O | | | |
| CAR CARO | – | O | | | |
| TIL AMER | R-O | O | | | |
| RHU RADI | | | O | | |
| RUB PUBE | | | | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| J. PULPIT | | | | O | |
| POLYGONUM | | | | R-O | |
| CIR LUTE | | | | O | |
| WOOD NETTLE | | | | R-O | |
| VIOLA SP. | | | | O | |
| WOOLY CICELY | | | | R | |
| SNAKE ROOT | (BLK) | | | O | |
| ONO SENS | | | | R-O | |
| IMP CAPE | | | | O | |
| LADY FERN | | | | O | |
| WOODLAND SUNFL. | | | | R | |
| PLANTG RHOD | | | | R | [illegible] |
| FRA VIRG | | | | O | |
| GALIUM TRIF | | | | O | |
| RED BANEBERRY | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

Stantec
Stantec Consulting Ltd.
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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60950695

Project Name: Amherst island

Date: August 3, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 1-2 | 0 | 0 | Rain |

**ELC Polygon:** #2-1 **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☒-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| SEE COMMENTS | | | 0 | / | NO | NO |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- RED SQUIRREL
- VARIOUS SMALL, DRY AREAS WHERE PROLONGED POOLING IS EVIDENT
  → THESE ARE RESTRICTED TO THE DARKEST AREAS SEEN ON AIR PHOTO

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: A.I. | | POLYGON: 2-2 | |
| SURVEYOR(S): STL | DATE: AUG 3-11 | UTME: | |
| START: | END: | UTMZ: | UTMN: |

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 1-2 | 4 | Acesasa >>Querubr > Faggran = Ostvirg |
| 2 | SUB-CANOPY | 3 | 4 | Acesasa > Ostvirg > Faggran |
| 3 | UNDERSTOREY | 4-5 | 3 | Acesasa = Faggran = Ostvirg |
| 4 | GRD. LAYER | 6-7 | 4 | Acesasa = Snakeroot = wool cicely |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | O-A | 25 – 50 | R | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | X MATURE | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: F-M SUGAR MAPLE DECID FOREST. | CODE: FODS-1 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

PIC 20

---

TILE 4 – SOUTH OF SID

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACESASA | D | A | O | A | |
| QUERUBR | R | / | / | | |
| FAGGRAN | / | R | O | | |
| OST VIRG | R | O | O | | |
| BET PAPY | R | / | / | | |
| RUB IDAE | | | R-O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| WOOL CICELY | | | | O-A | |
| SNAKE ROOT | | | | A | |
| CAR ROSEA | | | | O | |
| HRT LV ASTER | | | | R-O | |
| CIR LUTE | | | | O | |
| W. BANEBERRY | | | | R | |
| GRAY GOLD. ROD | | | | O | |
| BOTTLEBRUSH | | | | R | |
| LOPSEED | | | | O | PICS |
| IMP CAPE | | | | R-O | |
| [illegible] | | | | O | |
| GER ROBE | | | | O | |
| LADY FERN | | | | R-O | |
| VIOLA SPP | | | | O | |
| BOT VIRG | | | | R | PICS |
| WILD LEEK | | | | R | |
| SOL FLEX | | | | R | |

Page ___ of ___

Signature: ________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: ________ (Project Manager)

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493
Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595
Project Name: Amherst island
Date: August 3, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 1-2 | 0 | 0 | Rain |

**ELC Polygon:** # 2-2 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | | | |
|---|---|---|---|
| SITE: A I. | | POLYGON: 2-5 | |
| SURVEYOR(S): JTL | DATE: AUG 3-11 | UTME: | |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWAMP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☒ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 1 | FRAPENN = ULMAMER |
| 2 | SUB-CANOPY | — | | |
| 3 | UNDERSTOREY | 4 | 2 | CORRACE > SPIALBA |
| 4 | GRD. LAYER | 5-7 | 4 | GRAMINOID = FORB |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | | CODE: | |
| COMMUNITY SERIES: | | CODE: | |
| ECOSITE: | | CODE: | |
| VEGETATION TYPE: OLD FIELD MINERAL CULTURAL | | CODE: CUM1-1 | |
| INCLUSION | MEADOW | CODE: | |
| COMPLEX | | CODE: | |

Evidence of Disturbance / Notes:

- NARROW STRIP OF CUM1 HABITAT ENCLOSING A NARROW DRAIN CHANNEL
- [illegible] [illegible] OBS @ [illegible]

---

TILE 4 – NORTH OF S17

| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| SITE: | |
| POLYGON: | |
| DATE: | |
| SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | | |
| ULMAMER | R | | | | |
| SPIALBA | | | R | | |
| CORRACE | | | R | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| BROINER | | | | O | |
| PHLPRAT | | | | O | |
| AMB ARTEM | | | | R | |
| COCKLEBUR | | | | R | |
| BID FRON | | | | R-O | |
| DAUCARO | | | | O | |
| FEST. ARUN. | | | | O | |
| LOT CORN | | | | O | |
| ARCMINU | | | | R-O | |
| SOL CANA | | | | O-A | |
| VICCRAC | | | | O | |
| RUMCRISP | | | | R | |
| CAREX-OVALES | | | | O | |
| JUN TENU | | | | R | |
| PHAARUN | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control:This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595

Project Name: A.I.

Date: AUG 3-11

Field Personnel: J.TL

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (ºC):<br>24 | WIND:<br>1-2 | CLOUD:<br>0 | PPT:<br>0 | PPT (in last 24 hrs):<br>RAIN |

**ELC Polygon:** # 2-5 **Assessment Type:** ☐-Visual; no access / ☒-Walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: A.I.
POLYGON: 2-3a
SURVEYOR(S): ST
DATE: AUG 3-11
UTME:
START:
END:
UTMZ:
UTMN:

### POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☐ NATURAL
- ☒ CULTURAL

**COVER**
- ☐ OPEN
- ☒ SHRUB
- ☐ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☒ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | FRAPENN |
| 2 | SUB-CANOPY | — | — | |
| 3 | UNDERSTOREY | 4 | 3 | CORRACE >> FRAPENN > SPI ALBA |
| 4 | GRD. LAYER | 5-7 | 4 | SOL CANA > AGR STOL > EUT GRAM |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | O-A | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GRAY DOGWOOD CULTURAL THICKET | CODE: CUT1-4 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

TILE 4 – NORTH OF 510

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | O | | |
| VIT RIPA | | | O | | |
| SPI ALBA | | | R | | |
| CORRACE | | | A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| POA PRAT | | | | O | |
| JUN TENU | | | | R | |
| EUT GRAM | | | | O | |
| HOAL-ALL | | | | O | |
| ASC SYRI | | | | R-O | |
| SOL GIGA | | | | O | |
| INDIAN HEMP | | | | O | |
| VIC CRAC | | | | O | |
| TRI AURE | | | | O | |
| MEL ALBA | | | | O | |
| DAU CARO | | | | O | |
| YEL. S. CLOVER | | | | R | |
| RED CLOVER | | | | O | |
| AGR STOL | | | | O-A | |
| SOL DULC | | | | R | |
| SOL CANA | | | | O-A | |

Page ___ of ___
Signature: ____________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: ____________ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595

Project Name: A.I.

Date: AUG 3-11

Field Personnel: JR

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 26 | 1-2 | 0 | 0 | RAIN |

**ELC Polygon:** # 2-3a **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA - carcass; DP - distinctive parts; FE - feeding evidence; EY - eggs/nest; HO - house/den; OB - observed; SC - scat; SI - other sign; TK - track; VO - vocalization

| | | | | |
|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: AI- | | POLYGON: 2-36 | |
| | SURVEYOR(S): JTL | DATE: AUG 3-11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☒ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☒ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | FRAPENN |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 3 | CORRACE > CO. ALBA |
| 4 | GRD. LAYER | 5-7 | 4 | CAREX SPP > POAPRAT > EUTGRAM |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | O-A | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | | | |
|---|---|---|---|---|---|
| TEXTURE: | S:C | DEPTH TO MOTTLES/GLEY | g= 20cm | G= / | |
| MOISTURE: | 6 | DEPTH OF ORGANICS: | 0 | | (cm) |
| HOMOGENEOUS / VARIABLE | | DEPTH TO BEDROCK: | ~70cm | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: GRAY DOGWOOD MINERAL THICKET SWAMP | | CODE: SWT 2-9 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- SIMILAR TO ADJACENT CUT 1-4 BUT SPP. COMP. SUGGESTS WETTER CONDITIONS
- NO $H_2O$ OBS.

---

TILE 4 – NORTH OF S10

| | | |
|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | O | | |
| VIT RIPA | | | O | | |
| SPI ALBA | | | R-A | | |
| CORRACE | | | A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CAREX-OVALES | | | | D-A | |
| JUNTENU | | | | O | |
| POAPRAT | | | | A | |
| EUTGRAM | | | | O | |
| CAR VULP | | | | O | |
| SOL GIGA | | | | O | |
| HSAL-ALL | | | | O | |
| JUNCUS SP. | | | | R | |
| LYC UNIF | | | | R-O | |
| CAREX SP. | | | | O | ✓ |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595
Project Name: AI
Date: AUG 3-11
Field Personnel: JTL

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 26 | WIND: 1-2 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): RAIN |

**ELC Polygon:** #2-3b **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA carcass; DP distinctive parts; FE feeding evidence; FY eggs/nest; HO house/den; OB observed; SC scat; SI other sign; TK track; VO vocalization

REV: 2011-07-18

| | | | | |
|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Amherst island | | **POLYGON:** 2-4 | |
| | **SURVEYOR(S):** J.leslie | **DATE:** AUG 3-11 | | **UTME:** |
| | **START:** | **END:** | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn |
| 2 | SUB-CANOPY | — | | |
| 3 | UNDERSTOREY | 4 | 1 | Corobli |
| 4 | GRD. LAYER | 5-7 | 4 | Phrarun >Carex spp > elyvirg |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | |
|---|---|
| **STAND COMPOSITION:** | **BA:** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SIZE CLASS ANALYSIS:** | A | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | Y | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | | |
|---|---|---|---|---|
| **TEXTURE:** SiC | **DEPTH TO MOTTLES/GLEY** | **g=** 15cm | | **G=** 30cm |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | 2cm | | (cm) |
| [✓ **HOMOGENEOUS**] / **VARIABLE** | **DEPTH TO BEDROCK:** | — | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** |
| **COMMUNITY SERIES:** | | **CODE:** |
| **ECOSITE:** | | **CODE:** |
| **VEGETATION TYPE:** GREEN ASH MINERAL DECID. | | **CODE:** SWD2-2 |
| ☐ **INCLUSION** | SWAMP. | **CODE:** |
| ☐ **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:**
- OPEN UNDERSTORY
- SOME SURFACE H2O < 10cm DEEP

---

TILE 4 - NE OF S17

| | | |
|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** | |
| | **POLYGON:** | |
| | **DATE:** | |
| | **SURVEYOR(S):** | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | | | | |
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| COROBLI | | | R | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | A | |
| CAREX SPP | | | | O-A | |
| FALSE NETT | | | | O | |
| ELYVIRG | | | | O-A | |
| MEN ARVE | | | | O | |
| CLEARWEED | | | | O | |
| SOL DULC | | | | O | |
| MIM RING | | | | R | |
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Page ___ of ___

Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: ______________________
(Project Manager)

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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595
Project Name: Amherst island
Date: August 3, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 1-2 | 0 | 0 | Rain |

**ELC Polygon:** #2-4 **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTE ULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

**Bat Roosting Featu**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
ll trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| PO BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDE ED | | | | | |
|---|---|---|---|---|---|
| UT | | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

**Seeps/ rings/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | |
|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** Amherst island | | **POLYGON:** 2-7 | |
| | **SURVEYOR(S):** JTL | **DATE:** AUG 3-11 | | **UTME:** |
| | **START:** | **END:** | **UTMZ:** | **UTMN:** |

**POLYGON DESCRIPTION**

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☒ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

**STAND DESCRIPTION:**

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > Quemacr > Accfrel |
| 2 | SUB-CANOPY | 3 | 4 | Frapenn > Franigr > ulmrubr |
| 3 | UNDERSTOREY | 4 | 4 | Carovat ≥ Que macr = carcarO |
| 4 | GRD. LAYER | 5-7 | 4 | ondsens > rubepube > hogpeanut |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | |
|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | **BA:** |
| **SIZE CLASS ANALYSIS:** | O <10 | A 10 – 24 | O 25 – 50 | N >50 |
| **STANDING SNAGS:** | O <10 | R 10 – 24 | R 25 – 50 | N >50 |
| **DEADFALL/LOGS:** | O <10 | O 10 – 24 | R 25 – 50 | N >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| **COMM. AGE:** | ☐ PIONEER | ☐ YOUNG | ☐ MID-AGE | ☒ MATURE | ☐ OLD GROWTH |

**SOIL ANALYSIS:**

| | | | |
|---|---|---|---|
| **TEXTURE:** SiC | **DEPTH TO MOTTLES/GLEY** | **g=** 18cm | **G=** none |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | 0 (cm) | |
| [✓ **HOMOGENEOUS**] **/ VARIABLE** | **DEPTH ~~TO~~ BEDROCK:** | 88 (cm) | |

- CLAY TOO DENSE

**COMMUNITY CLASSIFICATION:**

| | |
|---|---|
| **COMMUNITY CLASS:** | **CODE:** |
| **COMMUNITY SERIES:** | **CODE:** |
| **ECOSITE:** | **CODE:** |
| **VEGETATION TYPE:** GREEN ASH MINERAL DECID. SWAMP | **CODE:** SWD2-2 |
| **INCLUSION** | **CODE:** |
| **COMPLEX** | **CODE:** |

**Evidence of Disturbance / Notes:** SOIL MESIC

---

TILE 4 - SOUTH OF S17

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:**<br>**POLYGON:**<br>**DATE:**<br>**SURVEYOR(S):** |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | A | O | R | | |
| CAR OVAT | R | R | O | | |
| QUE MACR | O-A | O | O | | |
| FRA NIGR | / | O | R | | |
| CAR CARO | / | R | O | | |
| ACEFREE | O | R | / | | |
| ULM RUBR | / | O | R | | |
| POP TREM | R | / | / | | |
| VIBLENT | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ONOSENS | | | | D | |
| RUB PUBE | | | | A | |
| J. PULPIT | | | | O | |
| FRA VIRG | | | | R-O | |
| CAREX SPP. | | | | O | |
| GLY STRI | | | | O | |
| AST LANC | | | | O | |
| HOG PEANUT | | | | O-A | |

Page ___ of ___

Signature: ______________________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________ (Project Manager)

Stantec

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595
Project Name: Amherst Island
Date: August 3, 2011
Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): 26 | WIND: 1-2 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): Rain |

ELC Polygon: # 7-7 Assessment Type: ☐-Visual; roadside, no access / ☑-Physical; walk through feature

Extent of Physical Investigation of Feature: ☐-Entire / ☑-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☑-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| see comments | | | 0 | – | NO | NO |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

- contains infrequent pooling areas, primarily within east side

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

REV: 2011-07-18

TILE 4 - WEST OF S08

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: AI | | POLYGON: 5-2 | |
| SURVEYOR(S): JTL | DATE: AUG 18-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☒ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Acesasa >> Carobov = Frapenn |
| 2 | SUB-CANOPY | 3 | 4 | Carobov = Querubr |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 5-7 | 3 | taroffi = Grasspp = Arcminn |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | O | 10 – 24 | O | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | X | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: SUGAR MAPLE CULTURAL WOODLAND | | CODE: CUW1-4* |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

PIC #1

- NO UNDERSTORY, HERBS HEAVILY GRAZED - MOST UNIDENTIFIABLE
- WOODLAND / PASTURE

-SOIL DRY

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| OST VIRG | / | R | | | |
| ACE SASA | A | | | | |
| CAR OBOV | R | O | | | |
| QUE RUBR | / | O | | | |
| FRA PENN | R | | | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| TAR OFFI | | | | O | |
| GRASS SPP. | | | | O | TOO GRA |
| ARC MINN | | | | O | |
| MOTHERWORT | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 18, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

**ELC Polygon:** # 52 **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

-RTHA - OB

[illegible]

TILE 4 – EAST OF 508

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: A.I.
POLYGON: 5-5
SURVEYOR(S): JTL
DATE: AUG 18 – 11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

**SYSTEM**
☐ TERRESTRIAL
☒ WETLAND
☐ AQUATIC

**SITE**
☐ OPEN WATER
☐ SHALLOW WATER
☒ SURFICIAL DEP.
☐ BEDROCK

**SUBSTRATE**
☐ ORGANIC
☒ MINERAL SOIL
☐ PARENT MIN.
☐ ACIDIC BEDRK.
☐ BASIC BEDRK.
☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
☐ LACUSTRINE
☐ RIVERINE
☐ BOTTOMLAND
☐ TERRACE
☐ VALLEY SLOPE
☒ TABLELAND
☐ ROLL. UPLAND
☐ CLIFF
☐ TALUS
☐ CREVICE / CAVE
☐ ALVAR
☐ ROCKLAND
☐ BEACH / BAR
☐ SAND DUNE
☐ BLUFF

**HISTORY**
☒ NATURAL
☐ CULTURAL

**COVER**
☒ OPEN
☐ SHRUB
☐ TREED

**PLANT FORM**
☐ PLANKTON
☐ SUBMERGED
☐ FLOATING-LVD.
☒ GRAMINOID
☐ FORB
☐ LICHEN
☐ BRYOPHYTE
☐ DECIDUOUS
☐ CONIFEROUS
☐ MIXED

**COMMUNITY**
☐ LAKE
☐ POND
☐ RIVER
☐ STREAM
☒ MARSH
☐ SWMAP
☐ FEN
☐ BOG
☐ BARREN
☐ MEADOW
☐ PRAIRIE
☐ THICKET
☐ SAVANNAH
☐ WOODLAND
☐ FOREST
☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 5-7 | 4 | Phaarun >> Bindweed > asc syi |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: Reed Canary grass mineral meadow marsh | CODE: MAM2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
- MILD GRAZING ACTIVITY
- SURFACE $H_2O$ IN DRAIN < 10CM DEEP

---

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHA ARUN | | | | D | |
| LYC AMER | | | | R | |
| CAREX SP. | | | | R-O | |
| BINDWEED | | | | O | |
| ASC SYRI | | | | R-O | |
| VER ANAG-AQU | | | | R | -DRAIN |

Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

- SOIL MESIC OVERALL

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL 1998)

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160966595

Project Name: Amhenst island

Date: Aug 18, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

**ELC Polygon:** #5-5 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

[illegible]

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Amherst island
POLYGON: S-3
SURVEYOR(S): J Leslie
DATE: AUG 18 -11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☒ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☐ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| **SITE** | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| ☐ OPEN WATER | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| ☐ SHALLOW WATER | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| ☒ SURFICIAL DEP. | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ BEDROCK | | ☐ ALVAR | ☐ OPEN | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| | | ☐ BEACH / BAR | ☒ TREED | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☒ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > Quemacr > Carovat |
| 2 | SUB-CANOPY | 3 | 3 | Quemacr = Carovat = Frapenn |
| 3 | UNDERSTOREY | 4 | 2 | Quemacr = Carpcaro = Ulmamer |
| 4 | GRD. LAYER | 5-7 | 4 | Carexsp > Fravese = polygonum |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | O | 25 – 50 | R | >50 |
| STANDING SNAGS: | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | X MID-AGE | X MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: F-M OAK-MAPLE-HICKORY DECID. | | CODE: FOD9 |
| INCLUSION | FOREST | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- SOIL MOIST/MESIC; FEW SHALLOW AREAS OF SURFACE H2O
- HEAVILY GRAZED HERB LAYER

- OVERALL, MATURE BUT NE & SE CORNERS ARE MID-AGE

---

TILE 4 - SOUTH OF S 08

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| QUE MACR | O-A | O | O | | |
| ACE FREE | R-O | R | R | | |
| FRAPENN | A | O | R | | |
| CARP. CARO | / | O | O | | |
| CAR OVAT | O | O | R | | |
| ULM AMER | / | R | O | | |
| VIB LENT | | | R-O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| POLYGONUM | | | | O | |
| VIOLA SP. | | | | O | |
| HOG PEANUT | | | | O | |
| ONO SENS | | | | O | |
| CINN ANGU | | | | R-O | |
| FRA VESC | | | | O | |
| CAREX SPP. | | | | O-A | |
| W. AVENS | | | | O | |
| CAR INTU | | | | R-O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: Aug 18, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

ELC Polygon: #5-3 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities >10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

RTHA – OB
GRCA – VO

[illegible] DP=distinctive parts, [illegible] OB=observed, [illegible] VO=vocalization

TILE 4 - NEAR S11

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: A.I. | | POLYGON: T6-7 | |
| SURVEYOR(S): STL | DATE: JULY 26-11 | | UTME: |
| START: 6.12 | END: 6:32 PM | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☒ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☒ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 3-4 | 2 | Typangu >> Frapenn |
| 4 | GRD. LAYER | 5-7 | 4 | Spialba > Swamp milkweed = Agr Giga |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 | |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 | |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 | |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | X MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | | CODE: | |
| COMMUNITY SERIES: | | CODE: | |
| ECOSITE: | | CODE: | |
| VEGETATION TYPE: MEADOWSWEET MINERAL THICKET SWAMP | | CODE: | SWT 2-6 |
| INCLUSION | CATTALL MARSH | CODE: | MAM |
| COMPLEX | / | CODE: | |

Evidence of Disturbance / Notes: 4/7 ~~EAST AND SOUTH EDGES~~

- SPIREA STILL ABUNDANT IN CATTAILS
- [illegible]

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | | | R | | |
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| | | | | | |
| CORRACE | | | | R-O | |
| CORSTOL | | | | R | |
| SPI ALBA | | | | A | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SW. MILK | | | | O | |
| AGR GIGA | | | | O | |
| SCI ATRO | | | | O | |
| PHA ARUN | | | | O | |
| TYP ANGU | | | O-A | | |
| EUT GRAM | | | | O | |
| PHRPRAT | | | | R-O | |
| RED CLOVER | | | | R | |
| PHL AUST | | | | R | |
| CAL JUL? | | | | O | |

Page ___ of ___

Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:
(Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL. 1998)

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 595
Project Name: A.I.
Date: JULY 26 - 11
Field Personnel: JR

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 22°C | 2 | 40%. | 0 | 0 |

**ELC Polygon:** #76-x **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- VOLE - OB
- RLHA - OB
- MODO - OB
- DEER - OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 4 – NORTH OF S09

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** A.I. | | **POLYGON:** T6-5 | | |
| | **SURVEYOR(S):** JTL | | **DATE:** JULY 26-11 | **UTME:** | |
| | **START:** 4:05 | **END:** 4:35 PM | **UTMZ:** | **UTMN:** | |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Shaghick > Acefrac > Frapenn > Querubr |
| 2 | SUB-CANOPY | 3 | 3 | Shaghick > Tilamer > Carcaro = S |
| 3 | UNDERSTOREY | 4 | 2 | Spialba > Corrace |
| 4 | GRD. LAYER | 5-7 | 4 | Black Snakeroot = Cargrac > grass sp. |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | O | <10 | O | 10 – 24 | O-A | 25 – 50 | R | >50 |
| **STANDING SNAGS:** | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMM. AGE:** | | PIONEER | | YOUNG | | MID-AGE | X | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | | |
|---|---|---|---|---|
| **TEXTURE:** SiC | **DEPTH TO MOTTLES/GLEY** | g= 10cm | G= 0 | |
| **MOISTURE:** 4 | **DEPTH OF ORGANICS:** | 1cm | | (cm) |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | 67cm – DOWN TO SOLID CLAY | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| **COMMUNITY CLASS:** | **CODE:** |
| **COMMUNITY SERIES:** | **CODE:** |
| **ECOSITE:** | **CODE:** |
| **VEGETATION TYPE:** F-M SHAGBARK HICKORY DECID. FOREST | **CODE:** FOD9-4 |
| **INCLUSION** | **CODE:** |
| **COMPLEX** | **CODE:** |

**Evidence of Disturbance / Notes:** PIC 6

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| | | |
|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** | |
| | **POLYGON:** | |
| | **DATE:** | |
| | **SURVEYOR(S):** | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SHAG HICK | A | O | | | |
| ACE FRA | O | R | | | |
| FRA PENN | O | R-O | | | |
| TIL AMER | R | O | | | |
| CAR CARO | / | R-O | | | |
| QUE RUBR | R | / | | | |
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| COR RACE | | | R | | |
| SPI ALBA | | | R-O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| W. AVENS | | | | O | |
| HOA AIL | | | | O | |
| GRASS SP. | | | | O | IMMATURE |
| VIO PUBE | | | | O | |
| J. PULPIT | | | | O | |
| BLK. SNAKEROOT | | | | O-A | |
| PASTURE GRASS | | | | O | |
| ASH LATE | | | | O | |
| FRA VIRG | | | | O | |
| SORELL | | | | R | |
| VIOLA SP. | | | | O | |
| CAR GRAC | | | | O-A | |
| ONO SENS | | | | R | |
| JUNCUS | | | | R | ✓ |
| HOG PEANUT | | | | R-O | |
| CLEAVERS | | | | R | |
| VIC CRAC | | | | R-O | |
| POD PELT | | | | R | |

Page ___ of ___

Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________
(Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

Stantec
Stantec Consulting Ltd.
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Guelph, ON
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Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 595

Project Name: A.I.

Date: July 26-11

Field Personnel: JTR

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 24°C | WIND: 2 | CLOUD: 40% | PPT: 0 | PPT (in last 24 hrs): 0 |

**ELC Polygon:** #76-5 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| AMRO - VO |

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 4 - NEAR S03

| | | | |
|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: AI. | | POLYGON: T6-3.1 |
| | SURVEYOR(S): JTL | DATE: JULY 26-11 | UTME: |
| | START: 5:30 | END: 5:50 PM | UTMZ: / UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☒ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | FRAPENN |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 5-7 | 4 | PHL PRAT > POA PRAT > AST LANCE = CAREX |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: ☐ PIONEER ☐ YOUNG ☒ MID-AGE ☐ MATURE ☐ OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: old field cultural meadow | CODE: CUM1-1 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- TREES / SHRUBS GENERALLY OCCUR IN WEST HALF.
- DRY TO MESIC SOIL - CLAY ([illegible])

---

| | | |
|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | R | |
| RUB IDAE | | | | R | |
| COR STOL | | | | R-O | |
| COR RACE | | | | R-O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| BRO INER | | | | O | |
| PHL PRAT | | | | A | |
| ASC SYRI | | | | O | |
| DAISY FLEA. | | | | R-O | |
| FRA VIRG | | | | O | |
| HOAL-ALL | | | | O | |
| DAC GLOM | | | | R | |
| DAU CARO | | | | R-O | |
| CAR VULP | | | | R-O | |
| RED CLOVER | | | | O | |
| AGR GIGA | | | | O | |
| POA PRAT | | | | O | |
| EUTH. GRAM | | | | R-O | |
| CAREX OVALES | | | | R-O | |
| MED LUPU | | | | R-O | |
| VIC CRAC | | | | O | |
| AST LANC | | | | O | |
| RUM CRISP. | | | | R | |
| PHA ARUN | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

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Stantec
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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 595
Project Name: AI
Date: July 26-11
Field Personnel: JR

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22°C | 2 | 30% | 0 | 0 |

**ELC Polygon:** #76-3.1 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

MONARCH - OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | |
|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: A.I. | | POLYGON: 76-4 |
| | SURVEYOR(S): SR | DATE: July 26-11 | UTME: |
| | START: 2:45 END: 4:01 pm | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | FRAPENN > tilamer >> ulmrubr |
| 2 | SUB-CANOPY | 3 | 3 | Frapenn > tilamer = ulmamer |
| 3 | UNDERSTOREY | 4-5 | 3 | SPI ALBA > FRAPENN > ulmrubr > tilamer |
| 4 | GRD. LAYER | 6-7 | 4 | Carhulp = carovales > Astlate |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | O | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | O | <10 | O | 10 – 24 | R-O | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | O | 10 – 24 | O | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| **COMM. AGE:** | PIONEER | YOUNG | ☒ MID-AGE | MATURE | OLD GROWTH |

**SOIL ANALYSIS:** → SEE NOTES

| | | | |
|---|---|---|---|
| **TEXTURE:** SiC | **DEPTH TO MOTTLES/GLEY** | g= 12cm | G= 0 |
| **MOISTURE:** 4 | **DEPTH OF ORGANICS:** | 1cm | (cm) |
| [✓ **HOMOGENEOUS**] / **VARIABLE** | **DEPTH TO BEDROCK:** | 68cm (CLAY TOO DENSE TO GO FURTHER) | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| **COMMUNITY CLASS:** | | **CODE:** |
| **COMMUNITY SERIES:** | | **CODE:** |
| **ECOSITE:** | | **CODE:** |
| **VEGETATION TYPE:** F-M ASH LOWLAND DECID FOREST | | **CODE:** FOD7-2 |
| **INCLUSION** | | **CODE:** |
| **COMPLEX** | | **CODE:** |

**Evidence of Disturbance / Notes:**

- PIC #5
- YOUNG FOD7-2 THICKET ALONG EAST EDGE
- EVIDENCE OF SPRING INUNDATION OF ~10CM DEPTH

---

TILE 4 - NORTH OF 503

| | | | |
|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | | |
| | POLYGON: | | |
| | DATE: | | |
| | SURVEYOR(S): | | |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | D | O-A | | | |
| ULM RUBR | R | O | | | |
| TIL AMER | O | O | | | |
| LON TATA | | | R | | |
| RUB IDAE | | | R | | |
| COR STOL | | | R | | |
| RHU RADI | | | | R | |
| SPI ALBA | | | O-A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| VIO PUBE | | | | O | |
| EUTH GRAM | | | | O | |
| CAR HULP | | | | A | |
| PHL PRAT | | | | O | |
| CAREX OVALES | | | | A | ✓ |
| VIC CRACC | | | | O | |
| CAR SPIC | | | | R | |
| LYC EURO | | | | R | |
| AST LATE | | | | O-A | |
| HERA-ALC | | | | O | |
| DAU CARO. | | | | O | NARROW LVS. |
| DAISY FLEA. | | | | O | |
| W. AVENS | | | | O | |
| PASTURE GRASS | | | | O | |
| TALL BUTTERCUP | | | | O | |
| GLY STRI | | | | R-O | |
| AST LANC | | | | O-A | |
| FRA VESC | | | | O | |
| ELY VIRG | | | | R | |
| CAR GRAC | | | | R-O | |
| GAL TRIF | | | | O | |
| CIR LUTE | | | | R | |
| SOL DULC | | | | O | |
| GLE TETRA | | | | R | |
| FRINGED LOOSE. | | | | R | |
| SW. MILKW. | | | | R | |
| WOOD NETTLE | | | | R | |
| IMP CAPE | | | | R | |
| JUN EFFU | | | | R | |

Page ___ of ___
Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

Stantec
**Stantec Consulting Ltd.**
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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 595
Project Name: A.I.
Date: JULY 26-11
Field Personnel: JTL

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 24C | 2 | 50% | 0 | 0 |

**ELC Polygon:** #76-4 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

RTHA - VO

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | |
|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: A.I. | | POLYGON: 5-12.1 |
| | SURVEYOR(S): JTL | DATE: AUG 19-12 | UTME: |
| | START: | END: | UTMZ: | 
| | | | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| | | ☐ RIVERINE | | ☐ SUBMERGED | ☐ POND |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ BOTTOMLAND | ☒ CULTURAL | ☐ FLOATING-LVD. | ☐ RIVER |
| | | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | ☐ ACIDIC BEDRK. | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| | ☐ BASIC BEDRK. | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| **SITE** | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ OPEN WATER | ☐ CARB. BEDRK. | ☐ ALVAR | ☐ OPEN | | ☐ PRAIRIE |
| ☐ SHALLOW WATER | | ☐ ROCKLAND | ☒ SHRUB | | ☒ THICKET |
| ☒ SURFICIAL DEP. | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| ☐ BEDROCK | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 5 | 3 | SPI ALBA >> CORSTOL |
| 4 | GRD. LAYER | 4-7 | 4 | POACEAE > HEAL-ALL = CAREX SPP. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE:<br>MEADOWSWEET CULTURAL THICKET | | CODE: CUT1-Y/AG |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- WITHIN AN ACTIVE CATTLE PASTURE W/ MODERATE TO HEAVY GRAZING/TRAMPLING

---

TILE 4 - NEAR S25

| | |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CORSTOL | | | R | | |
| SPI ALBA | | | O-A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| POACEAE SPP. | | | | A | |
| EUT GRAM | | | | O | |
| DAU CARO | | | | O | |
| HEAL-ALL | | | | O | |
| AST NOVA | | | | R-O | |
| CAREX SPP. | | | | O | |
| SCIR CYPE | | | | R | |
| TAR OFFI | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60595
Project Name: A.I.
Date: AUG 19 - 11
Field Personnel: JT.L.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 22 | 1-2 | 5% | 0 | 0 |

**ELC Polygon:** #5-12 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA - carcass; DP - distinctive parts; FE - feeding evidence; FY - eggs/nest; HO - house/den; OB - observed; SC - scat; SI - other sign; TK - track; VO - vocalization

REV: 2011-07-18

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: A.T.
POLYGON: 5 –
SURVEYOR(S): STL
DATE: AUG 19 – 11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | PHAARUN >> JUN TENU = AGR STOL |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | | CODE: | |
| COMMUNITY SERIES: | | CODE: | |
| ECOSITE: | | CODE: | |
| VEGETATION TYPE: REED CANARY MINERAL MEADOW | | CODE: | MAM2-2 |
| INCLUSION | MARSH | CODE: | |
| COMPLEX | | CODE: | |

Evidence of Disturbance / Notes:
– NO SURFACE $H_2O$ OBS, EXCEPT FOR $H_2O$ IN DRAINAGE CHANNEL.

---

TILE 4 – ADJACENT TO S25

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | D | |
| SCI CYPER | | | | R-O | |
| LYC UNIF | | | | O | |
| JUN TENU | | | | O | |
| AGR STOL | | | | O | |
| CAREX SP. | | | | R-O | |

Page ___ of ___
Signature: ________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: ________ (Project Manager)

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595

Project Name: A.I.

Date: AUG 19-11

Field Personnel: J R

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 22 | 1-2 | 50% | 0 | 0 |

**ELC Polygon: #** 5 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA carcass; DP distinctive parts; FE feeding evidence; FY eggs/nest; HO house/den; OB observed; SC scat; SI other sign; TK track; VO vocalization

REV: 2011-07-18

TILE 4 - NEAR S16

|  |  |  |  |
|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: A.I. | | POLYGON: 8-8b |
| | SURVEYOR(S): JTL | DATE: AUG 19-11 | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☒ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☒ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☒ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☒ TABLELAND | | ☐ LICHEN | ☐ SWAMP |
| | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| | | ☐ CREVICE / CAVE | | ☐ MIXED | ☐ MEADOW |
| | | ☐ ALVAR | | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | | | ☒ THICKET |
| | | ☐ BEACH / BAR | | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

| SITE | COVER |
|---|---|
| ☐ OPEN WATER | ☐ OPEN |
| ☐ SHALLOW WATER | ☒ SHRUB |
| ☒ SURFICIAL DEP. | ☐ TREED |
| ☐ BEDROCK | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 1 | FRAPENN = QUEMACR > ULMAMER |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | SPI ALBA > AGRSTOL > POA SP. = EUT GRAM |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R-A | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: MEADOWSWEET CULTURAL THICKET | CODE: CUT 1-8 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

PIC #5 - MODERATE GRAZE & TRAMPLING

---

|  |  |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | | |
| QUEMACR | R | | | | |
| ULMAMER | R | | | | |
| CORRACE | | | | R | |
| SPI ALBA | | | | D | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| BULL THISTLE | | | | R-O | |
| VIC CRAC | | | | O | |
| EPILOBIUM SP. | | | | R | |
| POA SP | | | | O | |
| EUT GRAM | | | | O | |
| CAR VULP | | | | O | |
| ELECAMPAGNE | | | | R | |
| AGR STOL | | | | O-A | |
| AST. PUNI | | | | R-O | |
| CAR. - OVALES | | | | O | |

Page ___ of ___

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595
Project Name: AI
Date: Aug 19-11
Field Personnel: JTL

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>25 | WIND:<br>1-2 | CLOUD:<br>5% | PPT:<br>Ø | PPT (in last 24 hrs):<br>Ø |

**ELC Polygon:** #8-86 **Assessment Type:** ☐-Visual; no access / ☒-Walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

REV: 2011-07-18

TILE 4 – NEAR 516

| | | | | |
|---|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: A.I | | POLYGON: 8-8a | |
| | SURVEYOR(S): JTL | DATE: AUG 19-11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☑ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☒ SWAMP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☒ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 1 | FRAPENN |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | SPI ALBA >> SCI CYPER > AGR STOL |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | | CODE: | |
| COMMUNITY SERIES: | | CODE: | |
| ECOSITE: | | CODE: | |
| VEGETATION TYPE: MEADOWSWEET MINERAL THICKET | | CODE: | SWT 2-6 |
| INCLUSION | SWAMP | CODE: | |
| COMPLEX | | CODE: | |

**Evidence of Disturbance / Notes:**

- CATTLE DISTURBANCE
- SHRUBS DENSER IN THIS POLY THAN

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | | | | | | | |
| | POLYGON: | | | | | | | |
| | DATE: | | | | | | | |
| | SURVEYOR(S): | | | | | | | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. | SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FRAPENN | R | | | | | S.S. BULRUSH | | | | R | |
| | | | | | | LYC UNIF | | | | O | |
| | | | | | | JUNTENU | | | | O | |
| | | | | | | SOL GIGA | | | | O | |
| | | | | | | SCI CYPE | | | | O | |
| | | | | | | AGR STOL | | | | O | |
| | | | | | | CAREX - OVALES | | | | O | |
| | | | | | | PHAARUN | | | | O | |
| | | | | | | CAR VULP | | | | O | |
| SPI ALBA | | | | D | | | | | | | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595

Project Name: A.I.

Date: AUG 19-11

Field Personnel: JR

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 25 | 1-2 | 5% | 0 | 0 |

**ELC Polygon:** #8-8a **Assessment Type:** ☐-Visual; no access / ☒-Walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| **UTM** | **Feature Description** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **DBH** | **Photo No.** | **Decay Class (1-5)** | **No. of Cavities** | **Height and Type of Cavities** |
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **Nest Size** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| **UTM** | **Feature No. & Type** | **Feature Size** (Diameter) | **Water Depth** | **Photo No.** | **Sub/Emergent Veg. Spp. Present?** | **Shrubs/ Logs at Edge Present?** |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| ELC COMMUNITY DESCRIPTION & CLASSIFICATION | | | |
|---|---|---|---|
| SITE: AMHERST | | POLYGON: TILE 4 | |
| SURVEYOR(S): JTL | DATE: APRIL 28 - 12 | UTME: | |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☐ OPEN
- ☐ SHRUB
- ☒ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWAMP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☒ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | ACESASA > FAGGRAN >> TILAMER |
| 2 | SUB-CANOPY | 3 | 4 | ACESASA = FAGGRAN > FRAAMER |
| 3 | UNDERSTOREY | 4 | 4 | FAGGRAN > ACESASA = FRAAMER |
| 4 | GRD. LAYER | 5-7 | 4 | FORB > GRAMINOID. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | A | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER | YOUNG | MID-AGE | [✓ MATURE] | OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: D-F SUGAR MAPLE - BEECH DECID. FOREST | CODE: FOD5-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

TILE 4 — BETWEEN S03 + S35

| ELC COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| SITE: | |
| POLYGON: | |
| DATE: | |
| SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACESASA | A | O | A | | |
| FAGGRAN | A | O | O-A | | |
| OST VIRG | / | R | O | | |
| BET ALLE | R | / | / | | |
| TILAMER | R-O | / | / | | |
| FRAAMER | / | R | O | | |
| RUB OCCI | | | R | | |
| PRU VIRG | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CAR PENN | | | | O | |
| GER ROBE | | | | O-A | |
| FRA VESC | | | | O | |
| AVENS SP. | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control:This form is complete ☐ & legible ☐.

Signature: (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: AI

Date: APR 28, 2012

Field Personnel: JR.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |

**ELC Polygon:** # A **Assessment Type:** ☐-Visual; no access / ☒-Walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 4 – 505

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Amherst island
POLYGON: 8-9
SURVEYOR(S): S Leslie
DATE: AUG 19_11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☒ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Acesasa ≥ Betpapy = Pinstrob |
| 2 | SUB-CANOPY | 3 | 3 | Ostvirg > Betpapy > Acesasa |
| 3 | UNDERSTOREY | 4-5 | 4 | Acesasa = Ostvirg > Betpapy |
| 4 | GRD. LAYER | 6-7 | 3 | Cirlute = Taroffi = Arcminn = Motherwort |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | R | <10 | O | 10 – 24 | O | 25 – 50 | O | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | R | 25 – 50 | R | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | ☒ MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: SUGAR MAPLE - WHT. PINE CULTURAL | | CODE: CUW1-6* |
| INCLUSION | WOODLAND | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes: MOWED PATHS EXTEND THROUGH
PIC #6

---

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACE SASA | O | R | O | O | |
| BET PAPY | O | O | R | / | |
| PIN STRO | O | / | / | | |
| OST VIRG | R | A | O | | |
| QUE RUBR | R | / | / | | |
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| RUB IDAE | | | O | O | |
| PRU VIRG | | | A | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CIR LUTE | | | | O | |
| TAR OFFI | | | | O | |
| IN. V. CREEP | | | | R | |
| ARC MINU | | | | O | |
| MOTHERWORT | | | | O | |
| GER ROBE | | | | R | |
| HEAL-ALL | | | | R | |

Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: August 19, 2011

Field Personnel: S. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25 | 1-2 | 5% | 0 | 0 |

ELC Polygon: #8-9 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- GR1B - no

[illegible]

| | | | |
|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: Amherst Island | | POLYGON: 8-2 |
| | SURVEYOR(S): J. Leslie | DATE: AUG 19-11 | UTME: |
| | START: | END: | UTMZ: / UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > Acefree > Ulmamer |
| 2 | SUB-CANOPY | 3 | 4 | Frapenn > Acefree > Carcaro |
| 3 | UNDERSTOREY | 4 | 3 | Rhuradi = Frapenn = Ulmamer |
| 4 | GRD. LAYER | 5-7 | 4 | CIR ALUT > RUB PUBE : VIOLA SP. = HOG PEANUT |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | O | 25 – 50 | R | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | ☒ MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: F-M Ash lowland deciduous forest | CODE: FOD7-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- SOIL MOIST

---

TILE 4 - SOUTH OF S05

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE:<br>POLYGON:<br>DATE:<br>SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACEFREE | O | O | R | | |
| FRAPENN | A | O-A | O | | |
| CAR CARO | / | R-O | R | | |
| ULM AMER | R | R | O | | |
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| COR RACE | | | R | | |
| VIB LENT | | | R | R | |
| SPI ALBA | | | | R | |
| RHU RADI | | | | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| WOOD NETTLE | | | | O | |
| VIOLA SP. | | | | O | |
| J. PULPIT | | | | O | |
| ONO SENS | | | | R-O | |
| CIR ALUT | | | | O-A | |
| RUB PUBE | | | | O | |
| AST LATE | | | | O | |
| HOG PEANUT | | | | O | |
| CAR INTU | | | | R-O | |
| CAREX - HAIRY BIG PERIGYN | | | | O | ✓ AUG 18 |
| CAR GRAC | | | | R | |
| GLY STRI | | | | O | |
| LYC UNIF | | | | O | |
| LADY FERN | | | | R | |
| ELY VIRG | | | | R-O | |
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Page ___ of ___

Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________
(Project Manager)

Stantec

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1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: August 19, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25°C | 1-2 | 5% | 0 | 0 |

ELC Polygon: #8-2 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

(CA=carcass, DP=distinctive parts, FE=feeding evidence, [illegible], [illegible], OB=observed, SC=scat, SI=other sign, TK=track, VO=vocalization)

TILE 4 - NORTH OF 520

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: AMHERST | | POLYGON: 8 | |
| SURVEYOR(S): SA | DATE: AUG 19-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
☐ TERRESTRIAL
☒ WETLAND
☐ AQUATIC

**SITE**
☐ OPEN WATER
☐ SHALLOW WATER
☒ SURFICIAL DEP.
☐ BEDROCK

**SUBSTRATE**
☐ ORGANIC
☒ MINERAL SOIL
☐ PARENT MIN.
☐ ACIDIC BEDRK.
☐ BASIC BEDRK.
☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
☐ LACUSTRINE
☐ RIVERINE
☐ BOTTOMLAND
☐ TERRACE
☐ VALLEY SLOPE
☒ TABLELAND
☐ ROLL. UPLAND
☐ CLIFF
☐ TALUS
☐ CREVICE / CAVE
☐ ALVAR
☐ ROCKLAND
☐ BEACH / BAR
☐ SAND DUNE
☐ BLUFF

**HISTORY**
☒ NATURAL
☐ CULTURAL

**COVER**
☒ OPEN
☐ SHRUB
☐ TREED

**PLANT FORM**
☐ PLANKTON
☐ SUBMERGED
☐ FLOATING-LVD.
☒ GRAMINOID
☒ FORB
☐ LICHEN
☐ BRYOPHYTE
☐ DECIDUOUS
☐ CONIFEROUS
☐ MIXED

**COMMUNITY**
☐ LAKE
☐ POND
☐ RIVER
☐ STREAM
☒ MARSH
☐ SWAMP
☐ FEN
☐ BOG
☐ BARREN
☐ MEADOW
☐ PRAIRIE
☐ THICKET
☐ SAVANNAH
☐ WOODLAND
☐ FOREST
☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 1 | FRAPENN |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 2 | CORRACE = SPIALBA |
| 4 | GRD. LAYER | 5-7 | 4 | PHAARUN >> EUTGRAM > SOLGIGA |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: REED CANARY GRASS MINERAL MEADOW | | CODE: MAM2-2 |
| INCLUSION | MARSH | CODE: |
| COMPLEX | | CODE: |

**Evidence of Disturbance / Notes:**

- H2O ≤ 10cm, CONFINED TO DRAIN
- PATCHY CVM! OCCURRENCES WITHIN

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | | |
| CORRACE | | | R | | |
| SA ALBA | | | R | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | A | |
| CALVULP | | | | R-O | |
| EUTGRAM | | | | O | |
| DAUCARO | | | | R | |
| SOLGIGA | | | | R-O | |
| AGRGIGA | | | | O | |
| CAREX-OVALES | | | | O | |
| AST NOVA | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

Stantec

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Canada N1G 4P5
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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595

Project Name: AMHERST

Date: AUG 19-11

Field Personnel: JR

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25 | 1-2 | 5% | 0 | 0 |

**ELC Polygon: #** 8 **Assessment Type:** ☐-Visual; no access / ☒-Walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: A I. | | POLYGON: 8-5 | |
| SURVEYOR(S): JR | DATE: AUG 19-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☒ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☐ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| | | ☐ CREVICE / CAVE | | ☐ MIXED | ☐ MEADOW |
| **SITE** | | ☐ ALVAR | **COVER** | | ☐ PRAIRIE |
| ☐ OPEN WATER | | ☐ ROCKLAND | ☐ OPEN | | ☐ THICKET |
| ☐ SHALLOW WATER | | ☐ BEACH / BAR | ☐ SHRUB | | ☐ SAVANNAH |
| ☒ SURFICIAL DEP. | | ☐ SAND DUNE | ☒ TREED | | ☐ WOODLAND |
| ☐ BEDROCK | | ☐ BLUFF | | | ☒ FOREST |
| | | | | | ☐ PLANTATION |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > Ulmamer |
| 2 | SUB-CANOPY | 3 | 3 | Frapenn > Ulmamer > Acefree |
| 3 | UNDERSTOREY | 4 | 3 | Frapenn = Spialba > Ulmamer = Acefree |
| 4 | GRD. LAYER | 5-7 | 4 | Carulp = Poapalu = Phaarun = Astlanc |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: Ash lowland deciduous Forest | | CODE: FOD7-2 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- SOIL MESIC - MOIST
- SMALL COMMUNITIES

---

TILE 4 – TWO POLYGONS EAST OF S16

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:

POLYGON:

DATE:

SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | O-A | O | | |
| ULMAMER | R-O | O | R | | |
| ACE FREE | / | R | R | | |
| SPI ALBA | | | R | O | |
| CAR RACE | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CAR ULP | | | | O | |
| POA PALU | | | | O | |
| PHA ARUN | | | | O | |
| AGR STOL | | | | R-O | |
| AST LANC | | | | O | |
| EPILOBIUM | | | | R | |
| BID FRON | | | | R-O | |

Page ___ of ___

Signature: ___________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ___________ (Project Manager)

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 19, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 25 | 1-2 | 5% | 0 | 0 |

ELC Polygon: #8-5 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- FEW SCATTERED SNAGS, ~15cm DBH, SOME w/ FEEDING CAVITIES

* Activities: DP=distinctive parts, FE=feeding evidence, EY=eggs/nest, HO=house/den, OB=observed, [illegible]

REV: 2011-07-18

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 8-6 | |
| SURVEYOR(S): J. Leslie | DATE: AUG 19 - 11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
- ☐ TERRESTRIAL
- ☑ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☐ OPEN
- ☐ SHRUB
- ☒ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☒ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Acefree > Frapenn |
| 2 | SUB-CANOPY | 3 | 1 | Acefree = Frapenn |
| 3 | UNDERSTOREY | 4-5 | 1 | Acefree |
| 4 | GRD. LAYER | 6-7 | 3 | Glystri > Galpalu = impcape |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | O | 10 – 24 | A | 25 – 50 | R | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | X | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: Swamp Maple Mineral Decid. | CODE: SWD 3-3 |
| INCLUSION: Swamp. | CODE: |
| COMPLEX: | CODE: |

Evidence of Disturbance / Notes: PIC #4 - SPARSE UNDERSTORY & GROUND COVER
- SOIL MESIC
[illegible] some GRAZING

---

TILE 4 - SE OF S35

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACEFREE | A | O | R | | |
| FRAPENN | O | O | ✓ | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| GLY STRI | | | | O-A | |
| GAL PALU | | | | R-O | |
| VIOLA SP | | | | R | |
| IMP CAPE | | | | R-O | |
| ELY VIRG | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: August 19, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25 | 1-2 | 5% | 0 | 0 |

**ELC Polygon:** #8-6 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

CA-carcass, DP-distinctive parts, FE-feeding evidence, EG-eggshell, HO-house/den, OB-observed, SC-scat, [illegible], VO-vocalization

TILE 4 - SE OF S35

| | | | | |
|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | POLYGON: 8-2 | |
| | SURVEYOR(S): J. Leslie | DATE: AUG 19-11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☒ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☒ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☐ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☒ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☐ TABLELAND | | ☐ LICHEN | ☒ SWMAP |
| **SITE** | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| ☐ OPEN WATER | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| ☐ SHALLOW WATER | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| ☒ SURFICIAL DEP. | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ BEDROCK | | ☐ ALVAR | ☐ OPEN | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| | | ☐ BEACH / BAR | ☒ TREED | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn>>Acefree > Carovat= Ulmamer |
| 2 | SUB-CANOPY | 3 | 3 | Frapenn>>Acefree = Ulmamer |
| 3 | UNDERSTOREY | 4 | 2 | Frapenn>>Ulmamer. |
| 4 | GRD. LAYER | 5-7 | 4 | Glystri> Carvulp> galium= Elyvirg |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O-A | <10 | A | 10 – 24 | O-A | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | X | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: GRN ASH MINERAL DECID. SWAMP | | CODE: SWD2-2 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:
SOIL MESIC TO MOIST; SATURATED IN SPOTS
- MATURING TREES

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | POLYGON: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | DATE: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SURVEYOR(S): | | | | | | | | | | | | | | | | | | | | | | | | | | | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | A | O | | |
| ACEFREE | R | R | / | | |
| CAR OVAT | R | / | / | | |
| ULM AMER | R | R | R-O | R | |
| SPI ALBA | | | | R-O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ELY VIRG | | | | O | |
| GLY STRI | | | | D | |
| HOG PSAMUT | | | | R | |
| HEAL ALL | | | | R | |
| J. PULPIT | | | | R-O | |
| GEU CANA | | | | R | |
| GALIUM | | | | O | |
| LYC UNIF | | | | O | |
| CAREX SP. | | | | O | |
| CAR VULP | | | | O-A | |
| IMP CAP | | | | R | |
| SCI CYPE | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherstisland
Date: August 19, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25 | 1-2 | 5% | 0 | 0 |

ELC Polygon: # 8-7 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities >10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

[illegible]

REV: 2011-07-18

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: Amherst Island (Tile 7 of 17 | | POLYGON: C | |
| SURVEYOR(S): Matt Ross | DATE: Aug 3/11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☑ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☑ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☑ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☑ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☑ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☑ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☑ SURFICIAL DEP.<br>☐ BEDROCK | | | ☑ OPEN<br>☐ SHRUB<br>☐ TREED | | |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | Am Elm |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | Bromus Inermis = Timothy > wild carrot > Agrostis sp |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: N/A | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | ✓ PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: old field cultural meadow | | CODE: CUM1-1 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

**Evidence of Disturbance / Notes:**

---

TILE 4o2 - TURBINE S22

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Amherst Island (Tile 7 of 17)
POLYGON: C
DATE: Aug 3/11
SURVEYOR(S): Matthew Ross

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. | SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Am. Elm | R-O | | | | | Wild Carrot | | | | A | |
| Malus sp | | R | | | | Grass leaved Goldenrod | | | | O | |
| | | | | | | Comm. Milkweed | | | | O-A | |
| | | | | | | Bromus Inermis | | | | A | |
| | | | | | | Timothy | | | | A | |
| | | | | | | Birds foot trefoil | | | | O | |
| | | | | | | Agrostis sp. | | | | A | |
| | | | | | | Early Goldenrod | | | | O | |
| | | | | | | Common Yarrow | | | | R | |
| | | | | | | Frag. vir. | | | | R-O | |
| | | | | | | Rough-leaved Golden Rod | | | | R | |
| | | | | | | Scirpus cyp. | | | | R | |
| | | | | | | Sciratr. | | | | R | |
| | | | | | | ~~[illegible] aster~~ | | | | O | |
| | | | | | | Cow vetch | | | | O | |
| | | | | | | Ragweed (comm) | | | | R | |
| | | | | | | White sweet clover | | | | R | |
| | | | | | | Reed canary Grass | | | | O | |
| | | | | | | Comm St John's wort | | | | R-O | |
| | | | | | | Bull thistle | | | | R-O | |
| | | | | | | Potentilla Recta | | | | R | |
| | | | | | | Heal All | | | | R-O | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Spiraea alba | | | | O | | | | | | | |

Page 3 of 6

Signature:
(Field Personnel)

RTHA BOBO
SOSP EAME
BCCH EAK.
BARS

Quality Control:This form is complete ☐ & legible ☐.

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: Aug. 3/11
Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 - 24 | 3 | 90 - 100 | None -> Rain (Inter-mittent) | None |

**ELC Polygon:** # C **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☑-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

RTHA
SOSP
BCCH
BOBO
EAME
EAKI
BARS

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island (Tile 7 of 17) | | POLYGON: A | |
|---|---|---|---|---|
| | SURVEYOR(S): Matt Ross | DATE: Aug. 3/11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☑ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| | | ☐ RIVERINE | | ☐ SUBMERGED | ☐ POND |
| ☐ WETLAND | ☑ MINERAL SOIL | ☐ BOTTOMLAND | ☑ CULTURAL | ☐ FLOATING-LVD. | ☐ RIVER |
| | | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | | ☑ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | ☐ ACIDIC BEDRK. | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☑ DECIDUOUS | ☐ BOG |
| | ☐ BASIC BEDRK. | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| **SITE** | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ OPEN WATER | ☐ CARB. BEDRK. | ☐ ALVAR | ☐ OPEN | | ☐ PRAIRIE |
| ☐ SHALLOW WATER | | ☐ ROCKLAND | ☑ SHRUB | | ☑ THICKET |
| ☑ SURFICIAL DEP. | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| ☐ BEDROCK | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 2 | Am. Elm ~~[illegible]~~ >> Gr. Ash |
| 2 | SUB-CANOPY | — | — | — |
| 3 | UNDERSTOREY | 4 | 4 | Gr. Dogwood > Spirea A. > Grass leaved Goldenrod > R. O. Dogwood |
| 4 | GRD. LAYER | 6-5 | 6=5 | Frag vir = Poa Comp > W. Carrot > C. Goldenrod |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | Am. Elm | | | | | | BA: | / |
| SIZE CLASS ANALYSIS: | A | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | A | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | A | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| COMM. AGE: | | PIONEER | ✓ | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: Clay | DEPTH TO MOTTLES/GLEY | g= 15 cm | G= |
| MOISTURE: | DEPTH OF ORGANICS: | <0.5cm (Litter) | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | Unknown | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: gray dogwood cultural thicket | CODE: CUT1-4 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

TILE 4 + 2 - TURBINE S22

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| | SITE: Amherst Island (Tile 7 of 17) |
| | POLYGON: A |
| | DATE: Aug 3/11 |
| | SURVEYOR(S): Matthew Ross |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Am. Elm | O | / | | | |
| Gr. Ash | R | / | | | |
| V. Creeper | O | [illegible] | O | O | |
| Nannyberry | R | R | | | |
| Riverbank Grape | | | O | O | |
| Spirea alba | | | A | | |
| Gray Dogwood | | | A | | |
| Red Osier Dogwood | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| R Canary Grass | | | O | | |
| Comm Milkweed | | | O | | |
| Cow Vetch | | | O | O | |
| Giant Goldenrod | | | O | | |
| Bromus Inermis | | | R | | |
| Wild Carrot | | | C-A | | |
| Fragaria virg. | | | | A | |
| Poa Compressa | | | | A | |
| Bull thistle | | | R | | |
| Heal All | | | | O | |
| Grass leaved Goldenrod | | | A | | |
| Avens sp | | | | O | |
| Comm St. John's Wort | | | | R | |
| Red Clover | | | | O | |
| Ragweed | | | | R | |
| Lycop. Ame. | | | | O | |
| Rubus Ideaus | | | | O | |
| ~~Nannyberry~~ | | | | | |
| Fox Sedge | | | | O | |
| Can. Goldenrod | | | | O | |
| Wild Parsnip | | | O | | |
| Timothy | | | O | | |

Page 1 of 6

Signature: (Field Personnel)

YWAR CEDW
CAGO AMRO
HAWO SOSP

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 3/11

Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 - 24 | 3 | 90 - 100% | None -> Rain (intermittent) | None |

**ELC Polygon:** # A **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☑-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

SOSP ALFL
YWAR
HAWO
COYE
CEDW
AMRO

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

REV: 2011-07-18

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 14-4 | |
| SURVEYOR(S): J.leslie | DATE: AUG 18 - 11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > tilamer > Acefree |
| 2 | SUB-CANOPY | 3 | 4 | Frapenn > tilamer = Acefree |
| 3 | UNDERSTOREY | 4 | 4 | Frapenn = cornrace > tilamer = crataegus |
| 4 | GRD. LAYER | 5-7 | 4 | Cirarvn = elyvirg = ins. v. creeper = fravirg. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | Y | MATURE | | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: F-M Ashlowland deciduous forest | CODE: FOD7-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

TILE 5 – TWO POLYGONS BETWEEN 537 & 527

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| TILAMER | O | R | R | | |
| FRAPENN | D | D | O | | |
| ACE FREE | R | R | / | | |
| | | | | | |
| SPI ALBA | | | | O | |
| CRATAEGUS | | | R | | |
| RUBIDAE | | | | A | |
| COR RACE | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CIR ARVE | | | | O | |
| ELY VIRG | | | | O | |
| INS. V CREEP | | | | O | |
| FRA VIRG | | | | O | |
| GEU CANA | | | | O | |
| AGR GRYP | | | | R-O | |
| AST LATE | | | | O | |
| SOL GIGA | | | | O | |
| CIR LUTE | | | | R-O | |
| CAREX SPP. | | | | O | |
| VIOLA SP | | | | O | |
| PLA RUGE | | | | R | |
| MEN ARVE | | | | R | |
| CAR VULP | | | | R-O | |
| EPILOBIUM SP | | | | R | |
| GLY STRI | | | | R | |
| GEU RIVALE | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 18, 2011

Field Personnel: J. leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

**ELC Polygon:** #14-4 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

[illegible]

REV: 2011-07-18

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island | | | POLYGON: 14-12 | |
| | SURVEYOR(S): J. Leslie | | DATE: AUG 18-11 | | UTME: |
| | START: | END: | | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☒ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 4 | Frapenn > Ulmamer |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4-5 | 2 | Rubidae |
| 4 | GRD. LAYER | 6-7 | 4 | elavirg >Phleprat =Clinvulg =Geucana |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | X | YOUNG | ✓ | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: GRN ASH CULTURAL WOODLAND | | CODE: CUW1-5* |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- MOST TREES <10cm DBH
- CATTLE GRAZE

---

TILE 5 - NORTH OF S27

| | |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | | | | |
| ULMAMER | R | | | | |
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| RUBIDAE | | | O | | |
| VITRIPA | | | | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHL PRAT | | | | O | |
| CLIN. VULG | | | | O | |
| ELA VIRG | | | | O-A | |
| GEU CANA | | | | O | |
| VIOLA SP. | | | | O | |
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Page ___ of ___

Signature: ____________________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________________ (Project Manager)

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Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Ag. 18, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C):<br>22 | WIND:<br>1-2 | CLOUD:<br>Haze | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**ELC Polygon:** # 14-12 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 5 – WEST OF S27

| ELC COMMUNITY DESCRIPTION & CLASSIFICATION | | | | |
|---|---|---|---|---|
| SITE: Amherst island | | POLYGON: 14-11 | | |
| SURVEYOR(S): J.leslie | | DATE: AUG 18-11 | UTME: | |
| START: | END: | UTMZ: | UTMN: | |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☒ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☐ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | | ☒ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| | | ☐ CREVICE / CAVE | | ☐ MIXED | ☐ MEADOW |
| **SITE** | | ☐ ALVAR | **COVER** | | ☐ PRAIRIE |
| ☐ OPEN WATER | | ☐ ROCKLAND | ☐ OPEN | | ☒ THICKET |
| ☐ SHALLOW WATER | | ☐ BEACH / BAR | ☒ SHRUB | | ☐ SAVANNAH |
| ☒ SURFICIAL DEP. | | ☐ SAND DUNE | ☐ TREED | | ☐ WOODLAND |
| ☐ BEDROCK | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 3 | Salixbebbi >> Frapenn = Salix discolor = viblent |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 3 | rubidae > Frapenn = viblent = corstol = corerace |
| 4 | GRD. LAYER | 5-7 | 4 | Pheuprat > Broinur > Bulthist = RUMcris |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R-O | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: WILLOW CULTURAL THICKET | CODE: CUT1-9* |
| ☐ INCLUSION | CODE: |
| ☐ COMPLEX | CODE: |

Evidence of Disturbance / Notes:

PIC 3 – ON HILLSIDE & CREST – SOIL DRY

---

| ELC COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| SITE: | |
| POLYGON: | |
| DATE: | |
| SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | R | | |
| COR STOL | | | R | | |
| SALIX DISCOLOR | R | | | | ✓ |
| RUBIDAE | | | O | | |
| VIT RIPA | | | | O | |
| VIB LENT | R | | R | | |
| COR RACE | | | R | R | |
| SALIX BEBBI | D | | | | ✓ |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| BRO INUR | | | | O | |
| PHL PRAT | | | | A | |
| VIC CRAC | | | | R-O | |
| BUC. THIST | | | | O | |
| RUM CRIS | | | | O | |
| DAU CARO | | | | O | |
| AGR GIGA | | | | O | |
| COM. MILL | | | | R-O | |
| DAISY FLEA | | | | R-O | |

Page ___ of ___

Signature: ______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________ (Project Manager)

Stantec
Stantec Consulting Ltd.
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Guelph, ON
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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: August 18, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

**ELC Polygon:** #H-11 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

(13/14)

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 13-6 | |
| SURVEYOR(S): J.leslie | DATE: AUG 18 - 11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☒ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☒ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 1 | GRAPECN |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4-5 | 4 | Spialba > corrace > corstol = rubidae |
| 4 | GRD. LAYER | 6-7 | 4 | Carex spp > Aster sp > Soljunc = indian hemp |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: MEADOWSWEET MINERAL THICKET SWAMP | CODE: SWT 2-6 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes: – MANY DEAD SPI ALBA

---

TILE 5 – WEST OF S02

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| GRAPECN | R | | | | |
| SALIX SP. | | | R | | |
| VIT RIPA | | | | O | |
| RIBES SP. | | | | R | |
| RUB IDAE | | | R-O | | |
| COR RACE | | | O | | |
| COR STOL | | | R-O | | |
| SPI ALBA | | | A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHA ARUN | | | | R-O | |
| CAREX SPP | | | | A-D | |
| SOL GIGA | | | | O | |
| INDIAN HEMP | | | | O | |
| VIC CRACC | | | | O | |
| ASTER SP | | | | O-A | |
| TALL BL LETTU | | | | R | |
| VIOLA SP. | | | | R-O | |
| LYC UNIF | | | | O | |

Page ___ of ___

Signature: ____________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________
(Project Manager)

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Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: Aug. 18, 2011
Field Personnel: J. leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

ELC Polygon: # 136 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities >10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

CA=carcass, DP=distinct parts, [illegible]

AW 14-5

# ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Amherst island
POLYGON: 13-5
SURVEYOR(S): J. leslie
DATE: AUG 18-11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

**SYSTEM**
- ☐ TERRESTRIAL
- ☒ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☒ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☐ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☐ OPEN
- ☐ SHRUB
- ☒ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☒ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 3 | Frapenn > Acefree |
| 2 | SUB-CANOPY | 3 | 3 | Frapenn > Acefree |
| 3 | UNDERSTOREY | 4 | 4 | Frapenn > Acefree = Corobli > Salix |
| 4 | GRD. LAYER | 5-7 | 4 | Carex spp > phaarun > lysthi |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | X | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GRN ASH MINERAL DECID. SWAMP | CODE: SWD2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
- CANOPY DENSITY / MATURITY VARIES
- SOIL MOIST
- SEDGE DOMINATED GRND COVER (SP. W/O FLWR/SEED)
- SOME AREAS GRASS DOMINAT

---

TILE 5 - NORTH OF SO2

# ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | A | O-A | | |
| ACEFREE | R-O | R-O | R | | |
| SALIX | | | R | | |
| CORObLI | | | R-O | | |
| SPI ALBA | | | | R-O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHA ARUN | | | | R-A | |
| CAL CANA | | | | R | |
| SUM [illegible] | | | | R | |
| IND. HEMP | | | | R | |
| CAREX SPP | | | | A-D | |
| SP. W. HOM. | | | | R | |
| ELY VIRG | | | | R | |
| SCI CYPE | | | | R | |
| TYP ANGU | | | | R | |
| GLY STRI | | | | O | |
| CAR VULP | | | | R-O | |
| SKULLCAP (REG) | | | | R | |
| ONO SENS | | | | R-O | |
| CIR ARUN | | | | R-O | |

Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc woodland wildlife habitat

Stantec

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: Aug 8, 2011

Field Personnel: J. leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

**ELC Polygon:** #13-5 **Assessment Type:** ☐-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

[illegible]

REV: 2011-07-18

TILE 5 — NEAR PROPOSED ACCESS RD & SOUTH SHORE RD.

| | | | | |
|---|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: A.I. | | POLYGON: 14-10 | |
| | SURVEYOR(S): JTL | DATE: AUG 18-11 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
- ☐ TERRESTRIAL
- ☒ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☒ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☒ OPEN
- ☐ SHRUB
- ☐ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☒ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☐ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☒ MARSH
- ☐ SWAMP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | PHAARUN > BINDWEED > ASTER SPP. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: REED CANARY MINERAL MEADOW MARSH | CODE: MAM2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: CUM1-1 |

**Evidence of Disturbance / Notes:**

- COMPLEX COMMUNITY
↳ MAINLY MAM2-2 BUT W/ CUM1-1 AND FEW TYPHA POCKETS
- NO ACCESS
- NO H2O OBS.

---

| | | | |
|---|---|---|---|
| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
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| CRATAEGUS | | | | R | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| CAREX SP. | | | | O | |
| BL. VERVAIN | | | | R-A | |
| IMPCAPE | | | | R-A | |
| FIEL. BINDWEED | | | | A | |
| ASTER SPP. | | | | O | |
| PHAARUN | | | | A | |
| TYPANGU | | | | R | |
| SCICYPE | | | | R | |
| EUPMACU | | | | R | |
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| | | | | | |
| VICCRAC | | | | O | |
| LACTUCA SP. | | | | O | |
| CIRARVE | | | | O-A | |
| RUBIDAE | | | | A | |
| SOLCANA | | | | A | |
| ASCSYRI | | | | O-A | |
| ASTER SPP | | | | A | |

Page ___ of ___

Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________
(Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: A.I.
Date: Aug 18 - 11
Field Personnel: JD

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 22 | 1-2 | HAZE | 0 | 0 |

**ELC Polygon:** #14-10 **Assessment Type:** ☒-Visual; no access / ☐-Walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 14-13 | |
| SURVEYOR(S): J.leslie | DATE: AUG 18-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
- ☒ TERRESTRIAL
- ☐ WETLAND
- ☐ AQUATIC

**SITE**
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

**SUBSTRATE**
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☒ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☐ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**
- ☒ NATURAL
- ☐ CULTURAL

**COVER**
- ☐ OPEN
- ☐ SHRUB
- ☒ TREED

**PLANT FORM**
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☐ GRAMINOID
- ☐ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☒ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

**COMMUNITY**
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☐ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☐ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☒ FOREST
- ☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn >> Quemacr = caraat |
| 2 | SUB-CANOPY | 3 | 3 | Frapenn > tilamer > Que macr ≥ franigr ≥ caraat |
| 3 | UNDERSTOREY | 4 | 3 | Frapenn = Ulodae = corrcrl |
| 4 | GRD. LAYER | 5-7 | 4 | AstLanc > ellyvirg = J.Pulpit = Violasp. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | A | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | X MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: F-M Ash lowland deci forest | CODE: FOD7-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- GENERALLY MESIC SOIL BUT MOIST INTERIOR POCKET.

---

TILE 5 - EAST OF S19

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | A | A | O | | |
| QUE MACR | R | R | / | | |
| TIL AMER | / | O | R | | |
| FRA NIGR | / | R | / | | |
| CAR OVAT | R | R | R | | |
| RUB IDAE | | | O | | |
| COR RACE | | | O | | |
| SPI ALBA | | | R | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| ELY VIRG | | | | O | |
| GLY STRI | | | | R | |
| IMPA CAPE | | | | R | |
| AST LANC | | | | O-A | |
| J. PULPIT | | | | O | |
| CAREX OVALES | | | | R | |
| VIOLA SP. | | | | O | |
| FRA VIRG | | | | O | |
| ALL PETIO | | | | O | |
| SANG CANA | | | | R | |
| TAR OFFI | | | | O | |
| DAME ROCK | | | | R | |
| GEU CANA | | | | O | |
| GALIUM | | | | O | |
| SOL DULC | | | | O | |

Page ___ of ___
Signature: ____________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: ____________
(Project Manager)

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Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 18, 2011

Field Personnel: J. Leslie

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 22 | 1-2 | Haze | 0 | 0 |

**ELC Polygon:** # 14-13 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- GRTR - OB
- NOLF - OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Amherst Island
POLYGON: 11-2
SURVEYOR(S): J. leslie
DATE: Aug 19-11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 1 | 3 | Acesasa > Faggran > Querubr = prusero |
| 2 | SUB-CANOPY | 2 | 4 | Acesasa ≥ Faggran = prusero > Querubr = tilamer |
| 3 | UNDERSTOREY | 3-4 | 4 | Acesasa = Faggran = prusero > Frapenn = carcaro |
| 4 | GRD. LAYER | 5-7 | 3 | RUBIDAE > CIRLUTE = J. PULPIT |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | O | 25 – 50 | R | >50 |
| STANDING SNAGS: | R | <10 | O | 10 – 24 | R | 25 – 50 | R | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | R | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: ☐ PIONEER ☐ YOUNG ☐ MID-AGE ☒ MATURE ☐ OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: D-F SUGAR MAPLE-BEECH DECID. FOREST | CODE: FOD5-2 |
| INCLUSION | CODE: SWD2-2 |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
- INCLUDES SMALL GREEN ASH SWAMP SOUTH SIDE
- MATURE; SOIL MOIST, NO SURFACE H2O

---

TILE 5 - WEST OF 519

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| ACESASA | A | O | O | O | |
| QUERUBR | R | R | / | | |
| FAGGRAN | O | O | O | O | |
| PRUSERO | R | O | O | | |
| TILAMER | O | R | / | | |
| FRAPENN | / | R | R | | |
| CARCARO | / | / | R | | |
| VIBLENT | | | R | O | |
| RUBIDAE | | | R | O | |
| RHURADI | | | | O | |
| RIBCYNO | | | | R | |
| PRUVIRG | | | O | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| J. PULPIT | | | | O | |
| CAREX SPP | | | | O | |
| CIR LUTE | | | | O | |
| FRA VESC | | | | O | |
| F. SOL. SEAL | | | | R | |
| W. TRILLIUM | | | | R | |
| ACTAEA SP. | | | | R | |
| WILD COFFEE | | | | R | |
| SNAKEROOT | | | | O | |
| INCLUSION | | | | | |
| FRA PENN | A | | | | |
| BID FRON | | | | O | |
| LYC UNIF | | | | O | |
| MARSH SKULL | | | | O | |
| PHAARUN | | | | A | |
| GLYSTRI | | | | O | |
| CAREX SPP | | | | O | |
| SOL DULC | | | | O | |
| IMPCAPEN | | | | R | |

Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐
Signature:
(Project Manager)

Stantec

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: August 19, 2011
Field Personnel: J. leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 22 | 1-2 | HAZE | 0 | 0 |

**ELC Polygon:** # 11-2 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

- CHIPMUNK - OB
- AMCO - VO

(AN=carcass, DP=distinctive parts, FE=feeding evidence, EG=egg/shell, HO=house/den, OB=observed, [illegible] VO=vocalization)

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: Amherst Island | | POLYGON: 12-10 | |
| SURVEYOR(S): J. leslie | DATE: AUG 5-14 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

**SYSTEM**
☐ TERRESTRIAL
☒ WETLAND
☐ AQUATIC

**SITE**
☐ OPEN WATER
☐ SHALLOW WATER
☒ SURFICIAL DEP.
☐ BEDROCK

**SUBSTRATE**
☐ ORGANIC
☒ MINERAL SOIL
☐ PARENT MIN.
☐ ACIDIC BEDRK.
☐ BASIC BEDRK.
☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
☐ LACUSTRINE
☐ RIVERINE
☒ BOTTOMLAND
☐ TERRACE
☐ VALLEY SLOPE
☐ TABLELAND
☐ ROLL. UPLAND
☐ CLIFF
☐ TALUS
☐ CREVICE / CAVE
☐ ALVAR
☐ ROCKLAND
☐ BEACH / BAR
☐ SAND DUNE
☐ BLUFF

**HISTORY**
☒ NATURAL
☐ CULTURAL

**COVER**
☒ OPEN
☐ SHRUB
☐ TREED

**PLANT FORM**
☐ PLANKTON
☐ SUBMERGED
☐ FLOATING-LVD.
☒ GRAMINOID
☐ FORB
☐ LICHEN
☐ BRYOPHYTE
☐ DECIDUOUS
☐ CONIFEROUS
☐ MIXED

**COMMUNITY**
☐ LAKE
☐ POND
☐ RIVER
☐ STREAM
☒ MARSH
☐ SWMAP
☐ FEN
☐ BOG
☐ BARREN
☐ MEADOW
☐ PRAIRIE
☐ THICKET
☐ SAVANNAH
☐ WOODLAND
☐ FOREST
☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | Frapenn > Ace free |
| 2 | SUB-CANOPY | / | / | |
| 3 | UNDERSTOREY | / | / | |
| 4 | GRD. LAYER | 4-7 | 4 | Gly maxima >> impcape |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | / | <10 | / | 10 – 24 | / | 25 – 50 | / | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: ☐ PIONEER ☐ YOUNG ☒ MID-AGE ☐ MATURE ☐ OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: SiC | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | 12cm Fibric | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: SWEET MANNA GRASS SHALLOW MARSH | CODE: MAS2-10* |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes: PIC 607 - MANY SNAGS
- SURFACE H2O PRESENT

---

TILE 5 - SOUTH OF S36

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | R-O | / | / | | |
| QUE MACR | / | R | / | | |
| ACE FREE | R | / | / | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| GLY MAXIMA | | | | D | |
| IMP CAPE | | | | R | |

Page ___ of ___

Signature: ______________ (Field Personnel)

Quality Control: ~~This form is complete~~ ☐ & legible ☐.

Signature: ______________ (Project Manager)

· MANY FRAPENN IN POOR HEALTH / DEAD

Stantec
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Canada N1G 4P5
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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: August 5, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 27 | 2 | 10% | 0 | 0 |

**ELC Polygon:** #12-10 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

– MANY SNAGS, NONE SUITABLE FOR ROOSTING

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 5 - south of S36

# ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 12-9 | |
| SURVEYOR(S): J. leslie | DATE: Aug. 5, 2011 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | FRAPENN |
| 2 | SUB-CANOPY | — | | |
| 3 | UNDERSTOREY | 4 | 2 | FRAPENN > SPIALBA |
| 4 | GRD. LAYER | 5-7 | 4 | ASTLATE > POACEAE SPP > FRAVIRG |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:

BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | ✓ | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: FM ASH LOWLAND DECID. FOREST | | CODE: FOD7-2 |
| INCLUSION | Freeman | CODE: SWD3-3 |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- N - SURFACE $H_2O$ OBS.

---

# ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:

POLYGON:

DATE:

SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Frapenn | D | | O | | |
| SPI ALBA | | | R | | |
| RUB PUBE | | | | R-O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ECY VIRG | | | | O | |
| CINN ARUN | | | | O | |
| FRAVIRG | | | | O | |
| CAR GRAC | | | | R-O | |
| CAR VULP | | | | R | |
| TRAL THUMB | | | | R | |
| AST LATE | | | | O-A | |
| J. PULPIT | | | | R | |
| GLYMAXI | | | | R | |

Page ___ of ___

Signature: ____________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________ (Project Manager)

**Stantec**

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: Aug 5, 2011
Field Personnel: J. leslie

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 27 | 2 | 10% | 0 | 0 |

**ELC Polygon:** #12-9 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

**Contains potential reptile hibernacula features?**
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

**Contains potential bat hibernacula features?**
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

**Contains potential bat roosting features?**
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

**Contains large stick nests?**
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

**Contains seeps/springs/vernal pools?**
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

REV: 2011-07-18

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: A.I | | POLYGON: 14-14 | |
| SURVEYOR(S): JR | DATE: AUG 18-11 | UTME: | |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☒ NATURAL | ☐ PLANKTON | ☐ LAKE |
| | | ☐ RIVERINE | | ☐ SUBMERGED | ☐ POND |
| ☒ WETLAND | ☒ MINERAL SOIL | ☒ BOTTOMLAND | ☐ CULTURAL | ☐ FLOATING-LVD. | ☐ RIVER |
| | | ☐ TERRACE | | ☒ GRAMINOID | ☐ STREAM |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ VALLEY SLOPE | | ☐ FORB | ☒ MARSH |
| | | ☐ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | ☐ ACIDIC BEDRK. | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☐ DECIDUOUS | ☐ BOG |
| | ☐ BASIC BEDRK. | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| **SITE** | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ OPEN WATER | ☐ CARB. BEDRK. | ☐ ALVAR | ☒ OPEN | | ☐ PRAIRIE |
| ☐ SHALLOW WATER | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| ☒ SURFICIAL DEP. | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| ☐ BEDROCK | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 1 | FRAPENN |
| 2 | SUB-CANOPY | — | | |
| 3 | UNDERSTOREY | — | | |
| 4 | GRD. LAYER | 4-7 | 4 | PHAARUN >> SOLIDAGO SPP > JUNTENU |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | ✓ | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: REED CANARY MINERAL MEADOW MARSH | CODE: MAM2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
- GRAZED (MODERATE)
- NO H2O OBS.
- EAST AND WEST OF THIS ARE TOO HEAVILY GRAZED FOR DELINEATION

---

TILE 5 - SOUTH OF S19

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | | |
| SPI ALBA | | | | R | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | A | |
| JUN TENU | | | | O | |
| LEE ORYZ | | | | O | |
| CAR VULP | | | | O | |
| LYC EURO | | | | O | |
| EUP PERF | | | | O | |
| ROUGH LV GOLDEN | | | | O | |
| RAGWEED | | | | O | |
| POA PRAT | | | | O | |
| CAREX SPP. | | | | R | |
| SCI CYPE | | | | O | |

Page ___ of ___
Signature: JR
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐
Signature:
(Project Manager)

Stantec

Stantec Consulting Ltd.
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# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595

Project Name: Amherst Island

Date: AUG 18-11

Field Personnel: J Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | HAZE | 0 | 0 |

**ELC Polygon:** #14-14 **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

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**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

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**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | POLYGON: 15-3 | |
|---|---|---|---|---|
| | SURVEYOR(S): JR | DATE: July 28, 2011 | UTME: | |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☑ MINERAL SOIL | ☐ RIVERINE | ☒ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☒ FORB | ☐ MARSH |
| **SITE** | ☐ CARB. BEDRK. | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| ☐ OPEN WATER | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| ☐ SHALLOW WATER | | ☐ CLIFF | | ☐ DECIDUOUS | ☐ BOG |
| ☒ SURFICIAL DEP. | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| ☐ BEDROCK | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☒ MEADOW |
| | | ☐ ALVAR | ☒ OPEN | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | Frapenn = Ulmamer |
| 2 | SUB-CANOPY | / | | |
| 3 | UNDERSTOREY | / | | |
| 4 | GRD. LAYER | 5-7 | 4 | Fravirg > Agrstol > Solsunc = Solcana |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: OLD FIELD MINERAL CULTURAL MEADOW | CODE: CUM1-1 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

TILE 3 - FRONT RD
- MARSHALL 40' RD EAST TO LOWER 40' RD.

| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | R | |
| ULMAMER | R | | | | |
| RUBIDAE | | | | O | |
| SPI ALBA | | | | R | |
| COR RACE | | | | R | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SOL SUNC | | | | O | |
| AGR STOL | | | | O-A | |
| SOL CANA | | | | O | |
| DAU CARO | | | | O | |
| FRA VIRG | | | | A | |
| HEAL ALL | | | | R | |
| VIC CRAC | | | | O | |
| JUN TENU | | | | R | |
| B'N EGGS | | | | O | |
| CAREX OVALES | | | | R-O | |
| TRI AURE | | | | R | |
| ASC STRI | | | | R | |
| EUT GRAM | | | | O | |
| CAR VULP | | | | R | |
| GEU ALLEP. | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: July 28, 2011
Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C):<br>26 | WIND:<br>2 | CLOUD:<br>70% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

ELC Polygon: # 15-3 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst Island | | POLYGON: 15-13 | |
| SURVEYOR(S): J. Leslie | DATE: JULY 28 - 11 | | UTME: |
| START: 12:02 | END: 12:30 PM | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☒ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | Frapenn = Prusero = Ulmrubr |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 3 | 3 | Crataegus > rosa sp = Frapenn = Ulmrubr |
| 4 | GRD. LAYER | 4-7 | 4 | POAPRAT > DAUCARO > LOTCORN |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | [✓ MID-AGE] | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: HAWTHORN CULTURAL SAVANNAH | CODE: CUS 1-1 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

**Evidence of Disturbance / Notes:**

- WOODY COVER ~ 25-30%
PIC #4

- NO ACCESS

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- FRONT RD
TILE 3 - MARSHALL 40' RD EAST TO LOWER 40' RD.

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FRAPENN | R | | R | | | DAUCARO | | | | O | |
| PRUSERO | R | | / | | | LOT CORN | | | | O | |
| ULM RUBR | R | | R | | | TRI AURE | | | | O | |
| | | | | | | POA PRAT | | | | O | |
| | | | | | | VIC CRAC | | | | R | |
| | | | | | | BULL THISTLE | | | | R | |
| | | | | | | V. BUGLOSS | | | | O | |
| | | | | | | BRO INER | | | | O | |
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| CRATAEGUS | | | O | | | | | | | | |

Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: July 28, 2011
Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 26 | WIND: 2 | CLOUD: 70% | PPT: 0 | PPT (in last 24 hrs): 0 |

**ELC Polygon:** #15-13 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)* - NO ACCESS

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

| SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map) |
|---|
| |

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

- FRONT RD.

TILE 3 - MARSHALL 40' RD EAST TO LOWER 40' RD.

| ELC COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | POLYGON: 15-6 | |
|---|---|---|---|---|
| | SURVEYOR(S): J. leslie | DATE: July 28 2011 | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☒ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☒ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 1 | Ulmrubr |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 4 | Corrace >> Rubidae = Crataegus |
| 4 | GRD. LAYER | 5-7 | 3 | Rubidae = Solcana = Agrgiga = Euthgram |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | |
|---|---|---|
| STAND COMPOSITION: | | BA: |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GRAY DOGWOOD CULTURAL THICKET | CODE: CUT 1-4 |
| INCLUSION SALIX | CODE: SWT2-6 * |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- INCLUSION FOLLOWS DRAINAGE CHANNEL [DRY]
↳ (CLOSE TO THE 12 AM)

| ELC COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ULM RUBR | R-O | | | | |
| RUB IDAE | | | R | O | |
| SPI ALBA | | | | R | * |
| CRATAEGUS | | | R | | |
| COR RACE | | | A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SOL CANA | | | | O | |
| AGR GIGA | | | | O | |
| EUTH GRAM | | | | O | |
| VIC CRAC | | | | O | |
| DAU CARO | | | | R | |
| ASC SYRI | | | | R | |
| EUP PERF | | | | R | * |
| CAREX | | | | R | ✓ * |
| BID FRON | | | | R | * |
| YEL. PARSL. | | | | R-O | |
| LADY THUMB | | | | R | * |
| PHA ARUN | | | | R | * |

Page ___ of ___

Signature: ______ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______ (Project Manager)

* INCLUSION SPP.

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL 1998)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: July 28, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2 | 70% | 0 | 0 |

ELC Polygon: # 15-6 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- INCLUDES DRY/MESIC DRAIN (MAN-MADE CHANNEL)
- GRCA - VO

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**Stantec**

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst
Date: Aug 15, 2012
Field Personnel: Katherine S

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|

## POLYGON DESCRIPTION

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

POLYGON: CUWI-3*
START TIME:
END TIME:

**TOPOGRAPHIC FEATURE**

- ☐ LACUSTRINE
- ☐ RIVERINE
- ☐ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☐ TABLELAND
- ☑ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

**HISTORY**

- ☐ NATURAL
- ☑ CULTURAL

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 3 | Black walnut > Sugar maple |
| 2 | SUB-CANOPY | 3 | 2 | Staghorn sumac > riverbank grape |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% N/O=not observed

| STANDING SNAGS: | N/O | <10 | N/O | 10 – 24 | N/O | 25 – 50 | N/O | >50 |
|---|---|---|---|---|---|---|---|---|

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

| STAND MATURITY: | | PIONEER | ✓ | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| VEGETATION TYPE: Dry-Fresh Black walnut Deciduous Woodland | | CODE: CUWI-3* | |
| COMPLEX | | CODE: | |

Evidence of Disturbance / Notes:

TILE 3 – FRONT RD.
– MARSHALL 40' RD EAST TO LOWER 40' RD.

LAYERS: 1=CANOPY >10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT N/O=Not observed

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | DISTANCE FROM RD. ≤5 m | DISTANCE FROM RD. >5 m | COLL. |
|---|---|---|---|---|---|---|---|
| TREES: | | | | | | | |
| Black walnut | A | | | | | | |
| Sugar maple | R | | | | | | |
| SHRUBS: | | | | | | | |
| Staghorn sumac | | O | | | | | |
| Riverbank grape | | R | | | | | |
| GROUND: | | | | | | | |

Quality Control: This form is complete ☐ & legible ☐.

Signature:
(Field Personnel)

Signature:
(Project Manager)

**ELC Polygon:** # CUW1-3 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☑-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Amherst Island
POLYGON: 4-3
SURVEYOR(S): J.Leslie
DATE: AUG 5 - 11
UTMZ:
UTME:
UTMN:
START:
END:

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☒ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☒ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☐ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☒ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☐ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| | | ☐ CREVICE / CAVE | | ☐ MIXED | ☐ MEADOW |
| | | ☐ ALVAR | | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | | | ☐ THICKET |
| | | ☐ BEACH / BAR | | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☒ FOREST |
| | | | | | ☐ PLANTATION |

| SITE | COVER |
|---|---|
| ☐ OPEN WATER | ☐ OPEN |
| ☐ SHALLOW WATER | ☐ SHRUB |
| ☒ SURFICIAL DEP. | ☒ TREED |
| ☐ BEDROCK | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 1 | 4 | Frapenn > Car ovat |
| 2 | SUB-CANOPY | 2-3 | 4 | Frapenn > Ulmamer > Ostvirg |
| 3 | UNDERSTOREY | 4 | 2 | Corace > Rhacath > Ulmamer |
| 4 | GRD. LAYER | 5-7 | 4 | Carex inter > Violasp > Fravirg > glystri |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: ☐ PIONEER ☐ YOUNG ☐ MID-AGE ☒ MATURE ☐ OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: SiC | DEPTH TO MOTTLES/GLEY | g= 16cm | G= NONE |
| MOISTURE: | DEPTH OF ORGANICS: | 0 (cm) | |
| [✓ HOMOGENEOUS] / VARIABLE | DEPTH TO BEDROCK: | >62 (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: greenash mineral dec. swamp | CODE: SWD2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

---

TILE 4
— 504 WEST TO EMERALD 40' RD.
— 2nd CONCESSION RD.

**ELC**
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | O | R | | |
| ULM AMER | / | O | R-O | | |
| CAR OVAT | R | R | / | | |
| OST VIRG | / | R-O | R | | |
| RUB IDAE | | | R | | |
| COR RACE | | | R | O | |
| RHA CATH | | | R | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| VIOLA SP. | | | | O | |
| FRA VIRG | | | | O | |
| J. PULPIT | | | | O | |
| AST LATE | | | | O | |
| CAR GRAC | | | | R-O | |
| GLY STRI | | | | O | |
| RHA CORP | | | | O | |
| CHICKWEED | | | | R-O | |
| CAREX-INTER. | | | | O-A | ✓ w/ spk |
| W. AVENS | | | | O | |
| PHA ARUN | | | | R | |

Page ___ of ___

Signature: ____________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: ____________________
(Project Manager)

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: Aug 5, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20°c | 1 | 5% | 0 | 0 |

**ELC Polygon:** #4-3 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: A.I. | | POLYGON: TILE 4 | | |
| | SURVEYOR(S): JTL | DATE: AUG 4-11 | | UTME: | |
| | START: | END: | UTMZ: | UTMN: | |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWAMP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 1-2 | 4 | |
| 2 | SUB-CANOPY | 3 | 3 | - NO ACCESS |
| 3 | UNDERSTOREY | 4 | 3-4 | N/A |
| 4 | GRD. LAYER | 5-7 | 4 | - POOR VIEW |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | O-A | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | ☒ MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | CODE: | |
| COMMUNITY SERIES: | CODE: | |
| ECOSITE: | CODE: | |
| VEGETATION TYPE: FRM OAK - MAPLE - HICKORY DECID. | CODE: | FOD 9 |
| INCLUSION FOREST | CODE: | |
| COMPLEX | CODE: | |

Evidence of Disturbance / Notes:

- ROADSIDE ASSESSMENT - NO ACCESS

---

TILE 4 – SO4 WEST TO EMERALD 40' RD.
– 2nd CONCESSION RD

| | | | |
|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | SITE: | | |
| | POLYGON: | | |
| | DATE: | | |
| | SURVEYOR(S): | | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| QUEMACR | N/A | | | | |
| TILAMER | | | | | |
| ULMAMER | | | | | |
| SHAG HICK | | | | | |
| ACE FRSE | | | | | |
| CORBACE | | | | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |
| NO ACCESS | | | | | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

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Guelph, ON
Canada N1G 4P5
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Fax: (519) 836-2493

**Stantec**

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: AT,
Date: AUG 4-11
Field Personnel: JTL

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: 3 | CLOUD: 40% | PPT: Ø | PPT (in last 24 hrs): RAIN |

**ELC Polygon: #** 4 **Assessment Type:** ☒-Visual; no access / ☐-Walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | | | |
|---|---|---|---|
| SITE: Amherst Island (Tile 7 of 17) | | POLYGON: H | |
| SURVEYOR(S): Matt Ross | DATE: Aug 4/11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☒ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | Reed Canary Grass >> Spirea alba > Scirpus cyperinus |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: N/A | | | | | | | BA: N/A | |
| SIZE CLASS ANALYSIS: | | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| STANDING SNAGS: | | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| DEADFALL/LOGS: | | <10 | | 10 – 24 | | 25 – 50 | | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: Reed Canary grass min meadow marsh | | CODE: MAM 2-2 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

**Evidence of Disturbance / Notes:**

– CARP APPLIES TO BOTH MAM2-2 AND MAM2-2/PAS POLYGONS

---

TILE 4 – 504 WEST TO EMERALD 40' RD.
– ALONG 2ND CONCESSION RD

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| SITE: | Amherst Island (Tile 7 of 17) |
| POLYGON: | H |
| DATE: | Aug 4/11 |
| SURVEYOR(S): | Matthew Ross |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| Salix Sp | | | R | | |
| Gray Dogwood | | | R | | |
| Spirea Alba | | | | R-O | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| Reed Canary Grass | | | | A | |
| Scirpus cyperinus | | | | O | |
| Blue vervain | | | | R | |
| Grass leaved Goldenrod | | | | O | |
| Hedge bindweed | | | | R-O | |

Page 3 of 3

Signature: (Field Personnel)

BARS
SWSP

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 4/11

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>19-26 | WIND:<br>3-4 | CLOUD:<br>0-30% | PPT:<br>None | PPT (in last 24 hrs):<br>Rain |

**ELC Polygon: #** **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☑-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

BARS
SWSP

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: Amherst Island | | POLYGON: 4-1 | |
| SURVEYOR(S): JTL | DATE: AUG 5-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☒ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 3 | FRAPENN = JUNVIRG > ACESASA |
| 2 | SUB-CANOPY | / | / | |
| 3 | UNDERSTOREY | 3-4 | 4 | LILAC >> XANAMER |
| 4 | GRD. LAYER | 5-7 | 3 | TARoffi = hypperf = fravirg = Pacarao |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | O | 10 – 24 | R | 25 – 50 | R | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | X | YOUNG | / | MID-AGE | | MATURE | | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: MIXED CULTURAL WOODLAND | CODE: CUW 1-3 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes: - DENSE LILAC UNDERSTORY - OCCASIONALLY REPRESENTS THE CANOPY

---

- 504 WEST TO EMERALD 40' RD.
TILE 4 - ALONG 2nd CONCESSION RD.

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| JUNVIRG | O | | O | | |
| FRAPENN | O | | 2 | | |
| ACESASA | R | | / | | |
| TILAMER | R | | R | | |
| XAN AMER | | | O | | |
| CORRACE | | | R | O | |
| LILAC | | | D | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| TAR OFFI | | | | O | |
| HYP PERF | | | | O | |
| FRA VIRG | | | | O | |
| DAU CARO | | | | O | |
| PHL PRAT | | | | O | |
| D.S. VINE | | | | R | |
| RED CLOVER | | | | O | |
| CIR INTE | | | | R-O | |
| POA SIMP | | | | R-O | |
| MOSS | | | | O | |

Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐
Signature:
(Project Manager)

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst island
Date: Aug 5, 2011
Field Personnel: J. leslie

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 20°C | 1 | 5% | 0 | 0 |

**ELC Polygon:** # 4-1 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- GRCA – VO
- MODO – OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=egg/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst Island (Tile 7 of 17) | | POLYGON: B | |
| SURVEYOR(S): Matthew Ross | DATE: Aug 3/11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Gr. Ash >> Acer Fre |
| 2 | SUB-CANOPY | 3 | 3 | Gr. Ash >> Am. Elm > Acer Fre |
| 3 | UNDERSTOREY | 4 | 1 | Gr. Ash >> Am. Elm |
| 4 | GRD. LAYER | 7-5 | 4 | Poa comp > Poa sp. > Galium sp. > Fox sedge |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION: Gr. Ash >> Acer Fre BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | A | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER [✓ YOUNG] MID-AGE MATURE OLD GROWTH

### SOIL ANALYSIS:

| | | | | |
|---|---|---|---|---|
| TEXTURE: Clay | DEPTH TO MOTTLES/GLEY | g= 20cm | G= | |
| MOISTURE: | DEPTH OF ORGANICS: | ~0.5 (L. Her) | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | | (cm) |

### COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: Grn Ash Mineral Decid. Swamp | CODE: SWD 2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
a little garbage

---

-2nd Concession Rd
Tile 4 - 504 East to 531 (Tile 2)

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Amherst Island (Tile 7 of 17)
POLYGON: B
DATE: Aug 3/11
SURVEYOR(S): Matthew Ross

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Gr. Ash | A | A | O | O | |
| ~~Am. [illegible]~~ | | | | | |
| Am. Elm | | O | R | R | |
| Acer Fre | O | | | R-O | |
| Vir Creeper | | | | R | |
| Tart. Honeysuckle | | | | R | |
| ~~Dogwood~~ | | | | | |
| Spiraea alba | | | | R-O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| Poa Compressa | | | | A | |
| Fox Sedge | | | | A | |
| Reed Canary Grass | | | | D | |
| Wild Parsnip | | | | R | |
| Wild Carrot | | | | R | |
| ~~Spiraea alba~~ | | | | | |
| Lycopus Am. | | | | O | |
| Poa Sp. | | | | A | |
| Frag. Vir. | | | | O | |
| [illegible] | | | | R | |
| Aster sp | | | | R-O | |
| Teasel weed | | | | R | |
| Deadly Nightshade | | | | O | |
| Glyc. str | | | | O | |
| Rubus sp | | | | R | |
| Sedge [illegible] | | | | O | ✓ |
| Carex retrorsa | | | | O | ✓ |
| [illegible] ~~Betton~~ | | | | A | |
| Calico Aster | | | | O-A | |
| Panicled Aster | | | | O-A | |
| Blood Root | | | | R | |

Page 2 of 6

Signature: Matt (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

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Guelph, ON
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Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 3/11

Field Personnel: Mathew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: None → | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 - 24 | 3 | 90-100% | Rain (intermittent) | None |

**ELC Polygon: #** B **Assessment Type:** ☐-Visual; roadside, no access / ☑-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☑-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☑-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

EAWP

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** AI | | **POLYGON:** TILE 4 | |
|---|---|---|---|---|
| | **SURVEYOR(S):** JTL | **DATE:** AUG 4-11 | | **UTME:** |
| | **START:** | **END:** | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☒ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| | | ☐ CREVICE / CAVE | | ☐ MIXED | ☐ MEADOW |
| **SITE** | | ☐ ALVAR | **COVER** | | ☐ PRAIRIE |
| ☐ OPEN WATER | | ☐ ROCKLAND | ☐ OPEN | | ☒ THICKET |
| ☐ SHALLOW WATER | | ☐ BEACH / BAR | ☒ SHRUB | | ☐ SAVANNAH |
| ☒ SURFICIAL DEP. | | ☐ SAND DUNE | ☐ TREED | | ☐ WOODLAND |
| ☐ BEDROCK | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 2 | FRAPENN > ULMAMER |
| 2 | SUB-CANOPY | — | | |
| 3 | UNDERSTOREY | 4-5 | 4 | CORRACE >> FRAPENN = ULMAMER |
| 4 | GRD. LAYER | 6-7 | 4 | POA COMP > PHLPRAT = DAUCARO |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | O | <10 | R-O | 10 – 24 | N | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| **COMM. AGE:** | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |
|---|---|---|---|---|---|

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | **g=** | **G=** |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | (cm) | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| **COMMUNITY CLASS:** | **CODE:** |
| **COMMUNITY SERIES:** | **CODE:** |
| **ECOSITE:** | **CODE:** |
| **VEGETATION TYPE:** GRAY DOGWOOD CULTURAL THICKET | **CODE:** CUT 1-4 |
| **INCLUSION** | **CODE:** |
| **COMPLEX** | **CODE:** CUM1-1 |

**Evidence of Disturbance / Notes:**
- SOIL MESIC / DRY
- NOT OWES WETLAND

---

- 2nd CONCESSION RD. (2 POLYGONS)
TILE 4: - 504 EAST TO 531 (TILE 2)

| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | |
|---|---|
| | **SITE:** |
| | **POLYGON:** |
| | **DATE:** |
| | **SURVEYOR(S):** |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R-O | | O | | |
| ULMAMER | R | | O | | |
| XAN AMER | | | R-O | | |
| CORRACE | | | D | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| DAUCARO | | | | O | |
| PHLPRAT | | | | O | |
| VICCRAC | | | | O | |
| CAREX OVALIS | | | | O | |
| POA COMP | | | | O | |
| RED CLOVER | | | | O | |
| SOL CANA | | | | O | |
| SOL JUNC | | | | O | |
| TRI AURE | | | | O | |
| HEAL-ALL | | | | O | |
| JUN TENU | | | | O | |
| ASTER SP. | | | | O | |
| CAR GRAC | | | | R | |
| MEL ALBA | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec

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Canada N1G 4P5
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Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 609 60595
Project Name: A.I.
Date: AUG 3-11
Field Personnel: JR

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22°c | 3 | 90% | 0 | RAIN EARLIER |

**ELC Polygon:** # 2-11 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

TILE 4: - 2ND CONCESSION RD.
- 504 EAST TO 531

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: A.I. | | POLYGON: 8-10 | |
| SURVEYOR(S): JR | DATE: AUG 19-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > ulmrubr |
| 2 | SUB-CANOPY | 3 | 4 | ulmrubr > Frapenn |
| 3 | UNDERSTOREY | 4 | 1 | Frapenn = ulmrubr = cor race |
| 4 | GRD. LAYER | 5-7 | 4 | Poaprat > astlanc = healall > Fravirg. |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | X | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: Ash lowland decidous Forest | CODE: FOD7-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

SOIL MESIC

- CARD DIRECTLY APPLIES TO WOODLOT #14
- WOODLOT #13 CONTAINED SIMILAR COMPOSITION BUT W/O CAREX & PHAARUN
  ↳ FORMER RESIDENTIAL LOT?

# ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | D | R | | |
| ULM RUBR | O | A | R | | |
| COR RACE | | | R | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| AST LANC | | | | O | |
| POA PRAT | | | | D | |
| HEAL-ALL | | | | O | |
| FRA VIRG | | | | O | |
| AST LATE | | | | O | |
| CAR. OVALES | | | | R-O | |
| PHA ARUN | | | | R | |

Page ___ of ___

Signature: _______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _______________ (Project Manager)

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Woodland & Wildlife Habitat Assessment Form

| | | | |
|---|---|---|---|
| Project Number: | 160960595 | Project Name: | Amherst island |
| Date: | August19, 2011 | Field Personnel: | J.Leslie |

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25 | 1-2 | 5% | 0 | 0 |

**ELC Polygon:** #8-10 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

[illegible]

Tile 4 - 2nd Concession Rd.
- 504 East to 531

# ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst Island | | POLYGON: 8-11 | |
| SURVEYOR(S): J. Leslie | DATE: Aug 19-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☒ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 3 | Frapenn > Quemacr |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4 | 2 | SPIALBA > CORRACE |
| 4 | GRD. LAYER | 5-7 | 4 | PHAARUN > CAREX |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | O | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: Mixed Cultural Woodland | CODE: CUW1-3* |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
Mowed path meanders through
- No surface H2O

---

# ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | D-A | | R | | |
| QUE MACR | R | | / | | |
| COR RACE | | | R-O | | |
| SPI ALBA | | | O | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ASC SYRI | | | | R-O | |
| BINDWEED | | | | O | |
| CAR VULP | | | | O | |
| DAU CARO | | | | R-O | |
| AGR GIGA | | | | O | |
| PHL PRAT | | | | R | |
| VIC CRAC | | | | O | |
| SCI CYPE | | | | R | |
| PHA ARUN | | | | O-A | |
| POA PRAT | | | | R-O | |
| LEE ORYZ | | | | R | |
| CAR SPP. | | | | O | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 19, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25 | 1-2 | 5% | 0 | 0 |

**ELC Polygon:** #8-11 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

[illegible]

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: 2 Conc + Emerald 40 | | POLYGON: CUT1-4 | |
|---|---|---|---|---|
| | SURVEYOR(S): Mussell | DATE: [illegible] | | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☐ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 2 | G. Ash, W. Elm, Red Cedar |
| 2 | SUB-CANOPY | 3 | 2 | G. Ash, G. Dogwood. |
| 3 | UNDERSTOREY | 4 | 4 | G. Dogwood |
| 4 | GRD. LAYER | 5 | 2 | Grass Spp, Aster, Solidago |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: Green Ash 80% - W Elm 20% | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: n/a | | <10 | | 10 – 24 | | 25 – 50 | | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| COMM. AGE: | | PIONEER | | YOUNG | ✓ | MID-AGE | | MATURE | | OLD GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|

## SOIL ANALYSIS: n/a

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | Cultural | CODE: | CU |
| COMMUNITY SERIES: | Cultural Thicket | CODE: | CUT |
| ECOSITE: | Mineral CUT | CODE: | CUT1 |
| VEGETATION TYPE: | n/a | CODE: | n/a |
| INCLUSION | n/a | CODE: | n/a |
| COMPLEX | n/a | CODE: | n/a |

Evidence of Disturbance / Notes:

Tile 4 – 2nd concession RD.
– Emerald 40' RD west to S17

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
|---|---|
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| G. Dogwood | | D | D | O | |
| G. Ash | D | O | | | |
| Solidago Sp | | | D | | |
| Aster | | | O | | |
| Juniper | | R | | | |
| W. Elm | R | | | | |
| Grass Sp | | | A | A | |
| Qn. Lace | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|

Page 1 of 1

Signature: ______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst
Date: 11/11/11
Field Personnel: Monsell.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 1 | NW 10km/hr | 60% | 0 | 0 |

**ELC Polygon:** # Cut1-4 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- no access.

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Amherst island
POLYGON: 2-9
SURVEYOR(S): JRL
DATE: AUG 4-11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☐ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☐ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☒ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☐ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☐ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☐ MARSH |
| | ☐ CARB. BEDRK. | ☒ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| **SITE** | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| ☐ OPEN WATER | | ☐ CLIFF | | ☒ DECIDUOUS | ☐ BOG |
| ☐ SHALLOW WATER | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| ☒ SURFICIAL DEP. | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ BEDROCK | | ☐ ALVAR | ☐ OPEN | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | ☒ SHRUB | | ☒ THICKET |
| | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 3 | 4 | XAN AMER >> JUN VIRG |
| 4 | GRD. LAYER | 4-7 | 4 | PHL PRAT = DAU CARO = AGROSTIS |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | O | <10 | R-O | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: SiC | DEPTH TO MOTTLES/GLEY | g= NONE | G= NONE |
| MOISTURE: | DEPTH OF ORGANICS: | 0 (cm) | |
| [✓ HOMOGENEOUS] / VARIABLE | DEPTH TO BEDROCK: | >50cm (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: PRICKLY ASH CULTURAL THICKET | CODE: CUT1-7* |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes: PIC 1 DRY SOIL

---

TILE 4 – 2nd CONCESSION RD.
– EMERALD 40' RD WEST TO S17

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| JUN VIRG | | | O | | |
| ULM RUBR | | | R-O | | |
| COR RACE | | | R | O | |
| XAN AMER | | | A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| DAU CARO | | | | O | |
| PHL PRAT | | | | O | |
| SOL JUNC | | | | O | |
| MED LUPUL | | | | O | |
| POA COMP | | | | O | |
| AGRO STOL | | | | O | |
| ERIGERON SP. | | | | R | |
| VIC CRAC | | | | O | |
| RED CLOVER | | | | O | |
| W. AVENS | | | | R-O | |
| PLA RUGEL | | | | R-O | |
| FRA VIRG | | | | O | |
| CAREX SP. | | | | O | |
| ANE CYLIN | | | | R | |

Page ___ of ___
Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐
Signature: (Project Manager)

Stantec
Stantec Consulting Ltd.
1 - 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 60960595
Project Name: Amherst Island
Date: August 4, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 1-2 | 0 | 0 | Rain |

**ELC Polygon:** # 2-9 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

- South Shore Rd.
- S33 Access West to S14 Access

TILE 3

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Marshall • South Shore
POLYGON: CUM1
SURVEYOR(S): Marshall
DATE: [illegible]
UTME:
START:
END:
UTMZ:
UTMN:

### POLYGON DESCRIPTION

**SYSTEM**
☒ TERRESTRIAL
☐ WETLAND
☐ AQUATIC

**SITE**
☐ OPEN WATER
☐ SHALLOW WATER
☒ SURFICIAL DEP.
☐ BEDROCK

**SUBSTRATE**
☐ ORGANIC
☐ MINERAL SOIL
☐ PARENT MIN.
☐ ACIDIC BEDRK.
☐ BASIC BEDRK.
☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
☐ LACUSTRINE
☐ RIVERINE
☐ BOTTOMLAND
☐ TERRACE
☐ VALLEY SLOPE
☐ TABLELAND
☐ ROLL. UPLAND
☐ CLIFF
☐ TALUS
☐ CREVICE / CAVE
☐ ALVAR
☐ ROCKLAND
☐ BEACH / BAR
☐ SAND DUNE
☐ BLUFF

**HISTORY**
☐ NATURAL
☒ CULTURAL

**COVER**
☒ OPEN
☐ SHRUB
☐ TREED

**PLANT FORM**
☐ PLANKTON
☐ SUBMERGED
☐ FLOATING-LVD.
☒ GRAMINOID
☒ FORB
☐ LICHEN
☐ BRYOPHYTE
☐ DECIDUOUS
☐ CONIFEROUS
☐ MIXED

**COMMUNITY**
☐ LAKE
☐ POND
☐ RIVER
☐ STREAM
☐ MARSH
☐ SWMAP
☐ FEN
☐ BOG
☐ BARREN
☒ MEADOW
☐ PRAIRIE
☐ THICKET
☐ SAVANNAH
☐ WOODLAND
☐ FOREST
☐ PLANTATION

### STAND DESCRIPTION: n/a

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | | | |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION: n/a
BA: n/a.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| STANDING SNAGS: n/a | | <10 | | 10 – 24 | | 25 – 50 | | >50 |
| DEADFALL/LOGS: | | <10 | | 10 – 24 | | 25 – 50 | | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | | MATURE | | OLD GROWTH |

### SOIL ANALYSIS: n/a

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

### COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | Cultural | CODE: | CU |
| COMMUNITY SERIES: | Cultural Meadow | CODE: | CUM |
| ECOSITE: | Mineral CUM | CODE: | CUM1 |
| VEGETATION TYPE: | n/a | CODE: | n/a. |
| INCLUSION | n/a | CODE: | n/a |
| COMPLEX | | CODE: | |

Evidence of Disturbance / Notes:

## ELC
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |
| Grass Sp | | | D | D | |
| Aster Sp | | | A | | |
| Solidago Sp | | | A | | |
| C. Milkweed | | | R | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| | | | | | |

Page 1 of ___
Signature: ___ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: ___ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)

**Stantec**

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst

Date: 11/11/11

Field Personnel: Mansell.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 1 | NW 10km/hr | 60% | 0 | 0 |

**ELC Polygon:** #CUM1 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- no access

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Amherst Island
POLYGON: 10-1
SURVEYOR(S): JTR
DATE: AUG 18-11
UTME:
START:
END:
UTMZ:
UTMN:

## POLYGON DESCRIPTION

**SYSTEM**
☐ TERRESTRIAL
☒ WETLAND
☐ AQUATIC

**SITE**
☐ OPEN WATER
☐ SHALLOW WATER
☒ SURFICIAL DEP.
☐ BEDROCK

**SUBSTRATE**
☐ ORGANIC
☒ MINERAL SOIL
☐ PARENT MIN.
☐ ACIDIC BEDRK.
☐ BASIC BEDRK.
☐ CARB. BEDRK.

**TOPOGRAPHIC FEATURE**
☐ LACUSTRINE
☐ RIVERINE
☒ BOTTOMLAND
☐ TERRACE
☐ VALLEY SLOPE
☐ TABLELAND
☐ ROLL. UPLAND
☐ CLIFF
☐ TALUS
☐ CREVICE / CAVE
☐ ALVAR
☐ ROCKLAND
☐ BEACH / BAR
☐ SAND DUNE
☐ BLUFF

**HISTORY**
☒ NATURAL
☐ CULTURAL

**COVER**
☐ OPEN
☐ SHRUB
☒ TREED

**PLANT FORM**
☐ PLANKTON
☐ SUBMERGED
☐ FLOATING-LVD.
☐ GRAMINOID
☐ FORB
☐ LICHEN
☐ BRYOPHYTE
☒ DECIDUOUS
☐ CONIFEROUS
☐ MIXED

**COMMUNITY**
☐ LAKE
☐ POND
☐ RIVER
☐ STREAM
☐ MARSH
☒ SWMAP
☐ FEN
☐ BOG
☐ BARREN
☐ MEADOW
☐ PRAIRIE
☐ THICKET
☐ SAVANNAH
☐ WOODLAND
☐ FOREST
☐ PLANTATION

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > Acefree >> Ulmamer |
| 2 | SUB-CANOPY | 3 | 4 | Frapenn = Acefree = Ulmamer |
| 3 | UNDERSTOREY | 4-5 | 2 | Acefree = Frapenn = Ulmamer |
| 4 | GRD. LAYER | 6-7 | 3 | Glystri = Impcape = Astlanc = J. Pulpit |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: ☐ PIONEER ☐ YOUNG ☐ MID-AGE ☒ MATURE ☐ OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GRN ASH MINERAL DECID. SWAMP | CODE: SWD2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
- SURFACE POOLING LIMITED TO DITCH ALONG RD
- SPARSE HERB LAYER (~30-40%)

---

TILE 2 – 2nd CONCESSION RD. – SOUTH SIDE WEST POLYGON
– S31 ACCESS EAST TO S06 ACCESS

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACE FREE | O | O | R | | |
| FRA PENN | A | O | R | | |
| ULM AMER | R | O | R | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| GLY STRI | | | | O | |
| IMP CAPE | | | | O | |
| J. PULPIT | | | | O | |
| AST LANC | | | | R | |
| SNAKEROOT | | | | R | |
| CAREX [illegible] | | | | R | ✓ |

Page ___ of ___
Signature: (Field Personnel)

— SOIL MESIC/MOIST

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\

Stantec

Stantec Consulting Ltd.
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: August 18, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 40% | 0 | 0 |

**ELC Polygon:** # 10-1 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

[illegible]

| | | | | | |
|---|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: A7 | | POLYGON: 10-2 | | |
| | SURVEYOR(S): JTL | DATE: AUG 18-11 | | UTME: | |
| | START: | END: | UTMZ: | UTMN: | |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn >> Ulmamer = Tilamer = Acefre |
| 2 | SUB-CANOPY | 3 | 3 | Frapenn = Ulmamer > Tilamer |
| 3 | UNDERSTOREY | 4 | 3 | Frapenn = Ulmamer = Spialba |
| 4 | GRD. LAYER | 5-7 | 4 | Astlance > Rhuradi = Glystri = Cinang |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 | |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | R | >50 | |
| DEADFALL/LOGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 | |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | X | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | | |
|---|---|---|---|
| COMMUNITY CLASS: | | CODE: | |
| COMMUNITY SERIES: | | CODE: | |
| ECOSITE: | | CODE: | |
| VEGETATION TYPE: ash lowland deciduous swamp. | | CODE: FOD 7-2 | |
| INCLUSION | | CODE: | |
| COMPLEX | | CODE: | |

Evidence of Disturbance / Notes:

- SOIL MESIC
- SURFACE POOLING LIMITED TO ROADSIDE DITCH

---

— 2nd CONCESSION RD.
TILE 2 — 531 ACCESS EAST TO 506 ACCESS

| | | | |
|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | | |
| | POLYGON: | | |
| | DATE: | | |
| | SURVEYOR(S): | | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | A | O | O | | |
| ULMAMER | R | O | O | | |
| TIL AMER | R | R | R | | |
| ACE FREE | R | / | R | | |
| PRU VIRG | | | R | | |
| RUB IDAE | | | R | | |
| SPI ALBA | | | O | | |
| RHU RADI | | | | O | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| AST LANC | | | | O-A | |
| GLY STRI | | | | O | |
| CIN ANGU | | | | O | |
| HOR ALL | | | | O | |
| IMP CAPE | | | | O | |
| CAR SPIC | | | | R | |
| PHA ARUN | | | | O | |
| VIOLA SP | | | | R | |
| CIR LUTE | | | | R | |
| CAREX - BLADDER | | | | O | ✓ |
| CAREX OVALIS | | | | R | |

Page ___ of ___

Signature: ______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________ (Project Manager)

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: August 18, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 40% | 0 | 0 |

**ELC Polygon:** # 16-2 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]
Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:** Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| ~~363516, 4890781~~ | ~~A~~ | ~~OAK~~ | ~~>50~~ | ~~#1 FROM AVE 2~~ | 1 | 0 | ~~ALTHOUGH THERE APPEARS TO BE A BEE'S NEST WITHIN, NEAR TOP.~~ |

---

**Stick Nests:** Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

Feature confirmed to have no cavities present by JTL

[illegible]

REV: 2011-07-18

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst I. | | POLYGON: 10-3 | |
| SURVEYOR(S): STR | DATE: AUG 18-11 | UTME: | |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☒ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Frapenn > Acefree > popdelt |
| 2 | SUB-CANOPY | 3 | 3 | Ulmamer = frapenn = Acefree > franigr |
| 3 | UNDERSTOREY | 4-5 | 2 | Ulmamer > frapenn > Acefree |
| 4 | GRD. LAYER | 6-7 | 2 | Acefree > Glystri = Cyn Angu |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | R | 25 – 50 | R | >50 | |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 | |
| DEADFALL/LOGS: | O | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 | |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | X MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GRN ASH min. dec swamp | CODE: SW02-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

- SPARSE HERB COVER (~15%)
- NO SURFACE H2O, ALTHOUGH APPEARS TO REACH DEPTHS OF 35cm (SPRING)

---

TILE 2 – 2ND CONCESSION RD – SOUTH SIDE, EAST POLYGON
– S31 ACCESS EAST TO S06 ACCESS

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ULMAMER | / | O | O | / | |
| FRAPENN | A | O | R | / | |
| ACEFREE | O | O | R | O | |
| POPDELT | R | / | / | / | |
| FRANIGR | / | R | / | / | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| GLYSTRI | | | | R-O | |
| PHAARUN | | | | R | |
| CYNANGU | | | | R-O | |

Page ___ of ___
Signature: ______________ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: ______________ (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL. 1998)

Stantec
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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: August 18, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26° | 2-3 | 40% | ∅ | ∅ |

**ELC Polygon: #** ______ **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| **UTM** | **Feature Description** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **DBH** | **Photo No.** | **Decay Class (1-5)** | **No. of Cavities** | **Height and Type of Cavities** |
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| **UTM** | **Tree ID** | **Tree Spp.** | **Nest Size** | **Photo No.** | **Spp. Observed Using Feature** |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| **UTM** | **Feature No. & Type** | **Feature Size** (Diameter) | **Water Depth** | **Photo No.** | **Sub/Emergent Veg. Spp. Present?** | **Shrubs/ Logs at Edge Present?** |
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- POTENTIAL AMPHIB BREEDING HABITAT

[illegible]

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

| | | | |
|---|---|---|---|
| SITE: AI | | POLYGON: 9-3 | |
| SURVEYOR(S): JTL | DATE: AUG 2-11 | UTME: | |
| START: | END: | UTMZ: | UTMN: |

### POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☒ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | FRAPENN >> ACE RUBR |
| 2 | SUB-CANOPY | 3 | 4 | FRAPENN |
| 3 | UNDERSTOREY | 4 | 2 | FRAPENN |
| 4 | GRD. LAYER | 5-7 | 4 | POA PRAT > GLY STRI > PHAARUN |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | A | <10 | O | 10 – 24 | N | 25 – 50 | N | >50 | |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 | |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 | |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | X | YOUNG | X | MID-AGE | | MATURE | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: green ash mineral dec. swamp | | CODE: SWD2-2 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- No H2O

---

TILE 2 - 2nd CONCESSION RD. - NORTH SIDE
- 531 ACCESS EAST TO 500 ACCESS

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:

POLYGON:

DATE:

SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | D | D | A | | |
| ULM RUBR | R | R | / | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| GLY STRI | | | | A | |
| POA PRAT | | | | A | |
| CAL VULP | | | | O | |
| ?. CULT | | | | R | |
| IMP CAPE | | | | O | |
| AST LANC | | | | O | |
| [illegible] | | | | O | |
| FRA VIRG | | | | R | |
| CAR [illegible] | | | | R | |
| PHAARUN | | | | O | |

Page ___ of ___

Signature:

(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Project Manager)

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: August 2, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 10% | 0 | 0 |

ELC Polygon: #9-2 **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 9-(2) | |
| SURVEYOR(S): J. Leslie | DATE: AUG 7-11 | UTME: | |
| START: | END: | UTMZ: | UTMN: |

TILE 2 -2nd CONCESSION RD (3 POLYGONS)
- 531 ACCESS EAST TO 506 ACCESS

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL | ☐ ORGANIC | ☐ LACUSTRINE | ☒ NATURAL | ☐ PLANKTON | ☐ LAKE |
| ☒ WETLAND | ☒ MINERAL SOIL | ☐ RIVERINE | ☐ CULTURAL | ☐ SUBMERGED | ☐ POND |
| ☐ AQUATIC | ☐ PARENT MIN. | ☒ BOTTOMLAND | | ☐ FLOATING-LVD. | ☐ RIVER |
| | ☐ ACIDIC BEDRK. | ☐ TERRACE | | ☒ GRAMINOID | ☐ STREAM |
| | ☐ BASIC BEDRK. | ☐ VALLEY SLOPE | | ☐ FORB | ☒ MARSH |
| | ☐ CARB. BEDRK. | ☐ TABLELAND | | ☐ LICHEN | ☐ SWMAP |
| **SITE** | | ☐ ROLL. UPLAND | | ☐ BRYOPHYTE | ☐ FEN |
| ☐ OPEN WATER | | ☐ CLIFF | | ☐ DECIDUOUS | ☐ BOG |
| ☐ SHALLOW WATER | | ☐ TALUS | | ☐ CONIFEROUS | ☐ BARREN |
| ☒ SURFICIAL DEP. | | ☐ CREVICE / CAVE | **COVER** | ☐ MIXED | ☐ MEADOW |
| ☐ BEDROCK | | ☐ ALVAR | ☒ OPEN | | ☐ PRAIRIE |
| | | ☐ ROCKLAND | ☐ SHRUB | | ☐ THICKET |
| | | ☐ BEACH / BAR | ☐ TREED | | ☐ SAVANNAH |
| | | ☐ SAND DUNE | | | ☐ WOODLAND |
| | | ☐ BLUFF | | | ☐ FOREST |
| | | | | | ☐ PLANTATION |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | | | |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 5-7 | 4 | Phaarun >> typang = scicupe |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: Reed Canary Mineral Meadow Marsh | CODE: MAM2-2 |
| INCLUSION | CODE: |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:

-SEE OVER

| ELC<br>COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| SITE: | |
| POLYGON: | |
| DATE: | |
| SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. | SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PHA ARUN | | | | D | |
| | | | | | | TYP ANGU | | | | R | |
| | | | | | | SCI CUPE | | | | R | |

Page ___ of ___
Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL. 1998)

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 2, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26 | 2-3 | 10% | 0 | 0 |

ELC Polygon: #9-2 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

WETLAND 3a – NO PROPERTY ACCESS – MAINLY PHAARUN

WETLAND 3b – INTACT MAM2-2, +/- UNDISTURBED – PHAARUN DOM.

MAM2-2/PAS – NOT OVIES DUE TO HEAVY CATTLE TRAMPLING/GRAZING
– APPEARS TO HAVE LIKELY BEEN MAINLY PHAARUN w/ SCIRPUS
– INCLUDES POCKET OF YOUNG FRAPENN

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | | POLYGON: 15-12 | |
|---|---|---|---|---|
| | SURVEYOR(S): S. leslie | DATE: JULY 28-11 | | UTME: |
| | START: 11.14 | END: 11:33 AM | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 4 | Acesasa > tilamer = frapenn |
| 2 | SUB-CANOPY | 3 | 4 | Acesasa > Tilamer = Frpenn = Ulmamer |
| 3 | UNDERSTOREY | 4 | 3 | Acesasa > Tilamer = Frpenn = vitripa |
| 4 | GRD. LAYER | 5-7 | 4 | Pruvirg = Aster sp > Allpetia = impcape |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | BA: | |
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | O | 25 – 50 | N | >50 |
| STANDING SNAGS: | O | <10 | R | 10 – 24 | R | 25 – 50 | R | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | [✓ MATURE] | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: D-F sugar maple deciduous | | CODE: FOD5 |
| INCLUSION | FOREST | CODE: |
| COMPLEX | | CODE: |

**Evidence of Disturbance / Notes:**
- DRAINAGE VALLEY EXTENDS THROUGH
- NO ACCESS

---

TILE 2+3 – FRONT RD.
– 515 ACCESS, EAST TO MARSHAL 40' RD

| **ELC** COMMUNITY DESCRIPTION & CLASSIFICATION | |
|---|---|
| | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ACESASA | A | A | O | | |
| TIL AMER | O | O | O | | |
| FRAPENN | O | O | O | | |
| ULMAMER | / | O | O | | |
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| | | | | | |
| VIT RIPA | | | O | | |
| PRU VIRG | | | | O | |
| LON TATA | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| ALL PETIO | | | | R | |
| ASTER SPP | | | | O | |
| IMP CAPE | | | | R | |

Page ___ of ___

Signature: ________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ________________
(Project Manager)

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# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: July 28, 2011

Field Personnel: J. Leslie

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 26° | 2 | 70% | 0 | 0 |

ELC Polygon: # 15-12 Assessment Type: ☒-Visual; roadside, no access / ☐-Physical; walk through feature

Extent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)* - NO ACCESS

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

STICK NEST(S) IDENTIFIED

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)

>50CM DBH DEAD TREE STAGE 2 DECOMP., ALTHOUGH NO CAVITIES AS HIGH AS 10M. SOME LOWER ONES ~10CM DBH (PIC #1)
18, 366705, 4893344

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | | |
|---|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst Island | | POLYGON: 15-11 | |
| | SURVEYOR(S): JTL | DATE: JULY 28-11 | | UTME: |
| | START: 11:05 | END: 11:14 AM | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☐ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☐ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 3 | LOCUST >> FRAPENN |
| 2 | SUB-CANOPY | / | | |
| 3 | UNDERSTOREY | 3-4 | 3 | LILAC > LONTATA > RUB IDAE |
| 4 | GRD. LAYER | 5-7 | 4 | FORB > GRAMINOID |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | |
|---|---|
| STAND COMPOSITION: | BA: |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | O | <10 | A | 10 – 24 | R-A | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | | MID-AGE | X | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | (cm) | |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | (cm) | |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: BLACK LOCUST CULTURAL WOODLAND | | CODE: CUW1-7* |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

**Evidence of Disturbance / Notes:**
- NO ACCESS
- PASTURE SOUTH SIDE, MAINLY RES ON NORTH SIDE (MOWED GROUND COVER); OTHERWISE DENSE W/ LILAC

---

TILE 2,3 - S15 ACCESS EAST TO MARSHAL 40' RD
- FRONT RD.

| | |
|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: |
| | POLYGON: |
| | DATE: |
| | SURVEYOR(S): |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| BLK LOCUST | D | | R | | |
| FRA PENN | O | | O | | |
| RUB IDAE | | | O | | |
| VIT RIPA | | | O | | |
| LONTATA | | | O-A | | |
| CRATAEGUS | | | R | | |
| LILAC | | | O-A | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| BRO INER | | | | O | |
| CHI INTYB | | | | O | |
| ARC MINU | | | | O | |
| ASC SYRI | | | | O | |
| CIR ARVE | | | | O | |
| MOTHERWORT | | | | O | |
| MEL ALBA | | | | O | |

Page ___ of ___
Signature:
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595
Project Name: Amherst Island
Date: July 28, 2011
Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26°C | 2 | 70% | 0 | 0 |

**ELC Polygon:** #15-11 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*; ROADSIDE

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

| POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED | | | |
|---|---|---|---|
| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

| POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| STICK NEST(S) IDENTIFIED | | | | | |
|---|---|---|---|---|---|
| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

| SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED | | | | | | |
|---|---|---|---|---|---|---|
| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

CARDINAL - OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

| | | | |
|---|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: Amherst island | POLYGON: 11-1 | |
| | SURVEYOR(S): JTL | DATE: AUG 19-11 | UTME: |
| | START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☐ TERRESTRIAL<br>☒ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☒ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☐ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☒ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☒ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE**<br>☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | **COVER**<br>☒ OPEN<br>☐ SHRUB<br>☐ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 2 | fraxpenn |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | Phaarun >> Juntenu > Agrgiga = lycunif |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: [ HEDGEROW ] | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | R | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | / | <10 | / | 10 – 24 | / | 25 – 50 | / | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | | |
|---|---|---|
| COMMUNITY CLASS: | | CODE: |
| COMMUNITY SERIES: | | CODE: |
| ECOSITE: | | CODE: |
| VEGETATION TYPE: Reedcanarygrass meadowmarsh | | CODE: MAM2-2 |
| INCLUSION | | CODE: |
| COMPLEX | | CODE: |

Evidence of Disturbance / Notes:

- ASH EXISTS AS HR. (MATURE) ONLY; MARSH w/o WOODY SPECIES
- ~10-15% TREE COVER

---

- STELLA 40' RD

TILE 5 - 3rd CONCESSION RD SOUTH TO 537 ACCESS

| | | |
|---|---|---|
| **ELC**<br>COMMUNITY DESCRIPTION & CLASSIFICATION | SITE: | |
| | POLYGON: | |
| | DATE: | |
| | SURVEYOR(S): | |

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | R | | | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| PHAARUN | | | | D | |
| AGR GIGA | | | | R-O | |
| LYC UNIF | | | | R-O | |
| VIC CRAC | | | | R-O | |
| JUNTENU | | | | O | |
| P. LOOSEST. | | | | R | |
| SCI CYPE | | | | R | |

Page ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 19, 2011

Field Personnel: S. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | 0 | 0 | 0 |

**ELC Polygon:** #11-1 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

---

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities >10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

---

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

---

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

- NOLF

[illegible]

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: A I
POLYGON: 14-(1)
SURVEYOR(S): JR
DATE: AUG 18 - 11
UTME:
START:
END:
UTMZ:
UTMN:

### POLYGON DESCRIPTION

SYSTEM
- ☒ TERRESTRIAL
- ☒ WETLAND
- ☐ AQUATIC

SITE
- ☐ OPEN WATER
- ☐ SHALLOW WATER
- ☒ SURFICIAL DEP.
- ☐ BEDROCK

SUBSTRATE
- ☐ ORGANIC
- ☒ MINERAL SOIL
- ☐ PARENT MIN.
- ☐ ACIDIC BEDRK.
- ☐ BASIC BEDRK.
- ☐ CARB. BEDRK.

TOPOGRAPHIC FEATURE
- ☐ LACUSTRINE
- ☐ RIVERINE
- ☒ BOTTOMLAND
- ☐ TERRACE
- ☐ VALLEY SLOPE
- ☐ TABLELAND
- ☐ ROLL. UPLAND
- ☐ CLIFF
- ☐ TALUS
- ☐ CREVICE / CAVE
- ☐ ALVAR
- ☐ ROCKLAND
- ☐ BEACH / BAR
- ☐ SAND DUNE
- ☐ BLUFF

HISTORY
- ☒ NATURAL
- ☒ CULTURAL

COVER
- ☒ OPEN
- ☐ SHRUB
- ☐ TREED

PLANT FORM
- ☐ PLANKTON
- ☐ SUBMERGED
- ☐ FLOATING-LVD.
- ☒ GRAMINOID
- ☒ FORB
- ☐ LICHEN
- ☐ BRYOPHYTE
- ☐ DECIDUOUS
- ☐ CONIFEROUS
- ☐ MIXED

COMMUNITY
- ☐ LAKE
- ☐ POND
- ☐ RIVER
- ☐ STREAM
- ☒ MARSH
- ☐ SWMAP
- ☐ FEN
- ☐ BOG
- ☐ BARREN
- ☒ MEADOW
- ☐ PRAIRIE
- ☐ THICKET
- ☐ SAVANNAH
- ☐ WOODLAND
- ☐ FOREST
- ☐ PLANTATION

### STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 3 | 1 | Frapenn |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | | | |
| 4 | GRD. LAYER | 4-7 | 4 | Phaarun > Solcana > Carvulp > Agrstol |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:
BA:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE CLASS ANALYSIS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| STANDING SNAGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | N | <10 | N | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | |
|---|---|---|---|---|---|
| COMM. AGE: | PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH |

### SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

### COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: REED CANARY MINERAL MEADOW MARSH | CODE: MAM2-2 |
| INCLUSION | CODE: CUM1-1 |
| COMPLEX | CODE: |

Evidence of Disturbance / Notes:
- 2 POCKETS OF TYPHA [illegible] ON EITHER SIDE OF STELLA RD.
- ALSO CONTAINS EXTENSIVE AREA OF CUM1 (NORTH CENTRAL)

---

TILE 5 - STELLA 40' RD.
- 3RD CONCESSION RD SOUTH TO 537
ACCESS

## ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| FRAPENN | R | | | | |

| SPECIES CODE | LAYER 1 | 2 | 3 | 4 | COLL. |
|---|---|---|---|---|---|
| SOLCANA | | | | O | |
| TYPANGU | | | | R | |
| PHAARUN | | | | O-A | |
| ELECAMPANE | | | | R | |
| CARVULP | | | | O | |
| DAUCARO | | | | R-O | |
| AGLSTOL | | | | O | |

Page ___ of ___
Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

Stantec Consulting Ltd.
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst Island

Date: Agust 8, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | haze | 0 | 0 |

**ELC Polygon:** #L1-1 **Assessment Type:** ☒-Visual; roadside, no access / ☐-Physical; walk through feature — FEW VISUAL RESTRICTIONS

**Extent of Physical Investigation of Feature:** ☐-Entire / ☐-Partial, walk through polygon *(indicate on map)*

---

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☒-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

WETTEST ADJACENT TO ROAD AND AT LOWEST TOPOGRAPHICAL POSITION (WHOLE FEATURE IS LOW AREA BETWEEN SLOPES [illegible]

CA=carcass, DP=distinctive parts or feeding evidence; ES=eggshell, HO=[illegible], OB=observed, SC=scat, [illegible] TR=track, VO=vocalization

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

| | | | |
|---|---|---|---|
| SITE: Amherst island | | POLYGON: 14-2 | |
| SURVEYOR(S): J. leslie | DATE: AUG 18-11 | | UTME: |
| START: | END: | UTMZ: | UTMN: |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☒ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☐ NATURAL<br>☒ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☒ DECIDUOUS<br>☐ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☒ WOODLAND<br>☐ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2 | 3 | Frapenn |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 3-4 | | Frapenn = cornrace = rubidae |
| 4 | GRD. LAYER | 5-7 | | PHAARUN > SOLCANA = ELYVIRG |

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STAND COMPOSITION: | | | | | | | | BA: |
| SIZE CLASS ANALYSIS: | O | <10 | OA | 10 – 24 | R | 25 – 50 | N | >50 |
| STANDING SNAGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| DEADFALL/LOGS: | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMM. AGE: | | PIONEER | | YOUNG | X | MID-AGE | | MATURE | | OLD GROWTH |

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| TEXTURE: | DEPTH TO MOTTLES/GLEY | g= | G= |
| MOISTURE: | DEPTH OF ORGANICS: | | (cm) |
| HOMOGENEOUS / VARIABLE | DEPTH TO BEDROCK: | | (cm) |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| COMMUNITY CLASS: | CODE: |
| COMMUNITY SERIES: | CODE: |
| ECOSITE: | CODE: |
| VEGETATION TYPE: GREEN ASH CULTURAL WOODLAND | CODE: CUW 1-5* |
| INCLUSION | CODE: |
| COMPLEX | CODE: MAM2-2 — DRAIN |

Evidence of Disturbance / Notes:
– WETLAND SPP CONFINED TO NARROW CHANNEL, WHICH CONTAINS $H_2O$ (~10cm) (~1-2m WIDE)

---

– STELLA 40' RD.
TILE 5 – 3RD CONCESSION RD SOUTH TO 537 ACCESS

**ELC**
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE:
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| FRA PENN | O | | O | | |
| MALUS SP | / | | R | | |
| LON TATA | | | R | | |
| COR RACE | | | O | | |
| RUBIDAE | | | O | | |
| CRATAEGUS | / | | R-O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| SOL CANA | | | | O-A | |
| OXA STRIC | | | | R | |
| GEU CANA | | | | O | |
| TAROFFI | | | | O | |
| ELY VIRG | | | | O-A | |
| AST LANC | | | | O | |
| CIR LUTE | | | | O | |
| AGR GRYP | | | | R | |
| FRA VIRG | | | | O-A | |
| HEAL-ALL | | | | O | |
| VIOLA SP. | | | | O | |
| BRO INUR | | | | R-O | |
| POA PRAT | | | | O | |
| DAU CARO | | | | R | |
| PHA ARUN | | | | O-A | |
| ALI PLAN-AQUA | | | | R-O | IN CH |
| CAREX SP. | | | | R | |
| VER ANA-AQU | | | | R-O | |
| POT RECT | | | | R | |

Page ___ of ___
Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number: 160960595

Project Name: Amherst island

Date: August 15, 2011

Field Personnel: J. Leslie

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 1-2 | Haze | 0 | 0 |

ELC Polygon: # 142 Assessment Type: ☐-Visual; roadside, no access / ☒-Physical; walk through feature

Extent of Physical Investigation of Feature: ☒-Entire / ☐-Partial, walk through polygon *(indicate on map)*

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

**Bat Roosting Features:**

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**Stick Nests:**

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

**SPECIES & HABITAT OBSERVATIONS** (list species and type of observation & indicate on map)

[illegible]

| | | | | |
|---|---|---|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** A.I. | | **POLYGON:** BARR'S | |
| | **SURVEYOR(S):** JR | **DATE:** JULY 27-11 | | **UTME:** |
| | **START:** | **END:** | **UTMZ:** | **UTMN:** |

## POLYGON DESCRIPTION

| SYSTEM | SUBSTRATE | TOPOGRAPHIC FEATURE | HISTORY | PLANT FORM | COMMUNITY |
|---|---|---|---|---|---|
| ☒ TERRESTRIAL<br>☐ WETLAND<br>☐ AQUATIC | ☐ ORGANIC<br>☒ MINERAL SOIL<br>☐ PARENT MIN.<br>☐ ACIDIC BEDRK.<br>☐ BASIC BEDRK.<br>☐ CARB. BEDRK. | ☐ LACUSTRINE<br>☐ RIVERINE<br>☐ BOTTOMLAND<br>☐ TERRACE<br>☐ VALLEY SLOPE<br>☒ TABLELAND<br>☐ ROLL. UPLAND<br>☐ CLIFF<br>☐ TALUS<br>☐ CREVICE / CAVE<br>☐ ALVAR<br>☐ ROCKLAND<br>☐ BEACH / BAR<br>☐ SAND DUNE<br>☐ BLUFF | ☒ NATURAL<br>☐ CULTURAL | ☐ PLANKTON<br>☐ SUBMERGED<br>☐ FLOATING-LVD.<br>☐ GRAMINOID<br>☐ FORB<br>☐ LICHEN<br>☐ BRYOPHYTE<br>☐ DECIDUOUS<br>☒ CONIFEROUS<br>☐ MIXED | ☐ LAKE<br>☐ POND<br>☐ RIVER<br>☐ STREAM<br>☐ MARSH<br>☐ SWMAP<br>☐ FEN<br>☐ BOG<br>☐ BARREN<br>☐ MEADOW<br>☐ PRAIRIE<br>☐ THICKET<br>☐ SAVANNAH<br>☐ WOODLAND<br>☒ FOREST<br>☐ PLANTATION |
| **SITE** | | | **COVER** | | |
| ☐ OPEN WATER<br>☐ SHALLOW WATER<br>☒ SURFICIAL DEP.<br>☐ BEDROCK | | | ☐ OPEN<br>☐ SHRUB<br>☒ TREED | | |

## STAND DESCRIPTION:

| | LAYER | HT | CVR | SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO) |
|---|---|---|---|---|
| 1 | CANOPY | 2-3 | 4 | JACK PINE >> PIC GLAU |
| 2 | SUB-CANOPY | | | |
| 3 | UNDERSTOREY | 4-5 | 3 | COR RACE = LON CANA > RUB IDAE - [illegible] |
| 4 | GRD. LAYER | 6-7 | 3 | POA PRAT > FRA VIRG = VIC CRAC = D.S. VINE |

**HT CODES:** 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

**CVR CODES:** 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STAND COMPOSITION:** | | | | | | | **BA:** | |
| **SIZE CLASS ANALYSIS:** | R | <10 | A | 10 – 24 | R | 25 – 50 | N | >50 |
| **STANDING SNAGS:** | R | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |
| **DEADFALL/LOGS:** | O | <10 | R | 10 – 24 | N | 25 – 50 | N | >50 |

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

**COMM. AGE:** PIONEER | YOUNG | MID-AGE | [✓ MATURE] | OLD GROWTH

## SOIL ANALYSIS:

| | | | |
|---|---|---|---|
| **TEXTURE:** | **DEPTH TO MOTTLES/GLEY** | g= | G= |
| **MOISTURE:** | **DEPTH OF ORGANICS:** | (cm) | |
| **HOMOGENEOUS / VARIABLE** | **DEPTH TO BEDROCK:** | (cm) | |

## COMMUNITY CLASSIFICATION:

| | |
|---|---|
| **COMMUNITY CLASS:** | **CODE:** |
| **COMMUNITY SERIES:** | **CODE:** |
| **ECOSITE:** | **CODE:** |
| **VEGETATION TYPE:** DRY JACK PINE CONIFEROUS FOREST | **CODE:** FOC1-1 |
| **INCLUSION** | **CODE:** |
| **COMPLEX** | **CODE:** |

**Evidence of Disturbance / Notes:** -CANOPY HEIGHT BETWEEN 8-12 M TALL

---

| | |
|---|---|
| **ELC**<br>**COMMUNITY DESCRIPTION & CLASSIFICATION** | **SITE:** |
| | **POLYGON:** |
| | **DATE:** |
| | **SURVEYOR(S):** |

**LAYERS:** 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| JACK PINE | D | | | | |
| PIC GLAU | R | | | | |
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| | | | | | |
| RUB IDAE | | | R | | |
| COR RACE | | | O | | |
| LON CANA | | | O | | |

| SPECIES CODE | LAYER 1 | LAYER 2 | LAYER 3 | LAYER 4 | COLL. |
|---|---|---|---|---|---|
| VIC CRAC | | | | O | |
| POA PRAT | | | | O-A | |
| FRA VIRG | | | | O | |
| TAR OFFI | | | | O | |
| BUT 'N' EGGS | | | | R | |
| D.S. VINE | | | | O | |
| | | | | | |
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Page ___ of ___

Signature: ____________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________________
(Project Manager)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Woodland & Wildlife Habitat Assessment Form

Project Number:
Project Name:
Date: JULY 27-11
Field Personnel: JTL

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 25°C | 2 | 20% | 0 | 0 |

**ELC Polygon:** # BARR's **Assessment Type:** ☐-Visual; roadside, no access / ☒-Physical; walk through feature

**Extent of Physical Investigation of Feature:** ☐-Entire / ☒-Partial, walk through polygon *(indicate on map)*

## Reptile / Bat Hibernacula Features:

Contains potential reptile hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

| UTM | Feature Description | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|
| | | | |

## Bat Roosting Features:

Contains potential bat roosting features?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | DBH | Photo No. | Decay Class (1-5) | No. of Cavities | Height and Type of Cavities |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Stick Nests:

Contains large stick nests?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**STICK NEST(S) IDENTIFIED**

| UTM | Tree ID | Tree Spp. | Nest Size | Photo No. | Spp. Observed Using Feature |
|---|---|---|---|---|---|
| | | | | | |

## Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☒-N / ☐-Unknown, no access *(*if yes, describe in table below)*

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

| UTM | Feature No. & Type | Feature Size (Diameter) | Water Depth | Photo No. | Sub/Emergent Veg. Spp. Present? | Shrubs/ Logs at Edge Present? |
|---|---|---|---|---|---|---|
| | | | | | | |

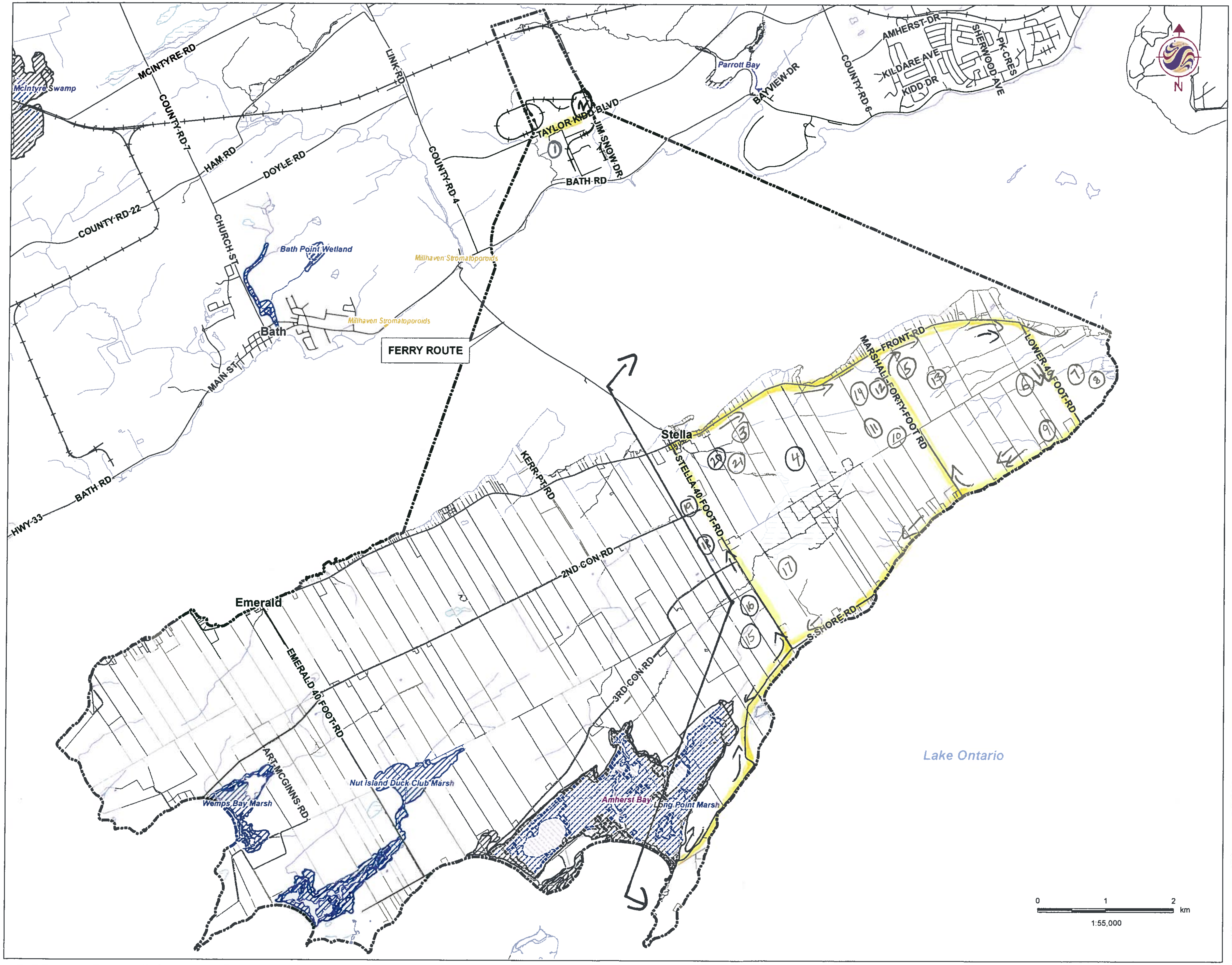
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

GIANT SWALLOWTAIL - OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

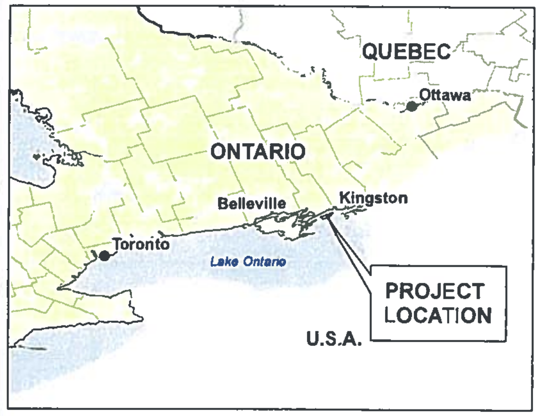
EAST -

MAINLAN



**Legend**

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ☐ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

Stantec

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 1160960595
Project Name: Amherst Island
Date / Time: Nov. 9/11 / 1:08 pm - 3:49 pm
Field Personnel: J. Mansell, Z. Lebrun-Southcott

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15°C<br>2:15 → 10°C | Wind: 2, SW<br>3 | Cloud: 15%<br>50%<br>3:15 → 70% | PPT: none | PPT in last 24 hrs: light rain |

- surveyed Taylor-Kidd in morning b/f taking ferry to island

| Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|
| | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 215 NOHA/8:06 (#1) | 1 | 5m | - hunting |
| 216 RTHA/8:11 (#2) | 1 | 20m | - on wire |
| 217 AMKE/1:18 (#3) | 1 | 30m | - hovering |
| 218 RLHA/1:19 (#4) | 1 | 70m | - hovering |
| 71 NOHA/1:28 (#5) | 1 | 10m | - hunting posture |
| 219 RLHA/1:39 (#6) | 1 | 30m, flying S | |
| 220 RTHA/1:43 (#7) | 1 | 10m | - perched in tree |
| 221 RLHA/1:46 (#8) | 1 | 10m | - perched in tree |
| 154 AMKE/1:52 (#9) | 1 | 15m | - on wire |
| 222 RTHA/2:05 (#10) | 1 | 20m | - perched in tree |
| 223 RTHA/2:08 (#11) | 1 | 20m | - perched in tree |
| 133 RLHA/2:14 (#12) | 1 | 15m | - perched in tree |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____ (Field Personnel)

Signature: ____ (Project Manager)

Page 1 of 2

REV: Aug 10 Form 018

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Nov. 9/11 / 1:08 pm -3:44 pm

Field Personnel: J. Mansell, Z. Lebrun-Southcott

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15°C | Wind: 2 | Cloud: 15% | PPT: none | PPT in last 24 hrs: light rain |
| | 2:15 → 10°c | 2:15 → 3 | 2:15 → 50%<br>3:15 → 70% | | |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 224 | RTHA / 2:15 (#13) | 1 | 20m | -perched in tree |
| 225 | RLHA / 2:22 (#14) | 1 | 20m, flying W | |
| 50 | NOHA / 3:21 (#15) | 1 | 5m | -on post |
| 226 | AMKE / 3:25 (#16) | 1 | 5m | -perched on wire |
| 227 | RTHA / 3:27 (#17) | 1 | 15m | -perched in tree |
| 122 | RLHA / 3:31 (#18) | 1 | 5m | -on post |
| 228 | RTHA / 3:37 (#19) | 1 | 15m | -on post |
| 174 | AMKE / 3:40 (#20) | 1 | 5m | -on post |
| 121 | Buteo / 3:52 (#21) | 1 | 5m | -on post |

Quality Control: This form is complete (✓) & legible (✓).

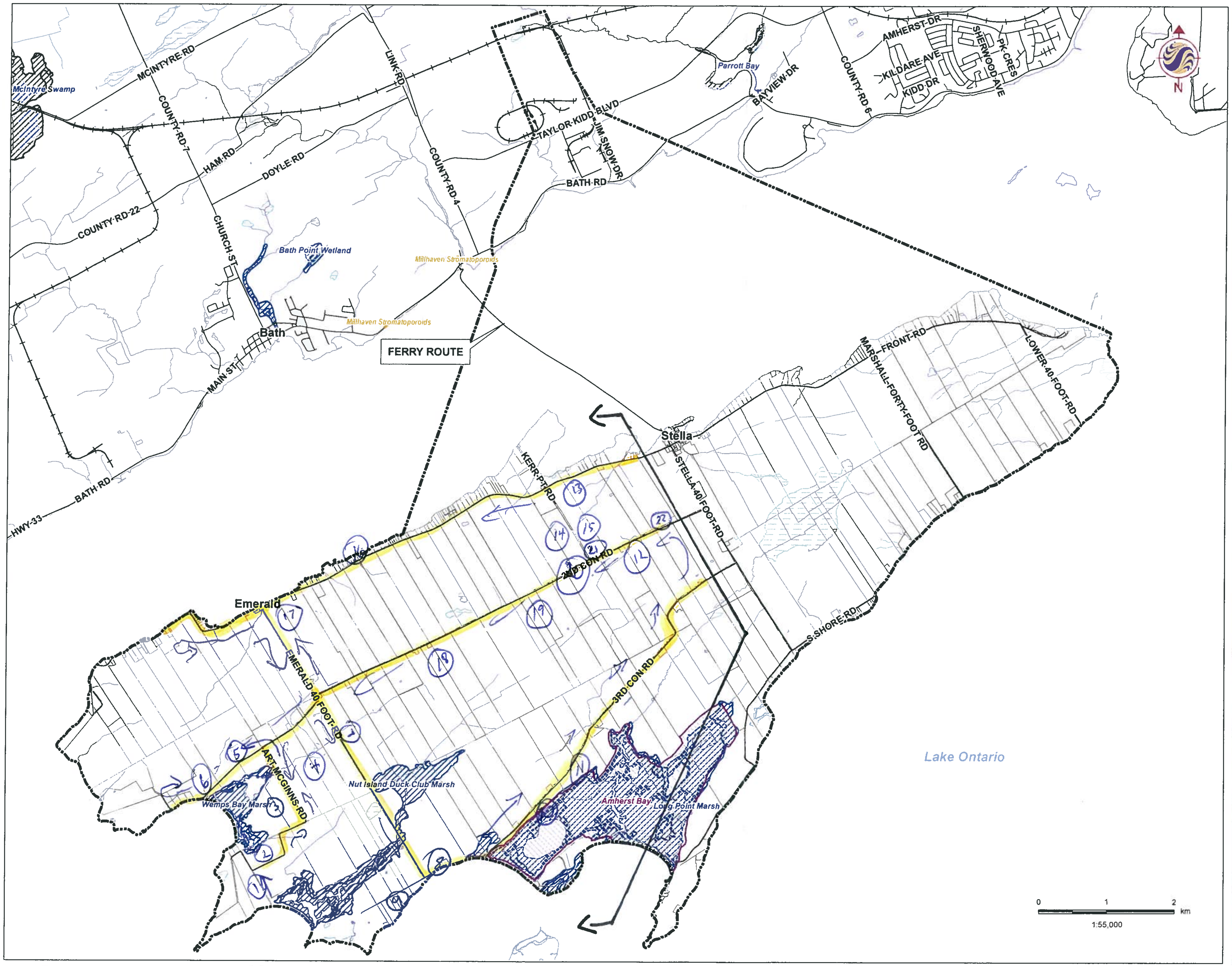
Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 2 of 2

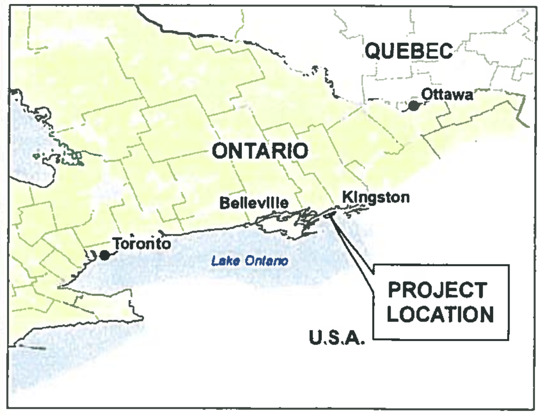
REV: Aug 10 Form 018

WEST



**Legend**

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ☐ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ☐ ANSI, Earth Science
- ☐ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor ~~Migration~~ + Short-eared Owl**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Nov 9, 2011

Field Personnel: STAMP + HESLOP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15 | Wind: SW 5km | Cloud: 30% | PPT: 0 | PPT in last 24 hrs: MIST |

45 km driving

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 207 ① | SSHA 1215 | 1 | BELOW BLADE | HUNTING. |
| 165 ② | NSHR ~~NOSH~~ 1241 | 1 | " " | " |
| 89 ③ | RLHA 1245 | 1 | " " | PERCHED at 8m |
| | AMKE " | 1 | " " | " + HUNTING |
| 166 ④ | RLHA 1250 | 1 | " " | HUNTING |
| 208 ⑤ | NSHR 1254 | 1 | " " | " |
| 34 ⑥ | RTHA 1257 | 1 | " " | PERCHED at 5m. |
| 151 ⑦ | NOHA 1319 | 2 | " " | 1 PERCHED @ 2m 1 HUNTING |
| | RTHA " | 1 | " " | HUNTING. |
| 28 ⑧ | RTHA 1330 | 1 | " " | PERCHED @ 4m. |
| 76 ⑨ | AMKE 1335 | 1 | " " | " " " |
| 209 ⑩ | NOHA 1351 | 1 | " " | HUNTING. |
| 210 ⑪ | AMKE 1400 | 1 | " " | " |
| 66 ⑫ | NOHA 1413 | 1 | " " | " |
| 150 ⑬ | NOHA 1434 | 1 | " " | " |
| 211 ⑭ | RLHA 1440 | 1 | " " | " |
| 212 ⑮ | " " | 1 | " " | " |
| 213 ⑯ | RTHA 1511 | 1 | " " | FLYING E ALONG SHORE |
| 116 ⑰ | NOHA 1553 | 1 | " " | HUNTING. |
| 117 ⑱ | NSHR 1602 | 1 | " " | " |
| | AMKE " | 1 | " " | PERCHED @ 5m |
| 171 ⑲ | RLHA 1609 | 1 | " " | " " " |
| 142 ⑳ | " 1612 | 3 | " " | " " " |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________ (Field Personnel)

Signature: Kathrin ______________ (Project Manager)

Page 1 of 2

REV: Aug 10 Form 018

RAPTORS

## ~~Other Bird Species~~

Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *~~In water, agr. field near puddle, mowed lawn etc.~~* | *Height/direction of flight, feeding etc.* |
| 214 ㉑ RLHA 1615 | 1 | BELOW BLADE HEIGHT | PERCHED @ 5m. |
| 88 ㉒ RLHA 1620 | 1 | " " " | " " " |

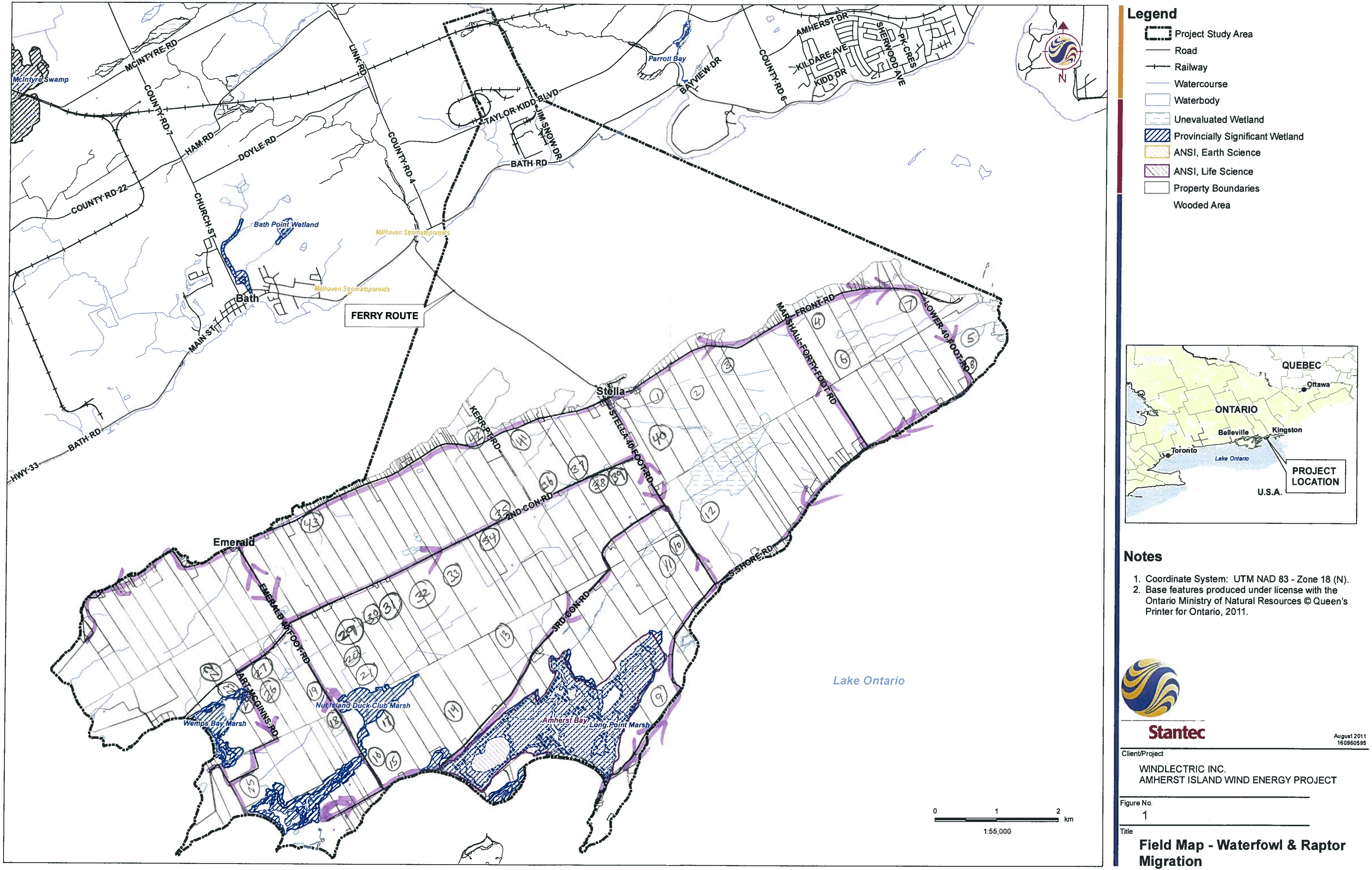
Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 2 of 2

REV: Aug 10 Form 018



## Legend

- ⬚ Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- Property Boundaries
- Wooded Area

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl & Raptor Migration**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

11:33

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70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst

Date / Time: Nov. 17/11 11:00 am - 4:12 pm

Field Personnel: J. Mansell, Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 2-4°C | 3-4, NW | 50-75% | light flurries for 15 min. | none |

stopped @ owl woods for 20 min

3:48 → snow flurries
4:00 → flurries ended

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 38 | ALHA/11:00 (#1) | 1 | 25m | - hovering |
| 40 | RLHA/11:04 (#2) | 1 | 20m | - hunting pasture |
| 229 | RLHA/11:04 (#3) | 1 | 30m | - hunting pasture |
| 135 | RTHA/11:15 (#4) | 1 | 10m | - perched in tree |
| 220 | RLHA/11:22 (#5) | 1 | 10m | - perched in tree |
| 230 | RTHA/12:00 (#6) | 1 | 30m | - hunting pasture |
| 230 | NOHA/12:02 (#6) | 1 | 5m | - flying NW |
| 231 | NOHA/12:11 (#7) | 1 | 30m | - flying SW |
| 231 | AMKE/12:11 (#7) | 1 | 15m | - on wire |
| 2 | MERL/12:16 (#8) | 1 | 2m | - on post, eating CEDW |
| 231 | AMKE/12:47 (#9) | 1 | 8m | - on wire |
| 226 | RTHA/12:55 (#10) | 1 | 5m | - perched in tree |
| 50 | NOHA/12:56 (#11) | 1 | 10m | - hunting pasture |
| 227 | RTHA/12:58 (#12) | 1 | 15m | - hunting pasture |
| 227 | RLHA/12:58 (#12) | 1 | 30m | - circling |

Quality Control: ~~This form is complete ( ✓ ) & legible ( ✓ )~~

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 1 of 4

REV: Aug 10 Form 018

Raptors (cont.)

## ~~Other Bird Species~~

Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | **Species/** time (# on map) | **# of Individuals** | ~~**Location**~~ Height + direction<br>~~*In water, agr. field near puddle, mowed lawn etc.*~~ | ~~**Behaviour**~~ Notes<br>~~*Height/direction of flight, feeding etc.*~~ |
|---|---|---|---|---|
| 237 | RLHA/3:15 (#35) | 1 | 15m | - perched in tree |
| 237 | NOHA/3:15 (#35) | 1 | 15m | - perched in tree |
| 214 | RTHA/3:19 (#36) | 1 | 10m | - perched in tree |
| 238 | RTHA/3:21 (#37) | 1 | 10m | - perched in tree |
| 66 | RLHA/3:23 (#38) | 1 | 15m | - perched in tree |
| 19 | RTHA/3:26 (#39) | 1 | 5m | - perched on post |
| 239 | RLHA/3:29 (#40) | 3 | 15m, 5m | - 2 perched in trees; 1 flying N |
| 239 | RTHA/3:29 (#40) | 1 | 10m | - perched in tree |
| 86 | RTHA/3:42 (#41) | 1 | 20m | - perched in tree |
| 240 | RTHA/3:45 (#42) | 1 | 10m, flying S | |
| 241 | AMKE/4:18 (#43) | 1 | 10m | - on wire |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: Kathrin S (Project Manager)

Page 4 of 4

REV: Aug 10 Form 018

**Stantec**

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Tel: (519) 836-6050
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# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst

Date / Time: Nov. 17/11

Field Personnel: J. Mansell, Z. Lebrun-Southcott

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 2 - 4°C | Wind: 3-4 NW | Cloud: 50 - 75% | PPT: light flurries | PPT in last 24 hrs: none |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 232 | NOHA / 1:13 (#13) | 1 | 30m, flying NE | |
| 75 | NOHA / 1:17 (#14) | 1 | 20m | - hunting pasture |
| 28 | RTHA / 1:21 (#15) | 1 | 10m | - on wire |
| 58 | NOHA / 1:23 (#16) | 2 | 15m (both) | - hunting pasture |
| 233 | RLHA / 1:32 (#17) | 2 | 10m, 30m | 1 perched in tree; hovering - then both up in air + fighting |
| 234 | RTHA / 1:35 (#18) | 1 | 5m | - on post; eating |
| 60 | NOHA / 1:39 (#19) | 1 | 5m, flying NW | |
| 159 | NOHA / 1:41 (#20) | 1 | 40m | - hunting pasture |
| 235 | RLHA / 1:42 (#21) | 1 | 20m, flying E | |
| 208 | AMKE / 1:49 (#22) | 1 | 10m | - on wire |
| 162 | RTHA / 1:50 (#23) | 1 | 10m | - perched in tree |
| 11 | RTHA / 2:03 (#24) | 1 | 10m | - perched in tree |
| 62 | NOHA / 2:09 (#25) | 1 | 5m | -hunting pasture |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 2 of 4

REV: Aug 10 Form 018

Raptors (cont.)

## ~~Other Bird Species~~

~~Please record any flock behaviour~~ (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

|  | Species/ Time (# on map) | # of Individuals | ~~Location~~ Flight height + direction | ~~Behaviour~~ Notes |
|---|---|---|---|---|
|  |  |  | ~~In water, agr. field near puddle, mowed lawn etc.~~ | ~~Height/direction of flight, feeding etc.~~ |
| 62 | RTHA/2:11 (#25) | 1 | 40m, flying SW | - circling |
| 166 | RLHA/2:28 (#26) | 1 | 30m, flying W |  |
| 11 | RTHA/2:33 (#24) | 1 | 25m | - perched in tree |
| 32 | RTHA/2:35 (#27) | 1 | 5m | - on wire |
| 236 | RLHA/2:47 (#29) | 2 | 0m, 5m | - perched in field<br>- one on ground, one on post |
| no 28 (skipped) 236 | NOHA/2:47 (#29) | 3 | 0m (2); third flying W@5m | - 2 on ground |
| 167 | NOHA/2:56 (#30) | 1 | 2m | - on post |
| 167 | RLHA/2:57 (#30) | 1 | 10m | - perched in tree |
| 117 | NOHA/2:59 (#31) | 3 | 5m | - 2 perched on posts one hunting posture |
| 117 | RLHA/2:59 (#31) | 4 | 2m; 30m | - on posts (3)<br>- in tree (1) |
| 117 | RTHA/3:00 (#31) | 1 | 2m | - on post |
| 198 | RLHA/3:05 (#32) | 3 | 5m | - on posts |
| 198 | NOHA/3:05 (#32) | 1 | 2m | - on post |
| 198 | AMKE/3:07 (#32) | 1 | 15m | - on wire |
| 199 | RTHA/3:09 (#33) | 2 | 15m | - perched in tree (beside each other) |
| 141 | RTHA/3:13 (#34) | 1 | 10m | - perched in tree |

Quality Control: ~~This form is complete~~ (✓) ~~& legible~~ (✓).

Signature: ______________________ (Field Personnel)

Signature: Kathrin S (Project Manager)

Page 3 of 4

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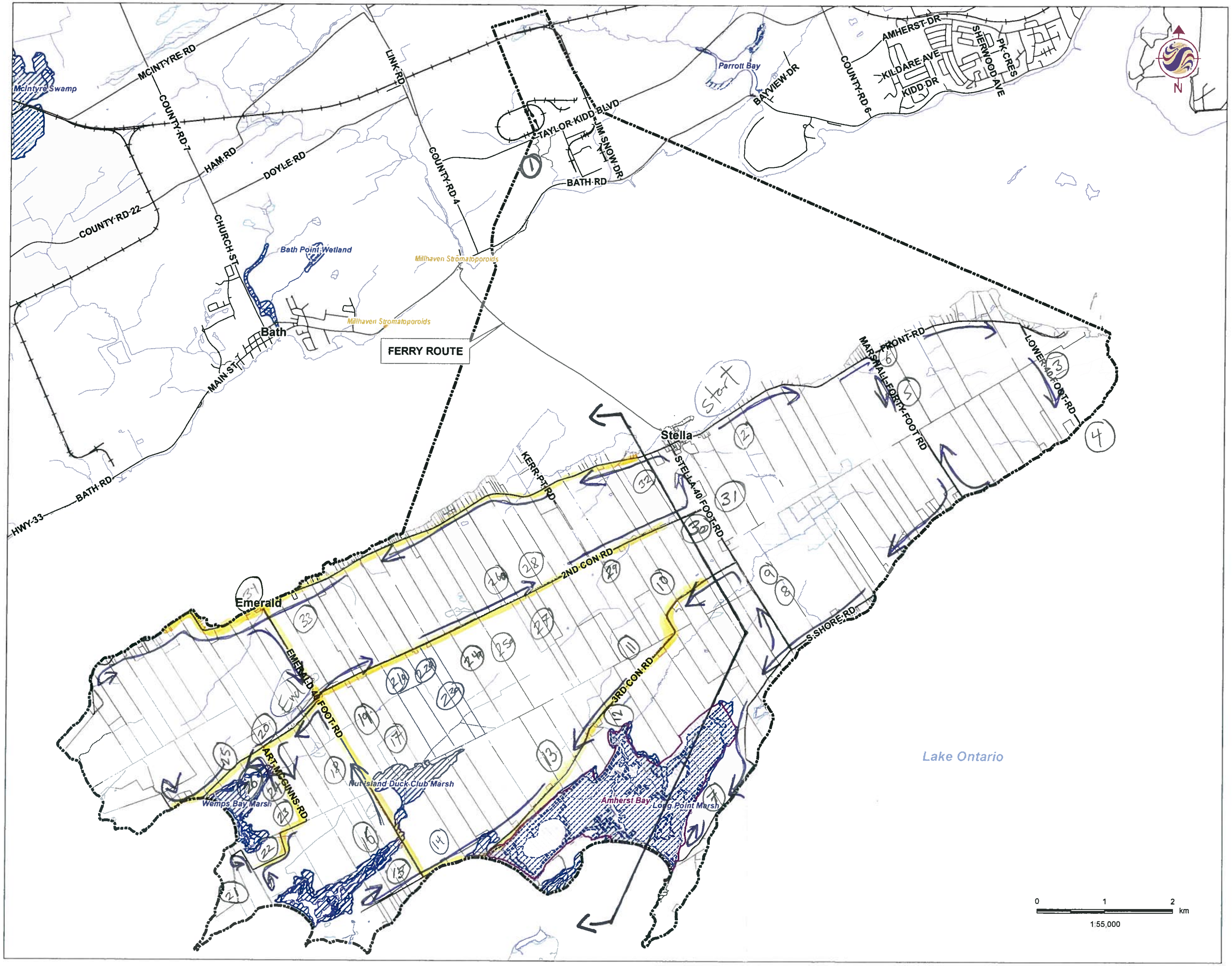
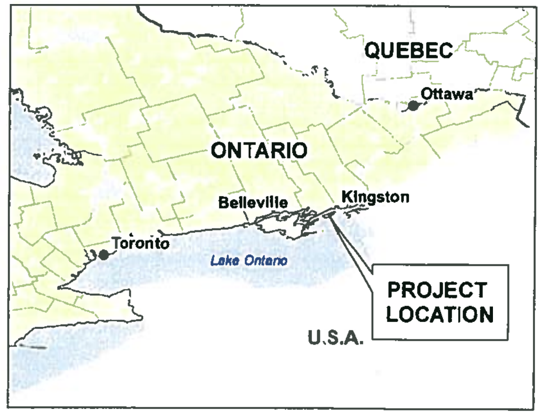
WEST



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- Watercourse
- ☐ Waterbody
- ☐ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ☐ ANSI, Earth Science
- ☐ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

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August 2011
160960595

Client/Project

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor Migration** + Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 1100960595

Project Name: Amherst Island

Date / Time: Nov. 24/11 8:55 - 1:00pm

Field Personnel: J. Heslop & Z. Lebrun-Southcott

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | -1°C - 5°C | 2-3 | 30-100 % | none | none |

72 km total

15407
479

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| - drove Taylor-Kidd + Jim Snow before ferry 242 | RTHA/8:05 (#1) | 1 | 10m | - perched in tree |
| 69 | AMKE/8:55 (#2) | 1 | 2m | - on post |
| 44 | NOHA/9:14 (#3) | 3 | 10m to 40m, to 150m | - hunting pasture + crossing road, then flew offshore |
| 243 | RLHA/9:19 (#4) | 1 | 150m | - circling |
| 134 | RLHA/9:36 (#5) | 1 | 5m | - perched in tree |
| 244 | NOHA/9:39 (#6) | 1 | 2m | - hunting |
| 21 | AMKE/10:03 (#7) | 1 | 5m | - on wire |
| 21 | NOHA/10:03 (#7) | 1 | 2m | - perched on bush |
| 245 | RLHA/10:25 (#8) | 1 | 20m | - perched on tree |
| 227 | RTHA/10:27 (#9) | 1 | 25m | - perched in tree |
| 108 | NOHA/10:33 (#10) | 1 | 2m | - on post |
| 108 | AMKE/10:33 (#10) | 1 | 2m | - on post |
| 246 | RTHA/10:37 (#11) | 1 | 15m | - perched in tree |
| 247 | RTHA/10:39 (#12) | 1 | 10m | - on wire |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 1 of 4

REV: Aug 10 Form 018

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# Migrating Raptor Observation Form

Project Number: 1100960595
Project Name: Amherst Island
Date / Time: Nov. 24/11
Field Personnel: J. Heslop & Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | | See | pg 1 | | |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 247 | RLHA/10:40 (#12) | 1 | 20m | -perched in tree |
| 185 | RTHA/10:44 (#13) | 2 | 10m, flying E | - 1 perched in tree + 1 flying |
| 28 | AMKE/10:49 (#14) | 1 | 20m | -hovering |
| 28 | RLHA/10:51 (#14) | 1 | 5m | -perched in tree |
| 28 | RLHA/10:53 (#14) | 1 | 30m | -hovering |
| 9 | RTHA/11:00 (#15) | 1 | 20m | -circling |
| 248 | NOHA/11:01 (#16) | 1 | 50m, flying W | |
| 249 | RLHA/11:07 (#17) | 1 | 2m | - on post |
| 80 | NOHA/11:09 (#18) | 1 | 2m | - on post |
| 80 | RTHA/11:09 (#18) | 2 | 15m | - perched in tree |
| 151 | NOHA/11:12 (#19) | 1 | 2m | - on post |
| 82 | NOHA/11:16 (#20) | 1 | 10m | - flew across road w/ mouse |
| 250 | RLHA/11:21 (#21) | 2 | 150m, flying E (#1)<br>15m (#2) | - on posts |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of 4

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# Migrating Raptor Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: Nov. 24/11
Field Personnel: J. Heslop & Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | | See pg 1 | | | |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 33 | NSHR/11:46 (#22) | 1 | 5m | - hovering / hunting |
| 251 | RTHA/11:47 (#23) | 1 | 40m | - circling |
| 83 | AMKE/11:51 (#24) | 1 | 10m | - on wire |
| 14 | AMKE/11:54 (#25) | 1 | 10m | - on wire |
| 252 | BAEA/11:58 (#26) | 1 | 120m, flying NE | |
| 82 | NOHA/12:09 (#20) | 1 | 10m, flying S | |
| 236 | NOHA/12:15 (#21a) | 1 | 5m | - hunting posture |
| 36 | RTHA/12:17 (#22a) | 1 | 2m | - on post |
| 36 | RLHA/12:17 (#22a) | 2 | 2m | - on posts |
| 168 | RLHA/12:17 (#23a) | 1 | 100m | - hovering |
| 169 | NOHA/12:20 (#24a) | 1 | 5m | - hunting posture |
| 169 | RLHA/12:21 (#24a) | 4 | 2m | - on posts |
| 199 | RLHA/12:23 (#25a) | 2 | 20m, 80m | - hovering |

accidentally went back to 21, so these are #a on 2nd Cor.

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 3 of 4

REV: Aug 10 Form 018

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# Migrating Raptor Observation Form

Project Number: 1100960595

Project Name: Amherst Island

Date / Time: Nov. 24/11

Field Personnel: J Heslop & Z. Lebrun-Southcott

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | | | See pg 1 | | |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 253 | RLHA/12:24 (#26a) | 1 | 20m | - perched in tree |
| 170 | RTHA/12:26 (#27) | 1 | 2m | - on post |
| 170 | RLHA/12:26 (#27) | 1 | 80m | - hovering |
| 254 | RLHA/12:26 (#28) | 1 | 10m | - perched in tree |
| 254 | NOHA/12:27 (#28) | 1 | 5m | - hunting |
| 255 | RTHA/12:30 (#29) | 1 | 10m | - perched in tree |
| 19 | RTHA/12:33 (#30) | 1 | 2m | - on post |
| 149 | NOHA/12:33 (#31) | 1 | 5m | - hunting then perched |
| 149 | RLHA/12:34 (#31) | 2 | 5m | - perched |
| 256 | NOHA/12:43 (#32) | 1 | 5m | - hunting |
| 194 | AMKE/12:50 (#33) | 1 | 15m | - hovering |
| 257 | NOHA/12:52 (#34) | 1 | 20m, flying W | - flying over water right by shore |

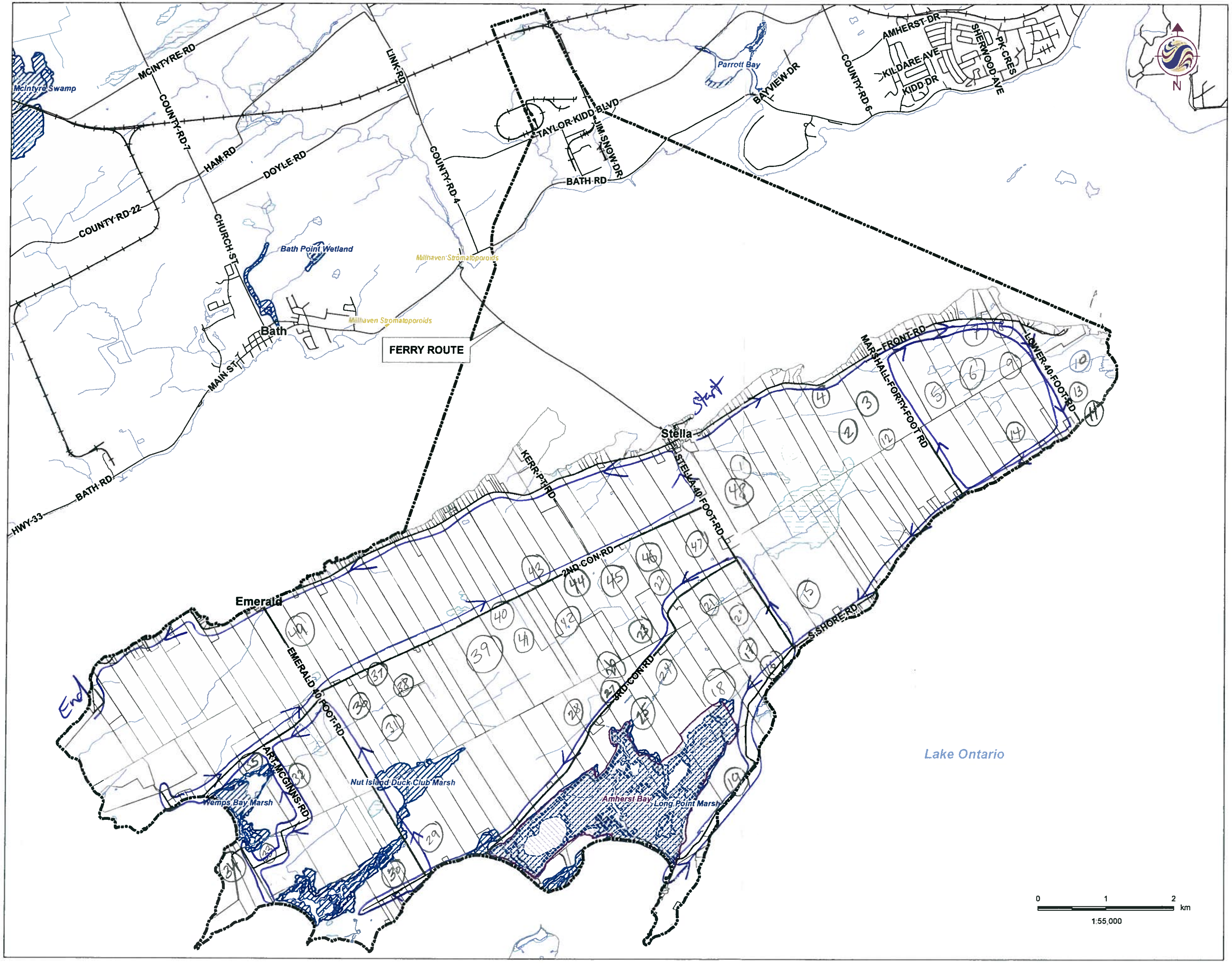
Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

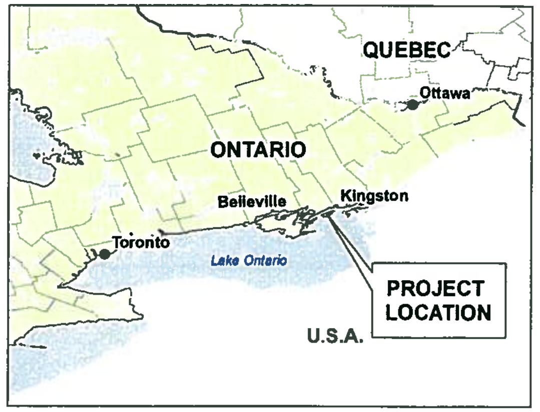
Page ~~8~~ 4 of 4

REV: Aug 10 Form 018



## Legend

▭ Project Study Area
— Road
┼ Railway
— Watercourse
▭ Waterbody
▨ Unevaluated Wetland
▨ Provincially Significant Wetland
▨ ANSI, Earth Science
▨ ANSI, Life Science
▭ Property Boundaries
Wooded Area



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl & Raptor Migration**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

Stantec

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Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595
Project Name: Amherst
Date / Time: Dec. 1 / 11  11:58 am – 4:40 pm
Field Personnel: B. Holden + Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 6°C | 1-2 | 40-60% | none | rain / snow |

Total km = 86

| naplocation<br>inter | Fall | **Species / Time (# on map)** | **# of Individuals** | **Flight height* and direction** | **Notes** |
|---|---|---|---|---|---|
| | | | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 1 | 121 | RLHA / 12:03 (#1) | 1 | 40m | - perched in tree |
| 2 | 121 | RTHA / 12:03 (#1) | 1 | 40m | - circling |
| 3 | 258 | RLHA / 12:07 (#2) | 1 | 50m | - circling |
| 1 | 259 | RLHA / 12:09 (#3) | 1 | 70m | - circling |
| 5 | 229 | AMKE / 12:10 (#4) | 1 | 10m | - on wire |
| 6 | 230 | RLHA / 12:17 (#5) | 1 | 30m | - hovering |
| 7 | 260 | RLHA / 12:20 (#6) | 1 | 30m, flying SE | - then perched |
| 8 | 20 | RTHA / 12:22 (#7) | 1 | 25m, flying SE | - crossed road |
| 9 | 261 | RTHA / 12:24 (#8) | 1 | 10m | - on wire |
| 0 | 262 | RTHA / 12:25 (#9) | 1 | 40m | - circling + being harassed by AmCRs |
| 1 | 262 | RLHA / 12:26 (#9) | 1 | 40m | - circling |
| 12 | 178 | SNOW / 12:36 (#10) | 1 | 20m | - perched in tree |

1
y
me as
on map
column

Quality Control: This form is complete (✓) & legible (✓)

Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 1 of 5

REV: Aug 10        Form 018

Raptors (cont.)

## ~~Other Bird~~ Species

~~Please~~ record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | | Species | # of Individuals | ~~Location~~ Height + direction | Behaviour Notes |
|---|---|---|---|---|---|
| | | | | ~~*In water, agr. field near puddle, mowed lawn etc.*~~ | ~~*Height/direction of flight, feeding etc.*~~ |
| ~~13~~ | 249 | NOHA/2:37 (#31) | 1 | 40m, flying NW | |
| ~~14~~ | 197 | AMKE/2:43 (#32) | 1 | 10m | - on wire |
| ~~15~~ | 165 | RTHA/2:47 (#33) | 1 | 10m | - on wire |
| ~~6~~ | 84 | RTHA/3:00 (#34) | 1 | 15m | - on post |
| ~~17~~ | 84 | RLHA/3:00 (#34) | 1 | 30m | - hovering |
| ~~8~~ | 162 | NSHA/3:08 (#35) | 1 | 20m | - perched in tree |
| ~~19~~ | 92 | NOHA/3:20 (#36) | 1 | 5m | - hunting pasture |
| ~~20~~ | 35 | NOHA/3:23 (#37) | 2 | 5m | - hunting pasture |
| ~~21~~ | 167 | RLHA/3:23 (#38) | 1 | 10m | - perched on snag |
| ~~2~~ | 167 | RTHA/3:28 (#38) | 1 | 15m | - perched in tree |
| ~~3~~ | 169 | NOHA/3:31 (#39) | 6 | 2m | - on posts |
| ~~9~~ | 169 | RLHA/3:31 (#39) | 11 | 2m | - on posts |
| ~~3~~ | 169 | RTHA/3:31 (#39) | 2 | 2m | - on posts |
| | 146 | NOHA/3:33 (#40) | 1 | 10m, flying S | - crossed road |
| | 146 | RTHA/3:33 (#40) | 1 | 10m, flying S | - crossed road |
| | 170 | RLHA/3:35 (#41) | 4 | 2m | - on posts |
| | 118 | RLHA/3:37 (#42) | 1 | 20m | perched in tree |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: Kathin (Project Manager)

Page 4 of 5

REV: Aug 10 Form 018

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N1G 4P5
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# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst

Date / Time: Dec. 1/11

Field Personnel: B. Holden + Z. Lebrun-Southcott

| Weather Conditions: | Temp: | Wind: See | Cloud: pg 1 | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 263 | SNOW/12:40 (#11) | 1 | 0m | - on shore |
| 222 | RTHA/12:52 (#12) | 1 | 25m | - perched in tree |
| 2 | NOHA/1:03 (#13) | 1 | 0m | - perched on ground |
| 264 | RLHA/1:17 (#14) | 1 | 25m | - perched in tree |
| 245 | NOHA/1:20 (#15) | 1 | 5m | - hunting posture |
| 265 | AMKE/1:22 (#16) | 1 | 10m | - on wire |
| 266 | NOHA/1:23 (#17) | 1 | 5m | - hunting posture |
| 130 | NOHA/1:26 (#18) | 1 | 50m | - circling |
| 231 | AMKE/1:36 (#19) | 1 | 10m | - on wire |
| 267 | RTHA/1:51 (#20) | 1 | 20m | - perched in tree |
| 124 | NOHA/1:54 (#21) | 1 | 5m | - hunting posture |
| 268 | RLHA/1:57 (#22) | 1 | 15m | - perched in tree |
| 268 | NOHA/1:57 (#22) | 1 | 2m | - perched on snag |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: Kathi Sm (Project Manager)

Page 2 of 5

REV: Aug 10 Form 018

Raptors (cont.)

~~**Other Bird Species**~~

~~Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.~~

| | Species | # of Individuals | Height + direction<br>~~Location~~ | Notes<br>Behaviour |
|---|---|---|---|---|
| | | | ~~*In water, agr. field near puddle, mowed lawn etc.*~~ | ~~*Height/direction of*~~ *flight, feeding etc.* |
| 118 | NOHA/3:37 (#42) | 2 | 5m | - hunting posture |
| 271 | RLHA/3:37 (#43) | 3 | 10m, 30m | - one perched, @ 10m<br>2 flying NW |
| 142 | RLHA/3:44 (#44) | 1 | 30m, flying NW | |
| 142 | RTHA/3:46 (#44) | 1 | 20m | - perched in tree |
| 65 | RLHA/3:49 (#45) | 1 | 20m | - perched in tree |
| 65 | NOHA/3:49 (#45) | 1 | 5m | - being attacked by CORA |
| 66 | RTHA/3:51 (#46) | 1 | 20m | - perched in trees |
| 122 | RTHA/3:54 (#47) | 1 | 15m | - perched in tree |
| 149 | RTHA/3:57 (#48) | 1 | 20m | - perched on tree |
| 149 | RLHA/3:57 (#48) | 3 | 15m, 40m, 10m | - perched; (1) hovering; (2) flying SW (3) |
| 272 | RTHA/4:13 (#49) | 1 | 20m | - perched in tree |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 5 of 5

REV: Aug 10 Form 018

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# Migrating Raptor Observation Form

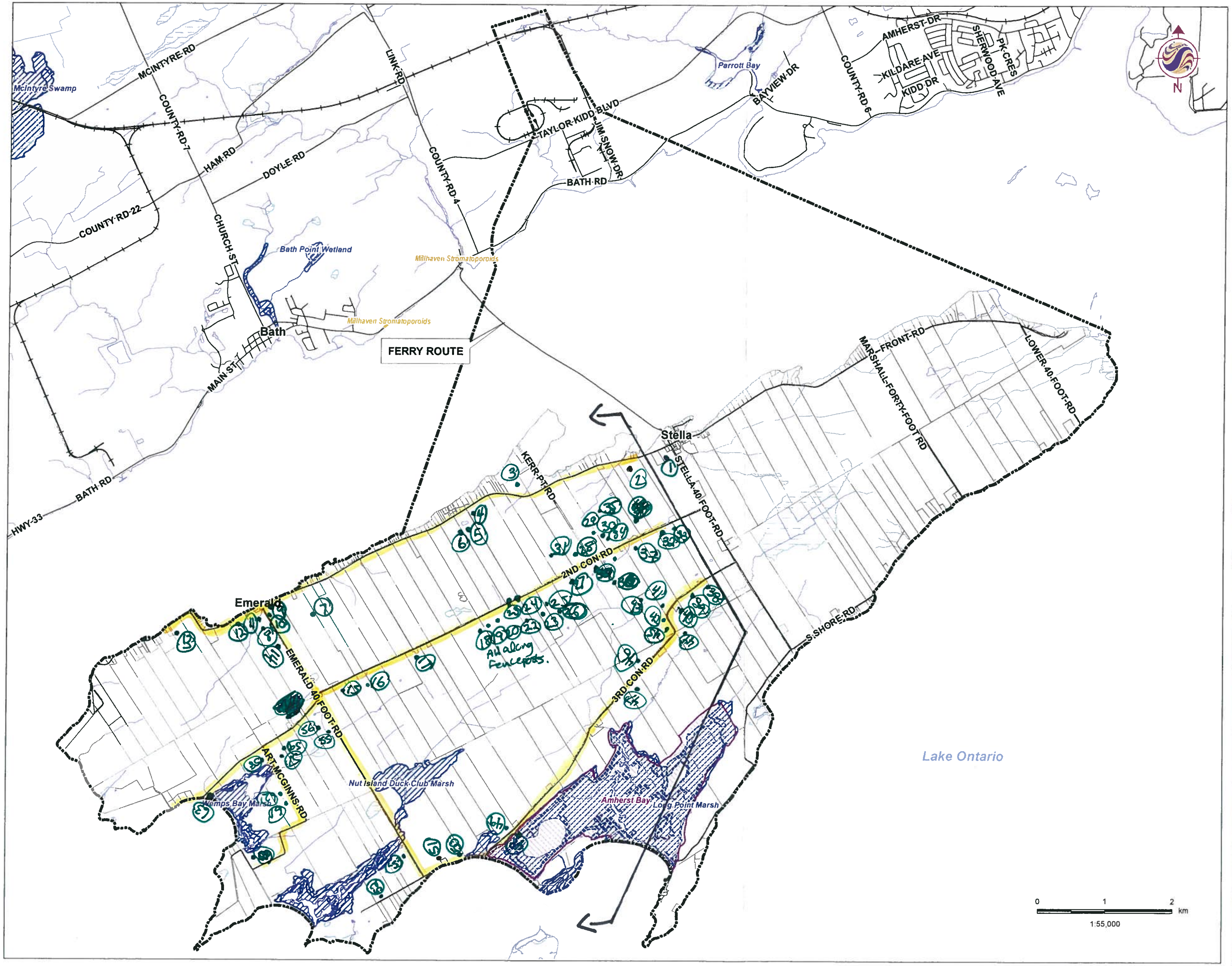
Project Number: 1600960595
Project Name: Amherst Island
Date / Time: Dec. 1/11
Field Personnel: B. Holden + Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | | see pg 1 | | | |

| | **Species / Time (# on map)** | **# of Individuals** | **Flight height* and direction** | **Notes** |
|---|---|---|---|---|
| | | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 55 | NOHA / 2:01 (#23) | 1 | 2m | - hunting posture |
| 126 | NOHA / 2:02 (#24) | 1 | 2m | - perched in tree |
| 140 | RTHA / 2:04 (#25) | 1 | 40m | - circling |
| 140 | RLHA / 2:04 (#25) | 1 | 40m | - circling |
| 268 | RTHA / 2:07 (#26) | 1 | 20m | - chasing NOHA |
| 268 | NOHA / 2:07 (#26) | 1 | 20m | - chasing RTHA |
| 269 | NOHA / 2:09 (#27) | 1 | 5m | - hunting posture |
| 270 | NOHA / 2:13 (#28) | 1 | 0m | - hunting posture |
| 270 | RLHA / 2:15 (#28) | 1 | 2m | - on post |
| 58 | RLHA / 2:19 (#29) | 1 | 25m | - perched in tree |
| 192 | NOHA / 2:22 (#30) | 1 | 2m | - perched on snag |
| 249 | RLHA / 2:31 (#31) | 1 | 50m | - circling |
| 249 | NOHA / 2:34 (#31) | 1 | 0m | - perched on ground |
| 249 | AMKE / 2:35 (#31) | 1 | 2m | - perched in post |

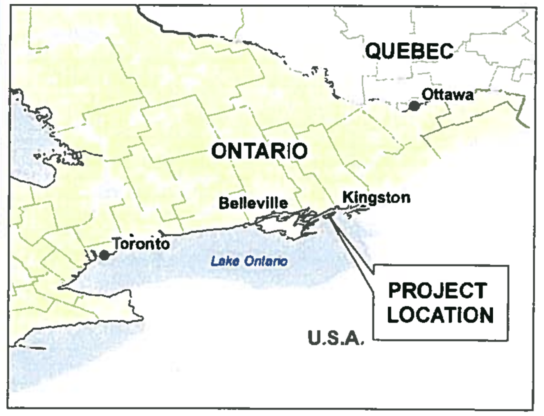
Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________ (Field Personnel)
Signature: ______________ (Project Manager)
Page 3 of ____
REV: Aug 10
Form 018

WEST



## Legend

- ⬚ Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ANSI, Earth Science
- ANSI, Life Science
- Property Boundaries
- Wooded Area



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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Stantec

August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, & Winter Raptor ~~Migration~~ + Short-eared Owl**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Dec 7, 2011

Field Personnel: C. Paquette, B. Holden

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 0°C | 3 | 100 | None | light drizzle |

| | | Species / Time (# on map) | # of Individuals | Flight height* and direction<br>(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes | |
|---|---|---|---|---|---|---|
| 68 | ① | NOHA/ 9:52 | 1 | Below - Sitting | on fence post | 50 |
| 69 | ② | RTHA | 1 | perched | in tree. | 51 |
| 70 | ③ | NOHA | 1 | 20m | Being mobbed/ Flying | 52 |
| 71 | ④ | RLHA | 1 | 15m - perched | in tree top | 53 |
| 72 | ⑤ | RLHA | 1 | 15m perched | in tree top | 54 |
| 73 | ⑥ | RTHA | 1 | 10m perched | halfway down in tree | 55 |
| 74 | ⑦ | RTHA | 1 | 15m perched | in tree. | 56 |
| 75 | ⑧ | NOHA | 1 | 10m flying low | crossed Rd | 57 |
| 76 | ⑨ | RTHA | 1 | 10m - Flew off wire was perched | on hydroline | 58 |
| 77 | ⑩ | NOHA | 1 | perched 1m | on fence post | 59 |
| 78 | ⑪ | RTHA | 1 | perched 15m | in tree | 60 |
| 79 | ⑫ | AMKE | 1 | perched 1m | in Bush | 61 |
| 80 | ⑬ | SSHA | 1 | perched 1.5m | in bush - | 62 |
| 81 | ⑭ | AMKE | 1 | perched 10m | in tree | 63 |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 1 of 4

REV: Aug 10 Form 018

~~**Other Bird Species**~~

~~Please record any flock behaviour (*i.e.* snow gulls, waterfowl, crows, blackbirds) or any significant species.~~

| | | | **Species** | **# of Individuals** | **Location** | **Behaviour** |
|---|---|---|---|---|---|---|
| | | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 5 | 82 | 15 | RTHA | 1 | Flying -50m SW | Hunting over pasture |
| 66 | 83 | 16 | RTHA | 1 | perched - 15m | in tree |
| 67 | 84 | 17 | RTHA | 1 | perched-10m | on hydro line |
| 68 | 85 | 18 | RLHA | 12 | perched 1m | fenceposts |
| 9 | 86 | 19 | RTHA | 2 | perched 1m | Fenceposts |
| 0 | 87 | 20 | NOHA | 2 | 1 perched 1m, 1 Flying | Fenceposts |
| 71 | 88 | 21 | RLHA | 7 | " | " |
| 0 | 89 | 22 | NOHA | 1 | " | " |
| 71 | 90 | 23 | RTHA | 1 | " | " |
| 2 | 91 | 24 | AMKE | 1 | hunting/flying 10m | over pasture |
| 3 | 92 | 25 | NOHA | 1 | perched 1m | fenceposts |
| 12 | 42 | 26 | RTHA | 1 | " 1m | " |
| 74 | 44 | 27 | RLHA | 1 | perched 15m | in tree |
| 74 | 93 | 28 | NOHA | 1 | Flying ~~perched~~ 8m pasture | hunting |
| 75 | 94 | 29 | NOHA | 1 | Flying 10m | hunting over pasture |
| 76 | 95 | 30 | RLHA | 1 | Flying 10m | " |
| 77 | 96 | 31 | RTHA | 1 | perched near FOD 10m & pasture | in tree |
| 78 | 97 | 32 | RLHA | 1 | perched in tree 15m | over pasture |
| 79 | 98 | 33 | RLHA | 1 | perched in tree 20m | over pasture |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________ (Field Personnel)

Signature: Kathi ______________ (Project Manager)

Page 2 of 4

REV: Aug 10 Form 018

**Stantec**

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70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Dec 7, 2011

Field Personnel: C. Paquette, B. Holden

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 0°C | 3 | 100 | None | light drizzle. |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 80 99 ㉞ | NOHA | 1 | 10m Flying | hunting |
| 81 100 ㉟ | RTHA | 1 | intree 15m | Perched |
| 82 101 ㊱ | RLHA | 1 | Flying low over field 5m | hunting |
| 83 46 ㊲ | RLHA | 1 | perched intree 15m | perched inpasture |
| 84 102 ㊳ | NOHA | 1 | overpasture 2m | hunting |
| 85 103 ㊴ | NOHA | 1 | onfence post 1m | perched |
| 86 104 ㊵ | RTHA | 1 | perched intree 15m | perched |
| 2 22 ㊶ | NOHA | 1 | 2m overfield | hunting |
| 7 105 ㊷ | NOHA | 1 | ~~[illegible]~~ perched 1m | ~~over field~~ eating on fencepost. |
| 8 106 ㊸ | RLHA | 1 | perched intree 15m | perched inpasture |
| 89 107 ㊹ | NOHA | 1 | perched | |
| 90 108 ㊺ | RLHA | ① | perched in tree 5m | perched |
| 91 109 ㊻ | RTHA | 1 | flew into tree 10m | perched |
| 92 110 ㊼ | AMKE | 1 | ~~flying~~ perched by Rd | Flew from oneside to other. |
| 93 111 ㊽ | NOHA | 3 | Flying over Marsh hunting 5-10m | Hunting |
| 94 112 ㊾ | RLHA | 1 | Perched 1m | on fencepost |
| 95 113 ㊿ | NOSH | 1 | perched in bush 1.5m | perched. |
| 96 114 (51) | NOHA | 1 | perched on Fence post | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

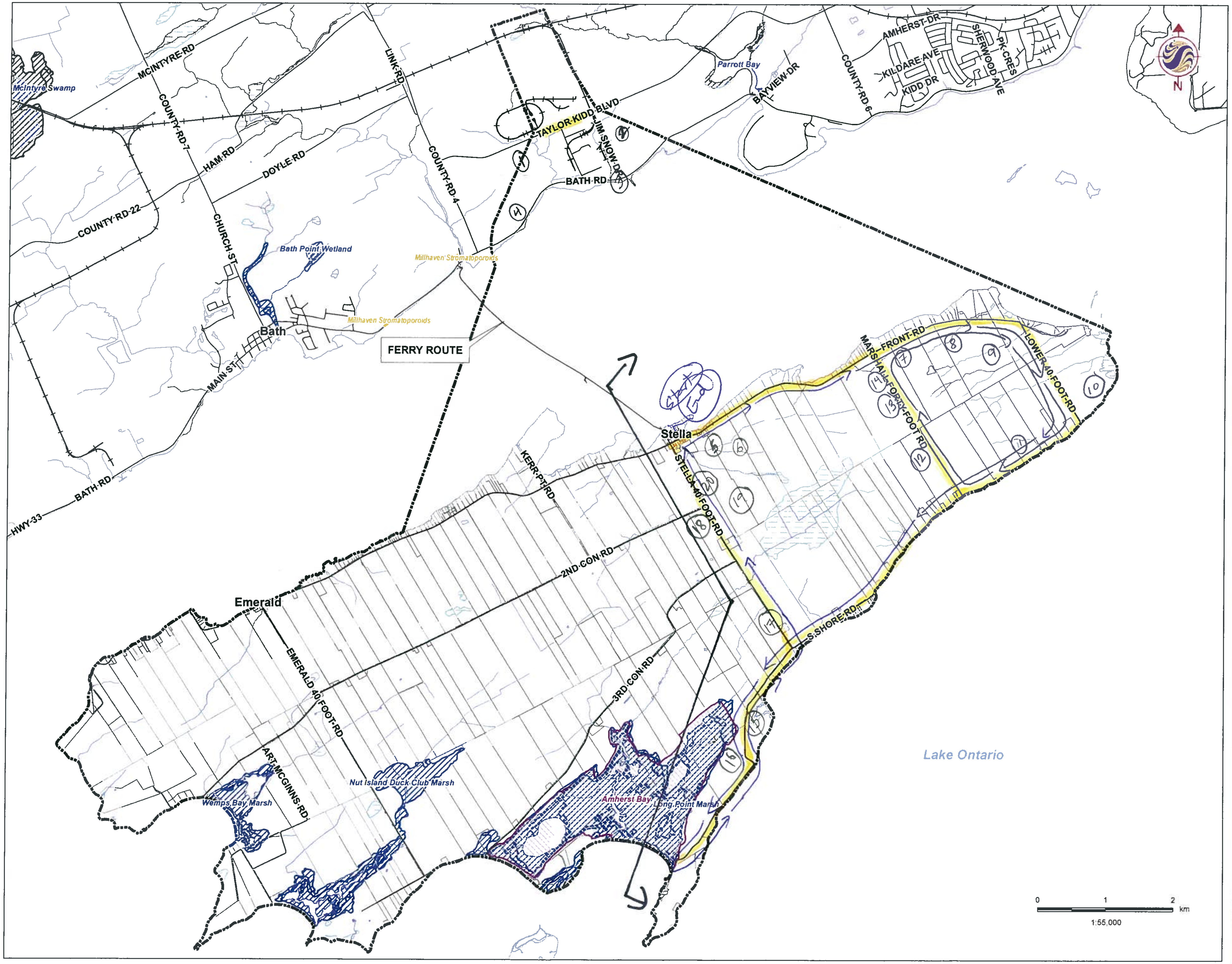
Page 3 of 4

REV: Aug 10 Form 018

**Other Bird Species**
Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | | | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|---|
| | | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 17 | 115 | (52) | RLHA | 1 | perched on hydro line 15m | |
| 98 | 116 | (53) | RTHA | 1 | perched on edge of pasture | approx 10m up. |
| 99 | 116 | (54) | RTHA | 1 | perched in tree in pasture 15m | |
| 00 | 117 | (55) | RLHA | 1 | Flew over Rd 15m | flying over pasture |
| 01 | 118 | (56) | NOHA | 1 | hunting over pasture | 3m |
| 102 | 119 | (57) | AMKE | 1 | perched in tree 10m | |
| 35 | 35 | (58) | RLHA | 1 | perched - 10m | in tree |
| 102 | 120 | (59) | NOHA | | Flying N 2m | hunting |
| 03 | 33 | (60) | AMKE | 1 | perched in tree - 20m | — |
| 04 | 121 | (61) | RLHA | 1 | Flying over pasture 20m | — |
| 35 | 122 | (62) | NOHA | 1 | Flying over pasture 5m | — |
| 06 | 123 | (63) | RTHA | 1 | perched in tree | near water & river/marsh. |

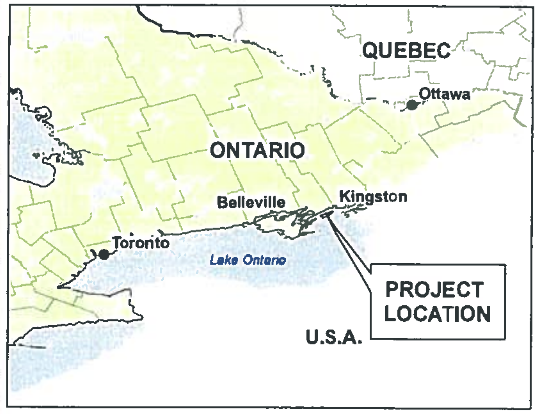
Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________ (Field Personnel)
Signature: ______________ (Project Manager)
Page 4 of 4
REV: Aug 10 Form 018



EAST-
MAINLAN

## Legend

- ⬚ Project Study Area
- — Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pwpowell

Stantec

Stantec Consulting Ltd.
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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 1600960595
Project Name: Amherst Island
Date / Time: Dec. 7 / 11 ① 8:50 - 9:05 ② 9:50 – 12:20
Field Personnel: J. Masell + Z. Lebrun-Southcott

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 1°C | 1-2 | 100% | none | none |

- drove mainland section before ferry | 8:50 – 9:05

mainland

| | Species / Time (# on map) | # of Individuals | Flight height* and direction (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes |
|---|---|---|---|---|
| 107 50 | RTHA / 8:51 (#1) | 1 | 10m | - perched in tree / field |
| 108 51 | RTHA / 8:55 (#2) | 1 | 15 m | - perched in tree / forest, shrubland |
| 109 52 | RTHA / 9:03 (#3) | 1 | 15m | - perched in tree / roadside, shore |
| 110 53 | RTHA / 9:05 (#4) | 1 | 10 m | - perched in tree / pasture |
| 111 54 | RLHA / 9:54 (#5) | 1 | 8m | - perched on snag / pasture |
| 112 55 | NOHA / 9:59 (#6) | 1 | 2m | - perched on post / pasture |
| 113 56 | RTHA / 10:14 (#7) | 1 | 15m | - perched in tree / pasture |
| 114 57 | RTHA / 10:17 (#8) | 1 | 20m | - perched in tree / pasture |
| 115 58 | RTHA / 10:18 (#9) | 1 | 15m | - perched in tree / pasture |
| 112 59 | SNOW / 10:35 (#10) | 1 | 0m | - on ground / pasture |
| 14 60 | SNOW / 10:48 (#11) | 1 | 2m | - on post / pasture |
| 113 61 | RLHA / 10:58 (#12) | 1 | 18m | - perched in tree / pasture |
| 114 62 | NSHR / 11:07 (#13) | 1 | 15m | - perched in tree / pasture |
| 115 63 | RTHA / 11:10 (#14) | 1 | 10m | - perched in tree / roadside, pasture |
| 116 64 | RLHA / 11:36 (#15) | 1 | 20m | - perched in tree / roadside |

island ↓

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 1 of 2

REV: Aug 10 Form 018

Raptors (cont.)

## ~~Other Bird Species~~

~~Please record~~ any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

|  |  | Species / time (# on map) | # of Individuals | ~~Location~~ Height + direction<br>~~*In water, agr. field near puddle, mowed lawn etc.*~~ | ~~Behaviour~~ Notes<br>~~*Height/direction of*~~ *flight, feeding etc.* |
|---|---|---|---|---|---|
| 117 | 65 | RTHA/11:38 (#16) | 1 | 20m | - perched on hydro pole / pasture |
| 117 | 65 | AMKE/11:59 (#16) | 1 | 10m | - on wire / pasture |
| 118 | 66 | RTHA/12:06 (#17) | 2 | 15m | - perched in tree / roadside |
| 47 | 47 | NSHR/12:14 (#18) | 1 | 5m | - perched on bush / hedgerow |
| 47 | 47 | RLHA/12:14 (#18) | 1 | 10m (dark morph) | - perched in tree / field |
| 119 | 48 | RLHA/12:16 (#19) | 1 | 2m | - on post / pasture |
| 120 | 67 | RTHA/12:18 (#20) | 1 | 15m | - circling / road / pasture |

Quality Control: ~~This form is complete ( ✓ ) & legible ( ✓ )~~

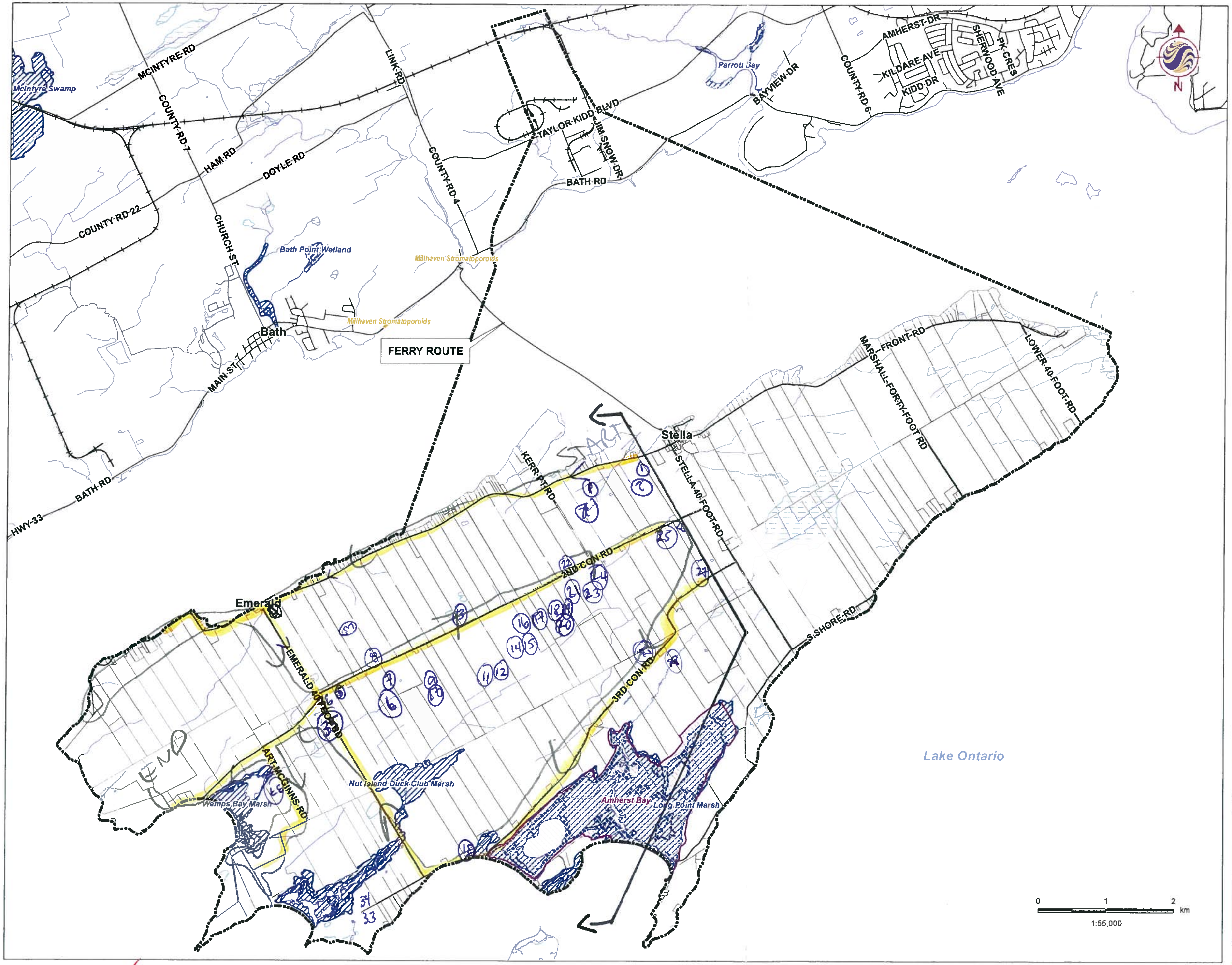
Signature: ______________________ (Field Personnel)

Signature: Kathi ______________________ (Project Manager)

Page 2 of 2

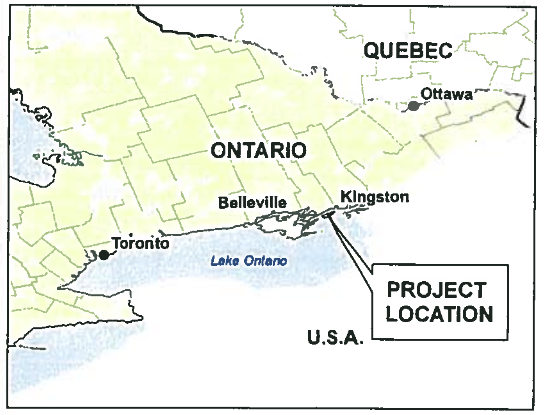
REV: Aug 10 Form 018

WEST



## Legend

- ▭ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ▭ Waterbody
- ▭ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ▭ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor Migration + Short-eared Owl**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By:

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 1600960595

Project Name: Amherst Island

Date / Time: Dec 2[illegible],11

Field Personnel: B. Holden, N. Charlton

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 4° | 2 | 100 | drizzle | some rain |

ON MAP

| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | P | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 51 ① | RLHA | 1 - 1004 | - perched / pasture | - 10m |
| 121 ② | NOHA | 1 1005 | - " " | - 5m |
| 122 ③ | RTHA | 1 10:16 | - " " | - 5m |
| 59 ④ | AMKE | 1 10:28 | - perched on wire over pasture | - 5m male |
| 65 ⑤ | RLHA | 1 11:31 | - perched above pasture | - 5m dark morph |
| 123 ⑥ | NOHA | 1 11:35 | flying over pasture | - 5m |
| 37 ⑦ | NOHA | 1 11:36 | " " | - 5m |
| 124 ⑧ | RTHA | 1 11:37 | perched by hay field | 5m |
| 125 ⑨ | RTHA | 1 11:40 | perched over pasture | 5m |
| 126 ⑩ | SNOW | 1 11:40 | " " | 5m |
| 127 ⑪ | RTHA | 3 11:42 | " " | " |
| 128 ⑫ | RLHA | 5 11:42 | " " | " |
| 129 ⑬ | RTHA | 1 11:43 | " " | " |
| 130 ⑭ | RLHA | 4 11:45 | " " | " |
| 131 ⑮ | NOHA | 1 11:45 | " " | " |

Quality Control: This form is complete (✓) & legible (✓).

Signature: _______________ (Field Personnel)

Signature: Kathy S (Project Manager)

Page 1 of 3

REV: Aug 10

Form 018

**Other Bird Species**
Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In ~~water, agr.~~ field near puddle, mowed ~~lawn etc~~.* | *Height/direction of flight, feeding etc.* |
| 70 | (16) | RTHA | 1 - 11:47 | over pasture (flying) | 5m |
| 71 | (17) | NOHA | 2 11:47 | | |
| | ~~18~~ | ~~M~~ | | over pasture (flying) | 5m |
| 73 | (18) | NOHA | 1 11:53 | perched over pasture | 5m |
| 132 | (19) | RLHA | 1 11:53 | " | " |
| 42 | (20) | RTHA | 1 11:53 | " | " |
| 44 | (21) | RLHA | 1 11:56 | " | " |
| 133 | (22) | NOHA | 1 11:58 | " | " |
| 134 | (23) | NOHA | 1 11:59 | " | 5m |
| 135 | (24) | RLHA | 1 12:00 | flying over pasture | 5m |
| 136 ~~[illegible]~~ | (25) | NOHA | 1 12:07 | perched above pasture | 5m |
| 78 | (26) | RLHA | 1 12:09 | perched above pasture | 15m |
| 137 | (27) | NOHA | 1 12:13 | flying over hay | 5m |
| 138 | (28) | AMKE | 1 12:21 | perched over till | 5m |
| 139 | (29) | NOHA | 1 12:24 | flying over corn | 10m |
| N/A | (30) | NOHA | 1 12:38 | perched over hay/pasture | 5m |
| 95 | (31) | RLHA | 1 12:40 | flying over swamp | 5m |
| N/A | (32) | RLHA | 1 12:44 | perched over hay | 5m |
| N/A | [illegible] | NOHA | 1 12:44 | flying " " | 5m |
| 140 | (33) | NOHA | 1 12:49 | flying over pasture | 5m |
| 141 | (34) | AMKE | 1 12:51 | perched on wire above hay | 5m |

Quality Control: This form is complete (✓) ~~& legible (✓)~~.
Signature: ______________ (Field Personnel)
Signature: ______________ (Project Manager)

Page 2 of 3

REV: Aug 10 Form 018

**Other Bird Species**

Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 142 ㉟ | NOHA | 2 - 12:57 | flying over pasture | 5 m |
| 123 ㊱ | RLHA | 1 - 1:00 | flying over pasture | 20 m |
| 105 ㊲ | NOHA | 1 1:17 | perched over hay | 5 m |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________

(Field Personnel)

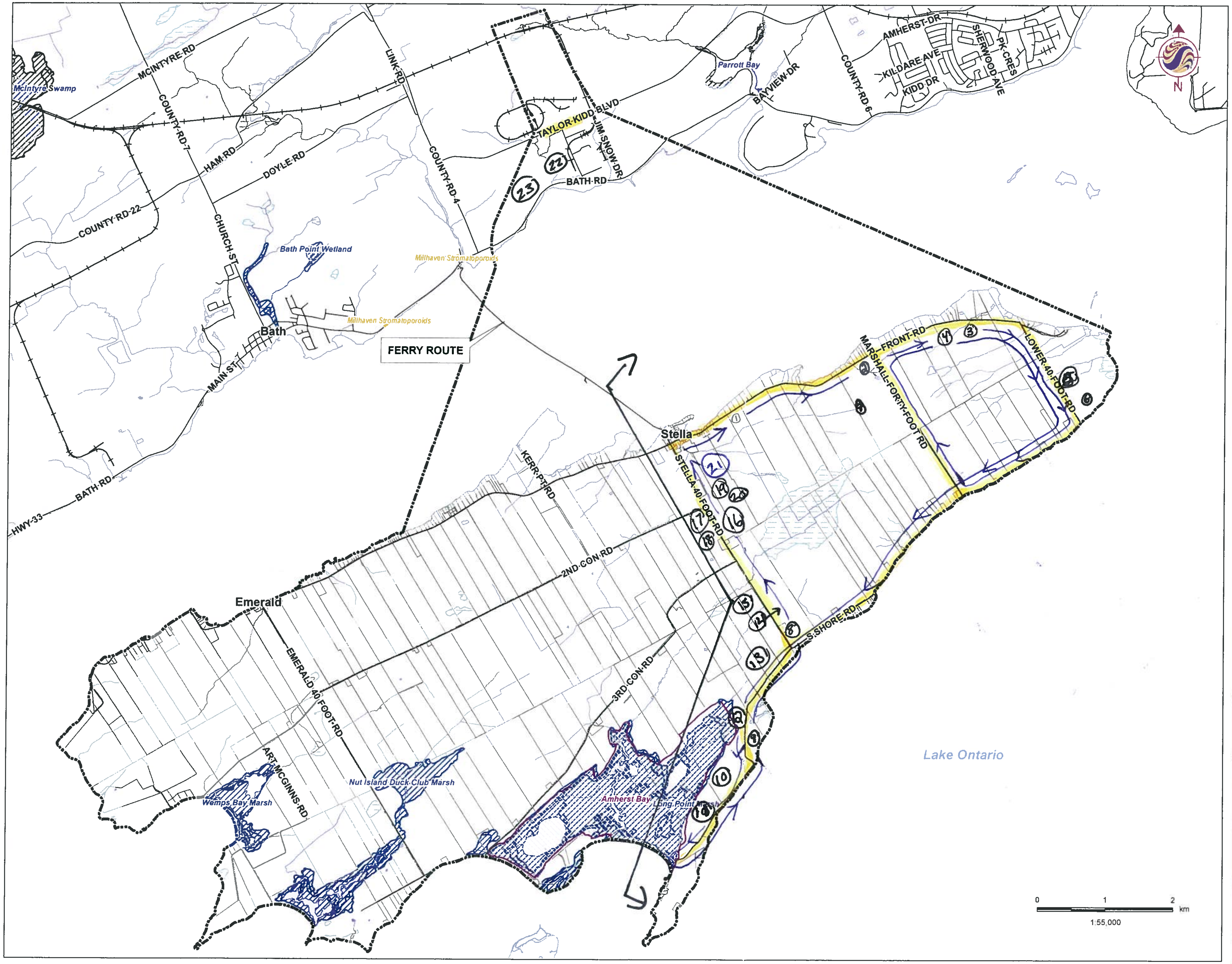
Signature: ______________________

(Project Manager)

Page 3 of 3

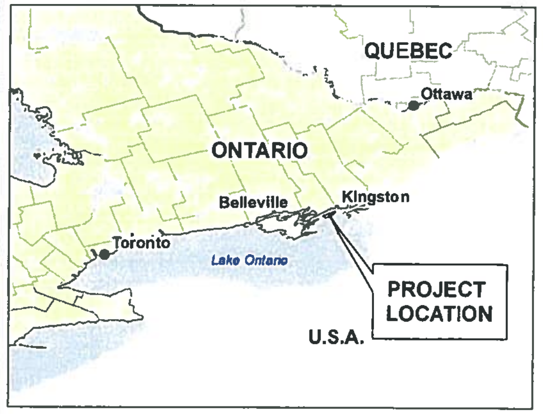
REV: Aug 10 Form 018

EAST -
MAINLAN



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ☐ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ☐ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



PROJECT LOCATION

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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**Stantec**

August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: Dec 21, 2011 10:04 am - 12:49 pm
Field Personnel: C. Paquette, Z. Lebrun-Southc

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 3 | 3 | 100% | light rain | rain |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes |
|---|---|---|---|---|
| 1-146 | ① AMKE 10:07 | 1 | on post - 1m | perched |
| 147 | ② NOHA 10:22 | 1 | 10m | Hunting |
| 7 | ③ NOHA 10:27 | 1 | 10m | hunting |
| 148 | ④ RTHA 10:28 | 1 | 1m | Perched |
| 149 | ⑤ RLHA 10:39 | 1 | 5m | Perched in treetop |
| 150 | ⑥ SNOW 11:00 | 1 | 0m | Perched on gravel |
| 3 | ⑦ RTHA 11:01 | 1 | 10m | Perched in tree |
| 151 | ⑧ AMKE 11:37 | 1 | 2m | perched in tree |
| 152 | ⑨ RLHA 11:45 | 1 | 10m | perched in tree |
| 153 | ⑩ RTHA 11:47 | 1 | 10m | perched on hydroline |
| 154 | ⑪ AMKE 11:53 | 1 | 10m | perched on hydroline |
| | ~~⑫ [illegible]~~ | ~~[illegible]~~ | ~~0m~~ | ~~[illegible]~~ |
| 155 | ⑫ NOHA 12:13 | 1 | 0m | perched on gravel |
| | | | 10m | perched in tree |
| 156 | ⑬ RTHA 12:17 | 1 | 3m - East to west | Flew across Road to east from west |
| 118 | ⑭ NOHA 12:19 | 2 | 5m | perched in tree |
| 120 | ⑮ RTHA 12:24 | 1 | 10m | perched in tree |
| 157 | ⑯ RTHA 12:31 | 1 | 15m | perched in tree |
| 78 | ⑰ RLHA 12:32 | 1 | 10m | Perched in tree |
| 47 | ⑱ NOHA 12:33 | 1 | 2m | hunting |
| 158 | ⑲ NOHA 12:37 | 1 | 1m | perched on post |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 1 of 2

REV: Aug 10 Form 018

Raptors (cont.)

## ~~Other Bird Species~~

Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 48 | ⑳ | RLHA 12:38 | 1 | | |
| 159 | ㉑ | RTHA 12:45 | 1 | Top of tree - 10m<br>10m | perched<br>Perched in tree. |
| N/A | ㉒ | RTHA | 1 | > perched in trees - 10 m/ pasture | |
| N/A | ㉓ | RTHA | 1 | | |

Quality Control: This form is complete (✓) & legible (✓)

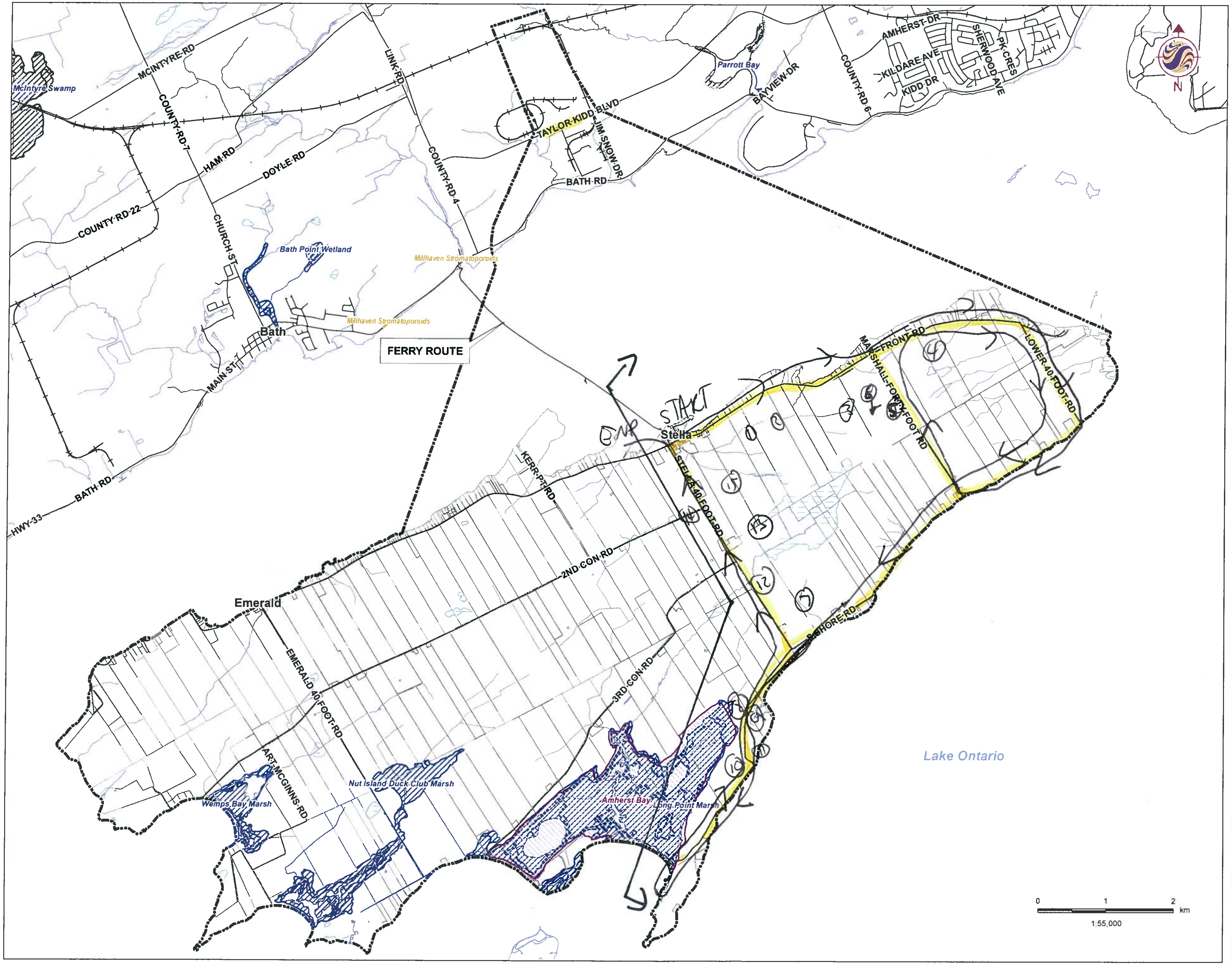
Signature: ______________ (Field Personnel)

Page 2 of 2

Signature: ______________ (Project Manager)

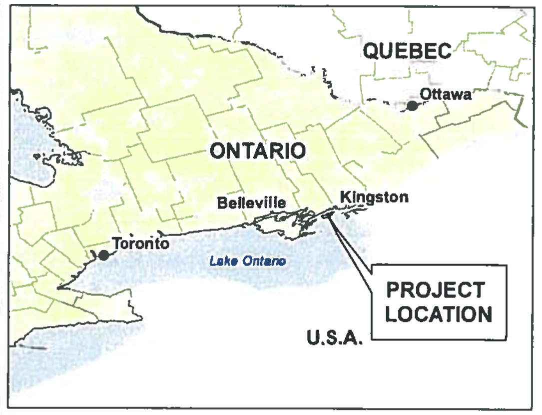
REV: Aug 10 Form 018

EAST -
MAINLAN



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ☐ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

10:00 - 1145

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 1100960595
Project Name: Amherst Island
Date / Time: Jan 10, 12
Field Personnel: B. Holden J. Mcnall

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>2-3°C | Wind:<br>2-3 NW | Cloud:<br>10-80%<br>WAR | PPT:<br>/ | PPT in last 24 hrs:<br>drizzle |

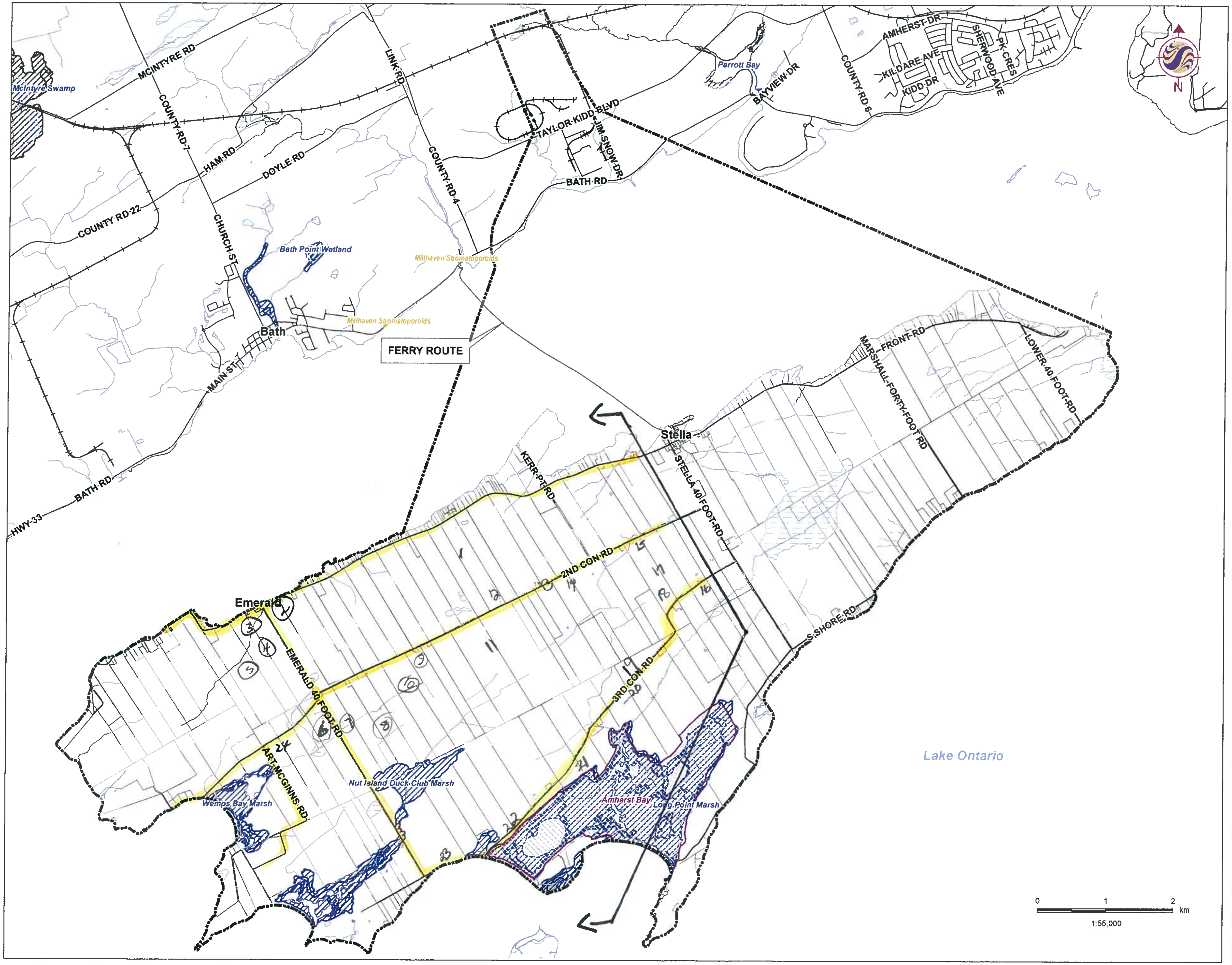
| | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|
| | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 160 | ① RC-1- dark - | 1009 - | on fence post in pasture | - 2m |
| 161 | ② RC-1- dark - | 1010 - | on bush in pasture | - 3m |
| 162 | ③ RC- 1- | 1011 - | flying over pasture | - 20m |
| ~~163~~ | ~~④ RT-1 -~~ | ~~1015 -~~ | ~~perched in tree over~~ | ~~fallow - 8m 5m~~ |
| 164 | ⑤ RC-1-Light - | 1040 - | roadside tree near | pasture - 10m |
| 3 | ⑥ NH-1-♀ - | 1041 - | hunting pasture - | 5m |
| 15 | ⑦ AK-1-♀ | -1101 - | perched in top of | bush - 3m |
| 155 | ⑧ NH-1 - | 1104 - | circling over road | - 20m |
| 116 | ⑨ RC-1 - | 1105 - | 11 | - 25m |
| 117 | ⑩ NH-1 - | 1107 - | hunting pasture | - 5m |
| 152 | ⑪ SNOW - 1 | -1126 - | roosting on shore line | - ⓧ |
| 165 | ⑫ RT -1-Ad | -1133. | perched in tree near | hayfield -8m |
| 166 | ⑬ RL -1-Light | -1136 - | circling over pasture | - 40m |
| 167 | ⑭ NH -1-♂ | - 1137 - | hunting hayfield | - 5m |

Quality Control: This form is complete (✓) & legible (✓).
Signature: ______ (Field Personnel)
Signature: ______ (Project Manager)

Page 1 of 1
REV: Aug 10
Form 018

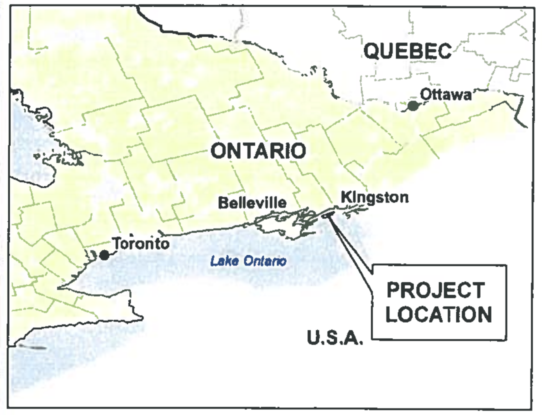
168 ⑮ AK-1-♂ - 1138 - in bush in pasture - 5m

WEST



## Legend

▭ Project Study Area
— Road
┼ Railway
— Watercourse
▭ Waterbody
▭ Unevaluated Wetland
▨ Provincially Significant Wetland
▨ ANSI, Earth Science
▨ ANSI, Life Science
▭ Property Boundaries
Wooded Area



## Notes

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August 2011
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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor Migration** + Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: [illegible]

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 1160960595
Project Name: Amherst Island
Date / Time: Jan 10, 2012 10:15 - 12:25
Field Personnel: D. Graham, M. Ross
km=39

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 4°C | / | 20% | None | None |

| | | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|---|
| | | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 169 | 1 | RLHA 10:29 | 1 | 3-8m below blade sweep | Foraging |
| 59 | 2 | AMKE 10:33 | 1 | 8m below blade sweep | Perched |
| 61 | 3 | AMKE 10:42 | 1 | 8-10m belo blade sweep | Perched |
| 57 | 4 | NOHA 10:50 | 3 | 2-20m below blade sweep | Foraging |
| 170 | 5 | RTHA 10:45 | 2 | 15-20m below blade sweep | Foraging |
| 100 | 6 | RLHA 10:[illegible] | 2 | 5-15 below blade sweep | Foraging |
| 171 | 7 | RLHA 11:08<br>NOHA | 1<br>2 | 5m below bladesweep<br>2-5m below bladesweep | Foraging<br>Foraging |
| 31 | 8 | RTHA 11:08 | 1 | 25m below blade sweep | Foraging |
| 67 | ⑨ | RTHA 11 15 | 1 | 5m below | Perched |
| 38 | ⑩ | NOHA 11 15 | 1 | 3m below | Foraging |
| 172 | ⑪ | NOHA 11:25<br>RLHA 11:25<br>RTHA 11:25 | 2<br>4<br>1 | 3m below blade<br>1-4m below blade<br>1m below blade | Foraging<br>Perched<br>Perched |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 1 of 2

REV: Aug 10 Form 018

## Other Bird Species

Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 173 | 12 | RLHA | 2 | 5m | Foraging |
| 174 | 13 | RLHA | 2 | 5-8m | 1 Perched<br>1 Foraging |
| 44 | 14 | RTHA 11:36 | 1 | 8m | Perched |
| | | NOHA 11:36 | 1 | 3m | Foraging |
| 83 | 15 | RTHA 11:39 | 1 | 5m | Perched |
| 175 | 16 | NOHA 11:42 | 1 | 5m | Foraging |
| 176 | 17 | RTHA 11:44 | 1 | 5m | Perched |
| 22 | 18 | NOHA 11:44 | 1 | 3m | Foraging |
| 177 | 19 | NOHA 11:52 | 1 | 2m | Foraging |
| 92 | 20 | RTHA 11:53 | 1 | 4m | Perched |
| 178 | 21 | RLHA 11:57 | 1 | 5m | Perched |
| | | NOHA 11:58 | 1 | 3m | Foraging |
| 94 | 22 | CORA 12:02 | 1 | 8m | Flying |
| 96 | 23 | RLHA 12:04 | 1 | 15-20m | Foraging |
| Seen after survey → | 24 | NOSH 12:32 | 1 | 4m | Perched |

Quality Control: This form is complete (✓) & legible (✓).

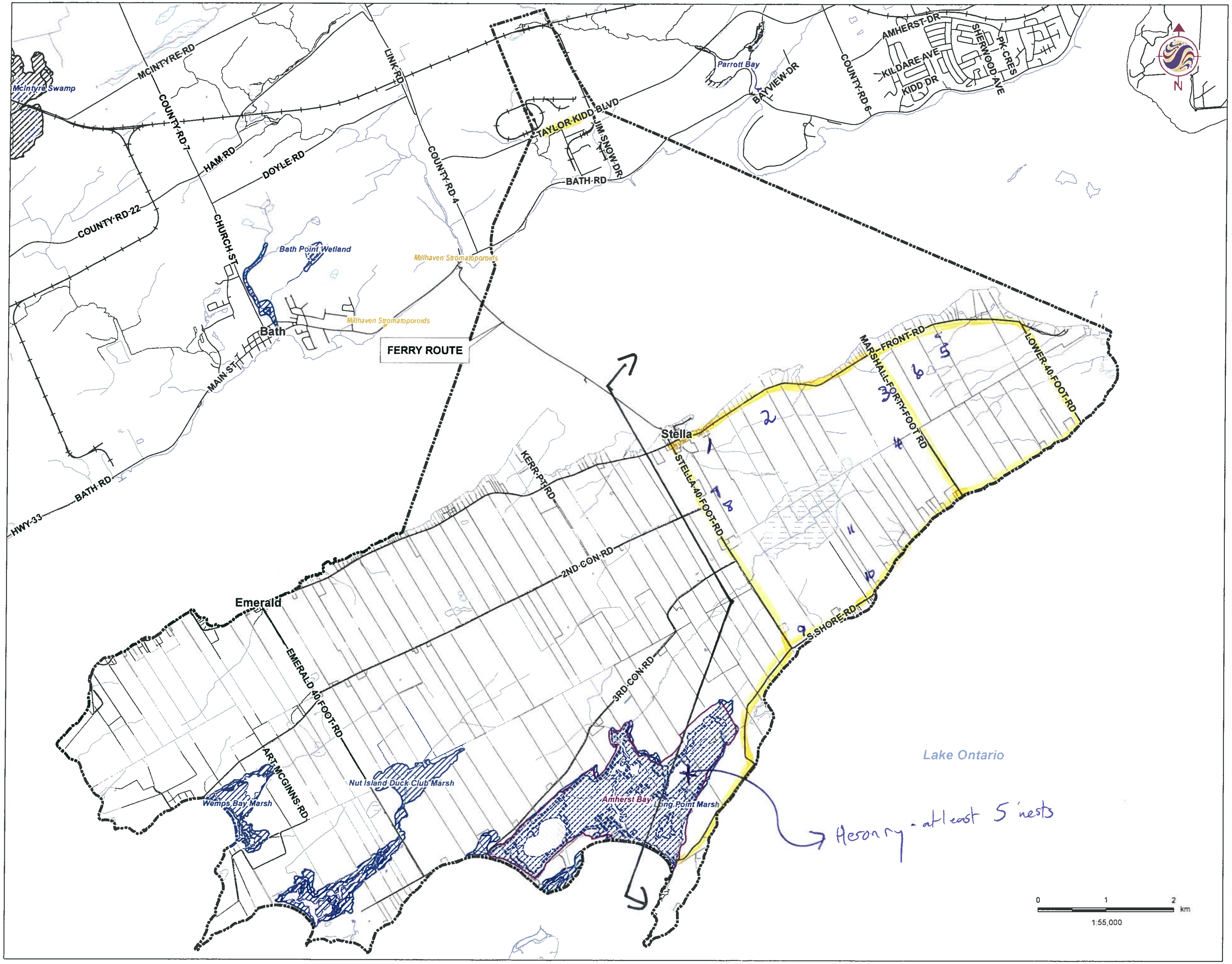
Signature: ____________________
(Field Personnel)

Signature: ____________________
(Project Manager)

Page 2 of 2

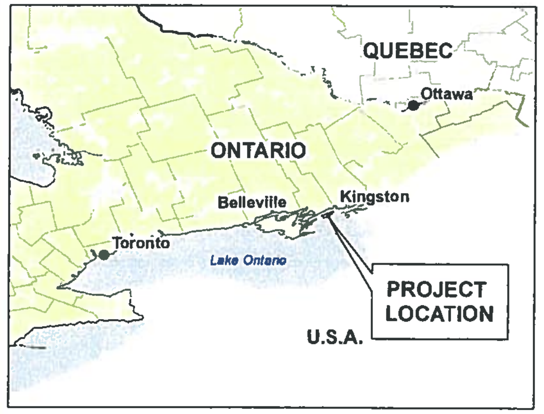
REV: Aug 10 Form 018

EAST -
MAINLAN



## Legend

- ▭ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ▭ Waterbody
- ▨ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ▭ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: oworsell

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Jan 24 2012 1:15 - 2:46

Field Personnel: D. Graham, M. Ross

| **Weather Conditions:** | Temp: 1°C | Wind: 2 | Cloud: 100% | PPT: Ø | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

| | | **Species / Time (# on map)** | **# of Individuals** | **Flight height* and direction** | **Notes** |
|---|---|---|---|---|---|
| | | | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 111 | 1 | RLHA 1:17 | 1 | 3 m, well below blade sweep | Foraging |
| 61 | 2 | RLHA 1:21 | 1 | 8 m, below blade sweep | foraging |
| | | NOHA 1:21 | 1 | 1.5m | Perched on post |
| | | SNOW 1:21 | 1 | 1.5m | Perched on post |
| 114 | 3 | NOSH 1:28 | 1 | 6m | Perched in tree |
| | | SNOW 1:29 | 1 | 0m | Perched on ground in field |
| 179 | 4 | NOHA 1:32 | 1 | 2m | Foraging |
| 114 | 5 | RTHA 1:55 | 3 | 15m, below blade sweep | Soaring over woods |
| 180 | 6 | RLHA 1:59 | 1 | 15m | Perched in tree |
| 120 | 7 | RTHA 2:06 | 1 | 5m | Perched in tree |
| 158 | 8 | RLHA 2:10 | 1 | 1.5m | Perched on post |
| | | AMKE 2:11 | 1 | 5m, flying west | Foraging |
| 151 | 9 | AMKE 2:17 | 1 | 5m | Perched on wire |
| 181 | 10 | SNOW 2:42 | 1 | 0m | Perched on ground |
| 182 | 11 | NOHA 2:42 | 1 | 10m, flying west | Foraging |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________
(Field Personnel)

Signature: ______________________
(Project Manager)

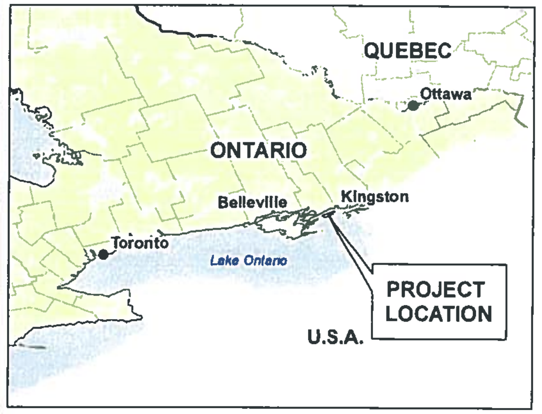
Page 1 of 1

REV: Aug 10 Form 018

WEST

## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ⬚ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor Migration** + Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd

1:10pm-

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter ~~Migrating~~ Raptor Observation Form

Project Number: 1009606595

Project Name: Amherst Island

Date / Time: Jan 24, 12

Field Personnel: B. Holden J. Mansell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 0°C | Wind: 4-5-W | Cloud: 100% | PPT: / | PPT in last 24 hrs: RAIN |

| | | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|---|
| | | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 183 | ① | 1322 | RCHA-1-light | - hunting pasture | on wing - 20m |
| 184 | ② | 1324 | RCHA-1-light | - perched on fence post | - 2m |
| N/A | ③ | 1350 | NH-1- | - perched on ground | - 0. |
| 38 | ④ | 1355 | RL-2-light | - hunting pasture | - 5m |
| 125 | ⑤ | 1355 | RL-1-dark | - " | - 10m |
| 185 | ⑥ | 1357 - | RT-1 -Ad | - on post / pasture | - 5m |
| | ⑦ | 1358 - | RL - 2 | - hunting pasture | - 15m |
| 172 | ⑧ | 1402 | RLHA - 8 individuals | hunting pasture | - 20m |
| 70 | ⑨ | 1405 | RL-1-dark | - hunting pasture | - 8m |
| n/a | ⑩ | 1406 | RT-1 - | perched on rock / pasture | - 7m |
| 73 | ⑪ | 1407 | RL-1 - | hunting pasture | - 10m |
| 132 | ⑫ | 1410 - | NH-1-♂ | hunting hay - 5m | |
| 186 | ⑬ | 1411 | RL -1- | flew SV - 30m | |
| 187 | ⑭ | 1414 - | AK-1 - | on roadside pole | - 5m |
| 21 | ⑮ | 1417 - | SNOW-1 - | roosting on fencepost | - 2m |

Quality Control: This form is complete ~~(__) & legible (__)~~.

Signature: ______________________
(Field Personnel)

Signature: Katrine
(Project Manager)

Page 1 of 2

REV: Aug 10 Form 018

~~**Other Bird Species**~~

~~Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.~~

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 88 ⑯ RL - 1 - | 1420 - | perched in high tree | - 10m |
| 90 ⑰ NH -1-Ad ♀ | - 1423 | - hunting fallow - | 5m |
| 24 ⑱ RT-1-Ad - | 1425 | - perched on tele-wire | - 5m |
| 188 ⑲ NH-1-Ad ♀ | -1429 | - hunting hayfield | - 5m |
| 95 ⑳ RT-1-Ad | -1434 | - on tele-wire - | 5m |
| 98 ㉑ NH - R - | 1435 | - hunting hwy - 10m | |
| 30 ㉒ RT - 1-Ad | - 1436 - | flew over road - | 15m |
| 189 ㉓ NH - 1 - | 1440 | - on haybail - | 5m |
| 190 ㉔ RT -1-Sub | - 1443 | - in roadside tree - | 15m |
| 171 ㉕ NH - 1 - " - | 1444 | - perched in field - | 0m (pasture) |
| 36 ㉖ RL - 1 - Light | -1446 | - hunting pasture - | 40m |
| n/a ㉗ AK-1 - | on wire with prey - 1505 | | - 10m |

Quality Control: This form is complete (✓) & legible (✓).

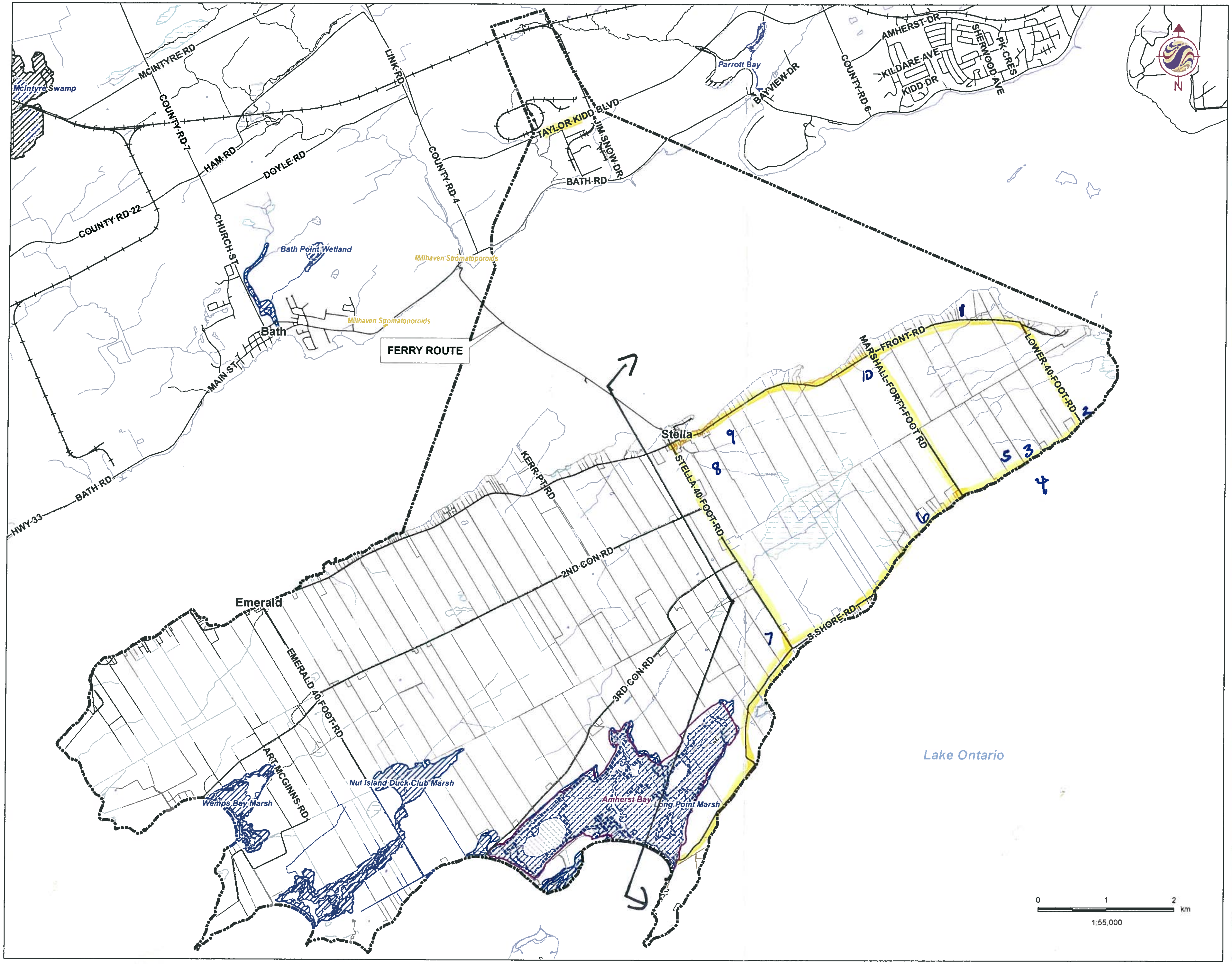
Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 2 of 2

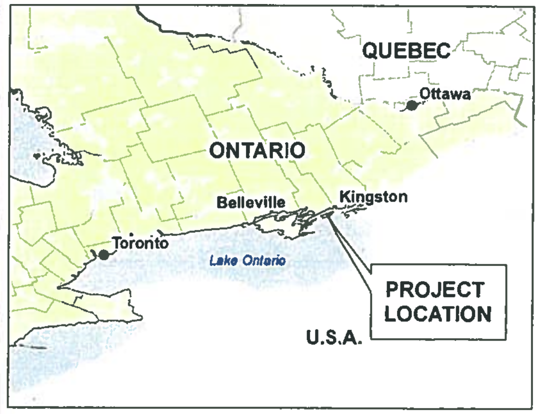
REV: Aug 10 Form 018

EAST -
MAINLAN



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- Watercourse
- ▭ Waterbody
- ▭ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▭ ANSI, Earth Science
- ▭ ANSI, Life Science
- ▭ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: Feb 7, 2012
Field Personnel: D. Graham, C. Korpijaakko

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: -2C | Wind: 1 | Cloud: 80% - 50% | PPT: None | PPT in last 24 hrs: None |

10$^{52}$ - 12$^{58}$

| | | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|---|
| | | | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| 191 | 1 | RTHA 11$^{03}$ | 1 | 15-20m East (below blade sweep) | Foraging |
| 11 | 2 | SNOW 11$^{12}$ | 1 | Below blade sweep | Perched on shed |
| 192 | 3 | SNOW 11$^{21}$ | 2 | 0-2m | 1 Perched on ground<br>1 Perched on post |
| ~~193~~ | ~~4~~ | BAEA 11$^{22}$<br>imm. | 1 | 25m | South of island by 0.5 km. |
| 194 | 5 | NOHA 11$^{25}$<br>RTHA | 3<br>1 | 10-15m<br>15m | Foraging. Not moving in 1 direction<br>Foraging, not moving in 1 direction |
| 195 | 6 | SNOW 11$^{35}$<br>NOHA<br>RLHA<br>AMKE | 1<br>1<br>1<br>1 | 0m<br>5-15m<br>15-20m<br>8m | Perched on ground<br>Chasing starling flock!<br>Soaring<br>Perched on wire |
| 196 | 7 | RTHA 12$^{15}$ | 1 | 10m | Perched in tree top |
| 159 | 8 | RLHA 12$^{30}$ | 1 | 15m | Foraging |
| 197 | 9 | RLHA 12$^{35}$ | 2 | 30m. In blade height | Foraging. |
| 115 | 10 | RLHA 12$^{40}$<br>NOHA 12$^{40}$ | 1<br>1 | 15m Below blade height<br>5m Flying west | Foraging<br>Foraging |

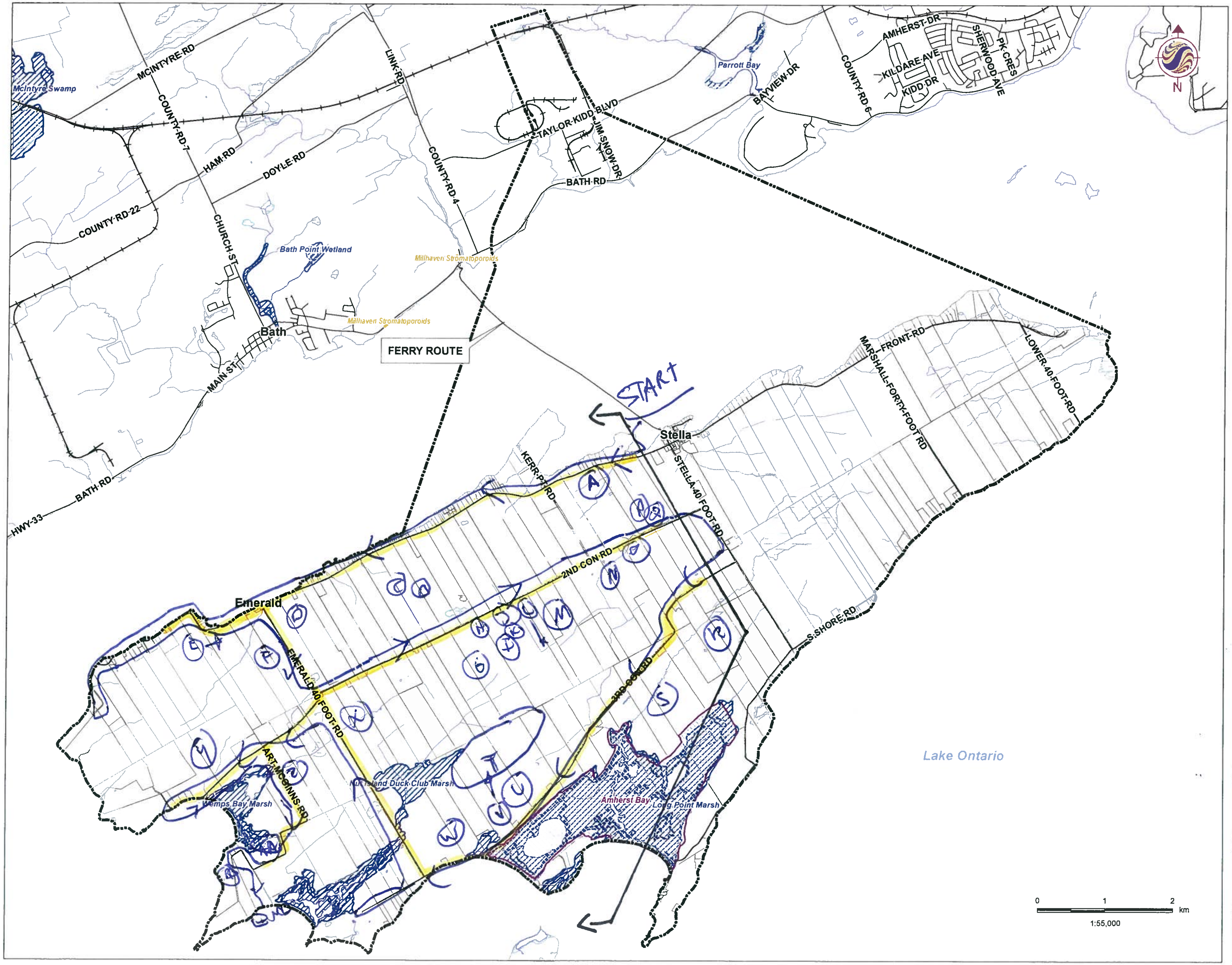
Quality Control: This form is complete (✓) & legible (✓).

Signature: Dan Graham
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 1

REV: Aug 10 Form 018



WEST

## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- Watercourse
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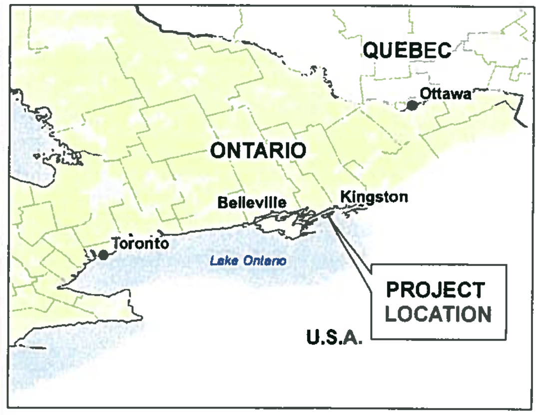
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor ~~Migration~~** + Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: February 7/2012

Field Personnel: J. Mansell + B. Holden

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | -2°c-+2°c | E 15km/h<br>to N-20km | 90% - 30% | Ø | Ø. |

1030-

| | Species / Time (# on map) | # of Individuals | Flight height* and direction<br>(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes |
|---|---|---|---|---|
| 198 Ⓐ | NOHA-1-♂ | -1055 | — hunting fallow grass | - 10m |
| 199 Ⓑ | " -1-♀ | -1102 | — hunting pasture | -10m |
| 200 Ⓒ | RLHA 1-light | - 1103 | — " " | - 10m |
| 201 Ⓓ | NOHA -1-♂ | -1108 | - " " | — 10m |
| 202 Ⓔ | RLHA -1-light | - Ad. 1120 | - flew E over | pasture - 40m |
| 203 Ⓕ | RLHA ② light's, | 1149 | -perch /hunting over | tall pasture -15m |
| 204 Ⓖ | RLHA-2-lights- | 1156 | - perched on fence posts in pasture | -5m |
| 68 Ⓗ | -NH-2-♀'s | - 1158 - | hunting pasture | -10m |
| 172 Ⓘ | RL-2 - light | 1159 | - " " | -15m |
| 40 Ⓙ | RL - 2 - dark | 1200 | " " | -5m |
| 69 Ⓚ | AK-1 - | 1201 - | on wire over pasture | -10m |
| 72 Ⓛ | RT-2 - Ad's - | 1202 | - flew S over | pasture - 50m |
| 42 Ⓜ | RT-2<br>RL-2 | 1204 | - All hunting | Pasture - 20m |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 1 of ____

REV: Aug 10 Form 018

Con't'd

**Other Bird Species**
Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

on MAP

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 45 (N) | RL-1-dark - | 1209 - | perched on dirt - | 0m |
| 83 (O) | RT-1-Ad - | 1211 - | on edge of woodlot | - 8m |
| 205 (P) | RL-1-dark - | 1212 - | hunting hay - | 35m |
| 206 (Q) | SNOW-1 - | 1215 - | Roosting in hayfield | (X) |
| 196 (R) | RTHA-1 - | 1230 - | Flying over weeds - | 40m |
| ~~207 (S)~~ | ~~" "~~ | ~~1235~~ | ~~" "~~ | ~~" 50m~~ |
| 208 (T) | RLHA-9<br>RTHA-3 | - 1240 - | Flying over pasture - | 80m |
| 209 (U) | NOHA-3 - | 1243 | - hunting pasture | - 10m |
| 210 (V) | PEFA-1 - | 1245 | - flew N - | 100m |
| 211 (W) | -BACA-1 (304)<br>RT-1<br>RL-3 | 1252 | kettling high | - 600m |
| Same one 171 ([illegible]) | RH-3 - | 1302 | - on ground in | pasture - (X) |
| 171 ([illegible]) | RL-1-dark - | 1304 | - kettling - 100m | |
| 171 (X) | RL-1-light | 1305 | - hunting pasture | - 15m |
| 212 (Y) | RTHA-2- | Ad - 1312 | - kettling | - 300m |

32 (Z) RT - 2 - Ad - 1319 - " - 150m

Quality Control: This form is complete (✓) & legible (✓).

Signature: RC (Field Personnel) Signature: Kathryn G (Project Manager)

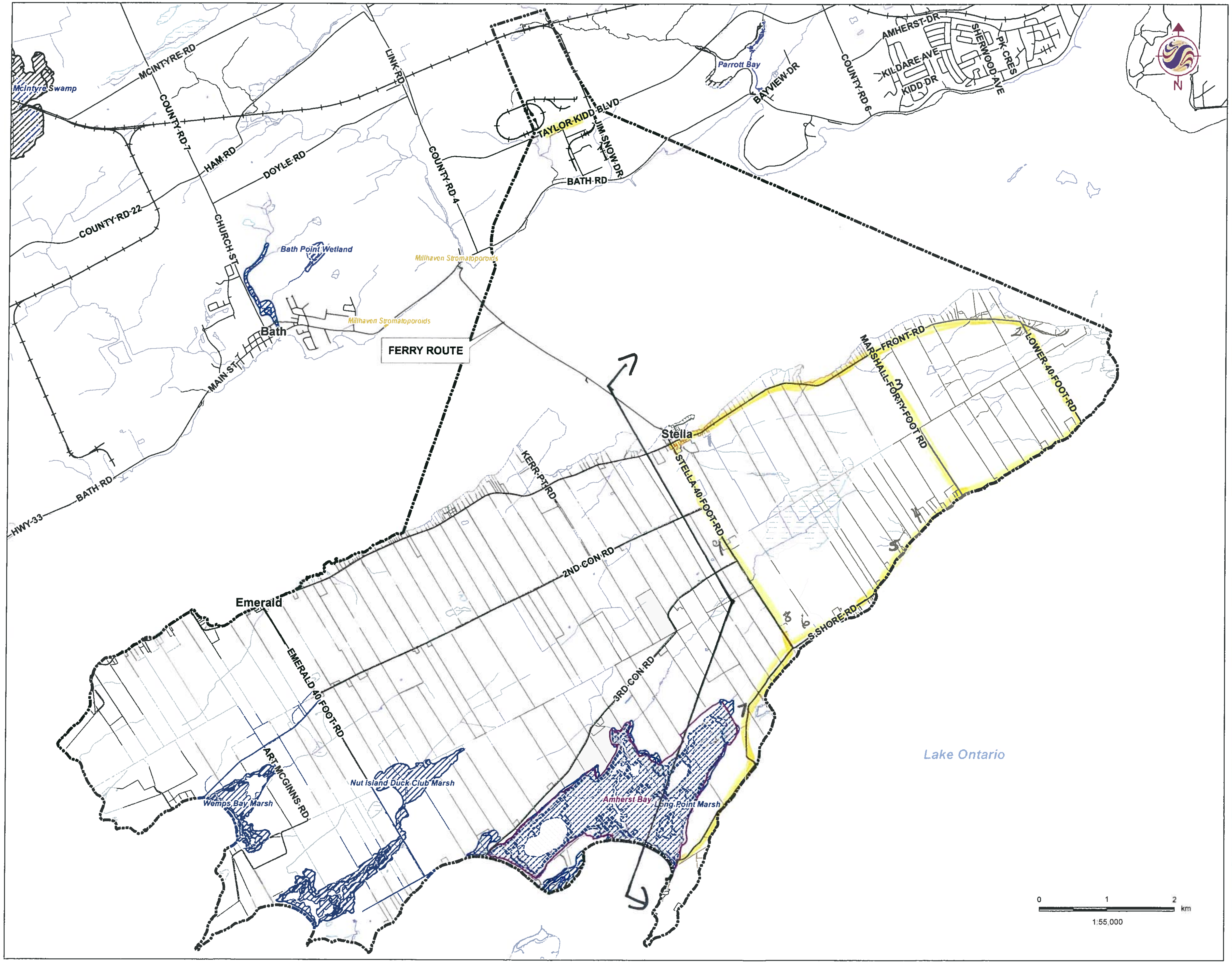
Page 2 of ____ REV: Aug 10 Form 018

Same point 32 (Z) RL - 2 - dark's - 1320 - " - 100m

33 (AA) RT - 2 - Ad (Pair) - 1324 -

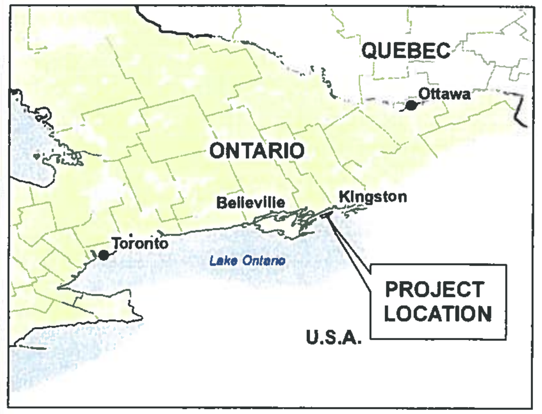
34 (BB) AMKE-1 1326 hunting hay -10m

EAST -
MAINLAN



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ⬚ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Feb 22 2012 $10^{50}$ - $12^{15}$

Field Personnel: D. Graham C. Korpijaakko

| | | | | |
|---|---|---|---|---|
| **Weather Conditions:** | Temp: 5°C | Wind: 2 | Cloud: 100% | PPT: Rain ~~None~~ | PPT in last 24 hrs: Snow |

| | | Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|---|---|
| | | | | *(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep)* | |
| 111 | 1 | RLHA $10^{35}$ | 2 | 3m ~ 8m. Below blade sweep | Foraging over field, |
| | | RTHA $11^{05}$ | 1 | 1m | Perched on fence post |
| 213 | 2 | AMKE $11^{08}$ | 1 | 2m | Foraging over fence |
| 214 | 3 | NOSH $11^{15}$ | 1 | 3m | Perched in hedgerow |
| 195 | 4 | SNOW $11^{25}$ | 1 | 8m | Perched on telephone pole |
| | | AMKE | 1 | 6m | Perched on telephone wire |
| | | RTHA | 1 | 8m | Perched in tree |
| 215 | 5 | SNOW $11^{30}$ | 1 | 1m | Perched on fence post |
| 216 | 6 | RTHA $11^{40}$ | 1 | 6m | Perched in tree |
| 155 | 7 | NOHA $12^{00}$ | 2 | 2m flying west | Foraging over pasture |
| 217 | 8 | AMKE $12^{05}$ | 1 | 1m | Perched on post in pasture |
| 218 | 9 | SNOW $12^{10}$ | 1 | 0m | Perched on ground in pasture |

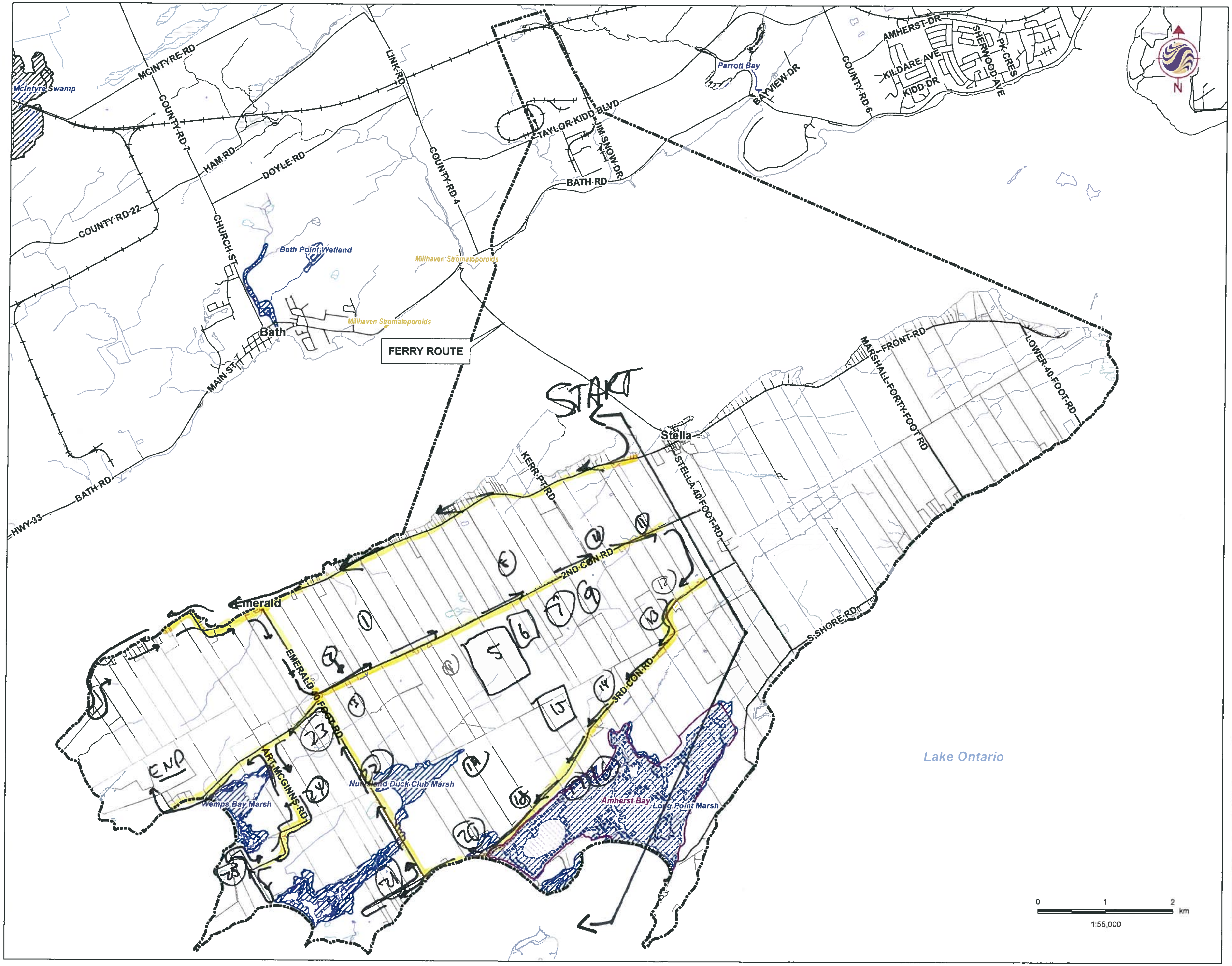
Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graha
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 1

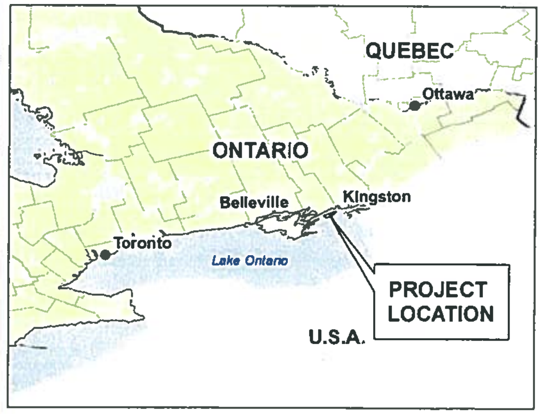
REV: Aug 10 Form 018



WEST

## Legend

- ▭ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ▭ Waterbody
- ▨ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ▭ Property Boundaries
- Wooded Area



## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor Migration + Short-eared Owl**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

1045- 1130

# Migrating Raptor Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Feb 22, 12

Field Personnel: B. Holden J. Mansell

| **Weather Conditions:** | Temp: 3-5°C | Wind: 4-5 W | Cloud: 100- 20% | PPT: Some squal like precip. | PPT in last 24 hrs: Snow / Rain |
|---|---|---|---|---|---|

| | Species / Time (# on map) | # of Individuals | Flight height* and direction<br>(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes |
|---|---|---|---|---|
| 219 1055 ① | RLHA | 1 - hover | hunting pasture -25m | |
| 220 1144 ② | " -Light | 1 - flying | S. over weeds - | 10m |
| 63 1147 ③ | " - dark | 1 - hover | hunting pasture - | 35m |
| 221 1149 ④ | " - dark | 1 - " | " " - | 20m |
| 39 1155 ⑤ | RLHA - 8<br>RTHA - 3 | hunting | community pasture | 5-25m |
| ~~70~~ 1155 ⑥ | RTHA - 1<br>RLHA - 2 | " | " " - | 40m |
| 73 1156 ⑦ | RLHA - 3 | " | " " - | 40m |
| 222 1159 ⑧ | RLHA - 1 | - perched | in tree / hay - 10m | |
| 34 1201 ⑨ | RTHA - 1<br>RLHA - 1 | hunting | pasture - 20m | |
| 15 ~~14~~ 1202 ⑩ | RTHA - | 1 - flew into | woodlot - 15m | |
| 06 1206 ⑪ | SNOW - 1 | - Resting | in hay field - | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: (Field Personnel)

Signature: (Project Manager)

Page 1 of 2

REV: Aug 10

Form 018

**Other Bird Species**

Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 12 1216 ⑫ | RTHA- 1 | - perched on | post / hay - 5m | |
| 37 1218 ⑬ | RC - dark | - hover hunting | hay - 40m | |
| 27 1221 ⑭ | NH -1- | Juv - hunting | hay - 5m | |
| 28 1223 ⑮ | RC - 4<br>NH-2 | ) hunting over | fallow on wing | -40m |
| 123 1225 ⑯ | NH - 6 - | Interacting | together over marsh | - 30m |
| 78 1226 ⑰ | RC - 1 - | hunting | marsh edge - 20m | |
| 209 1228 ⑱ | -SNOW -1 | - roosting | on farm equip - | 2m |
| 208 1229 ⑲ | - RT - 1 | - flying | over woodlot - | 40m |
| 24 1233-⑳ | -NH-3<br>RC-1 | > hunting | hay on the wing | -10m |
| 30 1236 21 | NH -1 | - feeding | in hayfield ⊗ | |
| 190 1243 ㉒ | RSHA- | 1 (Juv) - | flew through woods | - 15m |
| 101 1246-㉓ | RC - | 1 - dark - | hover hunting pasture | -20m |
| 225 1302 ㉔ | RT - | 2 - Ad - | circling over woodlot | -50m |
| 34 1307 ⑲ | NH - | 1 - | feeding in pasture - | 10m |

34 1308 ㉕ RC - 1 - flew over pasture - 20m

Quality Control: This form is complete (✓) & legible (✓)

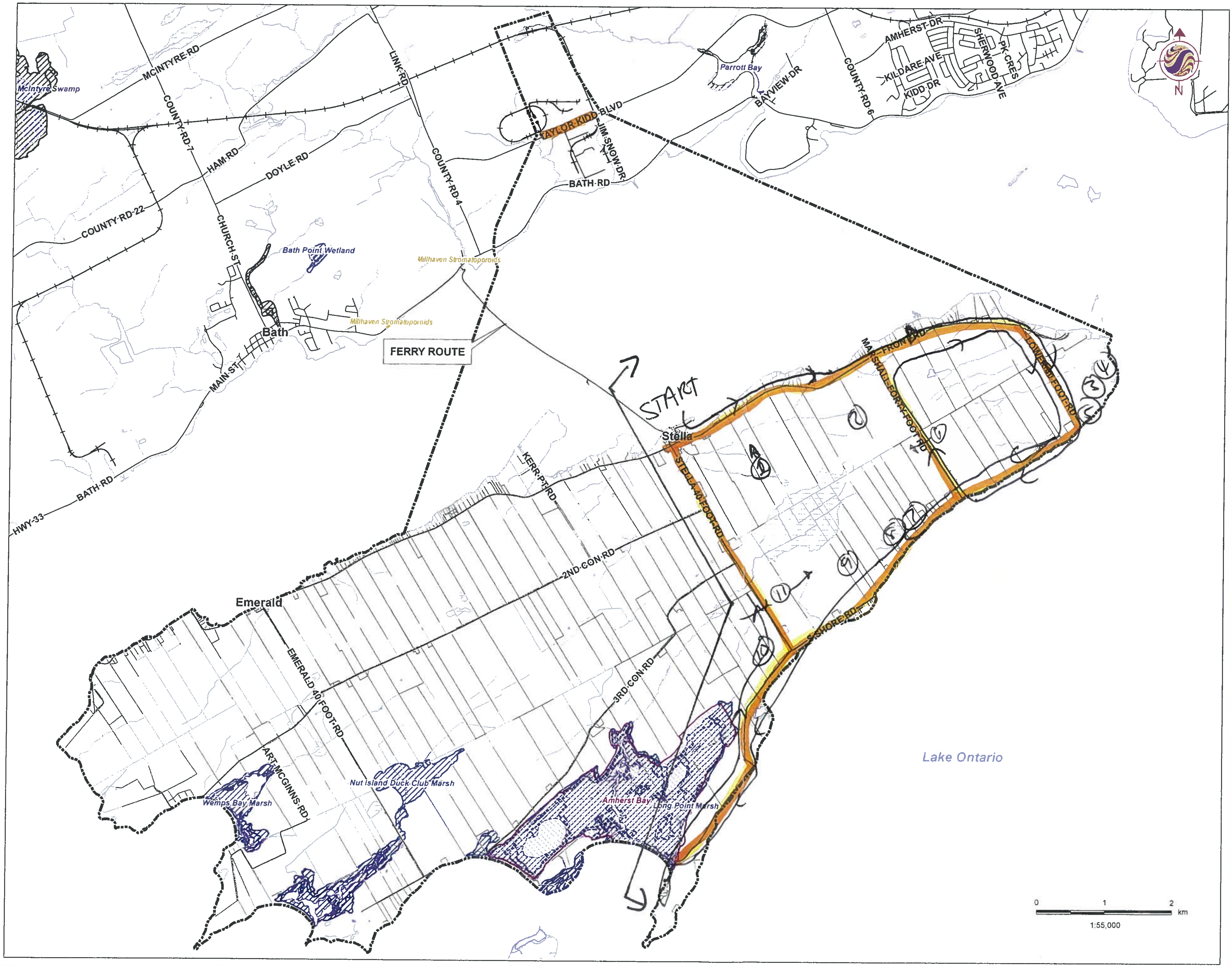
Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 2 of 2

REV: Aug 10 Form 018

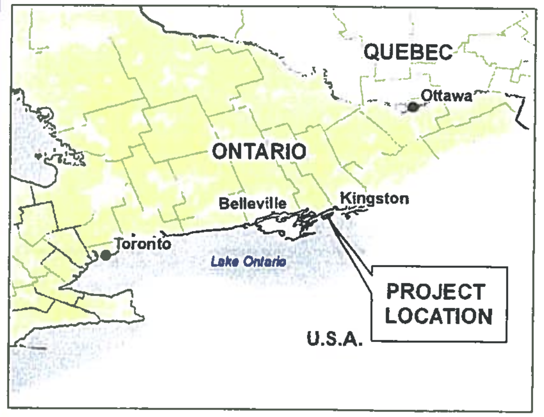
EAST-
MAINLAN



W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: oworsell

**Legend**

- ⬚ Project Study Area
- — Road
- ┼ Railway
- ┄ Watercourse
- ☐ Waterbody
- ⬚ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

1050-

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Stantec Consulting Ltd.
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N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595
Project Name: Amherst
Date / Time: Mar 7, 12
Field Personnel: B. Holden J. Mansell

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 7°C-10°C | 4-5-SSW | Light haze | | |

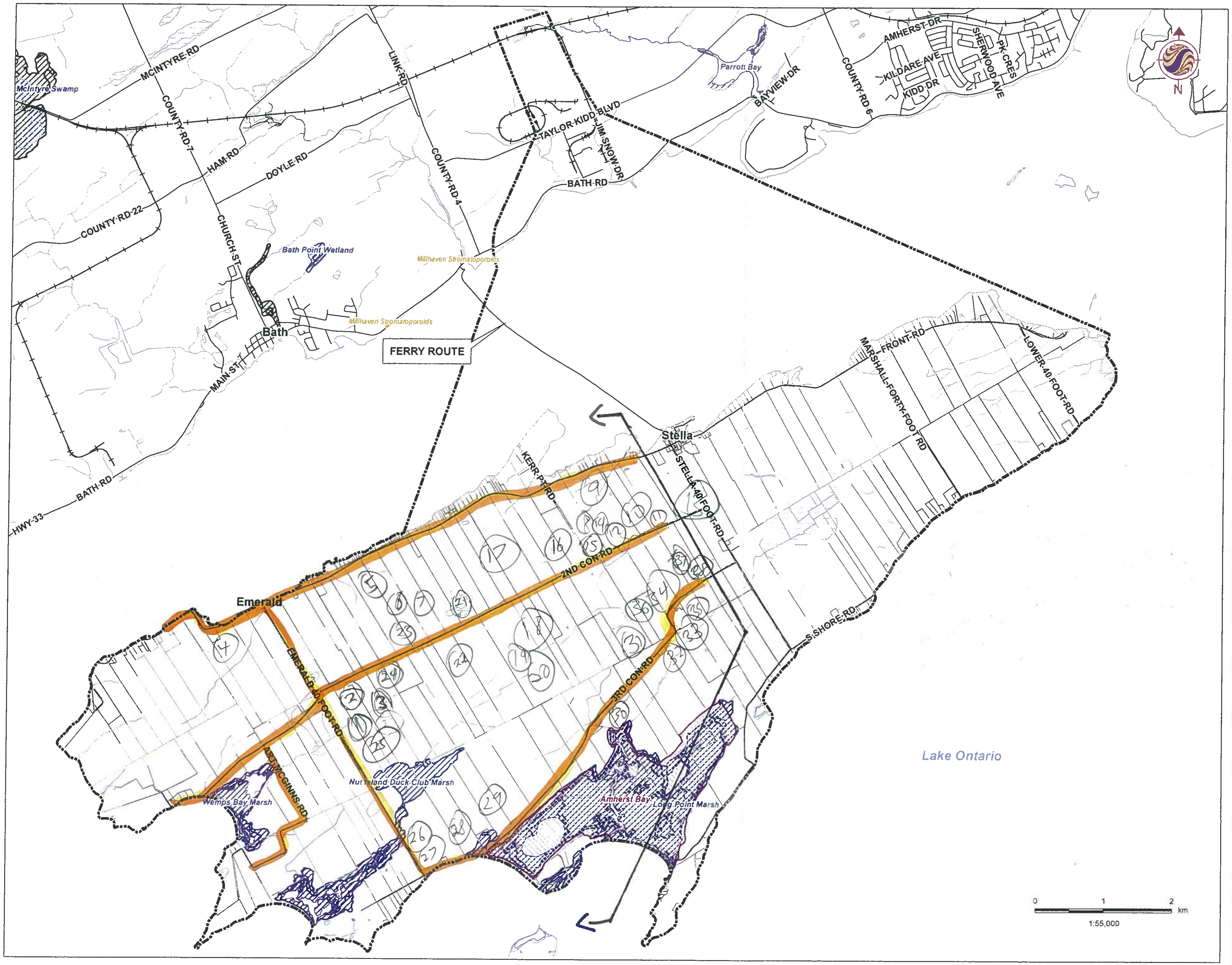
| | Species / Time (# on map) | # of Individuals | Flight height* and direction (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes |
|---|---|---|---|---|
| 226 ① | RCHA - 2 | - dark +2 - | 1057 - hunting | pasture - 15m |
| 2 ② | " - 1 - | Light - | 1102 - hover hunting | pasture - 40m |
| 150 ③ | " 1 | - dark - | 1112 - hunting | pasture - 20m |
| 112 ④ | RTHA - 1 - | — | 1114 - perched in | tree / pasture - 7m |
| 11 ⑤ | SNOW - 2 - | - | 1116 - roosting on | pasture |
| 227 ⑥ | RTHA - 1 | - Ad - | 1130 - flew E over | road / fallow - 15m |
| 195 ⑦ | AMKE - 1 - | ♀ - | 1149 - on wire | / hay - 10m |
| 228 ⑧ | SNOW - 1 - | ♂ - | 1150 - on tele | pole over hay - 10m |
| 229 ⑨ | SNOW - 1 - | ♀ - | 1154 - perched on | fencepost - / Pastue - 2m |
| 156 ⑩ | AMKE - 1 - | - | 1158 - hover hunting | pasture - 10m |
| 230 ⑪ | RTHA - 1 - | Ad - | 1225 - flew E overhead. | - 10m |

Quality Control: This form is complete (✓) & legible (✓)
Signature: ______ (Field Personnel)
Signature: ______ (Project Manager)

Page 1 of 1

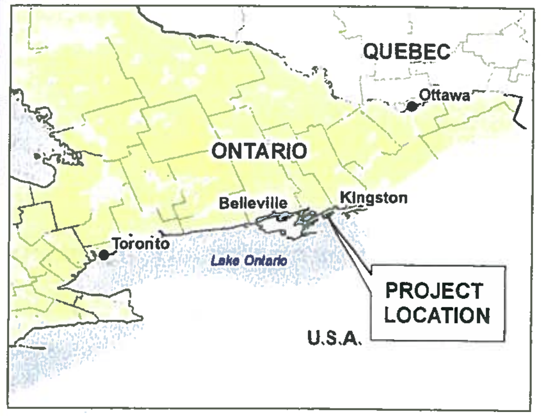
REV: Aug 10 Form 018

WEST



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- ⋯ Watercourse
- ▭ Waterbody
- ▭ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ▭ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, ~~&~~ Winter Raptor ~~Migration~~** + Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: oworsell

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Observation Form

Project Number: 160960595 Project Name: Amherst

Date / Time: Mar 7, 2012 14:35-17:35 Field Personnel: ART / NICK

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 12°C | Wind: 3 | Cloud: 20% | PPT: / | PPT in last 24 hrs: / | Ave. Snow Depth: 0 |

________ total **km driven on survey**

| | | Species / Time | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 171 | ① | RLHA 14:35 | 1 | -Pasture | -flying/hunting up to 5m high |
| 65 | ② | RTHA 14:40 | x1 | - Pasture | -perched on fence post ~1m high |
| 231 | ③ | RLHA 14:42 | x1 | -Pasture | - flying ~50m high |
| 232 | ④ | RLHA 14:52 | x1 | -fallow/pasture | -flying/soaring ~60m high |
| 183 | ⑤ | RLHA 15:03 | x2 | -Hay | -flying ~60m high |
| 200 | ⑥ | SNOW 15:04 | x1 | - Hay | - perched on ground. |
| 199 | ⑦ | RLHA 15:05 | x1 | - Hay/woodlot | -perched in tree ~5m high |
| 75 | ⑧ | COHA 15:08 | x1 | -woodlot | -flying 10m high |
| 198 | ⑨ | RTHA 15:21 | x2 | -woodlot | - pair mating |
| 71 | ⑩ | NOHA 15:24 | x2(♀+♂) | - Hay | -flying/hunting 1-2m high |
| 167 | ⑪ | MERL 15:42 | x1 | - Hay | - perched on post ~1m high |
| 80 | ⑫ | RTHA<br>RLHA 15:42 | x1<br>x1 | -Hay | - perched in tree ~10m high<br>- flying 30m high |

Quality Control: This form is complete (__) & legible (__).

Signature: ________________ Signature: ________________

(Field Personnel) (Project Manager)

Page 1 of 2

REV: May, 07 Form 018

|  |  | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| 167 | ⑬ | AMKE 15:48 | x1 | - Hay | perched in tree ~ 5m high |
| 76 | ⑭ | RLHA 15:22 | x1 | - Hay | -perched in shrub ~ 2m high |
| 233 | ⑮ | RTHA 16:01 | x1 | - Hay / woodlot | - perched on edge of woodlot ~ 5m high |
| 77 | ⑯ | RTHA 16:08 | x1 | - Hay | - flying ~30m high |
| 222 | ⑰ | RLHA 16:15 | x2 | - Hay | - perched in hawthorn ~ 2m high |
| 71 | ⑱ | RTHA 16:18 | x2 | - pasture | - perched in tree and shrub 2-10m high |
| 41 | ⑲ | NOHA 16:20 | x1 (♀) | - pasture | - flying low ~ 1m high |
| 31 | ⑳ | RLHA 16:21 | x1 +1 | - Pasture | - perched on fence post ~ 1m high and on gra |
| 129 | ㉑ | RLHA 16:26 | x1 | - Hay | - flying 30m high |
| 68 | ㉒ | AMKE 16:2[illegible] | x1 | - Pasture | - flying 30m high |
| 234 | ㉓ | RLHA 16:30 | x1 | - Hay | - perched in hedgerow ~ 5m h |
| 37 | ㉔ | NOHA 16:34 | x1 (♀) | - pasture | - perched on ground |
| 235 | ㉕ | SEOW 16:45 | x 8 | - pasture | - perched / flying up to 10m high |
| 189 | ㉖ | NOHA 16:57 | x3 (2♂+♀) | - Hay | - flying 15m high |
| 96 | ㉗ | RLHA 16:59 | x 2 | - Hay | - perched in hedgrow ~ 10m high |
| 211 | ㉘ | unidentified 17:06 | x1 | - Cow | - perched in tree ~ 5m high |
| 210 | ㉙ | SNOW 17:08 | x1 | - Hay | - perched on fence post |
|  |  | NOHA | x1 | " | - flying 2m high / 1m high |

Quality Control: This form is complete (__) & legible (__).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page _____ of _______

REV: May, 07 Form 018

|  |  | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| 236 | (30) | RLHA 17:13 | x1 | - Hay/fallow | -perched in tree ~10m high |
| 23 | (31) | RTHA 17:16 | x1 | - Hay | -perched in tree 10m high, took off towards woodlot |
| 138 | (32) | AMKE 17:17 | x2 | - lawn/woodlot | - perched on hydrowire ~7m high |
| 89 | (33) | RTHA 17:18 | x2 | - Hay | -perched in tree ~5m high |
| 22 | (34) | NOHA 17:18 | x1 | - Hay | - flying ~5m high |
| 21 | (35) | SEOW 17:20 | x1 | - Hay | - perched in tree ~5m high |
| 88 | (36) | SEOW 17:22 | x7 | - fallow/Hay | - flying up to 5m |
| 187 | (37) | AMKE 17:28 | x1 | - Hay | -perched on hydro pole ~8m high |
| 137 | (38) | AMKE 17:31 | x1 | - Hay | - flew, landing on hydro pole ~7m high |

Quality Control: This form is complete (__) & legible (__).
Signature: ______________________
(Field Personnel)

Signature: ______________________
(Project Manager)

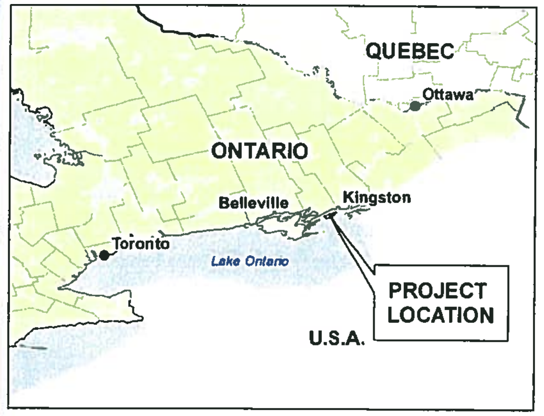
Page 2 of 2

REV: May, 07 Form 018

WEST

## Legend

⬚ Project Study Area
— Road
┼ Railway
— Watercourse
☐ Waterbody
▨ Unevaluated Wetland
▨ Provincially Significant Wetland
▨ ANSI, Earth Science
▨ ANSI, Life Science
☐ Property Boundaries
Wooded Area



## Notes

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Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
**Field Map - Waterfowl, Winter & Raptor Migration + Short-eared Owl**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: 20 Mar 2012 | start 10:45
Field Personnel: Mansell & Kotijaakko

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 18°C | low | 0% (haze) | n/a | n/a |

| Species / Time (# on map) | # of Individuals | Flight height* and direction<br>(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes |
|---|---|---|---|
| ① RLHA | 1 | In blade sweep | |
| ② RLHA | 2 | | |
| ③ RLHA | 2 | WABS → circling | |
| ④ NOHA | 1 | circling (IBSweep) | |
| raptor sp. | 1 | " " | |
| ⑤ RTHA | 1 | perched in tree. | |
| ⑥ NOHA | 1 | perched on fence post | near road |
| Buteo sp | 1 | perched ~100m S of | road in tree. |
| ⑦ NOHA | 1 | landed on ground. | |
| ⑧ TUVU | 1 | circling (IBS) | |
| RLHA | 1 | circling (IBS) | |
| ⑨ RTHA | 1 | Perched in roadside tree. | |
| RLHA | 1 | " " " " | |
| ⑩ RLHA | 1 | circling (IBS) | |
| RLHA | 1 | " " | |
| ⑪ RLHA | 1 | Perched in tree. | |
| ⑫ TUVU | 1 | circling (ABS) | |
| ⑬ RLHA | 2 | Perched in tree. | |
| ⑭ RLHA | 1 | Perched in tree. | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: ______ (Field Personnel)
Signature: ______ (Project Manager)

Page 1 of 4

REV: Aug 10 Form 018

**Other Bird Species**
Please record any flock behaviour (i.e. snow gulls, waterfowl, crows, blackbirds) or any significant species.

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| ⑮ | AMKE | 1 | perched on wire. | |
| ⑯ | RLHA | 1 | perched on tree. | |
| ⑰ | RLHA | 1 | perched in tree. | |
| | RLHA | 1 | circling (IBS/ABS) | |
| ⑱ | RLHA | 1 | circling (ABS) | |
| | RLHA | 1 | perched. ~100m N of road. | |
| ⑲ | RLHA | 1 | perched in tree in field | |
| | RTHA | 1 | circling (WABS) | |
| | RLHA | 1 | " " | |
| ⑳ | Raptor sp. | 1 | circling (ABS) | |
| community pasture. ← ㉑ | RLHA | 1 | circling (WABS) | |
| | RLHA | 1. | perched on tree | |
| | RTHA | 1 | perched on wire. | |
| | RLHA | 1 | perched on tree | |
| | RLHA | 1 | flying IBS | |
| | RLHA | 1 | " " | |
| | RLHA | 1 | perched on tree. | |
| | ~~RTHA~~ RLHA | 1 | Perched in tree ( | ~~[illegible]~~ |
| ㉒ | RLHA | 1 | circling (IBS) | |
| ㉓ | NOHA | 1 | hunting (low) | |
| ㉔ | RLHA | 1 | soaring (IBS) | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________________ (Field Personnel)
Signature: Kentrie S (Project Manager)

Page _____ of _______

REV: Aug 10 Form 018

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: 20 mar 2012
Field Personnel: mansell & Korpijaakko

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |

| Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|
| | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| ㉕ RLHA | 1 | WABS circling (dark morph) | |
| ㉖ RTHA | 1 | IBS hunting | |
| ㉗ RLHA | 1 | perched in tree. | |
| ㉘ AMKE | 1 | perched in tree | |
| RLHA | 1 | " " " | |
| ㉙ RTHA | 1 | perched on juniper | |

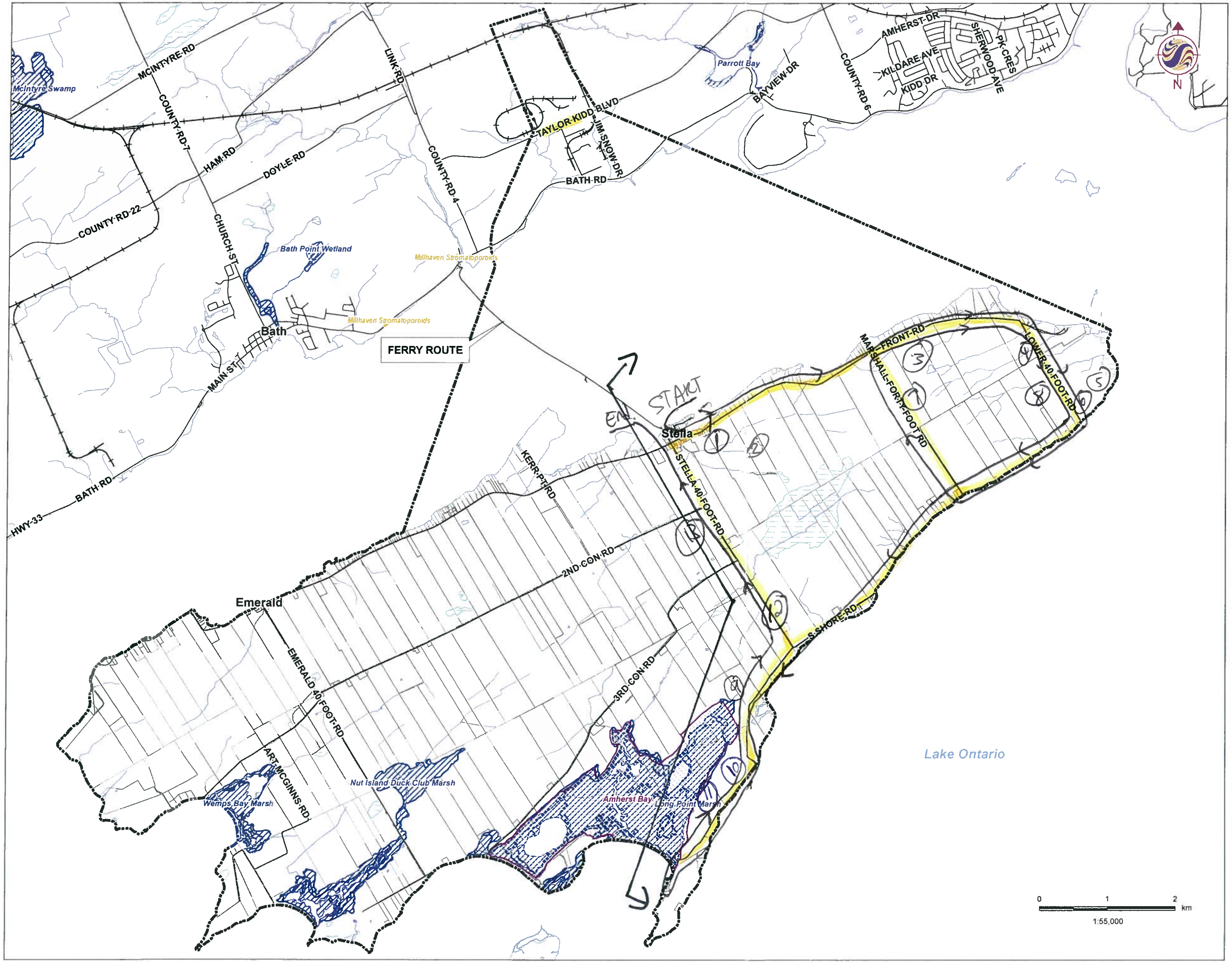
Quality Control: This form is complete (✓) & legible (✓).
Signature: (Field Personnel)

Signature: (Project Manager)

Page 3 of 4

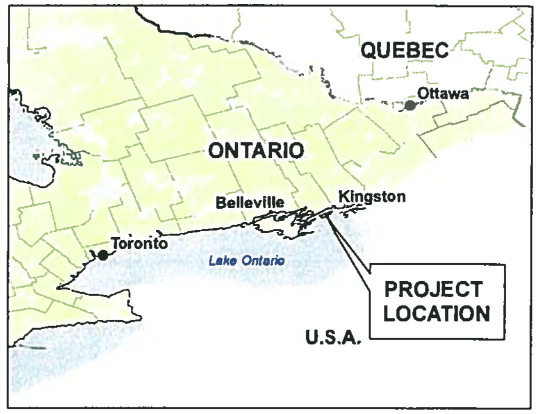
REV: Aug 10 Form 018

EAST -
MAINLAN



## Legend

▭ Project Study Area
— Road
+ Railway
Watercourse
☐ Waterbody
▭ Unevaluated Wetland
▨ Provincially Significant Wetland
▨ ANSI, Earth Science
▨ ANSI, Life Science
☐ Property Boundaries
Wooded Area



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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August 2011
160960595

Client/Project

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - ~~Waterfowl & Raptor Migration~~** Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: oworsell

N

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migrating Raptor Observation Form

Project Number: 1609605095

Project Name: Amherst Island

Date / Time: Mar 20, 2012

Field Personnel: B. Holden N. Charlton

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 12°-16° | Wind: / | Cloud: / | PPT: / | PPT in last 24 hrs: / |

| | Species / Time (# on map) | # of Individuals | Flight height* and direction<br>(* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | Notes |
|---|---|---|---|---|
| 1 | NOHA 10:56 | 2 | 10 m | ~~perch~~ flying over pasture |
| 2 | RLHA 10:57 | 1 | 10 m | perched in tree over pasture |
| 3 | RTHA 11:03 | 1 | 10m | perched over fallow in tree |
| 4 | RTHA 11:10 | 1 | 15 m | perched in tree over shrubmead |
| 5 | RTHA 11:10 | 1 | 10 m | perched in tree over pasture |
| 6 | NOHA 11:14 | 1 | 10 m | flying over pasture |
| 7 | RLHA 11:20 | 1 | 10 m | perched over fallow/gras |
| 8 | NOHA 11:23<br>RLHA 11:24 | 2<br>1 | 10 m | flying over fallow |
| 9 | SWOW 11:40 | 1 | 5m | perched on fence over pasture |
| 10 | NOHA 11:53 | 1 | 5m | perched/flying over fallow<br>on ground |
| 11 | RLHA 12:12 | 1 | 50m | flying over pasture |
| 12 | AMKE 12:13 | 2 | 10m | perched on wire by fallow/pastur |
| 13 | RLHA 12:21 | 1 | 10m | Perched in tree |

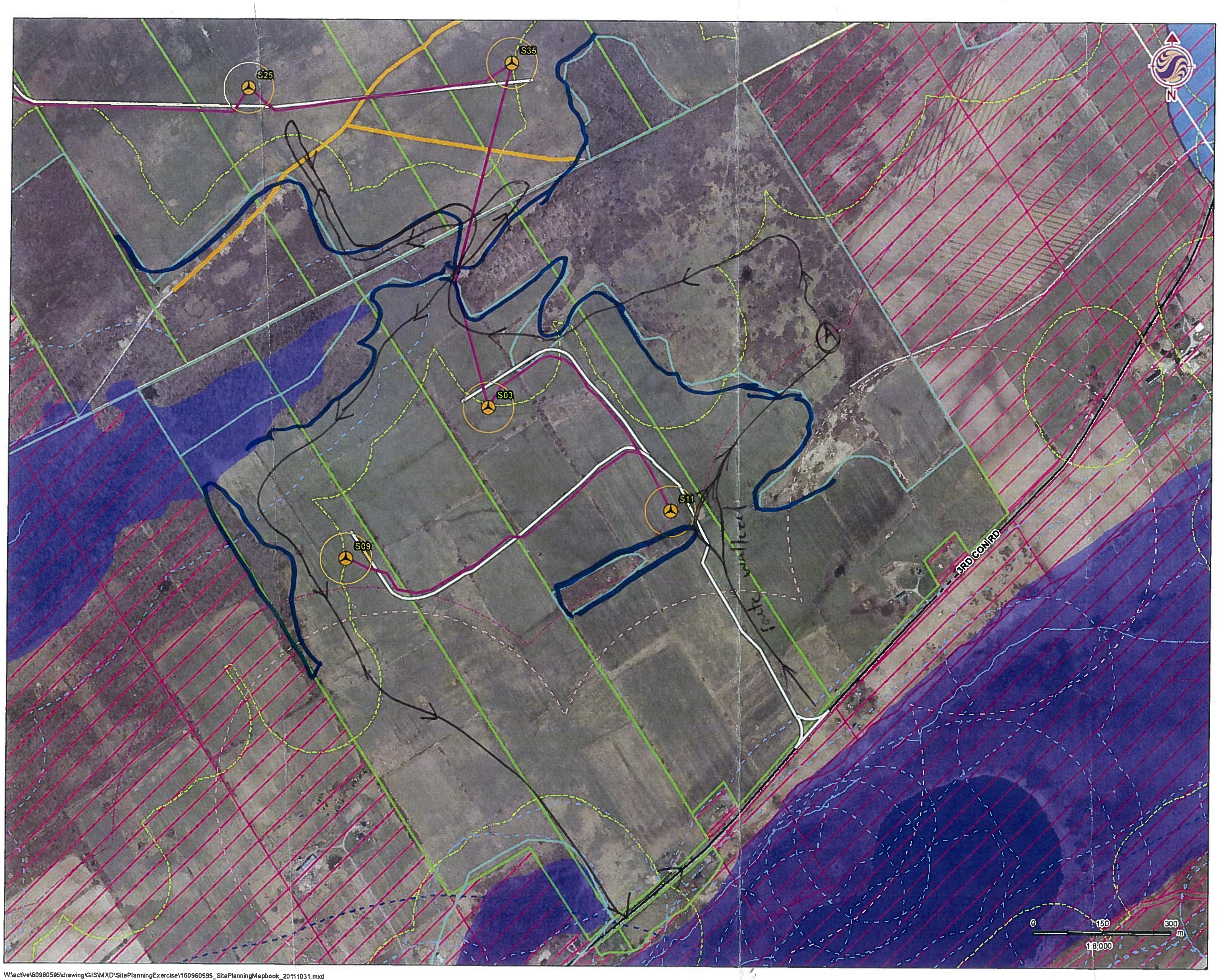
Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 1 of 1

REV: Aug 10 Form 018



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 6 of 19

Title

**FIELD MAP - LAYOUT S14**

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111031.mxd
Revised on: 2011-10-07 By: pworsell

| | |
|---|---|
| Stantec<br>Stantec Consulting Ltd.<br>70 Southgate Drive<br>Guelph, Ontario, Canada<br>N1G 4P5<br>Tel: (519) 836-6050<br>Fax: (519) 836-2493 | **Winter Raptor Roost Surveys** |

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Nov. 9/11

Field Personnel: J. Mansell, Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 15°C | 2 | 20% | none | light rain | 0 |

Location as indicated on field map: Tile 6 (D)

Start time: 8:50 am End time: 11:52 am

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

- no roosting owls or raptors observed
- woodlots are all deciduous around 509, 511, 503, 525, 535, except for a small patch of 5 junipers (marked as A on map)

Quality Control: This form is complete (✓) & legible (✓).

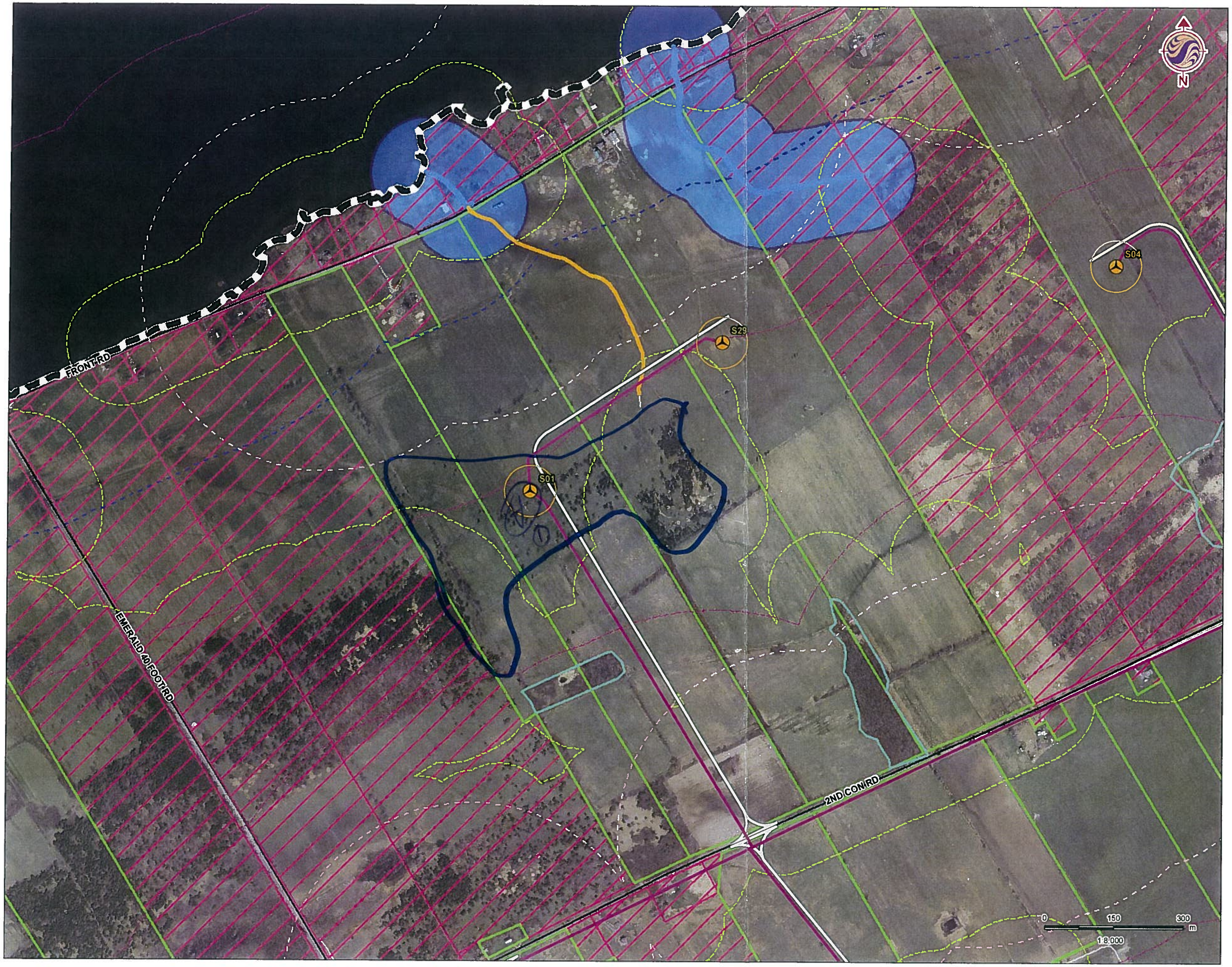
Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

1a



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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October 2011
160960595

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 4 of 19

Title

# FIELD MAP - LAYOUT S14

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111031.mxd
Revised on: 2011-10-07 By: pworsell

| | |
|---|---|
| **Stantec**<br>Stantec Consulting Ltd.<br>70 Southgate Drive<br>Guelph, Ontario, Canada<br>N1G 4P5<br>Tel: (519) 836-6050<br>Fax: (519) 836-2493 | **Winter Raptor SEOW Roost Surveys** |

Project Number: 160960595

Project Name: AMHERST

Date / Time: 9 Nov/11

Field Personnel: BoB STAMP + JiM HESLOP

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 10°C | W 5 KMH | 5% | 0 | / | — |

Location as indicated on field map: A . (B)

Start time: 9:15 End time: 10:15

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| ① NOHA | 1 | PASTURE/SCATTERED RED CEDAR | PERCHED + THEN HUNTING |

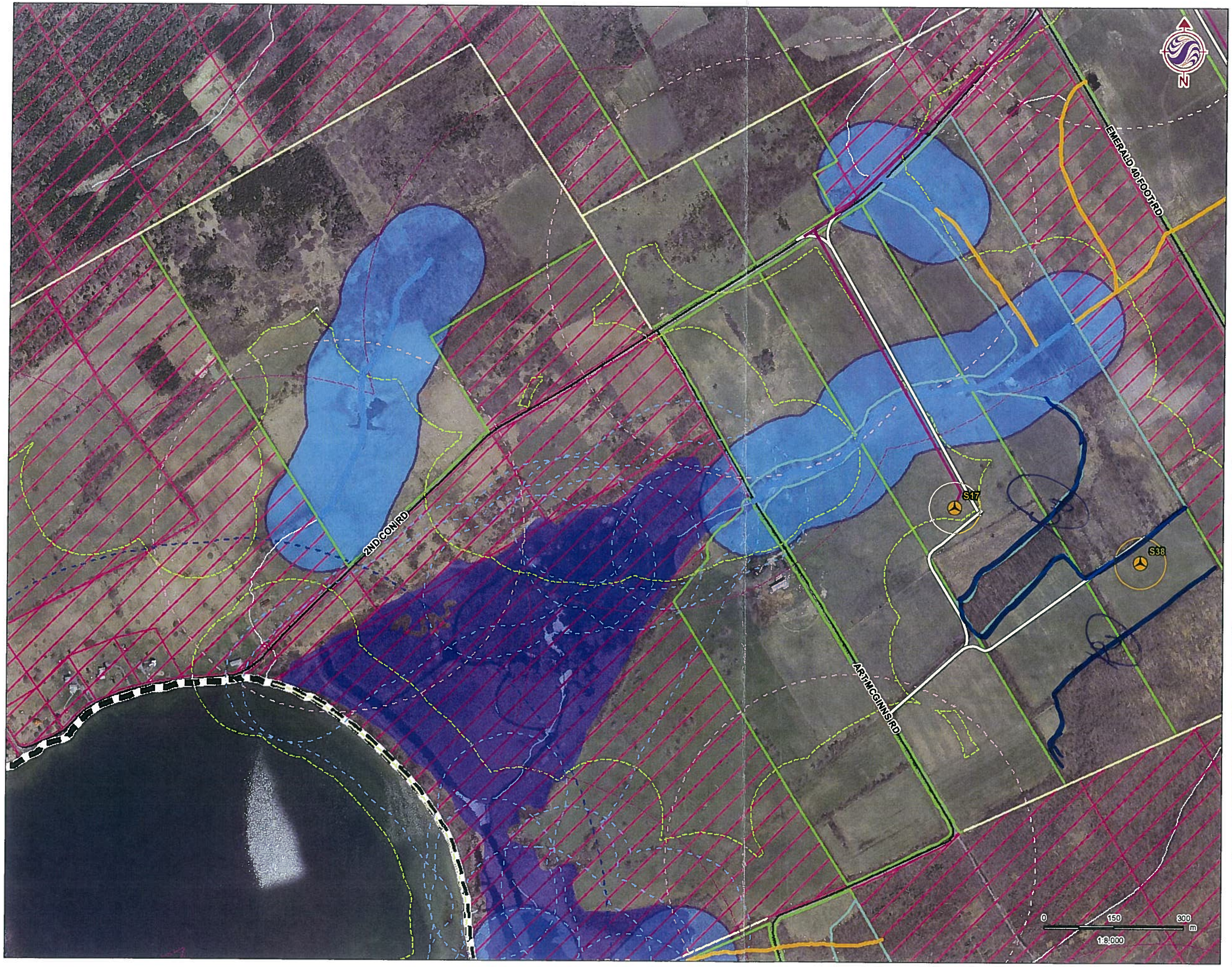
Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 1 of 1

REV: May, 07 Form 018



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 2 of 19

Title
**FIELD MAP - LAYOUT S14**

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Revised on: 2011-10-07 By: pworsell

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70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor – SEOW Roost Surveys

Project Number: 160960595

Project Name: AMHERST

Date / Time: 9 Nov/11 10:30–11:30

Field Personnel: Bob Stamp + Jim Haslop

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 12°C | W 10 KPH | 5% | 0 | / | — |

Location as indicated on field map: 2 & 3 (A)

Start time: 10:30 End time: 11:30

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| ② | | | NOTHING TO REPORT | |
| ③ | | | ✓ ✓ | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

2a

## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 5 of 19

Title

**FIELD MAP - LAYOUT S15**

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111117.mxd
Revised on: 2011-10-07 By: pworsell

(29)

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960595
Project Name: Amherst Island
Date / Time: Nov. 24/11
Field Personnel: J. Heslop ; Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 5°C | 3-4 | 90% | none | none | 0 |

Location as indicated on field map: Tile 5 of 19 (C)
Start time: 1:20 pm End time: 2:05

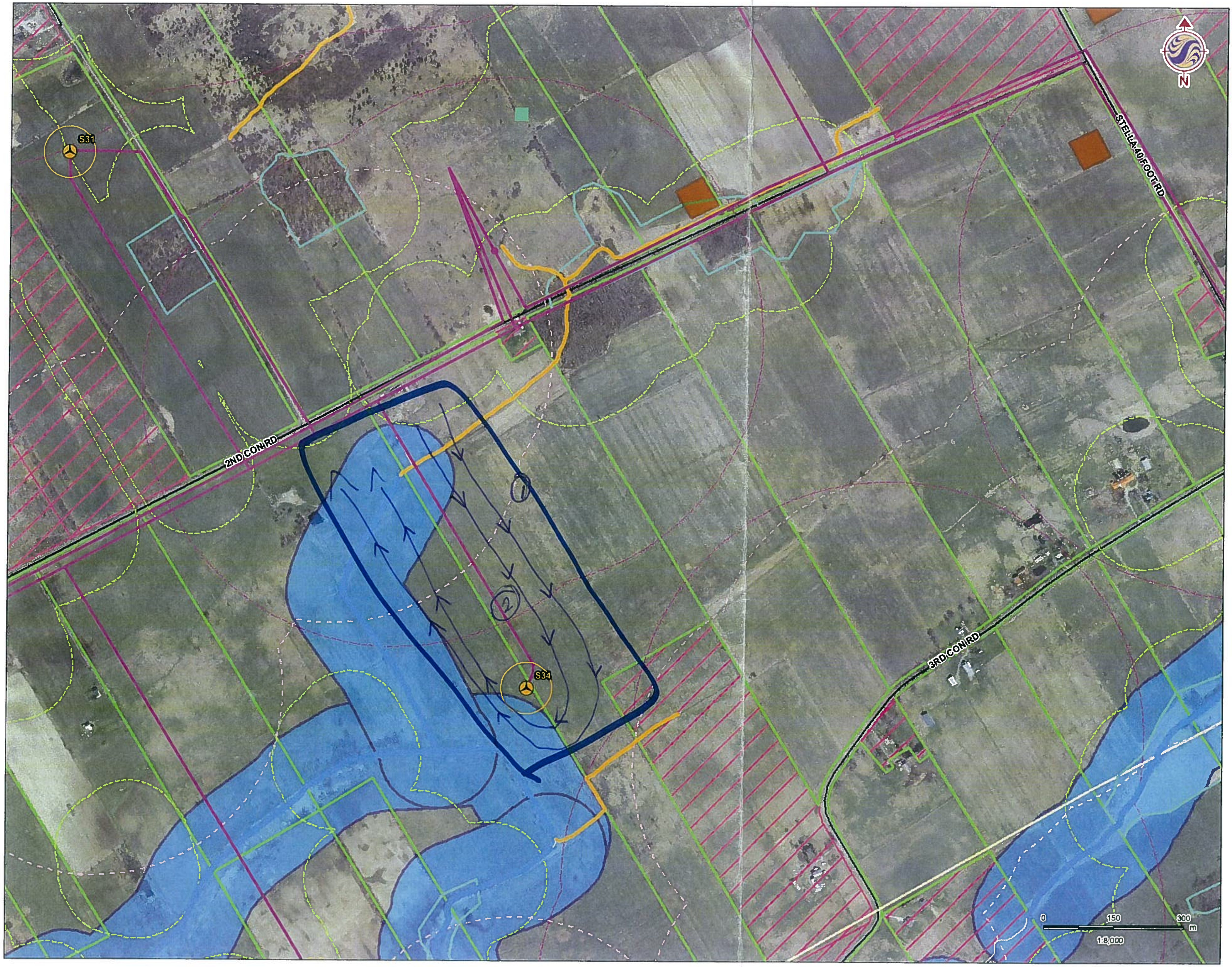
| Species (# on map) | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| NOHA/1:39 (#1) | 2 | - pasture | - hunting + resting |
| AMKE/1:41 (#2) | 1 | pasture | - perched in tree |
| - no conifers adjacent to field. | | | |

Quality Control: ~~This form is complete (✓) & legible (✓).~~
Signature: ________ (Field Personnel)
Signature: ________ (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

26



## Legend

- ▙ Study Area
- ⊛ Turbine (Layout S14)
- ☐ Turbine Blade Tips (55m)
- — Collector Lines
- ═ Access Road
- — Laydown Area and Crane Pad
- — Turn Around Path
- 🟧 O & M Building
- ▨ Potential Laydown and Storage Areas
- 🟩 Substation
- Unopened Road Allowance
- — Road
- Watercourse
- ☐ Optioned
- ▨ Not Optioned
- ☐ Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- — REA Waterbody
- — Not a REA Waterbody

**MRN Identified Wetlands**

- ▨ PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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November 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 10 of 19

Title

**FIELD MAP - LAYOUT S15**

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111117.mxd
Revised on: 2011-10-07 By: pworsell

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

## Winter Raptor Roost Surveys

Project Number: 160960595
Project Name: Amherst Island
Date / Time: Nov. 24/11
Field Personnel: J. Heslop + Z. Lebrun-Southcott

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 5°C | 3-4 | 100% | none | none | 0 |

Location as indicated on field map: Tile 10 of 19 (H)
Start time: 2:25
End time: 2:57

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| AMKE/2:30 (#1) | 1 | - pasture | - over post, hunting |
| RLHA/2:37 (#2) | 1 | - pasture | - on snag, hunting |

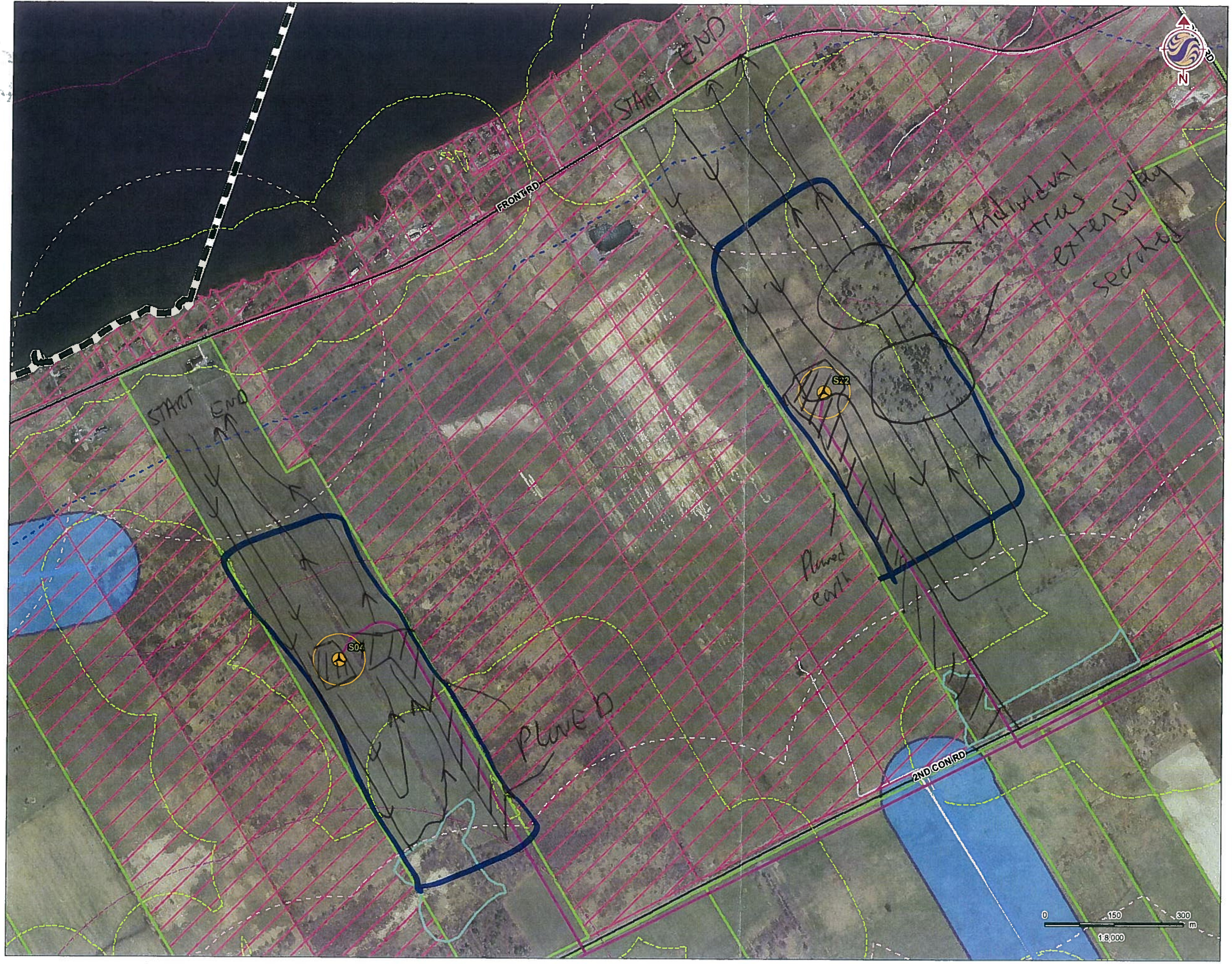
- no conifers adjacent to fields

Quality Control: This form is complete (✓) & legible (✓).
Signature: (Field Personnel)
Signature: (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

26



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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November 2011
160960595

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 7 of 19

Title

**FIELD MAP - LAYOUT S15**

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111117.mxd
Revised on: 2011-10-07 By: pworsell

2a

## Legend

- ▬ Study Area
- ⊛ Turbine (Layout S14)
- ☐ Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- ■ O & M Building
- ▨ Potential Laydown and Storage Areas
- ■ Substation
- Unopened Road Allowance
- Road
- Watercourse
- ☐ Optioned
- ▨ Not Optioned
- ☐ Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- ■ PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 13 of 19

Title
**FIELD MAP - LAYOUT S15**

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Revised on: 2011-10-07 By: pworsell

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70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960595

Project Name: Amherst

Date / Time: Nov 24, 2011

Field Personnel: B. Holden J. Mansell

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 6°C | 3 - W | 100 | / | Snow? | / |

Location as indicated on field map: 2b - east field - 1305 - 1405 (E)
Start time: 1416 End time: 1522 - west field

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| East field | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 1330 | NSHR-1 | Ad - | | |
| West - | X | | | |

Quality Control: ~~This form is complete ( ) & legible ( ).~~
Signature: ______ (Field Personnel)
Signature: ______ (Project Manager)

Page 1 of 2

REV: May, 07 Form 018

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 595
Project Name: Amherst
Date / Time: Nov 29, 11
Field Personnel: BH, SM

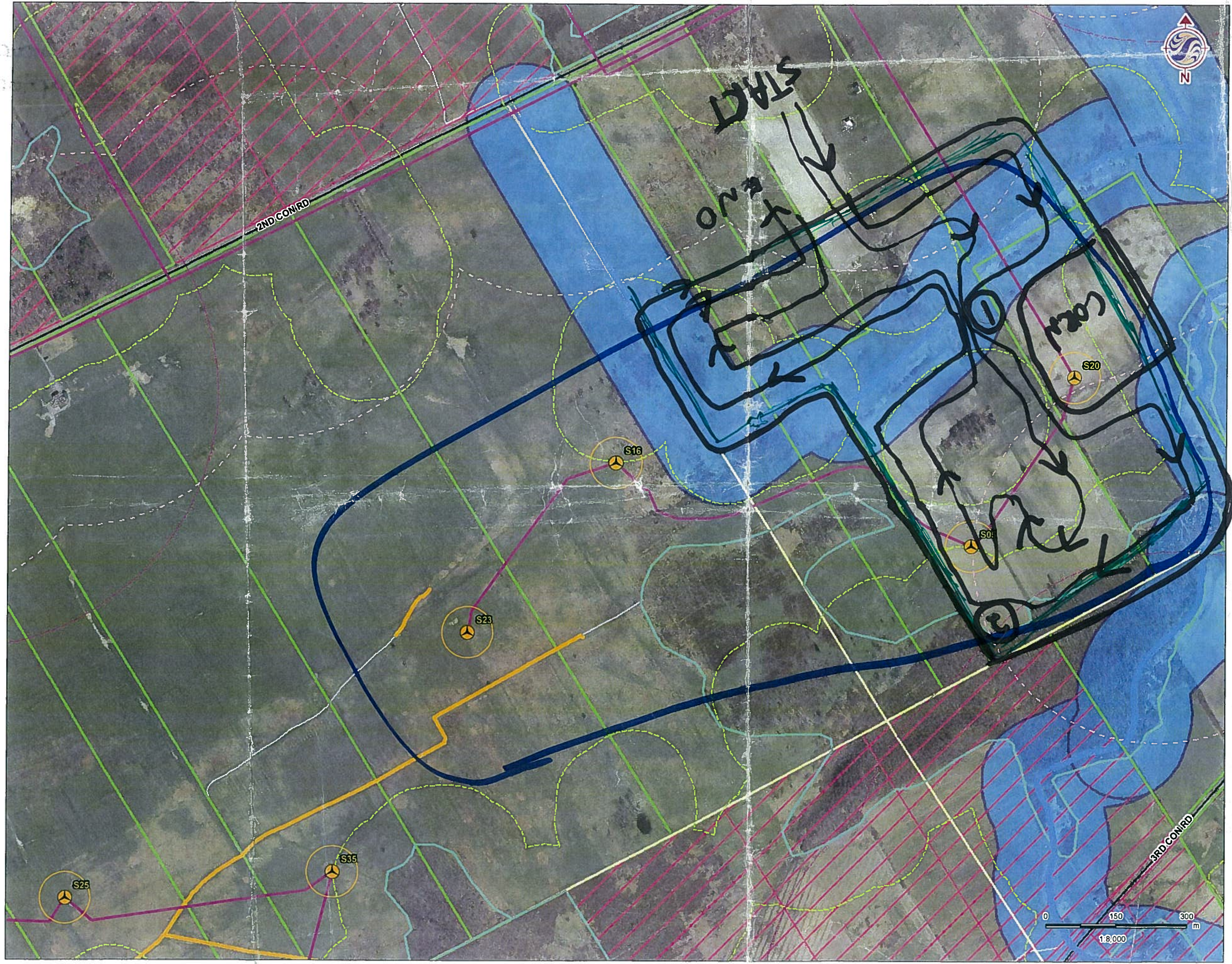
| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>5 | Wind:<br>3-W | Cloud:<br>100 | PPT: | PPT in last 24 hrs:<br>snow ? | Ave. Snow Depth: |

Location as indicated on field map: 2a (J)
Start time: 12:00 End time: 13:00

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 12:44 SEOW | – 28 | circled on map.<br>Taller (1-2 ft) dead clumps of grass in pasture field<br>28 roosting SEOW (all flushed).<br>Photos taken of habitat. | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: _______________ (Field Personnel)
Signature: _______________ (Project Manager)

Page 2 of 2



3a

**Legend**

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

only area inside black covered.

## Notes

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160960595

Client/Project
WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 8 of 19

Title
**FIELD MAP - LAYOUT S15**

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Revised on: 2011-10-07 By: pworsell

1- SL 2-RL

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960595
Project Name: Amherst
Date / Time: Dec 7, 11
Field Personnel: B.H. J.M. Z L-S, C.A-P,

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 2 | Wind: 2-N | Cloud: 100 | PPT: — | PPT in last 24 hrs: RAIN | Ave. Snow Depth: — |

Location as indicated on field map: (F)
Start time:
End time:

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| ① | SEOW | 1 | - Roosting in tall canary reed grass near creek. | (Flushed) |
| ② | RCHA | 1 (light Jw) | - On ground in woods (Flushed) - very odd location. (roosting?) | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: (Field Personnel)
Signature: (Project Manager)

Page 1 of 1

36

## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9 of 19

Title

**FIELD MAP - LAYOUT S15**

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# Winter Raptor Roost Surveys

(A)

Project Number: 594
Project Name: Amherst
Date / Time: Dec 20, 11
Field Personnel: B. Holden N. Chantler

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: — | PPT in last 24 hrs: — | Ave. Snow Depth: — |

Location as indicated on field map: (G)
Start time:
End time:

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| ① SEOW | 1 (dead) | - fresh remains of dead seow (predated) | |
| - Signs of extensive owl use (old pellets etc) found throughout site, little fresh signs noted. | | | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: (Field Personnel)
Signature: (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

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# Winter Raptor Roost Surveys

B

Project Number: 595

Project Name: Amherst

Date / Time: Dec 20, 11

Field Personnel: B. Holden N. Charlton

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | | | | | | |

Location as indicated on field map: __________

Start time:__________ End time:_________

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| ① Snow | 1 | roosting in decid tree - 5 m. | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: __________ (Field Personnel)

Signature: __________ (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

46

## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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Figure No.
Tile 16 of 19

Title
# FIELD MAP - LAYOUT S15

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Revised on: 2011-10-07 By: pworsell

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Winter Raptor Roost Surveys

~~**Winter Short-eared Owl Observation Form**~~

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Dec. 20/11 1:10 pm - 1:57 pm

Field Personnel: C.A. Payette, Z. Lebrun-Southcott

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 1-2°C | Wind: 1-2 | Cloud: 10-30% | PPT: / | PPT in last 24 hrs: light rain | Ave. Snow Depth: 0 |

~~total km driven on survey~~ Map 4b (M)

| ~~Time~~ Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| - no roosting owls or raptors observed | | | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: (Field Personnel)

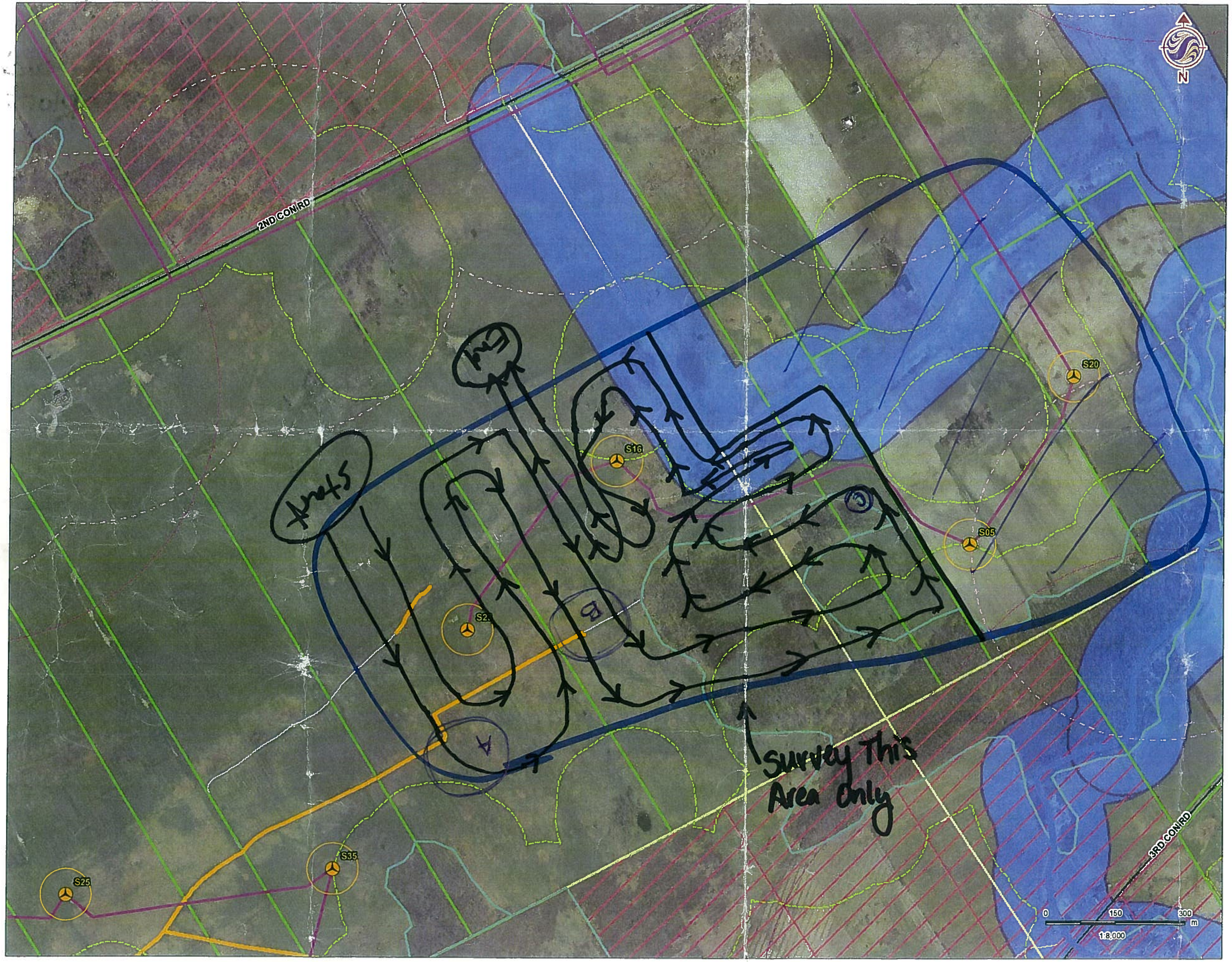
Signature: (Project Manager)

Page 1 of 1

REV: May, 07

Form 022

39



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 8 of 19

Title

FIELD MAP - LAYOUT S15

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# Winter Raptor Roost Surveys

Project Number: 16096059S

Project Name: Amherst

Date / Time: Dec. 20/11

Field Personnel: Cheryl-Anne Payette, Z. Lebrun-South

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>-2-0°C | Wind:<br>1-2 | Cloud:<br>10-40% | PPT:<br>/ | PPT in last 24 hrs:<br>light rain | Ave. Snow Depth:<br>0 |

Location as indicated on field map: Tile 8 of 19 (f) (Map 3a)

Start time: 9:15 am End time: 11:48 am

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| Ⓐ SEOW | 5 | - cultural meadow (wet) / meadow marsh w/ goldenrod + grasses; adjacent to watercourse | - roosting - flushed as we approached |
| Ⓑ SEOW | 10 | - same habitat as above | - roosting |
| Ⓒ NOHA | 1 | - fallow thicket | - flushed from ground |

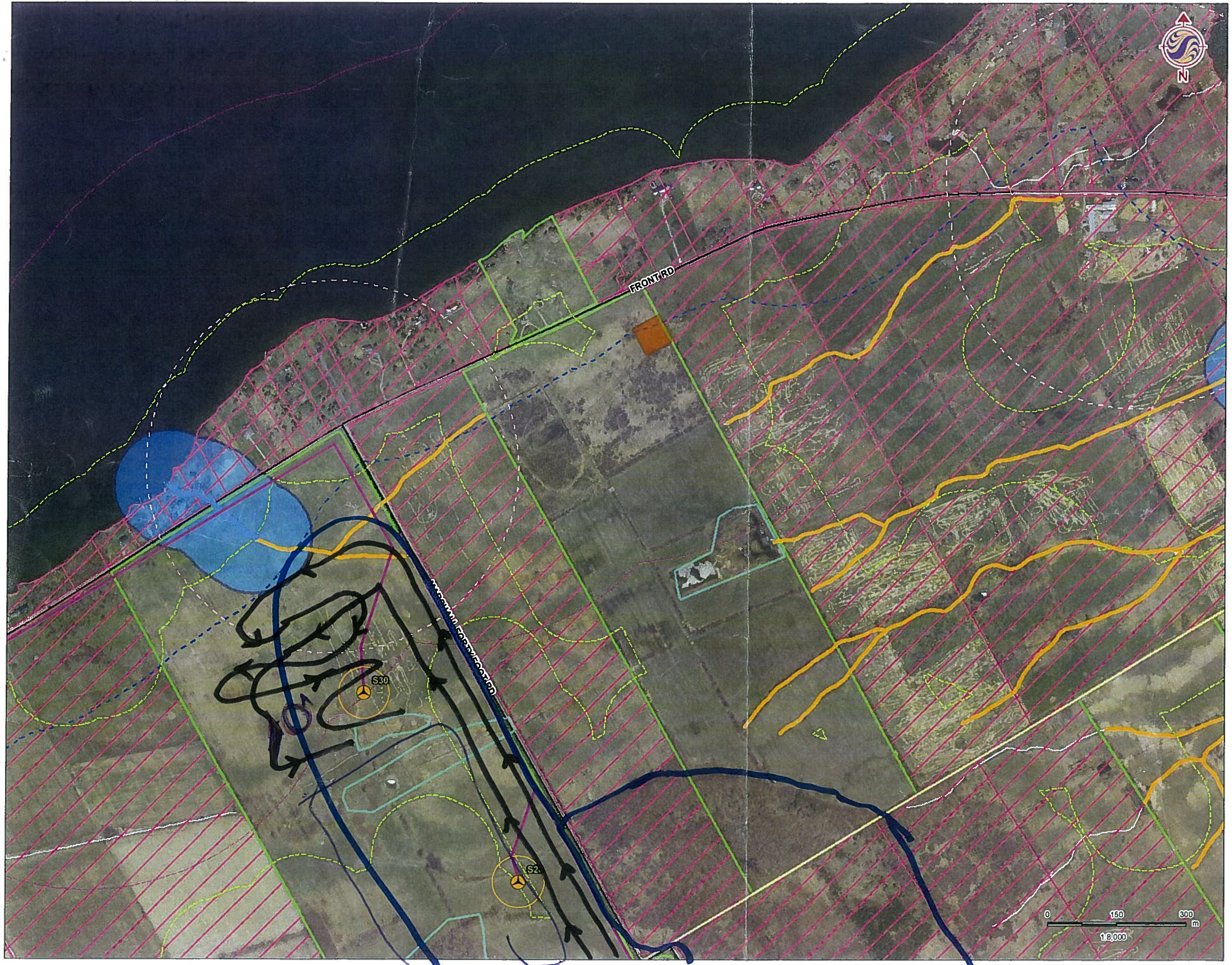
Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 1 of 1

REV: May, 07 Form 018



4a

## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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Figure No.
Tile 15 of 19

Title
**FIELD MAP - LAYOUT S15**

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Revised on: 2011-10-07 By: rworsell

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Winter Raptor Roost Surveys

# ~~Winter Short-eared Owl Observation Form~~

Project Number: ~~160960494~~ 160960595

Project Name: ~~Wolfe Island~~ Amherst

Date / Time: Dec. 20/11 2:00 - 3:15pm

Field Personnel: C. Payette, Z. Lebrun-Southcott

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 0°C | Wind: 1-2 | Cloud: 10-20% | PPT: – | PPT in last 24 hrs: light rain | Ave. Snow Depth: 0 |

(L)

________ total **km driven on survey**

Map #4A (SW portion of map not surveyed b/c owls already out + flying around)

Ⓐ

| ~~Time~~ Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| SEOW | 3 | fallow field | 1 roosting - flushed + flew over to adjacent field (to the west) + was joined by 2 others (likely these ones came from adjacent field to the W?) |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ________ (Field Personnel)

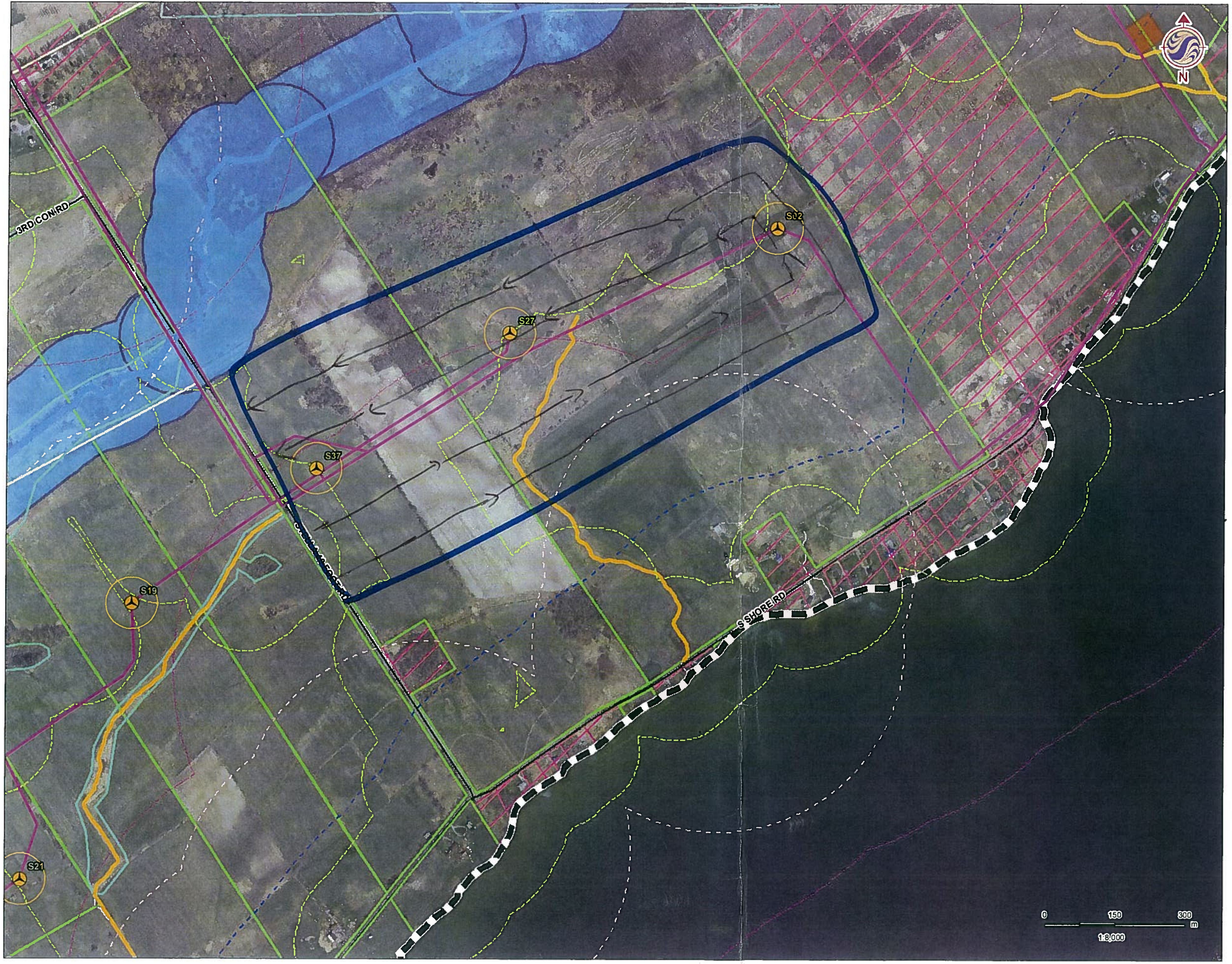
Signature: ________ (Project Manager)

Page 1 of 1

REV: May, 07 Form 022

[illegible]

59



## Legend

- ▙ Study Area
- ● Turbine (Layout S14)
- ☐ Turbine Blade Tips (55m)
- — Collector Lines
- — Access Road
- — Laydown Area and Crane Pad
- — Turn Around Path
- 🟧 O & M Building
- ▨ Potential Laydown and Storage Areas
- 🟩 Substation
- Unopened Road Allowance
- — Road
- Watercourse
- 🟩 Optioned
- ▨ Not Optioned
- ☐ Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- — REA Waterbody
- — Not a REA Waterbody

**MRN Identified Wetlands**

- ☐ PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- ☐ Wooded Area (120m)
- ☐ Lake Ontario (300m)
- ☐ PSW (120m)
- ☐ Waterbody (120m)
- ☐ Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 14 of 19

Title

**FIELD MAP - LAYOUT S15**

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# Winter Raptor Roost Surveys

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Jan 10 3:20

Field Personnel: D. Graham, K. Ross

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 4°C | Wind: 1 | Cloud: 50% | PPT: None | PPT in last 24 hrs: None | Ave. Snow Depth: 0 |

Location as indicated on field map: 5A (k)

Start time: 3:20 End time: 4:20

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| None | | | |

Quality Control: This form is complete (✓) & legible (✓).

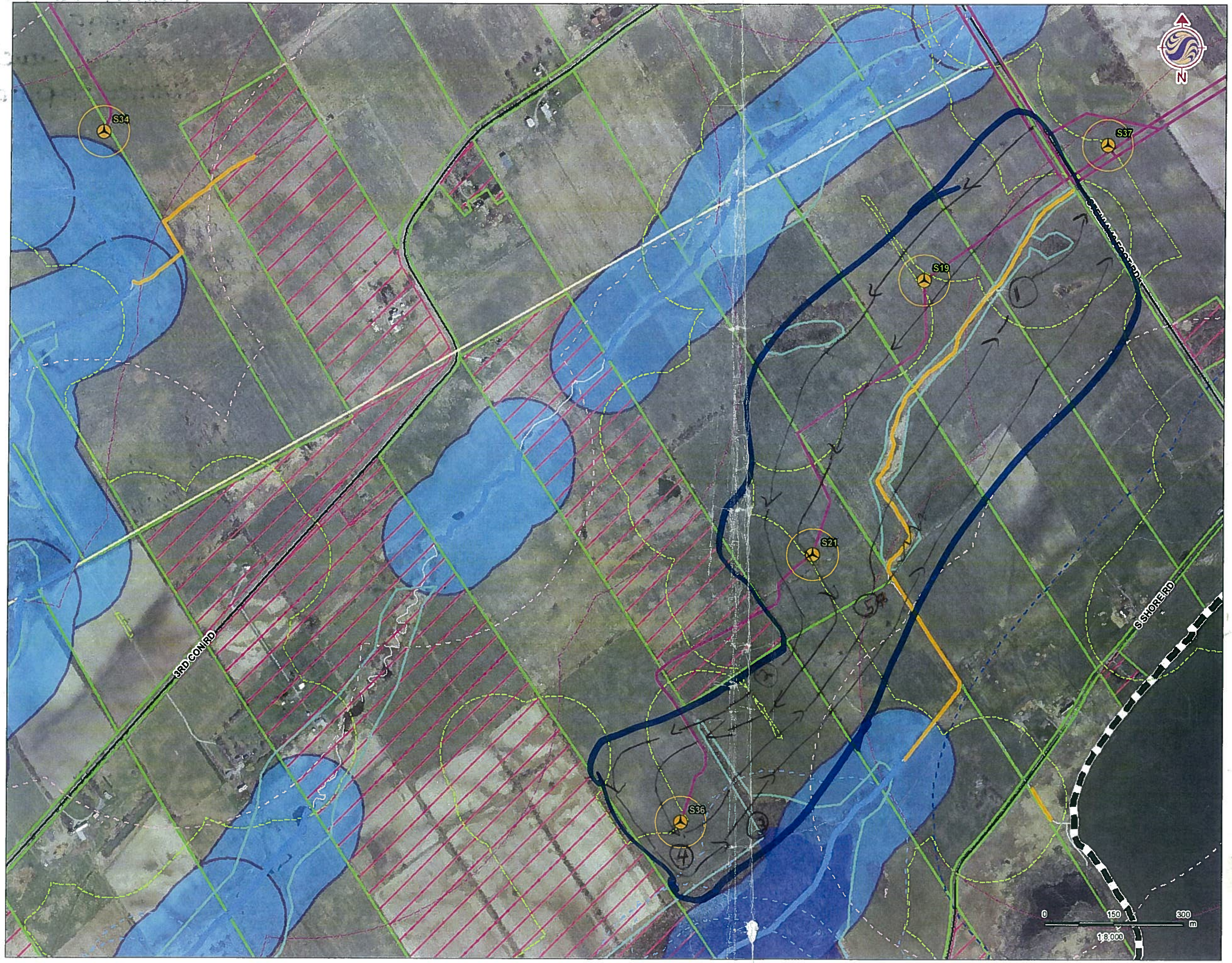
Signature: Don Graham
(Field Personnel)

Signature: Kent
(Project Manager)

Page 1 of 1

REV: May, 07 Form 018

56



## Legend

- ▙ Study Area
- ⊛ Turbine (Layout S14)
- ☐ Turbine Blade Tips (55m)
- — Collector Lines
- ═ Access Road
- — Laydown Area and Crane Pad
- — Turn Around Path
- ■ O & M Building
- ▨ Potential Laydown and Storage Areas
- 🟩 Substation
- Unopened Road Allowance
- — Road
- Watercourse
- 🟩 Optioned
- ▨ Not Optioned
- ☐ Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- — REA Waterbody
- — Not a REA Waterbody

**MRN Identified Wetlands**

- ■ PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 11 of 19

Title

**FIELD MAP - LAYOUT S15**

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Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960595
Project Name: Amherst Island
Date / Time: Jan. 10, 2012
Field Personnel: D. Graham, M. Ross

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>4C | Wind:<br>2 | Cloud:<br>70% | PPT:<br>None | PPT in last 24 hrs:<br>None | Ave. Snow Depth:<br>0 |

Location as indicated on field map: 5b (I)
Start time: ~~10~~2:00 End time: 3:17

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 1 | RTHA | 1 | 3-8m Pasture | Perched & flying |
| | NOHA | 2 | 3m Pasture | Foraging |
| 2 | NOSH | 1 | 3m Pasture | Perched |
| 3 | raptor nest | 1 | 8m up in PSW along edge of deciduous swamp | |
| 4 | raptor nest | 1 | 7m up in isolated oak in field | |
| 5 | E. meadowlark | 3 | 6m field/pasture | 6m flying west |

Quality Control: This form is complete (✓) & legible (✓).
Signature: (Field Personnel)
Signature: (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

5a

## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 17 of 19

Title
**FIELD MAP - LAYOUT S15**

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1:10pm - 3:00pm

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Fax: (519) 836-2493

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## ROOSTING ~~Migrating~~ Raptor Observation Form

Area search

Project Number: 1100960595

Project Name: Amherst Island

Date / Time: Jan 10, 12

Field Personnel: B. Holdy J. Mosell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 3°C | Wind: 4-5 NW | Cloud: 80-95% | PPT: — | PPT in last 24 hrs: RAIN |

No snow

Ⓝ

| Species / Time (# on map) | # of Individuals | Flight height* and direction | Notes |
|---|---|---|---|
| | | (* below blade sweep, in blade sweep, above blade sweep, well above blade sweep) | |
| Ⓐ SNOW-1 | 1:17 – | roosting near pile | of rocks – Ⓝ |
| Ⓑ SNOW-1 | 1:35 – | roosting on tilled | earth Ⓧ. |
| Ⓒ SEOW-1 | 2:43 – | roosting in tall grass (dark ♀ type) | in pasture – 10m when flushed |
| ① EAME-1 | 2:00 – | Flushed from tall canary | reed grass. ~5m. |

Quality Control: This form is complete ( ✓ ) & legible ( ✓ )

Signature: ____________ (Field Personnel)

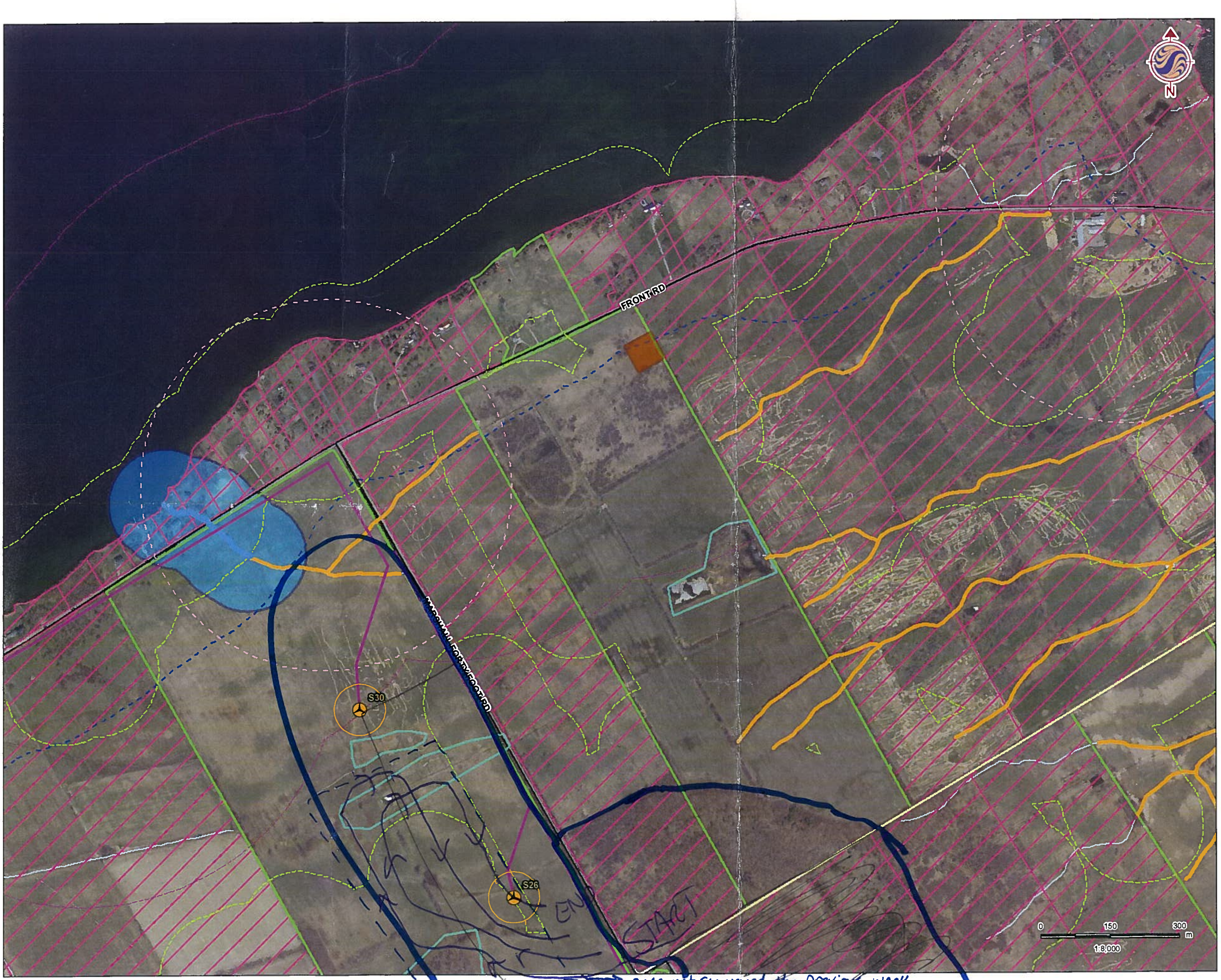
Signature: ____________ (Project Manager)

Page 1 of 1

REV: Aug 10 Form 018

4a

11:10 -1pm



------> area not surveyed the previous week.

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111117.mxd

## Legend

- ▛ Study Area
- ⊛ Turbine (Layout S14)
- ☐ Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- ■ O & M Building
- ▨ Potential Laydown and Storage Areas
- ■ Substation
- Unopened Road Allowance
- Road
- Watercourse
- ☐ Optioned
- ▨ Not Optioned
- ☐ Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- ■ PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
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0 150 300 m
1:8,000

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November 2011
160960595

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 15 of 19

Title
# FIELD MAP - LAYOUT S15

12:10pm - 1pm

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Roosting Raptor Area Search

# ~~Winter Short-eared Owl~~ Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Jan 10, 12

Field Personnel: BH JM

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 3 | Wind: 3-4 NW | Cloud: 90 | PPT: — | PPT in last 24 hrs: RAIN | Ave. Snow Depth: — |

— ~~total km driven~~ on survey (L)

| Time | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

No Roosting Raptors Found

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

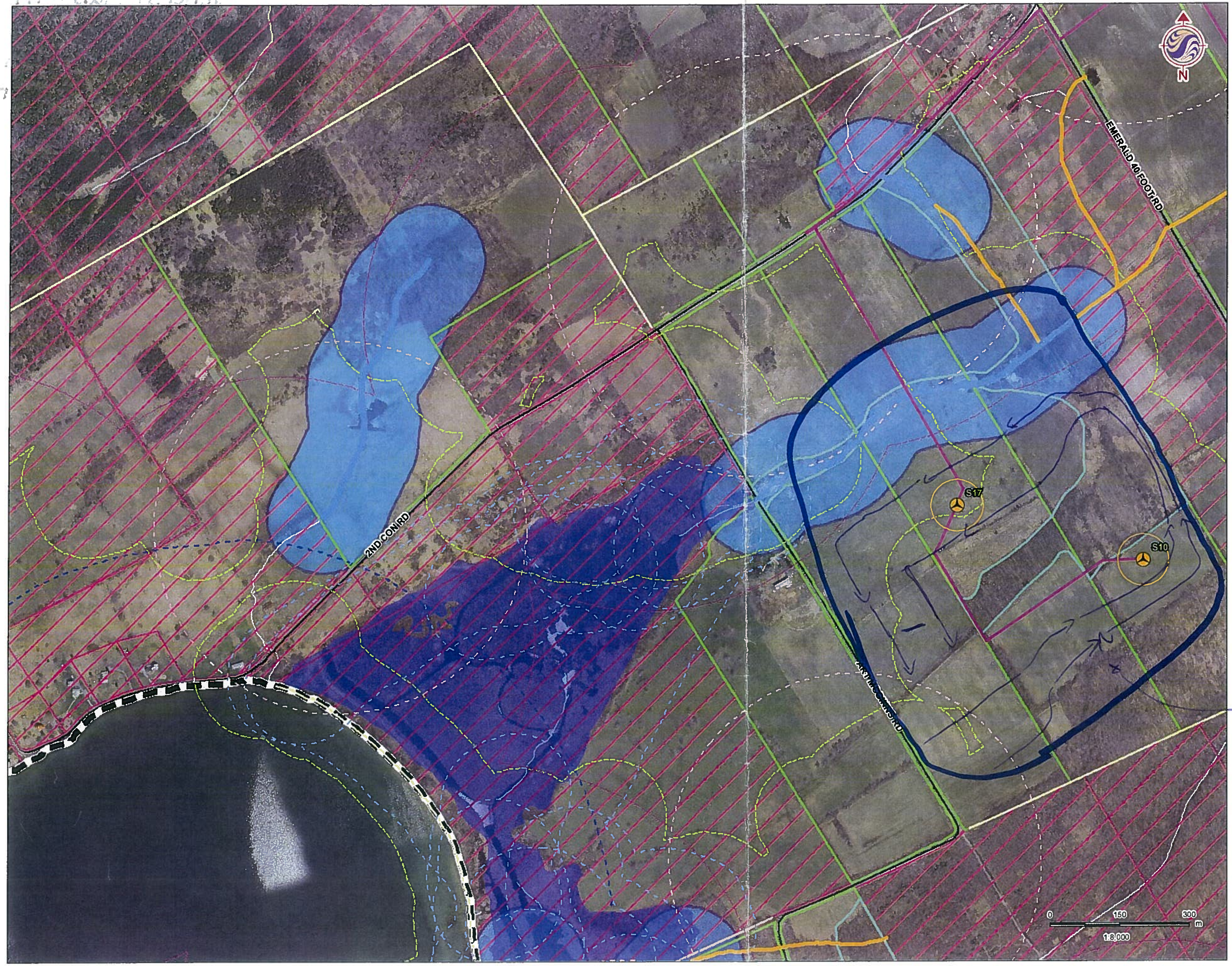
Signature: Katie (Project Manager)

Page 1 of 2

REV: May, 07

Form 022

1a



## Legend

- ▭ Study Area
- ⊛ Turbine (Layout S14)
- ▭ Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- 🟧 O & M Building
- ▨ Potential Laydown and Storage Areas
- 🟩 Substation
- Unopened Road Allowance
- Road
- Watercourse
- ▭ Optioned
- ▨ Not Optioned
- ▭ Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- ▭ PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- ▭ Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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West (likely RTHA's)

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Figure No.
Tile 2 of 19

0 150 300 m
1:8,000

Title
**FIELD MAP - LAYOUT S15**

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111117.mxd
Revised on: 2011-10-07 By: pworsell

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

**Project Number:** 160960595

**Project Name:** Amherst Island

**Date / Time:** Jan 24, 2012 3:10

**Field Personnel:** D. Graham, M. Rose

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 1°C | 3 | 100% | Flurries | Rain | 0" |

Location as indicated on field map: 1a (A)

Start time: 3:10 End time: 4:10

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 1 | NOHA | 1 | Hayfield | Flying 2m |
| 2 | RTHA | 2 | Deciduous forest edge | Perched, then flushed 8m |
| | AMRO | 25 | Thicket & young ash | Flying west, landed in trees |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham (Field Personnel)

Signature: (Project Manager)

1a

## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
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- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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Figure No.
Tile 4 of 19

Title
FIELD MAP - LAYOUT S15

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# Winter Raptor Roost Surveys

Project Number: 160960595
Project Name: Amherst Island.
Date / Time: January 25/2010.
Field Personnel: Josh Marsell + Matt Ross.

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 0 | W20km/h | 100% | 0 | 0 | 0 |

Location as indicated on field map: 1a (B)
Start time: 10:00
End time: 12:00

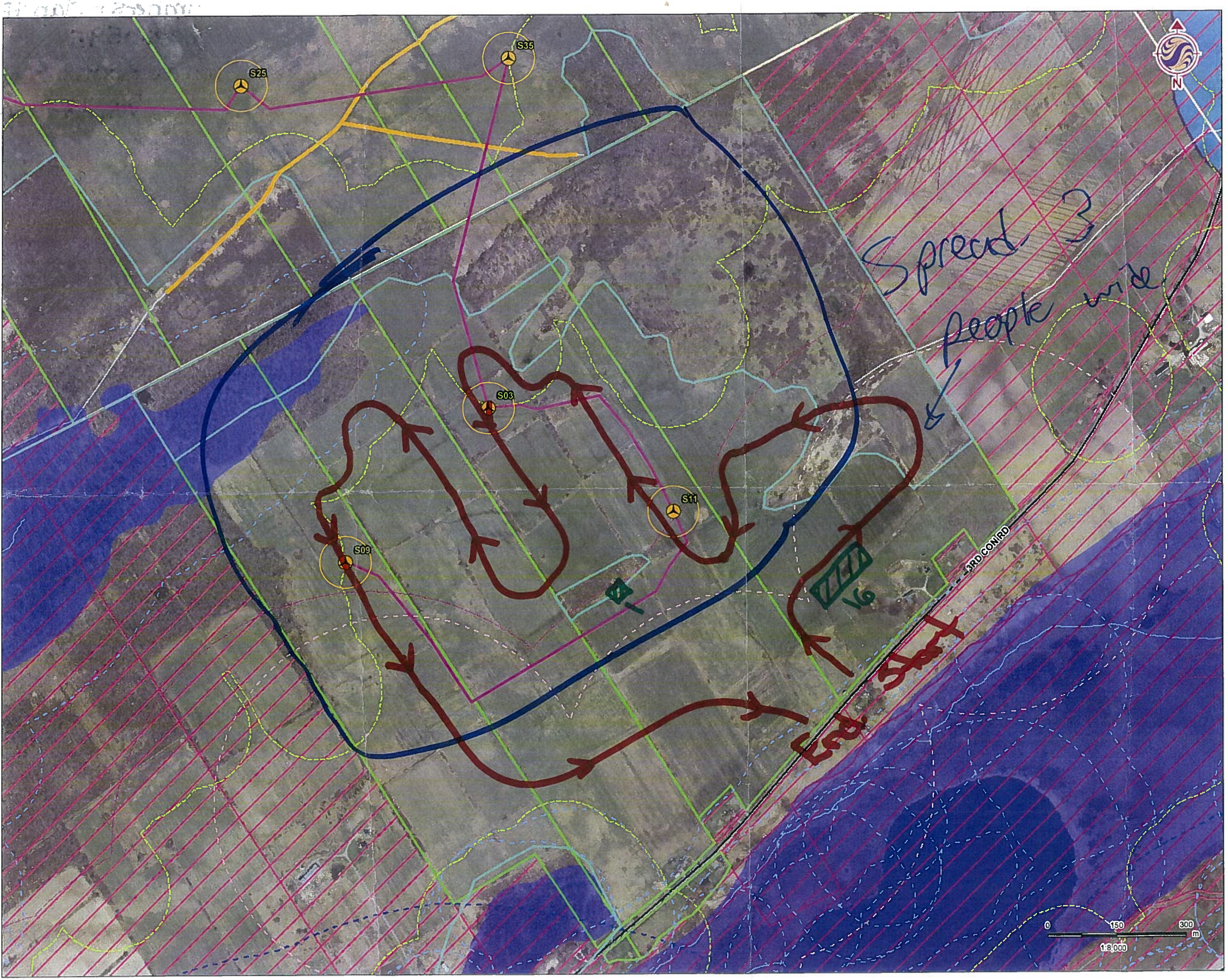
| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| NO BIRDS | | | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: (Field Personnel)
Signature: (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

16



## Legend

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- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
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- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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Figure No.
Tile 6 of 19

Title
FIELD MAP - LAYOUT S15

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960595

Project Name: Amherst Island.

Date / Time: January 25/2012.

Field Personnel: J. Mansell/M. Ross/B. Holden.

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>0 | Wind:<br>NW 10km/h | Cloud:<br>80% | PPT:<br>0 | PPT in last 24 hrs:<br>0 | Ave. Snow Depth:<br>0 |

Location as indicated on field map: 18 (D)

Start time: 12:30 End time: 2:45

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| SEOW | 16 | Fallow pasture w/ mix of Reed Canary Grass, Meadowsweet In close proximity to barn and cattle | Roosting<br>18T 361499E<br>4887024N |
| SEOW | 1 | Low-lying grassy area between two hay fields. | Roosting.<br>18T 362094E<br>4887078N. |

Quality Control: This form is complete (✓) & legible (✓).

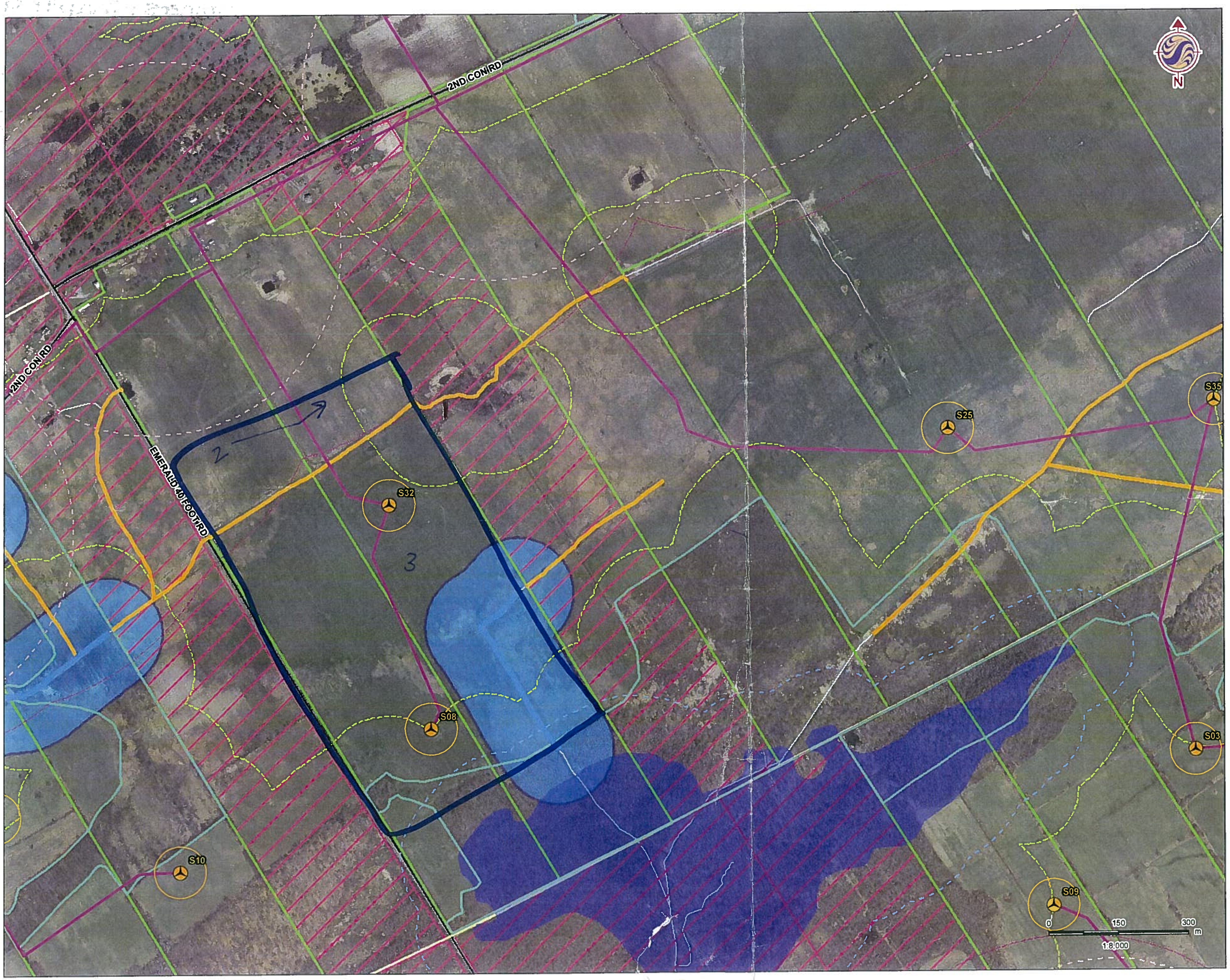
Signature: (Field Personnel)

Signature: (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

2a



## Legend

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- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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Figure No.

Tile 5 of 19

Title

# FIELD MAP - LAYOUT S15

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys 2A

Project Number: 1609 60595
Project Name: Amherst Island
Date / Time: Feb 7, 2012
Field Personnel: D. Graham C Korpijaakko

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | -2C | 2 | 30% | None | None | 0 |

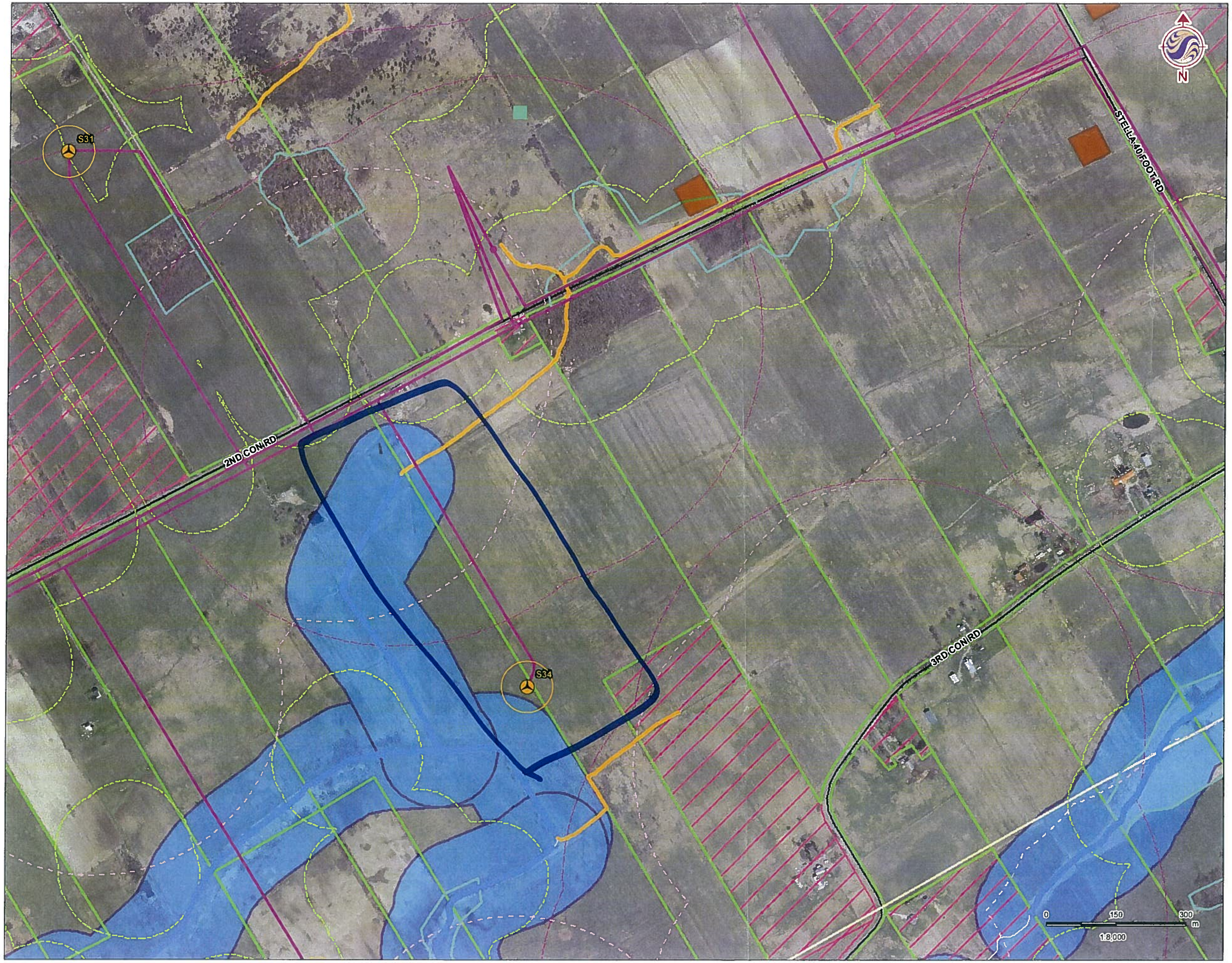
Location as indicated on field map: 2a (C)
Start time: $13^{30}$ End time: $14^{30}$

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 1 | RTHA $13^{45}$ | 1 | Woodland | Perched just out of search area |
| 2 | NOHA $14^{0}$ | 1 | Pasture | Foraging @ 2m, flying east |
| 3 | NOHA $14^{25}$ | 1 | Pasture | Foraging @ 2m |

Quality Control: This form is complete (✓) & legible (✓).
Signature: Dan Graham (Field Personnel)
Signature: (Project Manager)

Page 1 of 1

REV: May, 07 Form 018



## Legend

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- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 10 of 19

Title

**FIELD MAP - LAYOUT S15**

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Revised on: 2011-10-07 By: pworsell

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

## Winter ~~Short-eared Owl~~ Raptor
## ~~Observation Form~~ Roost Survey

Project Number: 160960595

Project Name: ✓Amherst Island

Date / Time: Feb 7, 2012 $14^{43}$-$15^{30}$

Field Personnel: D. Graham, C Koopijaakko

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | -2C | 2 | 30% | None | None | 0. |

26. (H)_______ total **km driven on survey**

| | Time | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 1 | RTHA $14^{45}$ | 1 | Perched in tree in pasture. | Pasture |

Quality Control: This form is complete (✓) ~~& legible~~ (__).

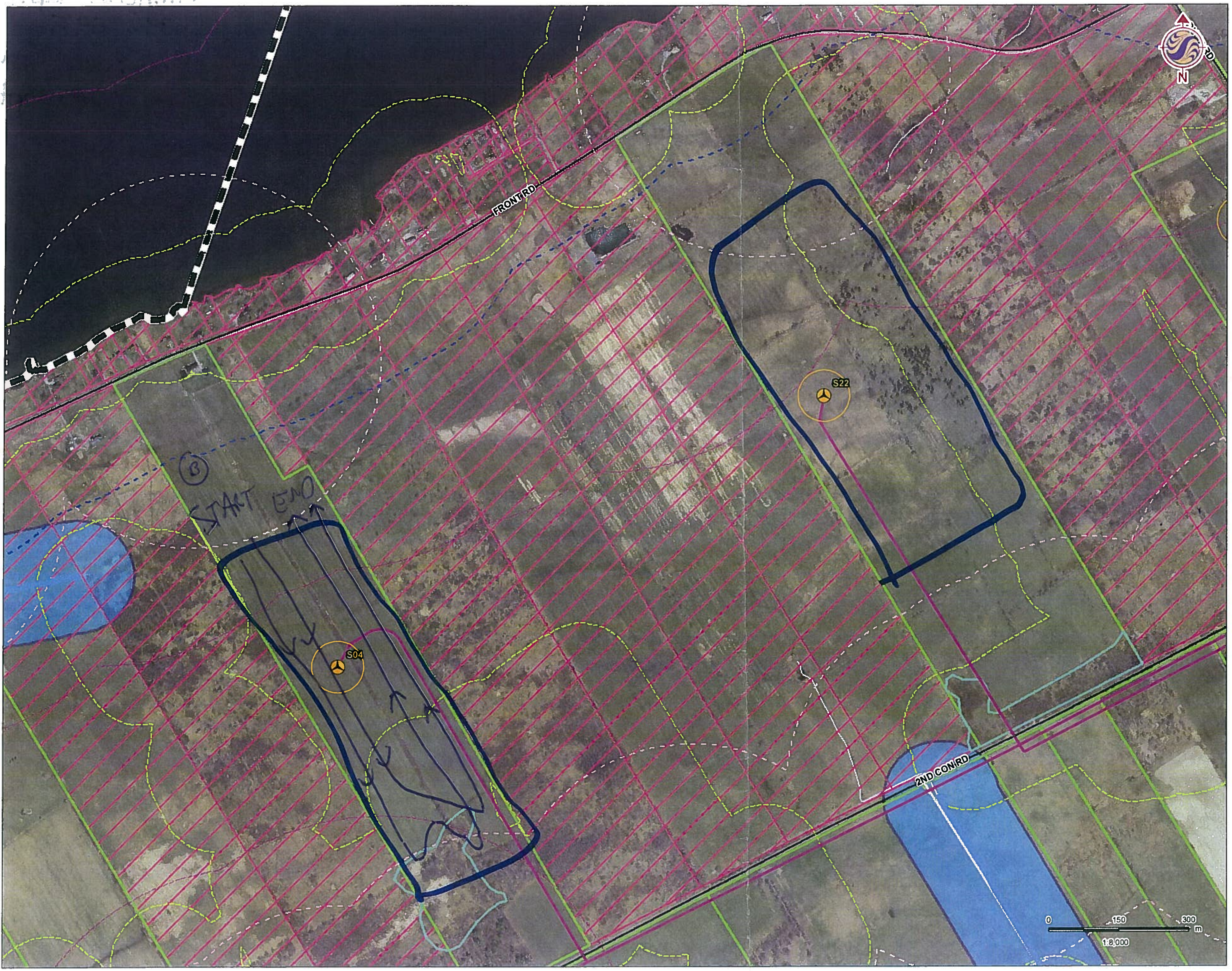
Signature: Dan Drake (Field Personnel)

Signature: Kathy (Project Manager)

Page 1 of 1

REV: May, 07 Form 022

26



## Legend

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- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 7 of 19

Title
**FIELD MAP - LAYOUT S15**

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Revised on: 2011-10-07 By: rworsell

**Stantec**

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960595

Project Name: Amherst

Date / Time: Feb 7, 12

Field Personnel: BH JM

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 0°C | 3-4 NE | 5% | — | — | — |

Location as indicated on field map: Feb 7, 12 Ⓑ Ⓔ /// [redacted]

Start time: 2:45 End time: 3:35 [redacted]

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

Area Ⓑ - no roosting Raptors

---

Area Ⓒ - completed previous visit By: J.M. MR.

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

2a

## Legend

- Study Area
- Turbine (Layout S14)
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- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
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- PSW (120m)
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## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 13 of 19

Title

**FIELD MAP - LAYOUT S15**

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Tel: (519) 836-6050
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# Winter Raptor Roost Surveys

Project Number: 160960545
Project Name: Amherst
Date / Time: Feb 7, 12
Field Personnel: BH J.M.

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 0°C | Wind: 3-4-NE | Cloud: 5% | PPT: / | PPT in last 24 hrs: / | Ave. Snow Depth: / |

Location as indicated on field map: Feb 7, 12 Ⓐ (J)
Start time: 130
End time: 230

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| Ⓐ SEOW | 1 | roosting in Reed Canary Grass | Ⓧ |
| Ⓑ SEOW | 2 | " " " | " " Ⓧ |
| Ⓒ SEOW | 1 | " " " | " " Ⓧ |
| Ⓓ SNOW | 1 | roosting on ice | Ⓧ |

All Flushed

SNOW roosting in typical SEOW spot.

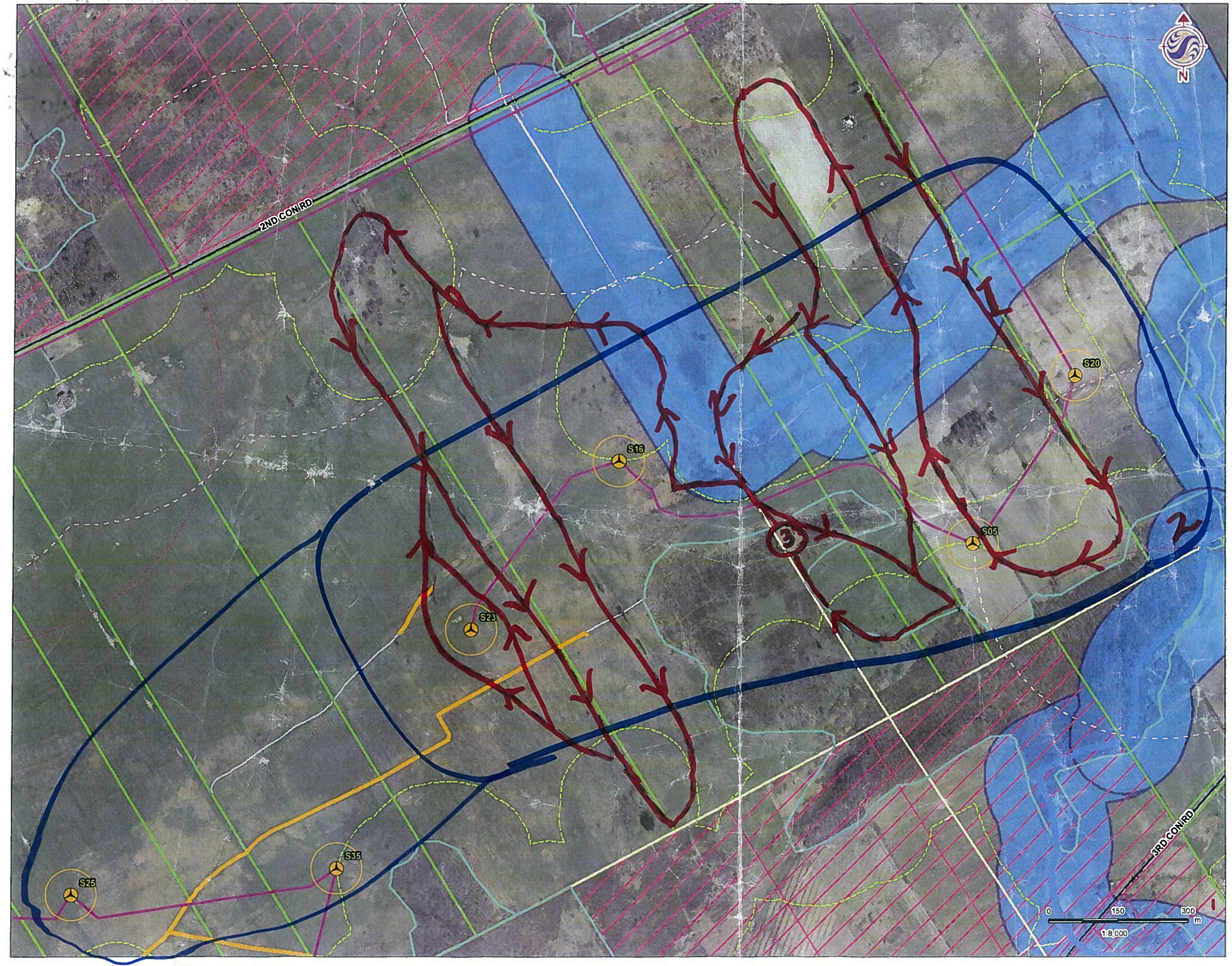
Grass "flatter" than before.

→ Due to Ice / snow from previous weeks?

Quality Control: This form is complete (✓) & legible (✓).
Signature: (Field Personnel)
Signature: (Project Manager)

Page 1 of 1
REV: May, 07
Form 018

3a



## Legend

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- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No
Tile 8 of 19

Title
**FIELD MAP - LAYOUT S15**

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

## Winter Raptor Roost Surveys

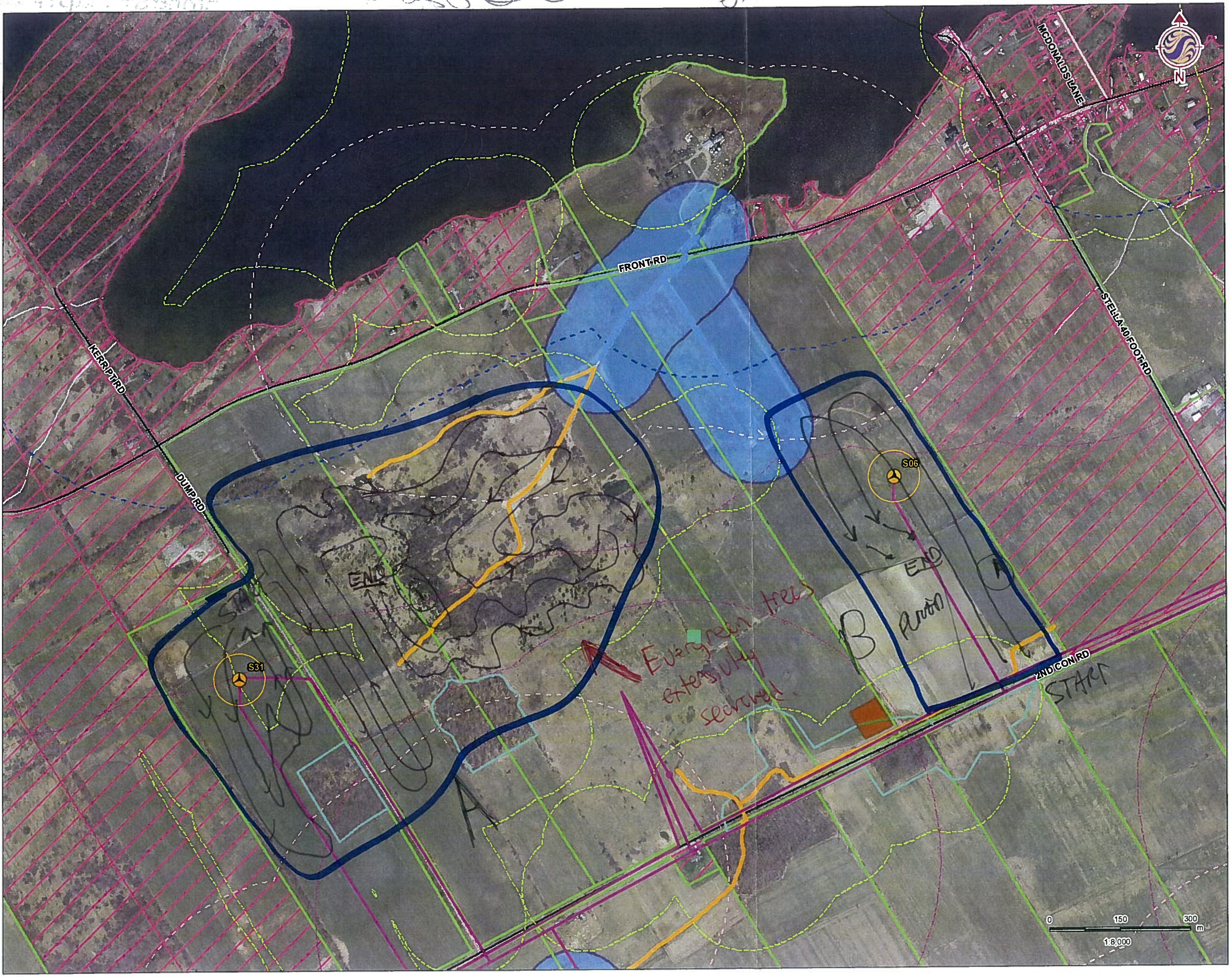
Project Number: 160960595
Project Name: Amherst Island
Date / Time: Feb 22, 2012
Field Personnel: D. Graham
C. Korpijaakko

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 3°C | 3 | 100% | None | Rain | 0 |

Location as indicated on field map: 3a (F)
Start time: 12:40 End time: 4:40

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| 1 | SEOW | 1 | In longer grasses (Canary grass) bordering watercourse | Roosting |
| 2 | RTHA | 3 | Agricultural fields adj dec swamp | Apparent pair a singleton |
| | NOHA | 1 | Agricultural fields ~~adj dec swamp~~ | Foraging |
| 3 | SEOW | 9 | Robust sedge wetland | Roosting |

Quality Control: This form is complete (✓) & legible (✓).
Signature: Dan Graham (Field Personnel)
Signature: (Project Manager)
Page 1 of 1
REV: May, 07 Form 018



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- 🟧 O & M Building
- ▨ Potential Laydown and Storage Areas
- 🟩 Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

November 2011
160960595

Client/Project
WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 9 of 19

Title
**FIELD MAP - LAYOUT S15**

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960595

Project Name: Amherst

Date / Time: Feb22, 12

Field Personnel: B.Holden J. Mansell

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 4oC | 5-W | 20-30% | / | SNOW/ RAIN | NONE |

Location as indicated on field map: A (G)

Start time: 145 End time: 348

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

① - 3 fresh Pellets found, but no owls...
--- several dozen skulls found under trees
from previous years activity.

Area on map: B Start: 4:00 End: 5:00

Ⓐ - SNOW 4:08 -(1) - roosting beside fence post.

Quality Control: This form is complete (✓) & legible (✓).

Signature: (Field Personnel)

Signature: (Project Manager)

Page 1 of 1

REV: May, 07 Form 018

46

W:\active\60960595\drawing\GIS\MXD\SitePlanningExercise\160960595_SitePlanningMapbook_20111117.mxd

## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- 🟧 O & M Building
- ▨ Potential Laydown and Storage Areas
- 🟩 Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- ▨ Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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**Stantec**

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160960595

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

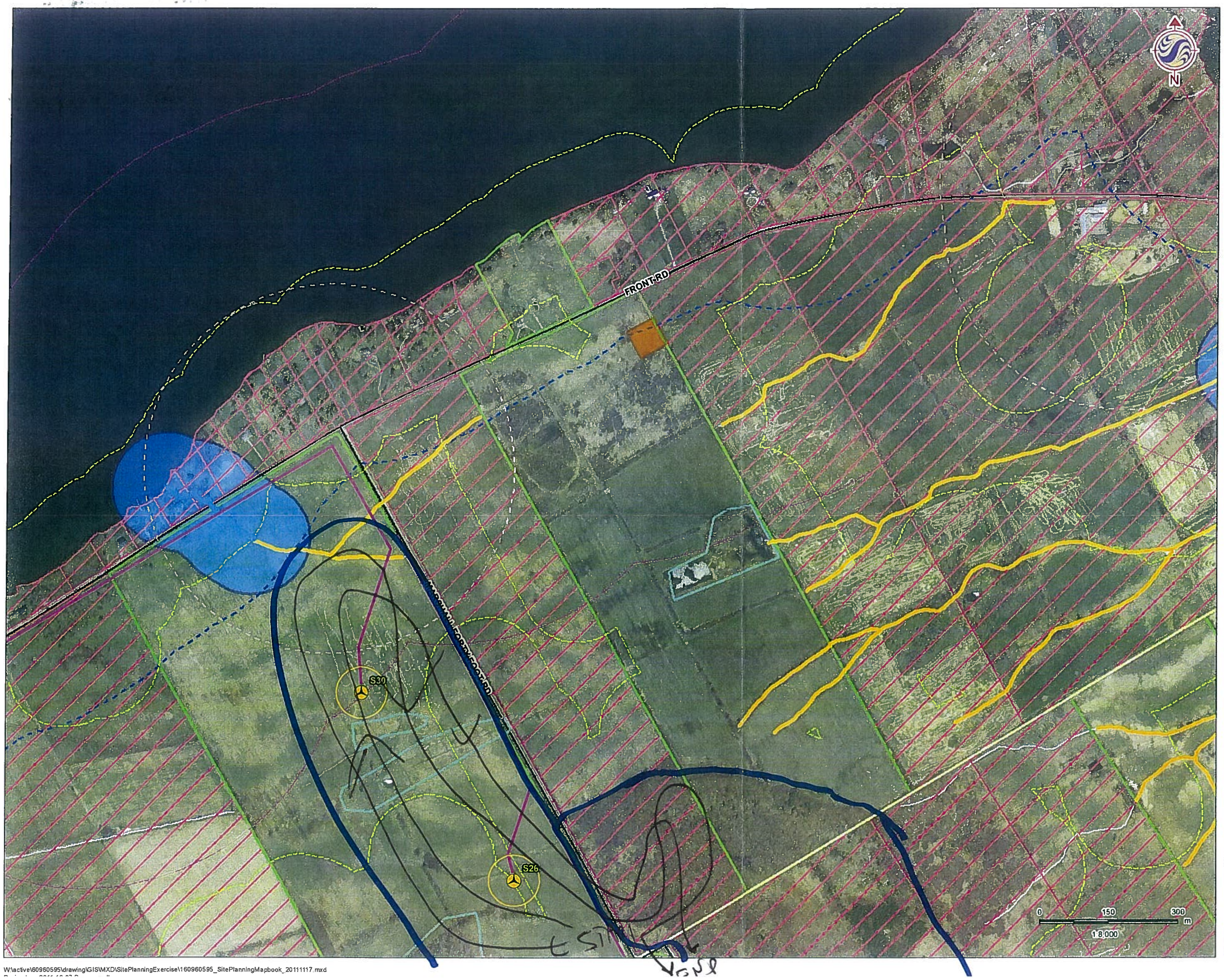
Figure No.

Tile 16 of 19

Title

**FIELD MAP - LAYOUT S15**

4a



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## Legend

| | |
|---|---|
| | Study Area |
| | Turbine (Layout S14) |
| | Turbine Blade Tips (55m) |
| | Collector Lines |
| | Access Road |
| | Laydown Area and Crane Pad |
| | Turn Around Path |
| 🟧 | O & M Building |
| ▨ | Potential Laydown and Storage Areas |
| 🟩 | Substation |
| | Unopened Road Allowance |
| | Road |
| | Watercourse |
| ☐ | Optioned |
| ▨ | Not Optioned |
| | Delineated Wetland (Preliminary ONLY) |

**Waterbody Status**

| | |
|---|---|
| | REA Waterbody |
| | Not a REA Waterbody |

**MRN Identified Wetlands**

| | |
|---|---|
| | PSW |

**Setbacks**

| | |
|---|---|
| | Participating Noise Receptors (400m) |
| | Non-Participating Noise Receptors (550m) |
| | Wooded Area (120m) |
| | Lake Ontario (300m) |
| | PSW (120m) |
| | Waterbody (120m) |
| | Delineated Wetland (120m) |

## Notes

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November 2011
160960595

Client/Project
WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 15 of 19

Title
**FIELD MAP - LAYOUT S15**

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960585
Project Name: Amherst
Date / Time: Mar 7, 12
Field Personnel: B.Holden J. Maxwell

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 11°C | Wind: 4-5-SSW | Cloud: light haze | PPT: / | PPT in last 24 hrs: / | Ave. Snow Depth: / |

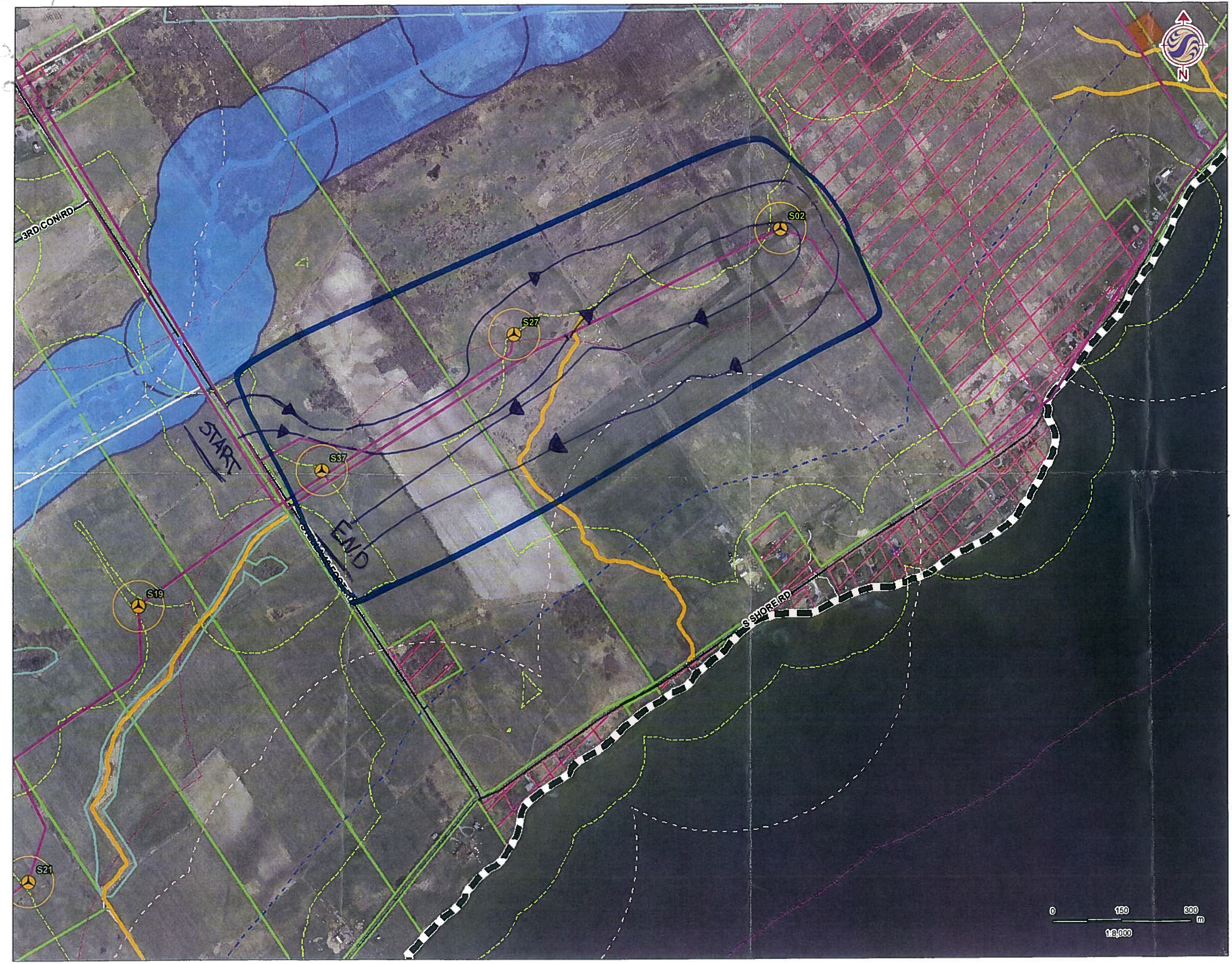
Location as indicated on field map: 4A
Start time: 12 46 End time: 2:20

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| (L) | | No | roosting Raptors | |
| | 4B - | 2:20 | - 4:00pm | |
| (M) | | No | Roosting Raptors. | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: ____ (Field Personnel)
Signature: ____ (Project Manager)

Page 1 of 1
REV: May, 07 Form 018

S9



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 14 of 19

Title
**FIELD MAP - LAYOUT S15**

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Revised on: 2011-10-07 By:

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# RAPTOR ROOST AREA SEARC
# Winter ~~Short-eared Owl~~ Observation Form

Project Number: 160960595

Project Name: ___Amherst Island

Date / Time: 13:30

Field Personnel: C. Korpiaakko J. Mansell

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 25°c | Wind: SW 10 | Cloud: 0% | PPT: 0 | PPT in last 24 hrs: 0 | Ave. Snow Depth: 0 |

(K)

________ total **km driven on survey**

| Time | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

NO BIRDS

Quality Control: This form is complete (__) & legible (__).

Signature: ______________
(Field Personnel)

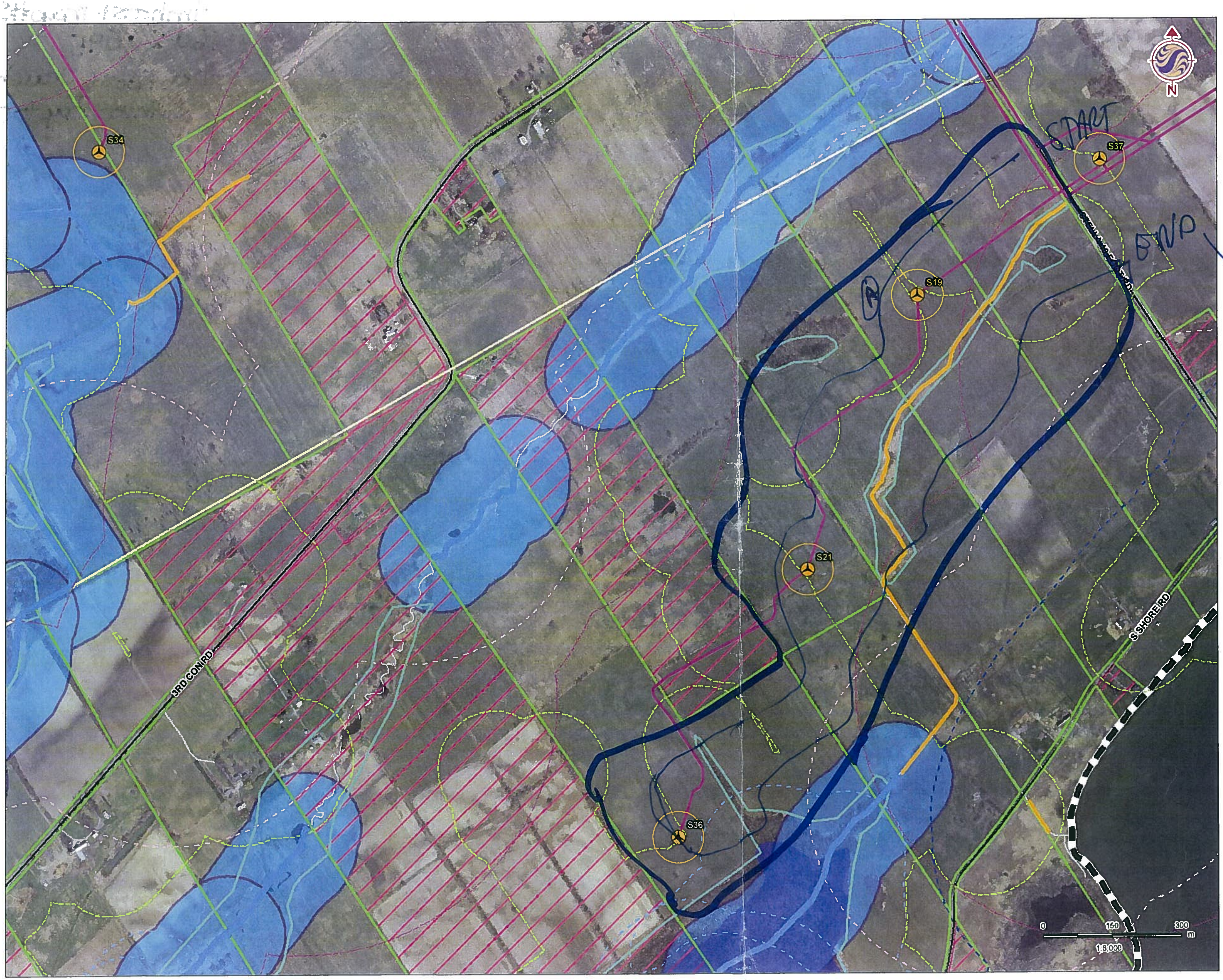
Signature: ______________
(Project Manager)

Page 1 of 1

REV: May, 07

Form 022

56



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

Spread 4 people wide.

## Notes

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Figure No.
Tile 11 of 19

Title
**FIELD MAP - LAYOUT S15**

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Revised on: 2011-10-07 By: pworsell

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: 160960 595
Project Name: Amherst
Date / Time: Mar 20, 2012
Field Personnel: CK BH JM NC

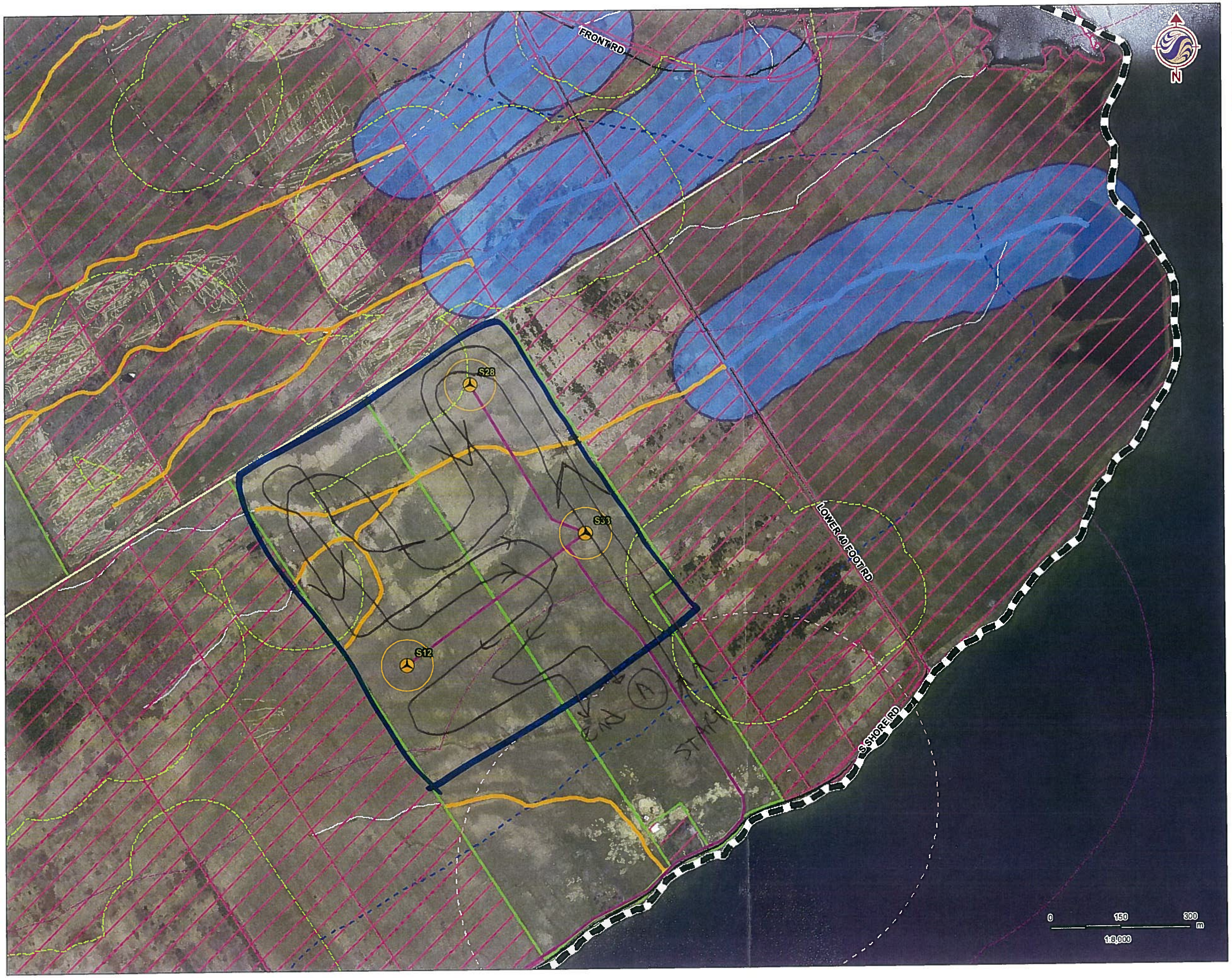
| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 22°C | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |

Location as indicated on field map: 5B (I)
Start time: 3 pm
End time: 435pm

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| Ⓐ SEOW<br>3:20pm | ~1 | – roosting on tall grass | patch of<br>– flushed to 35m |

Quality Control: This form is complete (✓) & legible (✓)
Signature: (Field Personnel)
Signature: (Project Manager)
Page 1 of 1
REV: May. 07 Form 018

5a



## Legend

- Study Area
- Turbine (Layout S14)
- Turbine Blade Tips (55m)
- Collector Lines
- Access Road
- Laydown Area and Crane Pad
- Turn Around Path
- O & M Building
- Potential Laydown and Storage Areas
- Substation
- Unopened Road Allowance
- Road
- Watercourse
- Optioned
- Not Optioned
- Delineated Wetland (Preliminary ONLY)

**Waterbody Status**

- REA Waterbody
- Not a REA Waterbody

**MRN Identified Wetlands**

- PSW

**Setbacks**

- Participating Noise Receptors (400m)
- Non-Participating Noise Receptors (550m)
- Wooded Area (120m)
- Lake Ontario (300m)
- PSW (120m)
- Waterbody (120m)
- Delineated Wetland (120m)

## Notes

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November 2011
160960595

Client/Project
WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 17 of 19

Title
**FIELD MAP - LAYOUT S15**

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**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Winter Raptor Roost Surveys

Project Number: Amherst
Project Name: 160960595
Date / Time: Mar 20, 2012
Field Personnel: B. Holden N. Charlton

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: | Ave. Snow Depth: |
|---|---|---|---|---|---|---|
| | 16°C | | | | | |

Location as indicated on field map: 5a (N)
Start time: 1:45 End time: 3:10

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |
| | NO Roosting Raptors | | |
| Ⓐ Least Weasel observed in rock pile. | | | |

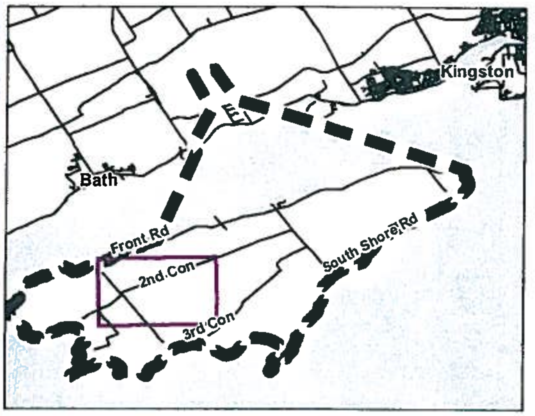
Quality Control: This form is complete (✓) & legible (✓)
Signature: (Field Personnel)
Signature: (Project Manager)
Page 1 of 1
REV: May, 07 Form 018

**Legend**

▭ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

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May 2011
160960595

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

**FIELD MAPBOOK**

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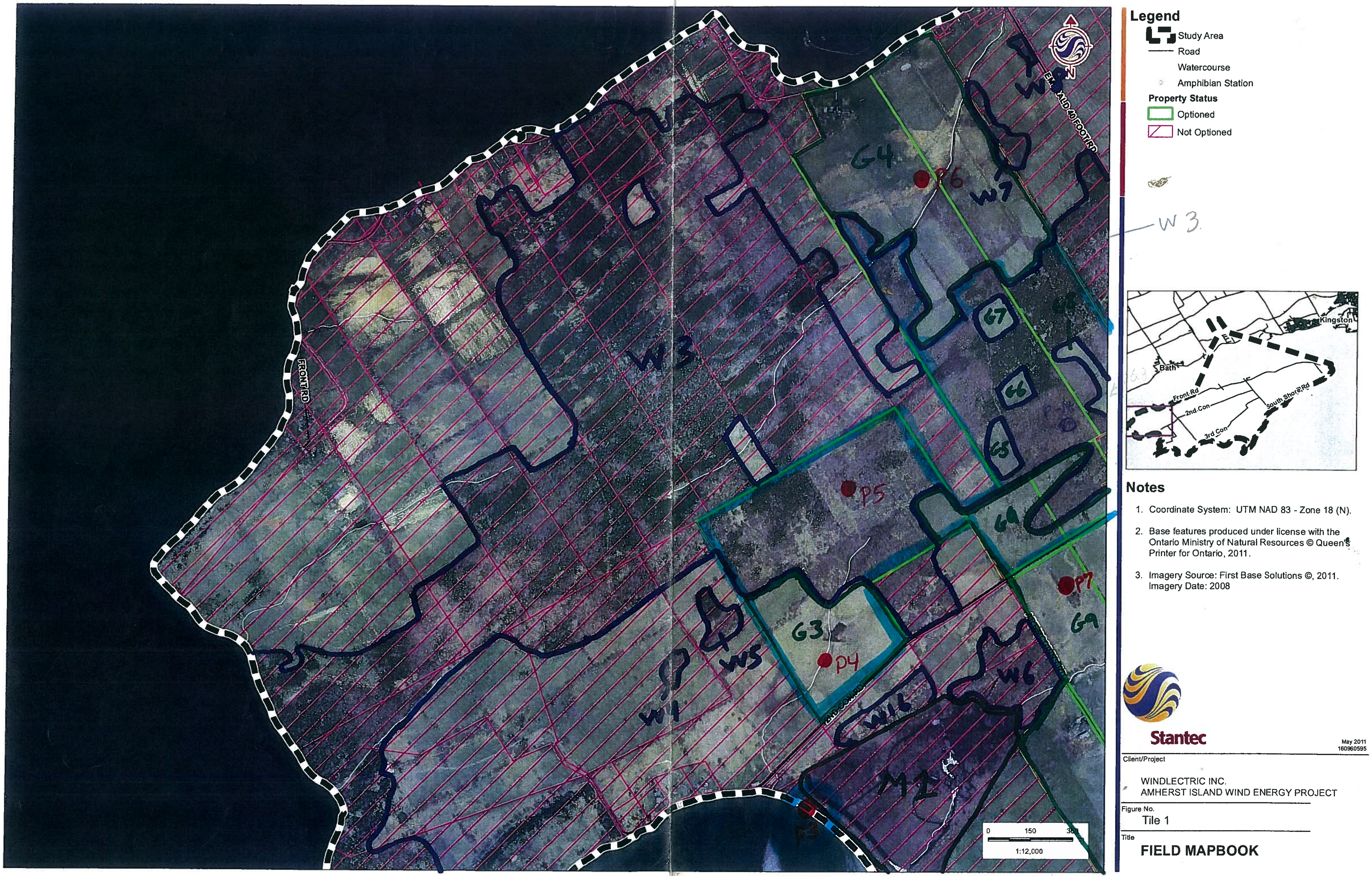
Revised on: 2011-05-27 By: dharvey



W 3

## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned

## Notes

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

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Revised on: 2011-05-27 By: dharvey

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 16096 0595
Project Name: Amherst
Date: May 30/2011
Field Personnel: Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | 1 N-W | 60% | 0 | T storms |

**Feature No.:** W 5 **Habitat Type:** Woods **Time Start:** 7:45 **Time End:** 7:55

↳ young trees + brushy next to pond + grasses

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 1 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 2 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † 1 | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. 1 | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling 1 | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle 1 | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 2

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Peter Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

May 30

part with P5 in it. see map

**Feature No.:** W3 **Habitat Type:** brushy woods **Time Start:** 7:50 **Time End:** 8:49

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | S | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 10+ | P |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ 1 | S | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † 2+ | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † 2 | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 10+ | P |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin 10+ | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. 4+ | S | Gray Catbird 5 | S | Rose-br. Grosbeak † 3+ | S |
| Red-tailed Hawk | | Willow Fly. † 2+ | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 2 | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. 2+ | S | Cedar Waxwing | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † 1 | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 3+ | D |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. 10+ | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull * flyover | H | Blue Jay 2 | P | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow 1+ | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch 2+ | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart.* flyover | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ 1 | S | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* using area perhaps not nesting

Pg. 1 of 5

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Peter Reed
(Field Personnel)

**Signature:** Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

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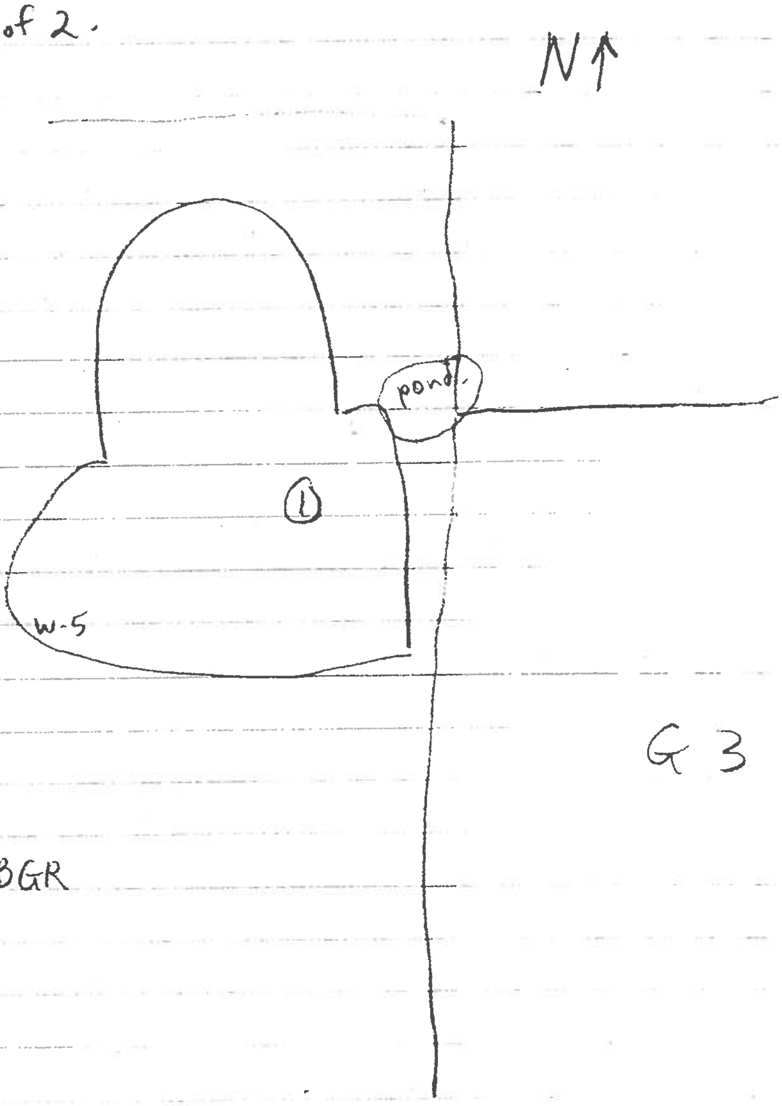
# Map for W5

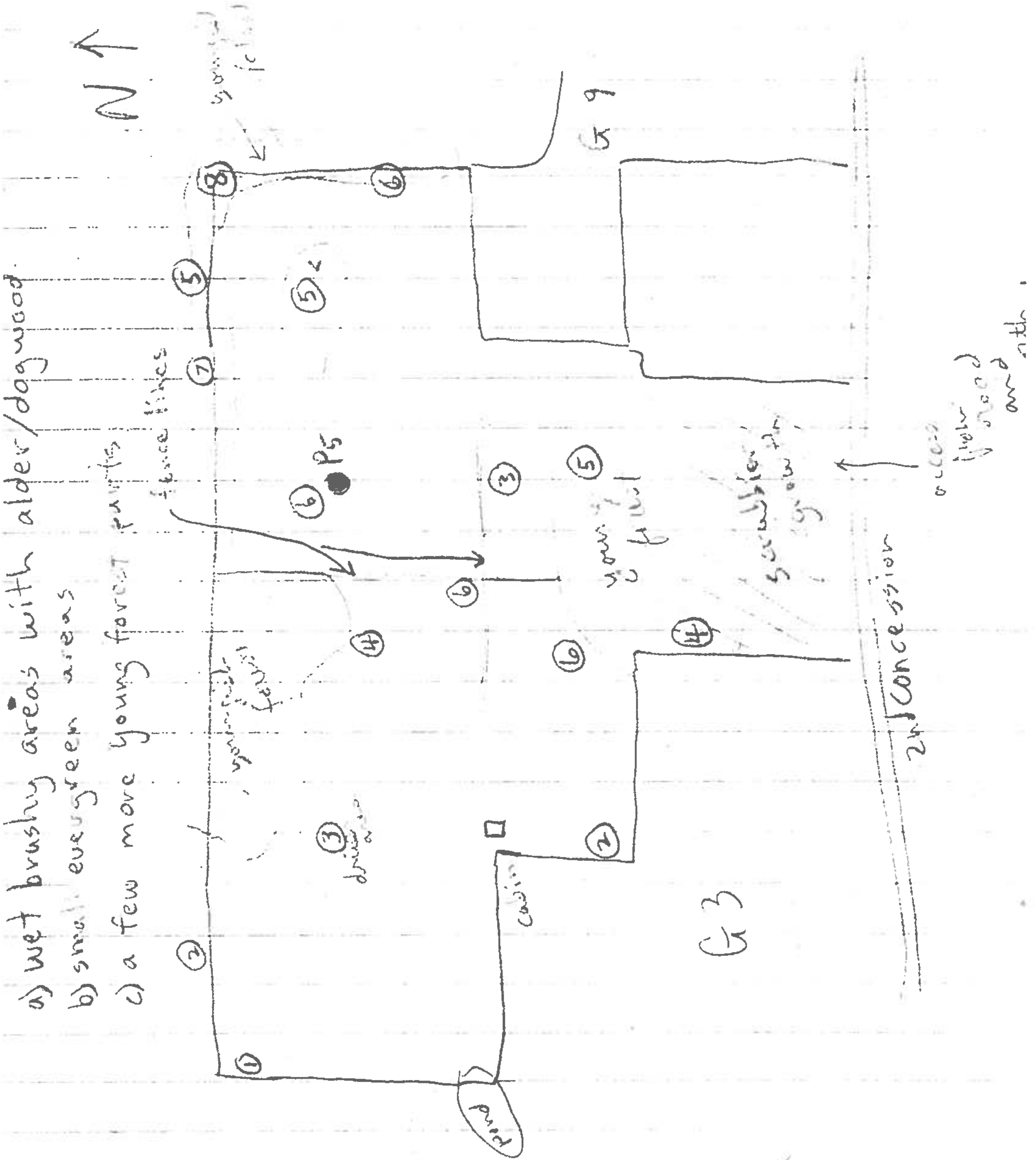
May 30/2

page 2 of 2.



① RBGR

pg 4 of 5 Map W3 part with P5 May 3
(north of conc 3 west of Emerald?)



a) wet brushy areas with alder/dogwood
b) small evergreen areas
c) a few more young forest patches

① EAKI
② BRTH
③ WIFL
④ FISP
⑤ RBGR
⑥ EATO
⑦ PIWA
⑧ BRCR

parts around G9 G5 G6 G7 G8

**Feature No.:** W-3 **Habitat Type:** - mixed woods
- open woods
- yng forest
**Time Start:** 9:00 **Time End:** 10:00

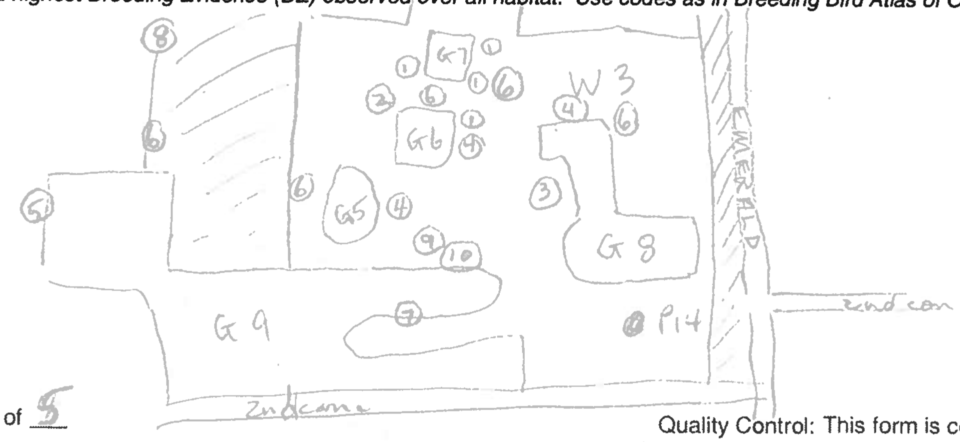
***Record location of all significant species on site map.***

| | | | | |
|---|---|---|---|---|
| T | W | C | PPT | PPT last |
| 20 | 1 (N) | 40 | 0 | T-storms. |

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † 1 | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ 3 | S |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee 1 | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 3 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 1 | S | Eastern Towhee † 4 | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 7 | S |
| N. Harrier †‡ | | No. Flicker † 1 | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † 2 | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin 3 | S | No. Cardinal 1 | S |
| Red-shou. Hawk †‡ | | Alder Fly. 3 | S | Gray Catbird 2 | H | Rose-br. Grosbeak † 2 | S |
| Red-tailed Hawk | | Willow Fly. † 1 | S | No. Mockingbird | | Indigo Bunt. 1 | S |
| Am. Kestrel † 1 | H | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. 2 | S | Cedar Waxwing 1 | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 1 | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. 3 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo 1 | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay 2 | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow 1 | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven 2 | H | Yel-rumped Wa. ‡ | | Am. Goldfinch 1 | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | WIWA (migrant) | S |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*



⑥ EATO } see earlier W3 sheet pag 1/2
⑧ BRCR

① OVEN
② RBGR
③ BBCU
④ WOTH
⑤ WIFL
⑦ FISP
⑨ NOFL
⑩ AMKE

Pg. 3 of 5

Quality Control: This form is complete ☑ & legible ☑.

Signature: Peter Read
(Field Personnel)

Signature: Katrin Sn
(Project Manager)

REV: 2011-05-27 / FORM 031

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— north of 2nd concession (in part see May 30 for south of 2nd concession) May 30/2011

**Feature No.:** G 9 **Habitat Type:** a) plowed up wet grassland b) + grassland - some with shrubs + trees. **Time Start:** ① 8:49 **Time End:** 9:00
② 10:18 to 10:25 as walked on 2nd conc.
③ May 31 9:08 - 9:20

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

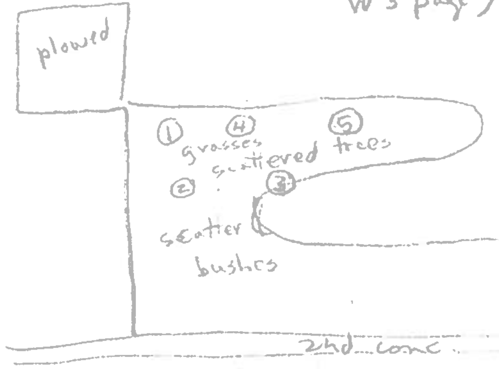
| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † * 2 | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † * 1 | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 1 | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 1 | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † * 1 | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † * 2+ | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † 1 | H | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 1 | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* using edge of field and field (will add to W 3 page)

| | | T | W | C | PPT | PPT last |
|---|---|---|---|---|---|---|
| May 30 | 1st | 20 | 1 | 40 | 0 | T-storm |
| May 30 | 2nd | 23 | 1 | 40 | 0 | T-storm |

| | | T | W | C | PPT | PPT last 24 |
|---|---|---|---|---|---|---|
| May 31 | 3rd | 22 | 1 | <10 | 0 | 0 |



① EAME ③ FISP ⑤ GRSP
② SAVS ④ EATO

Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑.

Signature: Peter Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G5 **Habitat Type:** grassland + small "fen" **Time Start:** 9:05 **Time End:** 9:20

T W C PPT PPT L24
21 1-N-W 40 0 T-st.

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee * 1 | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † * 1 | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † * 1 | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † * 1 | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 1 | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* birds at edge - may be using field but not nesting (will be added to W3)

→ only BHCO found in field.

Pg. 1 of 1

Signature: Petra Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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May 30

**Feature No.:** G6 **Habitat Type:** grassy meadow **Time Start:** 9:20 **Time End:** 9:30

***Record location of all significant species on site map.***

| T | W | C | PPT | PPT L24 |
|---|---|---|---|---|
| 21 | 1-N-W | 40 | 0 | T-st. |

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ * 1 | S |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat |  |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren |  | Eastern Towhee † * 1 | S |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. |  |
| N. Harrier †‡ |  | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † * 1 | S | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † |  | Am. Robin |  | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird |  | Rose-br. Grosbeak † * 1 | S |
| Red-tailed Hawk |  | Willow Fly. † |  | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. |  | Br. Thrasher † |  | Bobolink † 1 | S |
| Virginia Rail |  | Ea. Phoebe |  | European Starling |  | Red-winged Bl. |  |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † |  | Blue-wing. Wa. † |  | Co. Grackle |  |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo |  | Yellow Wa. |  | Baltimore Oriole † |  |
| Am. Woodcock |  | Red-eyed Vireo 1 | S | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow * 1 | M | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* birds found in edge + using field but not nesting (add to page 3 for W3)

→ only BOBO in field

Pg. 1 of 1

**Signature:** Peter Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katie S
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** ______ **Habitat Type:** grassy pasture **Time Start:** ______ **Time End:** ______

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

T W C
21 1-NW 30 0

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ * 3 | S |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat * 1 | S |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren |  | Eastern Towhee † * 1 | S |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. * 1 | S |
| N. Harrier †‡ |  | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † |  | Am. Robin * 1 | S | No. Cardinal * 1 | S |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird |  | Rose-br. Grosbeak † * 1 | S |
| Red-tailed Hawk |  | Willow Fly. † |  | No. Mockingbird |  | Indigo Bunt. * 1 | S |
| Am. Kestrel † |  | Least Fly. |  | Br. Thrasher † |  | Bobolink † 4 | P |
| Virginia Rail |  | Ea. Phoebe |  | European Starling |  | Red-winged Bl. |  |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing * 1 | H | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † |  | Blue-wing. Wa. † |  | Co. Grackle |  |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo |  | Yellow Wa. * 1 | S | Baltimore Oriole † |  |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven * 2 | H | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* observed in edge of G7 not nesting in it. (will be put on map on p 3 of W
→ o y BOBO [illegible]d actual in or over field.

Pg. ___ of ___

Quality Control: This form is complete ☐ & legible ☐.

Signature: ____________________ (Field Personnel)

Signature: Kerri (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

May 30

**Feature No.:** G-8 **Habitat Type:** hay/pasture wet in spots **Time Start:** 9:45 **Time End:** 9:54

***Record location of all significant species on site map.***

| T | W | C | PPT | PPT last 24 |
|---|---|---|---|---|
| 23 | 1-N | 30 | 0 | T-storm |

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † * 1 | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat * 2 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren * 1 | S | Eastern Towhee † * 1 | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. * 6 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † * 1 | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. * 1 | S | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. * 2 | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. * 2 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo * 1 | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay * 2 | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow * 1 | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch * 1 | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | WIWA (migrant) | S |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* observed in edge - may be using - have put page 3 map of W3) but not nesting.

→ No birds seen in this grassy area or flying over.

Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑

Signature: Peter Read

(Field Personnel)

Signature:

(Project Manager)

**Feature No.:** G 3 **Habitat Type:** grassland / pasture **Time Start:** 7:15 **Time End:** 7:45

***Record location of all significant species on site map.***

T-18° C-70% edge of field

W-1 N-W PPT-0 PPT- last T-storm

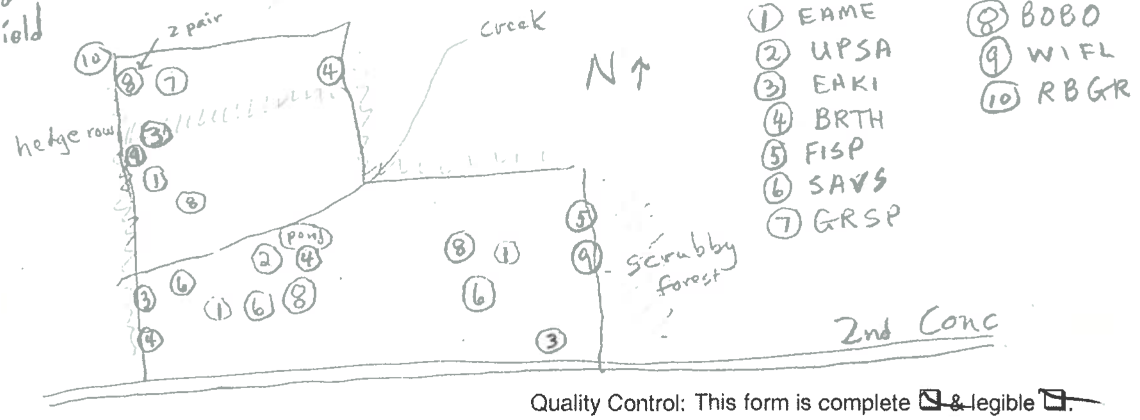
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern *← | H ? | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † *← | X | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron * flyover | H | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 3+ | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 1 | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 5+ | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin * | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird 2 | H | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † 2+ | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 2 | H | Bobolink † 8+ | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. 8+ | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing * 2 | P | Ea. Meadowlark † 3+ | S |
| Killdeer | | Ea. Kingbird † 2 | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ 1 | S | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe 1 | S | Warbling Vireo | | Yellow Wa. 2 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay * | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow * | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. * near pond | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow * at pond | H | Pine Wa. ‡ | | | |
| Mourn. Dove* 2 flyover | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* at edge of field likely using field

*← found on scouting trip May 31 AMBI and BEKI likely feeding and not nesting



Pg. ____ of ____

Quality Control: This form is complete ☒ ~~&~~ legible ☒.

**Signature:** ______________________ (Field Personnel)

**Signature:** ______________________ (Project Manager)

May 30

**Feature No.:** M1 **Habitat Type:** marsh **Time Start:** 5:50 **Time End:** 7:15

***Record location of all significant species on site map.*** T-16° CC-80% PPT last - T-storms

** Endangered, Threatened or Special Concern

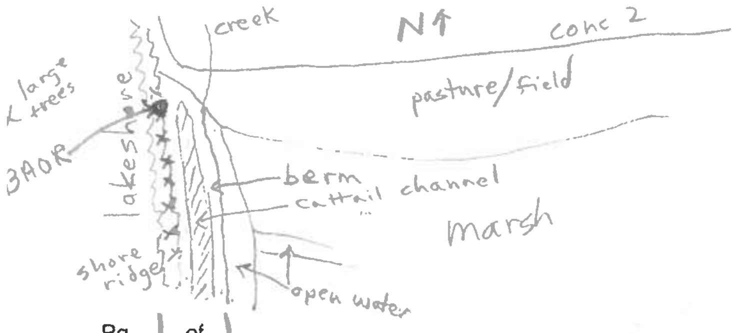
† Partners In Flight W-0 N-W PPT-0

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | P | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | H | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | H |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | H | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | H |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | H |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin * | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing * | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. * | H | Baltimore Oriole † * | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay * | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow * | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. * | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* edge species (H means on or near marsh habitat but likely just using area)



* n. watersnake <1 metre eating small catfish at lake edge near where oriole was.

Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Pete Read (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date May 30/11

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 16 | Wind: 0 | Cloud: 80% | PPT: 0 | PPT in last 24 hrs: N |

GPS #: T 1

Station: P3

small brushy areas + along lake.
edge of lake
edge

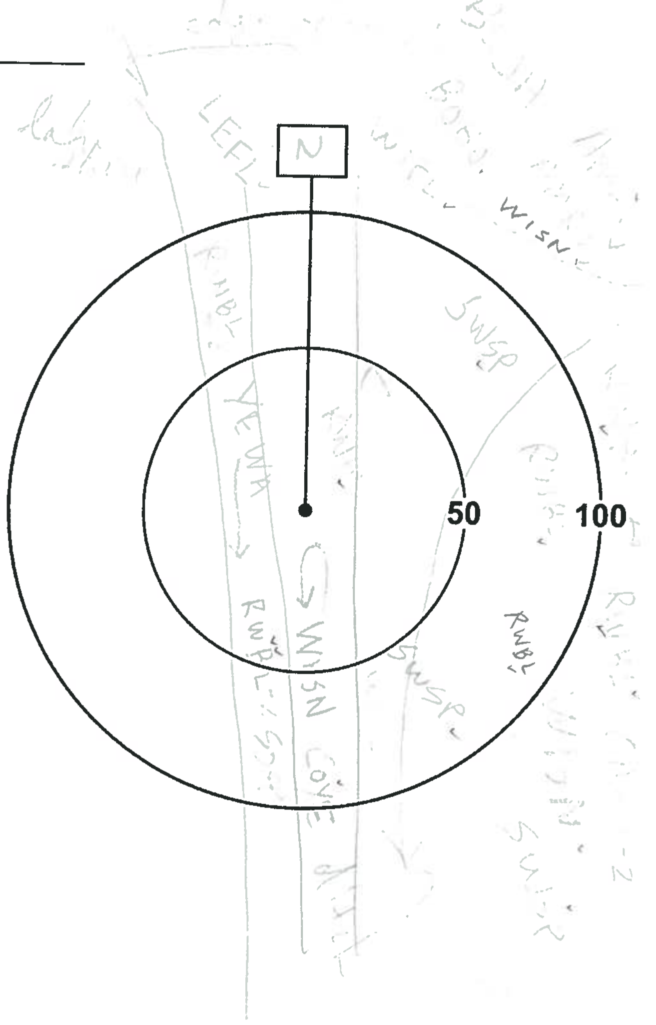
Habitat: ☒Forest ☒Swamp ☒Marsh ☑Hay ☐Pasture ☐Crop

UTM: 0354428 4886833

Start Time: 6:10

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | 3 | 2 | 2 | | all A |
| SWSP | | 2 | 1 | | all O |
| WISN | 1 | 1 | 2 | | all A |
| WODU | | | | 9 | A |
| CAGO | | | 2 | | O on water |
| COYE | | 1 | | | A |
| YEWA | 1 | | | | A |
| SOSP | | 1 | | | A |
| WIFL | 1 | | 1 | | A |
| LEFL | | | 1 | | A |
| AMCR | | | 1 | | A |
| BLJA | | | 1 | | A |
| BOBO | | | 1 | | A |
| AMRO | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: Pete Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 4

REV: May, 07 Form 020

T W C PPT
16 1 80 0

Marsh Bird playback

**Station:** P3 see previous

**Habitat:** ☑Forest ☐Swamp ☑Marsh ☑Hay ☐Pasture ☐Crop ____________

**UTM:** 357428 4886833

**Start Time:** 6:25

no birds responded

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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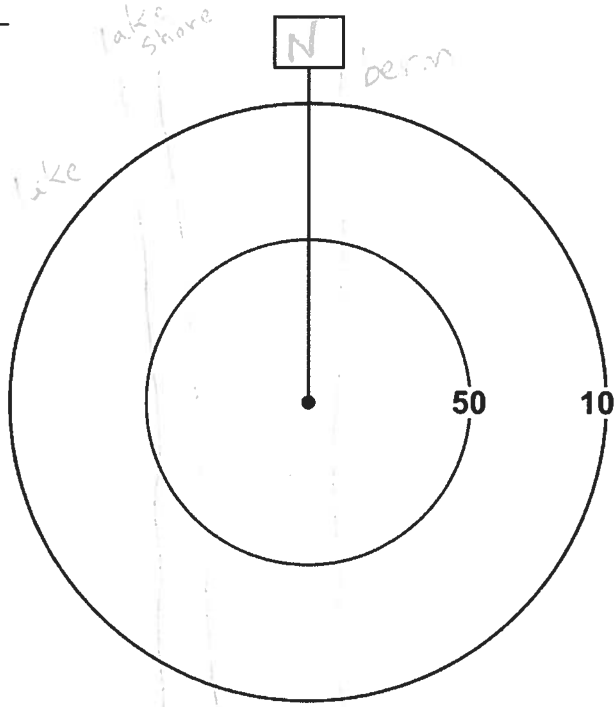
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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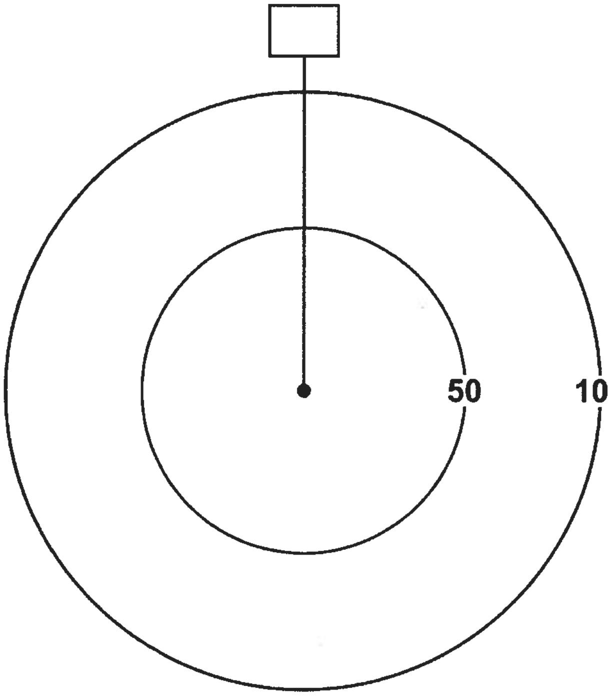
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: Peter Read
(Field Personnel)

Signature: ____________
(Project Manager)

Page 2 of 4

REV: May, 07 Form 020

May 30

**Station:** P4 see over also.

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☑Pasture ☐Crop ____________

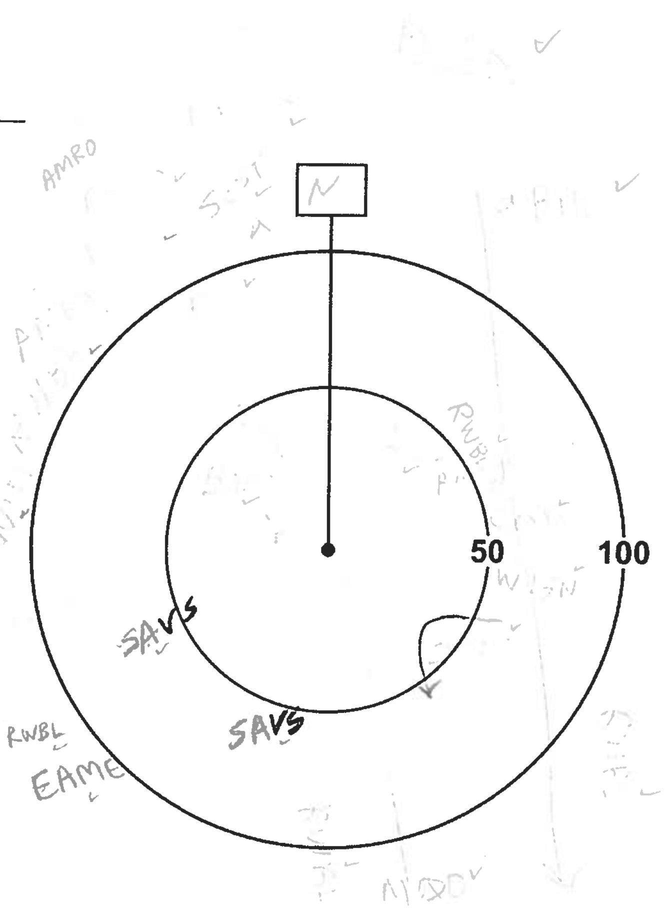
**UTM:** 0351384 4887391 T-1

**Start Time:** 7:20

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 1 | 2 | | | A |
| SAVS | | 2 | | | A/O |
| EAME | | | 1 | | A |
| WISN | | 1 | | | A |
| COYE | | 1 | | | A |
| RWBL | | 1 | 4 | | A |
| KILL | | 1 | | | A |
| WIFL | | | 1 | | A |
| AMRO | | | 2 | | A |
| YEWA | | | 1 | | A |
| SOSP | | | 1 | | A |
| EATO | | | 1 | | A |
| RBGR | | | 1 | | A |

see over

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P5

**Habitat:** ☒Forest ☐Swamp ☒Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** 357411 4887998 T-1

**Start Time:** 8:20

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EATO | 1 | | | | A |
| SOSP | 1 | | | | A |
| RBGR | | 2 | | | A |
| NAWA | | 1 | | | A |
| YEWA | | 1 | | | A |
| COYE | | | 1 | | A |
| GCFL | | 1 | | | A |
| AMGO | | | | 1 | A |
| NOCA | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |
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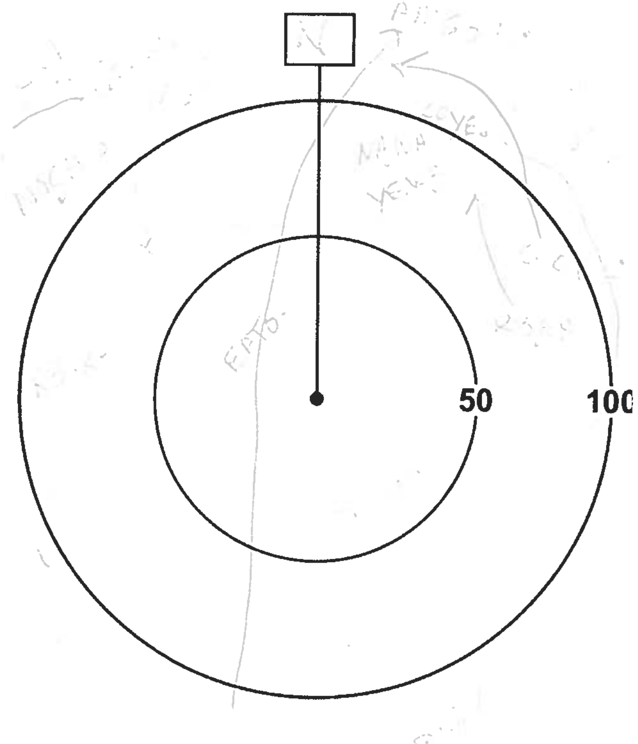
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: Peter Read
(Field Personnel)

Signature: Kerti
(Project Manager)

Page 3 of 4

REV: May, 07 Form 020

**Station:** PH

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| GBHE | | | 1 | ✓ | A |
| MODO | | 1 | | ✓ | A |
| AMCR | | | 1 | | A |
| | | | | | |
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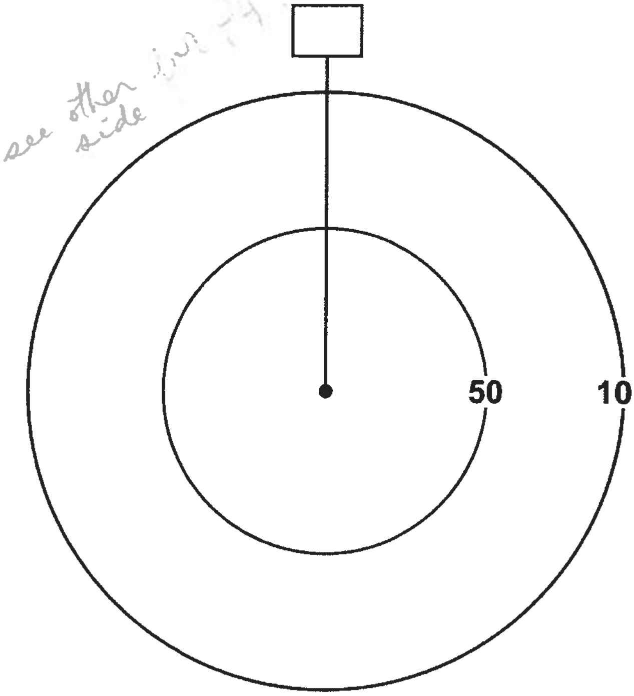
see other side for PH



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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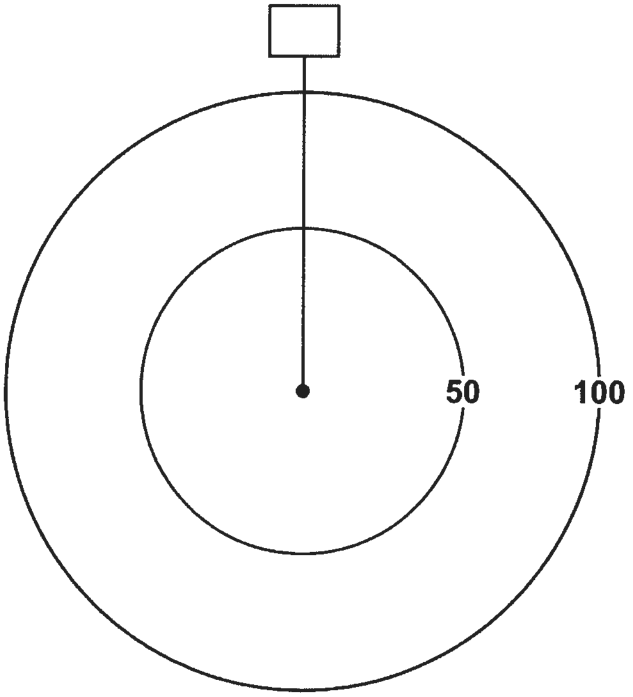


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 4 of 4

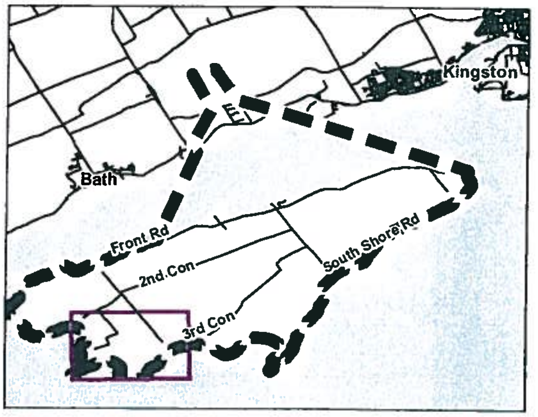
REV: May, 07 Form 020

## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 2

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Stantec**

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960595

Project Name: Amherst

Date: May 31/2011

Field Personnel: Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | 0 | 10 % | 0 | 0 |

**Feature No.:** W6 **Habitat Type:** deciduous woods ↙some wet swampy bits **Time Start:** 5:00 **Time End:** 6:10

***Record location of all significant species on site map.*** (noted from roadside). (kept track as watched + listened from marsh MT→

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | S | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 2 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 1 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 3 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † see map over | S | Am. Robin 3 | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. 1 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. 1 | S | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow 2 | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 8

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** Peter Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

East end (see also west end May 30)

**Feature No.:** M 1 **Habitat Type:** marsh with pasture forest edge **Time Start:** 5:15 **Time End:** 6:10

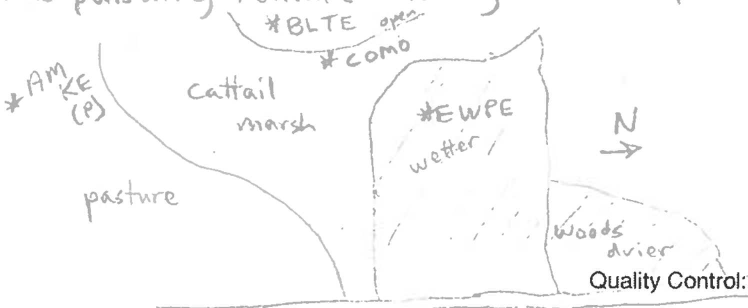
***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | H | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee * | S | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 1 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | H | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. * 1 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. 5 | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † * | S | Am. Robin * 1 | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † * | P | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail 1 | T | Ea. Phoebe | | European Starling 5 | N | Red-winged Bl. 5 | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe 1 | S | Warbling Vireo | | Yellow Wa. * 1 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ 1 | H | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | Common Merganser | D |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | Common Moorhen | S |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* edge species perhaps using marsh for food etc but not nesting in marsh
– Male COME pursuing female closely – later observed flying over place she landed.



Pg. 2 of 8

Quality Control: This form is complete ☑ & legible ☑

Signature: Peter Read (Field Personnel)

Signature: Kat (Project Manager)

REV: 2011-05-27 / FORM 031

May 31

in part (south of 2nd Conc. - see also May 30)

**Feature No.:** G 9 **Habitat Type:** Grasslands **Time Start:** 6:10 **Time End:** 6:19

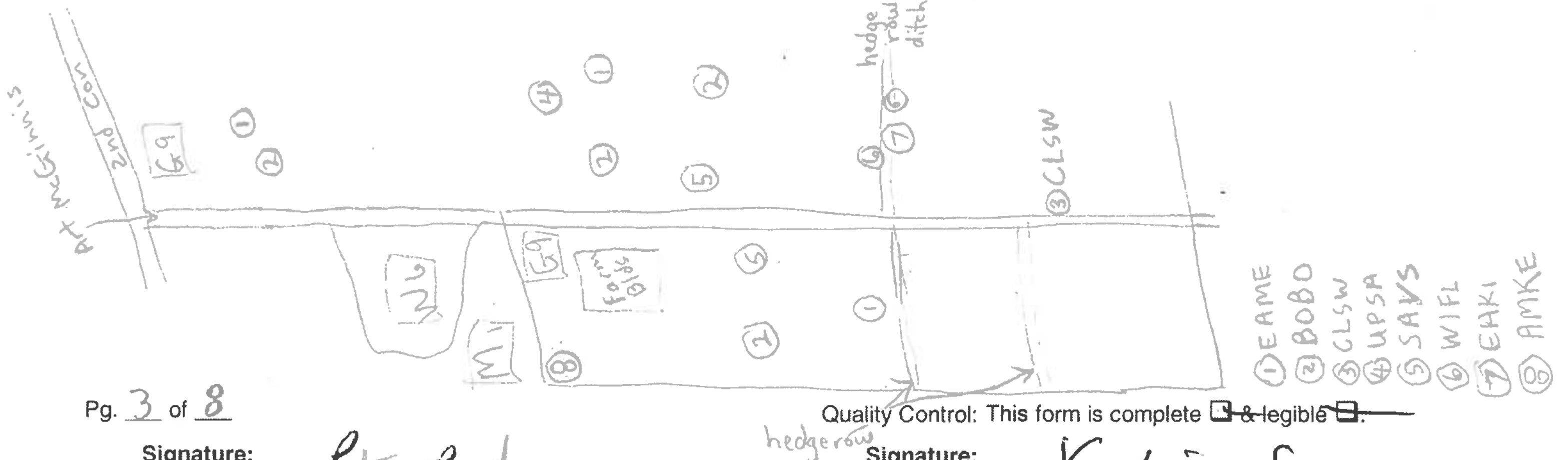
***Record location of all significant species on site map.*** - as drove south on Art McGinnis Rd.

| T | W | C | PPT |
|---|---|---|---|
| 18 | 1 NE | <10 | 0 |

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | H | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | M | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 1 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 2+ | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 1 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. 1 | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † 3 | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | P | Least Fly. | | Br. Thrasher † | | Bobolink † 3+ | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 3+ | S |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ 1 | S | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*



Pg. 3 of 8

Quality Control: This form is complete ☐ ~~& legible ☐.~~

Signature: Peter Read
(Field Personnel)

Signature: Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

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May 31/2011

T W C PPT
18 1 NE <10 0

**Feature No.:** G 10 **Habitat Type:** Grass/Pasture/Hay 'paddock area' **Time Start:** ① 6:20 **Time End:** 7:00
② 8:45 to 9:00

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose 4 | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow 2+ | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 2 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch 2+ | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 2 | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 3 | S |
| N. Harrier †‡ 1 | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. 1 | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin 4 | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † 2 | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. lots | D |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 2 | S |
| Killdeer 3 | H | Ea. Kingbird † 3 | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 1 | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe 2 | S | Warbling Vireo | | Yellow Wa. 5 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull * | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch 1 | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow 4 | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* flyover.

Pg. 4 of 8

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Peter Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

in part - west end

May 31

**Feature No.:** W-15 **Habitat Type:** Deciduous Woods **Time Start:** 7:10 **Time End:** 8:46.

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

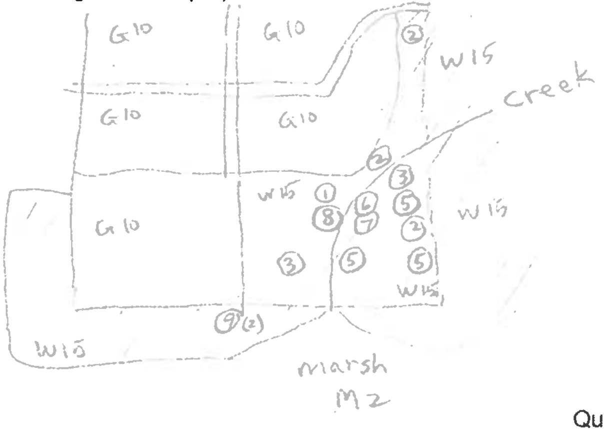
very wet in spots
- from brushy edges near pasture to mature closed canopy

- observed as covered Marsh (M-2) and walked through for PC 12

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee 1 | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch 2 | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ 1 | H |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 3 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ 1 | H | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 5+ | S |
| N. Harrier †‡ | | No. Flicker † 3 | D | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † 3 | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † 3 | S | Am. Robin 10+ | S | No. Cardinal 1 | S |
| Red-shou. Hawk †‡ | | Alder Fly. 2 | S | Gray Catbird | | Rose-br. Grosbeak † 2 | S |
| Red-tailed Hawk | | Willow Fly. † 2 | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. 1 | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling 5 | H | Red-winged Bl. 5+ | D |
| Sora | | Gr. Crested Fly. 3 | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle 2 | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo 1 | S | Yellow Wa. | | Baltimore Oriole † 2 | S |
| Am. Woodcock | | Red-eyed Vireo 3 | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay 2 | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow 1 | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven ** 1 | X | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ * 1 | X | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove 1 | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* CORA
* fly over



① NOFL
② WOTH
③ BHOR
④ RBGR
⑤ EWPE
⑥ YBSA
⑦ BTGN
⑧ SCTA
⑨ WIFL

* ♀ migrant (no nest trees)
BTGN

Pg. 5 of 8

Quality Control: This form is complete ~~☐ & legible ☐~~

Signature: Peter Read
(Field Personnel)

Signature: Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** M2 **Habitat Type:** marsh + swamp - forest + pasture edge **Time Start:** 7:00 **Time End:** 8:00

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose 4 | H | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch ← 1 | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren ← 1 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren 2 | S | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. 2 | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal ← 1 | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. 7 | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle 2 | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe 1 | S | Warbling Vireo ← 1 | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

→ swamp forest in S half of Pt Ct. 11

Pg. 6 of 8

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Peter Read
(Field Personnel)

**Signature:** Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

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May 31/2011

T W C PPT
21 2 NE <10 0

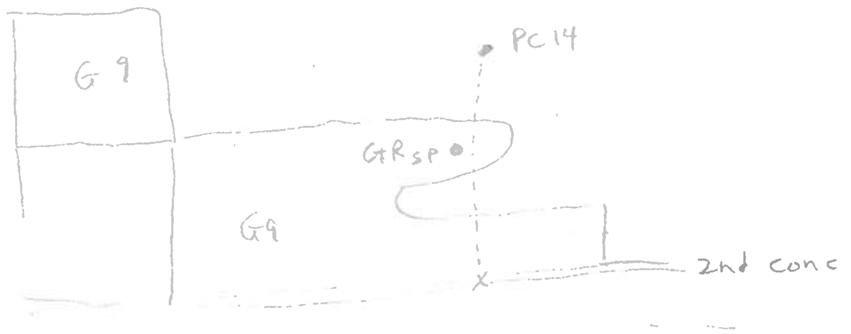
**Feature No.:** G 9 **Habitat Type:** Grassland **Time Start:** 9:08 **Time End:** 9:20

***Record location of all significant species on site map.*** - walking through to go to W3 & PC14

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 1 | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. 2 | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*



Pg. 7 of 8

Quality Control: This form is complete ☐ & legible ☐.

Signature: Peter Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

①part with P14 in it (see also May30/2011 for more W-3)
②part along Emerald N. of 2nd Concession

**Feature No.:** W-3 **Habitat Type:** ① deciduous woods some scrubby open some more closed older ② ~~evergreen~~ green (red cedar/juniper) woods **Time Start:** 9:08 **Time End:** 9:45

S.T. 9:50
ET- 10:00

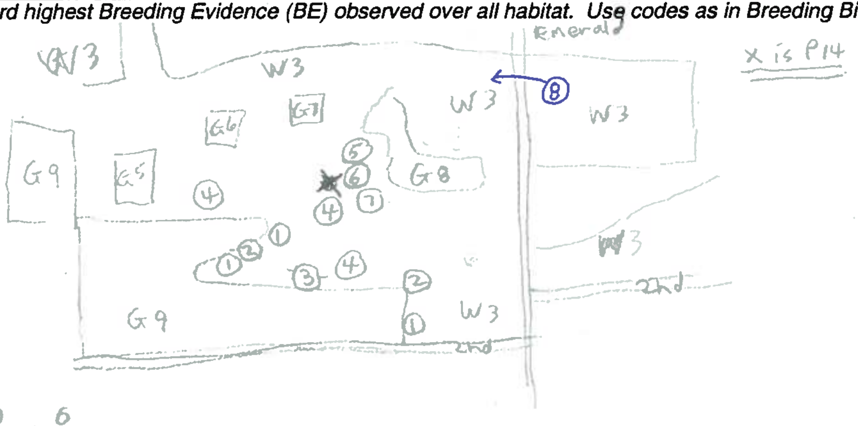
May 31

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ 1 | S |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ 1 | S | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † 3 | S |
| Am. Bittern | | Ruby-thr. Humming. ← * | H | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † 2 | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| → Sharp-sh. Hawk ‡ * 1 | H | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † 1 | S | Am. Robin 1 | 1 | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird ← * 1 | | Rose-br. Grosbeak † 1 | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 1 | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. 1 | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe ← * 1 | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo 3 | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull flyover 1 | X | Blue Jay 2 | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*



① EATO
② FISP
③ BRTH
④ RBGR
⑤ OVEN
⑥ BRCR
⑦ EWPE
⑧ SSHA

← birds marked with arrow and * seen in ② only

Pg. 8 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: Pete Read
(Field Personnel)

Signature: Kat
(Project Manager)

REV: 2011-05-27 / FORM 031

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date Ma 31 / 2011

Field Personnel: Pete Read

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 15 | 0 | 10 | 0 | 0 |

**GPS #: T** 1

**Station:** P8 *

**Habitat:** ☐ Forest ☑ Swamp ☑ Marsh ☐ Hay ☑ Pasture ☐ Crop

**UTM:** 356134 4887219 T-1 #170

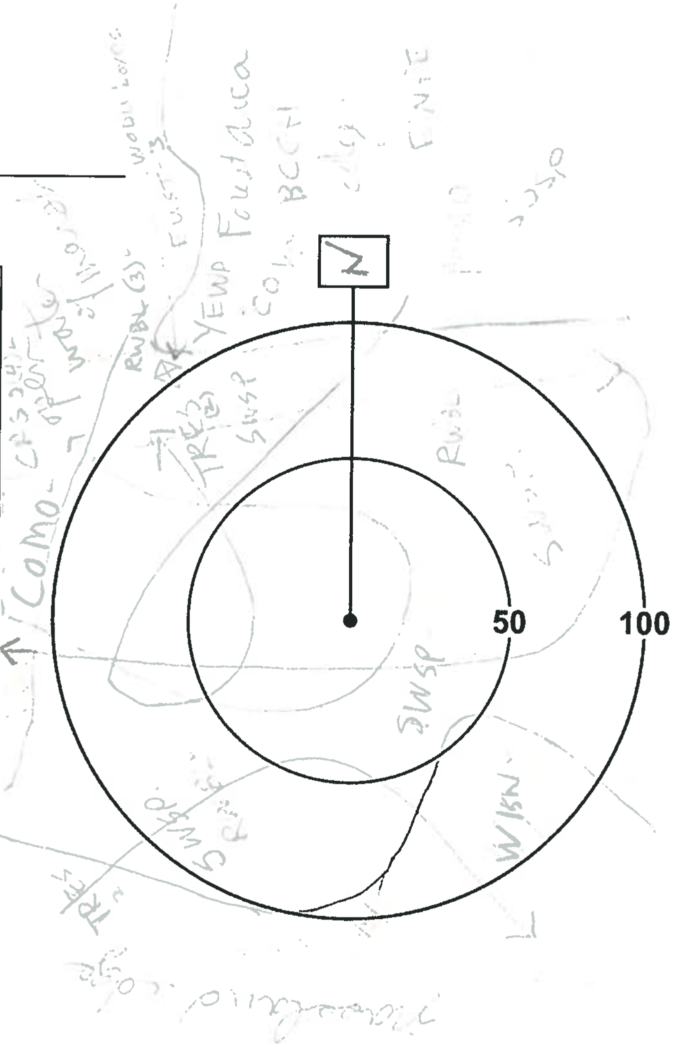
**Start Time:** 5:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COMO | | | 1 | | A |
| CAGO | | | 4 | | A |
| RWBL | | 2 | 3 | | A |
| TRES | | 2 | | | A |
| SWSP | 1 | 3 | | | A |
| WISN | | 1 | | | A |
| SOSP | | | 1 | | A |
| AMRO | | | 1 | | A |
| EWPE | | | 1 | | A |
| BCCH | | | 1 | | A |
| COYE | | | 1 | | A |
| YEWA | | | 1 | | A |
| EUST | | | 3 | | A |

forest + edge

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

| COME | | | 2 | | A |
|---|---|---|---|---|---|



Quality Control: This form is complete (__) & legible (__).

Signature: Pete Read
(Field Personnel)

Signature: Katie
(Project Manager)

Page 1 of 5

REV: May, 07 Form 020

**Station:** P10 May 31/2011

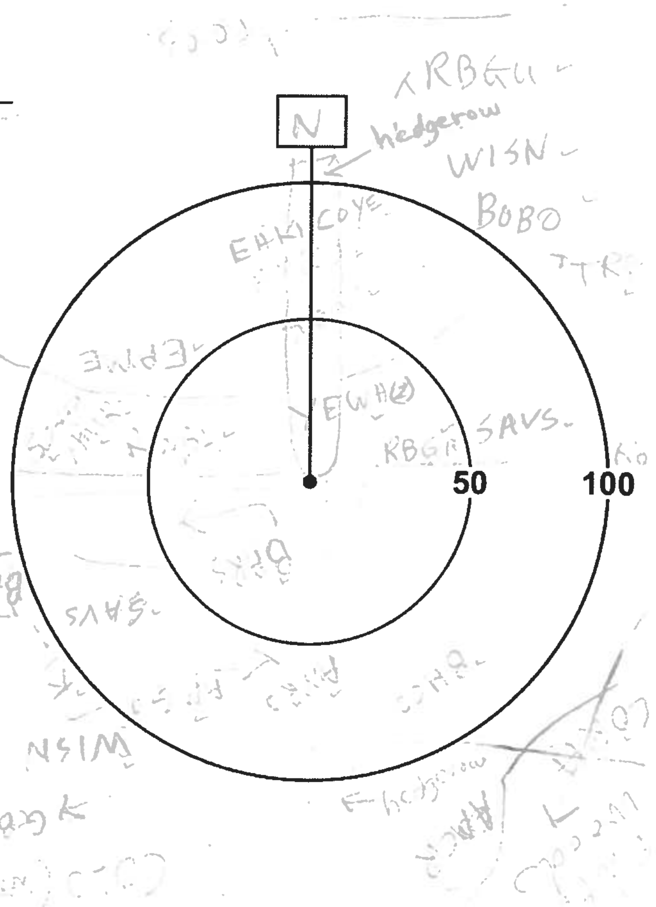
**Habitat:** ☒Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop ______________

**UTM:** [illegible] 4885[illegible]

**Start Time:** [illegible]

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGU | | | | 1 | A |
| WISN | | | 2 | | A |
| BOBO | | | 1 | | A |
| TRES | 1 | | | | A |
| EAKI | | 1 | | | A |
| COYE | | 1 | | | A |
| AMRO | | 3 | | | A |
| SOSP | 1 | 1 | | | A |
| EAME | | | | | A |
| YEWA | 2 | | | | A |
| RBGR | 1 | | | | A |
| SAVS | | 2 | | | A/O |
| RWBL | | 1 | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P10 continued

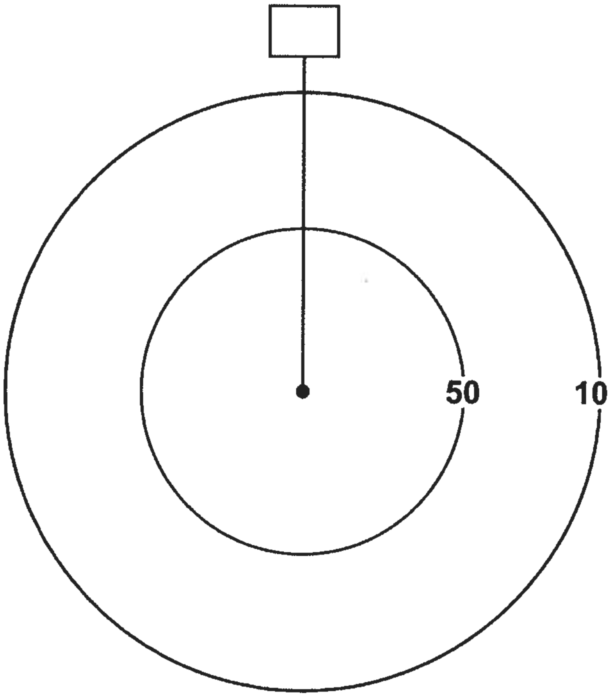
**Habitat:** ☐Forest ☒Swamp ☒Marsh ☐Hay ☐Pasture ☐Crop ______________

**UTM:** ______________________________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| BARS | 1 | | | | A |
| KILL | | | 1 | | A |
| AMGO | | 1 | | | A |
| COLO | | | 1 | | A |
| AMCR | | | 1 | | A |
| CORA | | | 1 | | A |
| EWPE | | | 1 | | A |
| BHCO | | 1 | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: Peter Read
(Field Personnel)

Signature: Ke[illegible]
(Project Manager)

Page 2 of 5

REV: May, 07 Form 020

**Station:** P11* May 31/2011

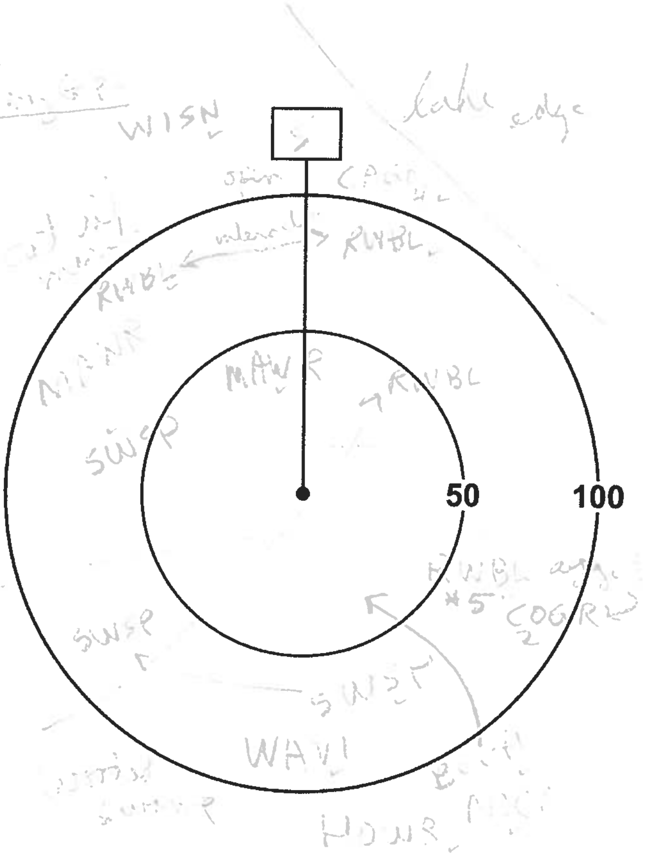
**Habitat:** ☐Forest ☒Swamp ☒Marsh ☐Hay ☐Pasture ☐Crop

**UTM:** 353503 4885561

**Start Time:** 7:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WISN | | | 1 | | A |
| CAGO | | | 4 | | A |
| RWBL | | 7 | | | A |
| GOGR | | 2 | | | A |
| SWSP | | 2 | | | O |
| WAVI | | 1 | | | A |
| HOWR | | | 1 | | A |
| NOCA | | | 1 | | A |
| BCCH | | 1 | | | A |
| MAWR | 1 | 1 | | | A |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P8* Marsh Bird Playbacks May 31 2011

**Habitat:** ☐Forest ☒Swamp ☐Marsh ☐Hay ☒Pasture ☐Crop

**UTM:** 356134 4887218 T-1 #170

**Start Time:** 5:30

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| VIRA | 1 | | | | O |
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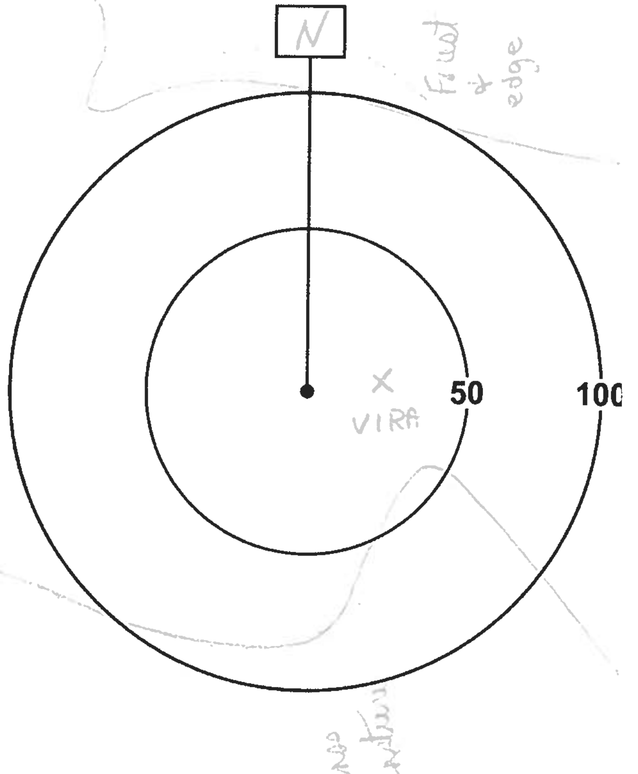
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: Peter Read
(Field Personnel)

Signature: 
(Project Manager)

Page 3 of 5

REV: May, 07 Form 020

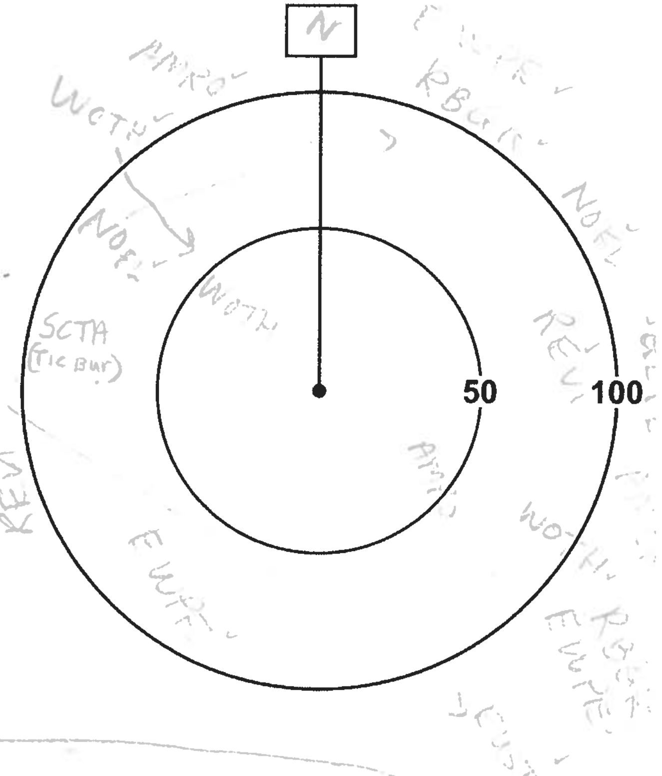
T W C PPT
20 2 NE <10 0

- drier [illegible]
- some wet parts

**Station:** P12 May 31 2011
**Habitat:** ☒Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** 358[illegible]99 4885899 my GPS
**Start Time:** 8:14

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMRO | | | 1 | | A |
| WOTH | | 2 | | | A |
| NOFL | | 1 | 1 | | A |
| SCTA | | 1 | | | A |
| EWPE | | 1 | 1 | | A |
| EUST | | | | 1 | A |
| RBGR | | | 2 | | A |
| BRCR | | | 1 | | A |
| GCFL | | | 1 | | A |
| REVI | | 1 | | | A |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



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**Station:** P14 May 31 2011
**Habitat:** ☒Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** 358188 4888222
**Start Time:** 9:17

wet areas yng dec.
#172
T-1

T W C PPT
21 2 NE <10 0

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| REVI | 1 | 2 | | | A |
| RBGR | | 1 | | | A |
| GCFL | 1 | | | | A |
| BRCR | 1 | | | | A |
| EWPE | | 1 | | | A |
| OVEN | | | 1 | | A/O |
| BLJA | | | 2 | | A |
| | | | | | |
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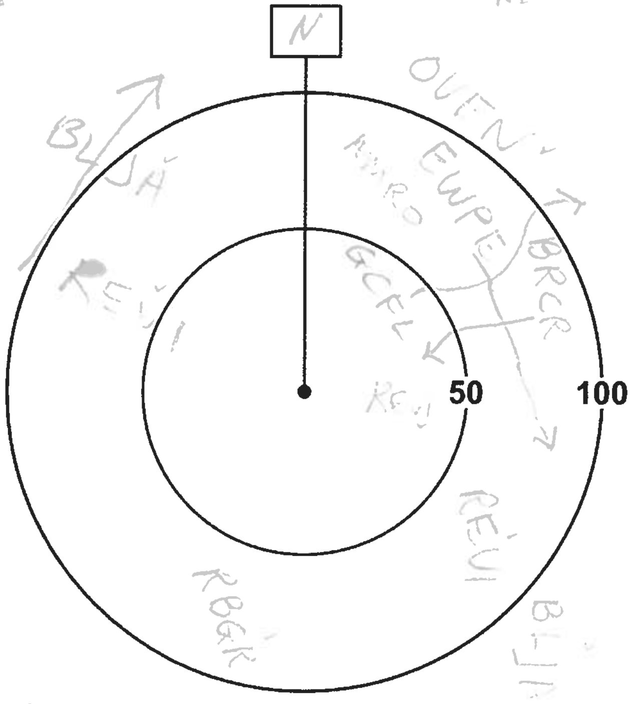
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________________ (Field Personnel)
Signature: Kert ______________________ (Project Manager)

Page 4 of 5
REV: May, 07 Form 020

May 31/2011

**Station:** P11* Marsh Bird Playbacks

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** 358503 4885561 with my GPS

**Start Time:** 7:30

No RESPONCES

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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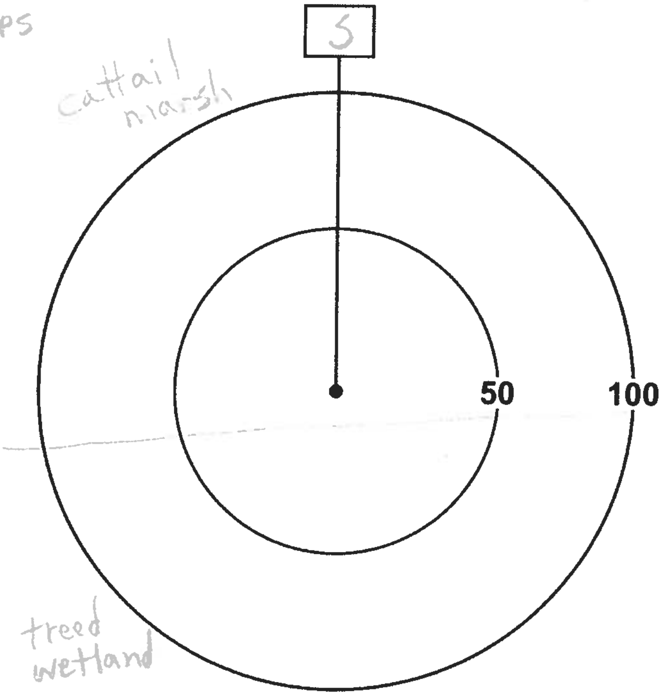
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ______________________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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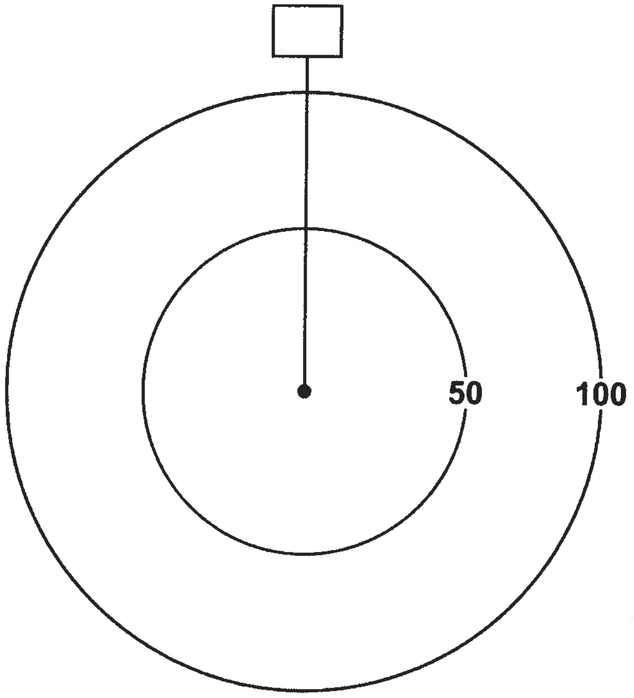
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 5 of 5

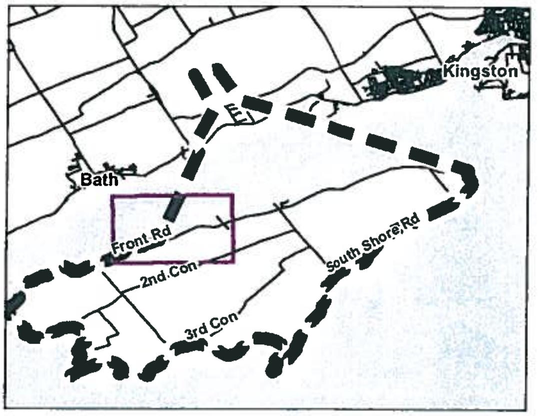
REV: May, 07 Form 020

## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

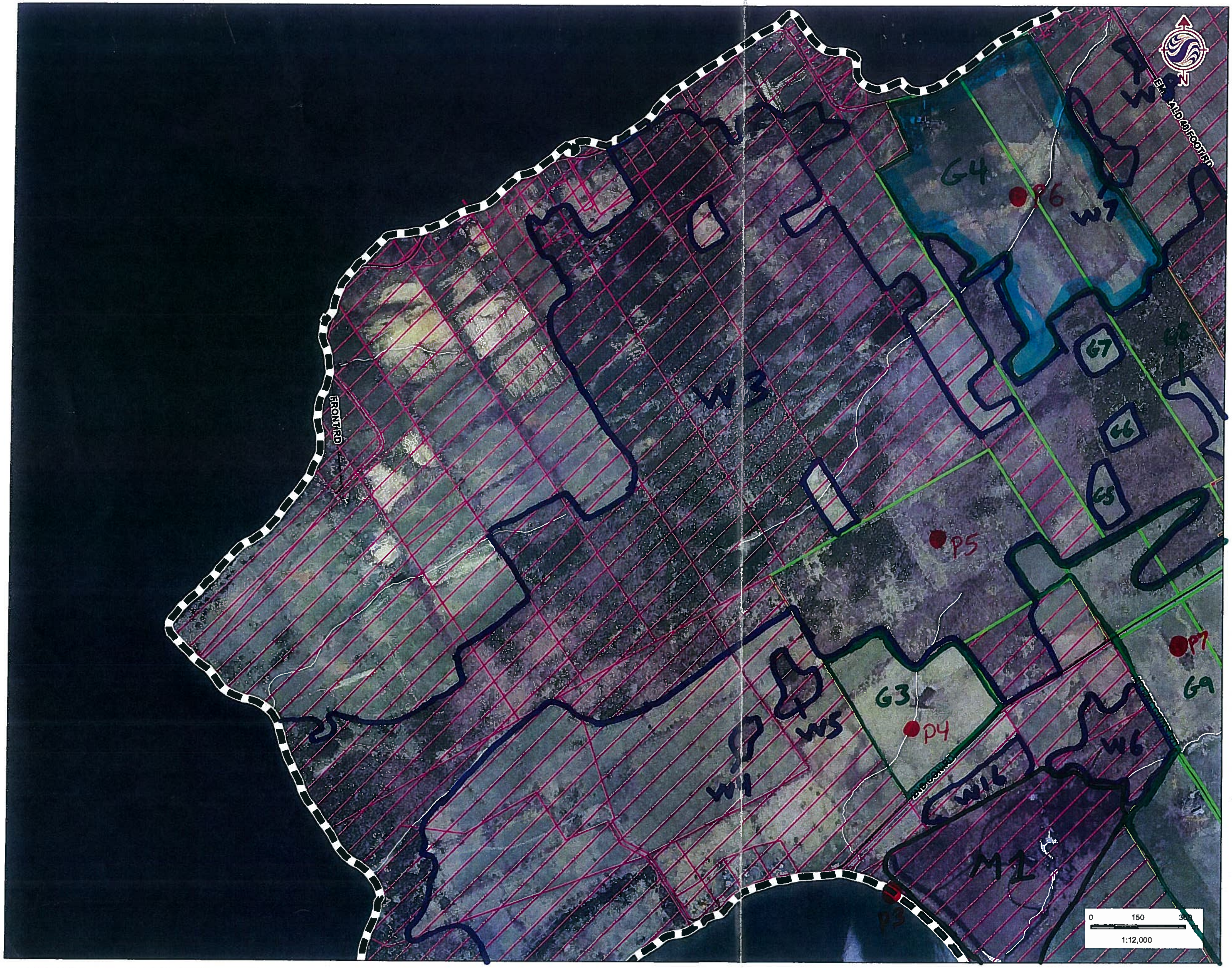
Figure No.

Tile 4

Title

# FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

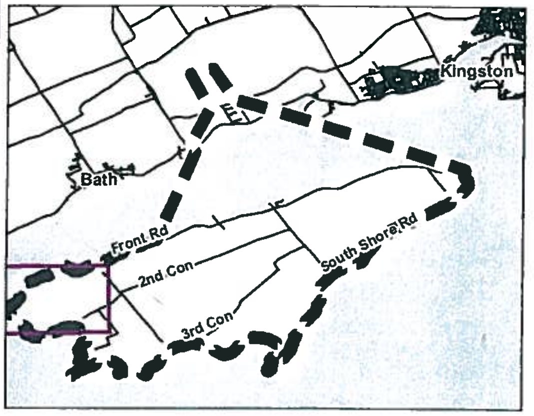


## Legend

▙ Study Area
— Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

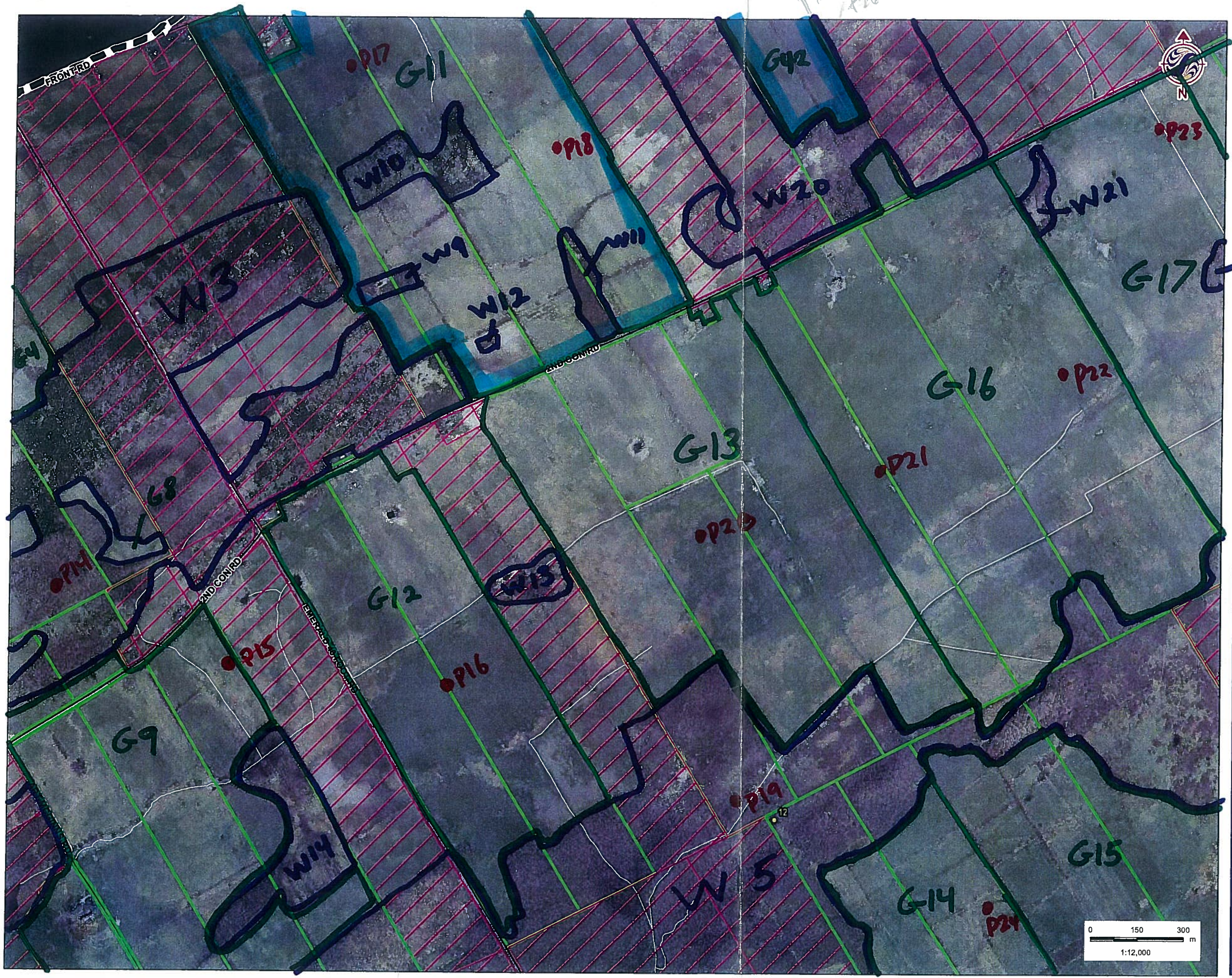
Figure No.

Tile 1

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

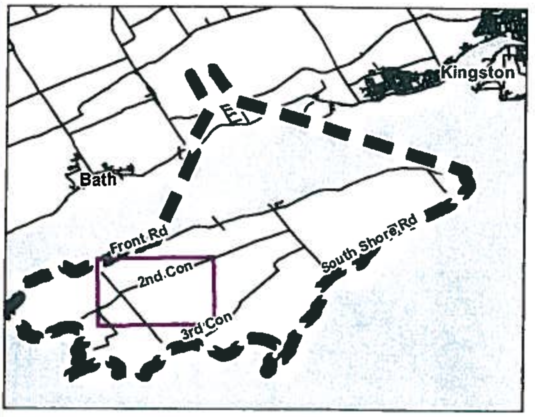


## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

**FIELD MAPBOOK**

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Revised on: 2011-05-27 By: dharvey

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960595

Project Name: Amherst

Date: June 1/2011

Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 19 | 2 | 10 % | 0 | 0 |

**Feature No.:** G42 **Habitat Type:** grassland. **Time Start:** 5:00 **Time End:** 5:40.

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose flyover | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard 2 | P | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † flyover | X | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 3+ | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 2 | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † 15+ | P |
| Virginia Rail | | Ea. Phoebe | | European Starling 5+ | H | Red-winged Bl. 5+ | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 3+ | S |
| Killdeer 2 | P | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle flyover | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow 2 | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 11.

Quality Control: This form is complete ☑ ~~& legible ☑~~

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W 20 **Habitat Type:** brushy woods **Time Start:** 5:00 **Time End:** 5:40

① listening and looking while in G42 north 8:41 – 9:18

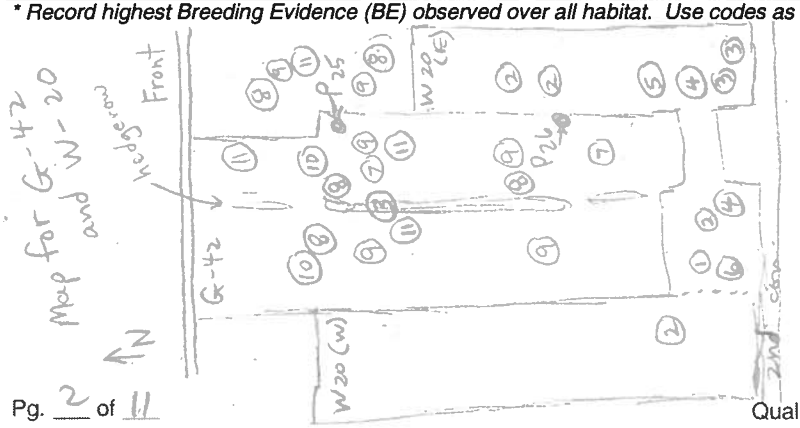
② walking to P26

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat east | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ flyover | X | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren E & W | S | Eastern Towhee † E | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. W | H | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. W + E | S |
| N. Harrier †‡ | | No. Flicker † W | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † W | S | Am. Robin E W | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird E | S | Rose-br. Grosbeak † E & W | S |
| Red-tailed Hawk | | Willow Fly. † east & west | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. E & W | H |
| Sora | | Gr. Crested Fly. W | H | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † west | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. W | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. west east? 7+ | S | Baltimore Oriole † E & W | S |
| Am. Woodcock | | Red-eyed Vireo E & W | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*



① EWPE
② RBGR
③ WIFL
④ BAOR
⑤ EATO
⑥ NOFL
⑦ SAVS
⑧ EAME
⑨ BOBO
⑩ GRSP
⑪ EAKI

Pg. 2 of 11

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature: Katie S
(Project Manager)

REV: 2011-05-27 / FORM 031

June 1

**Feature No.:** G 11 **Habitat Type:** grassland **Time Start:** ① 5:49 **Time End:** 7:15

while doing P17 and W10

② 8:41 – 10:00
walking to W12, W9, W11

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners in Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow 5+ | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat * 1 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. 2 | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † 1 | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 5+ | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 4+ | N |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. * 5+ | S |
| N. Harrier †‡ 2 | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin * 10+ | CF | No. Cardinal * | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † * 1 | S | Bobolink † lots | D |
| Virginia Rail | | Ea. Phoebe | | European Starling lots | H | Red-winged Bl. 10+ | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 5+ | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle 5+ | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 5+ | D |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. 5+ | S | Baltimore Oriole † * 1 | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull fly over | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* includes hedgerows, ditches within G11 but not W9, W10, W12, W11

for map of species locations see page 4

Pg. 3 of 11

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ~~☐ & legible~~ ☐.

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W-3 **Habitat Type:** woods **Time Start:** ① 6:15 **Time End:** 6:20

listened and looked while doing G 11

② 8:45 - 9:33 while checking near W9 and G 11

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee 1 | S | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 1 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † ③ ② 1 | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 2 | S |
| N. Harrier †‡ | | No. Flicker † 1 | S | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † ③ | S | Am. Robin 1 | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. ③ 1 | S | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. 1 | S |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 1 | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. ③ ② | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo ③ | S | Yellow Wa. 2 | S | Baltimore Oriole † 1 | S |
| Am. Woodcock | | Red-eyed Vireo 1 | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Also added to this sheet
data from south part of G4 where meets W-3
so ③ 8:00 - 8:05 (map of ③ FISP on page 10)
② FISP and other ② sign. species
on map on page 4)

Pg. 5 of 11

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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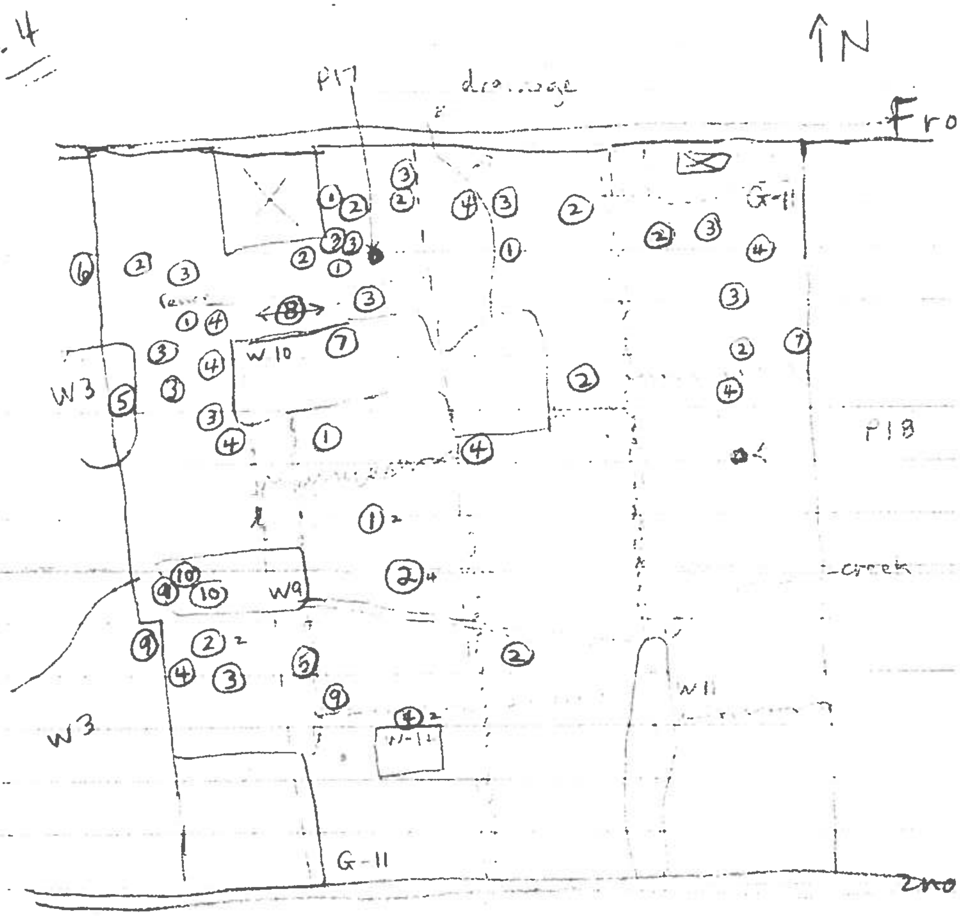
p. 4



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① EHME
② BOBO
③ SAVS
④ GRSP
⑤ BAOR
⑥ BRTH
⑦ EAKI
⑧ NOHA
⑨ FISP
⑩ WIFL

June 1

**Feature No.:** W 10 **Habitat Type:** woods **Time Start:** 6:30 **Time End:** 6:45

***Record location of all significant species on site map.***

- red cedar "woods"
- open canopy

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 1 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 3 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin 3 | N | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling 5 | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing 2 | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † 1 | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. 3 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

for map see page 4.

Pg. 6 of 11

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:** Katie S
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W9 **Habitat Type:** Woods **Time Start:** 9:44 **Time End:** 10:05

- wet brushy west end
- older trees wet east end

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † 1 | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 3 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin 2 | S | No. Cardinal 1 | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † 3 | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. 2 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow flyover | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

see map page 4.

Pg. 7 of 11

Signature: P. Reid. (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kevin (Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W-12 **Habitat Type:** Woods **Time Start:** 9:31 **Time End:** 9:36

***Record location of all significant species on site map.***

- very small # of trees
- dry
- brushy at edge

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 2 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 3 | D |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. 1 | S | Baltimore Oriole † | |
| * Am. Woodcock flushed | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* AMWO flushed from bushes at south end of W-12
- no nest found.

Pg. 8 of 11

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 1

**Feature No.:** W 11 **Habitat Type:** Woods **Time Start:** 10:10 **Time End:** 10:24

***Record location of all significant species on site map.*** - north end along waterway + brushy + wet
- drier as head south
- larger trees at N end

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 1 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 2 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 5+ | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin 5+ | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird 1 | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. 4+ | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing 4 | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 1 | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo 2+ | S | Yellow Wa. 2+ | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 11

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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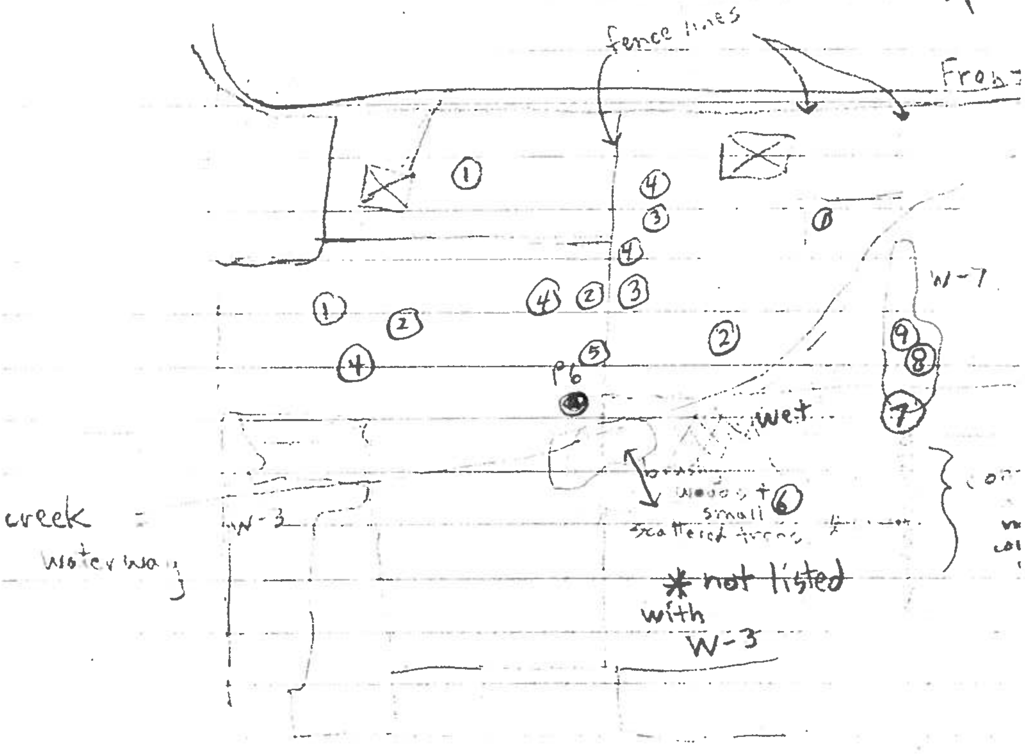
Map for G4 and W7 signific
spec



*not listed
with
W-3

W-3

*data added to
W-3 June 1
with this
bat

s

① EAME
② BOBO
③ UPSA
④ SAVS
⑤ EAKI
⑥ FISP
⑦ Brown Thrasher
⑧ RBGR
⑨ EWPE

*note W-8 on another day. June 3

P. Read

June 1

**Feature No.:** G 4. **Habitat Type:** Grassland **Time Start:** 7:30 **Time End:** 8:24.

***Record location of all significant species on site map.***

- hay, pasture,
- hedgerows
- wet areas, dry areas

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow 5+ | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 2 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. 1 | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 5+ | S |
| T. Vulture flyover | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 5+ | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin 10+ | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † 5+ | S |
| Virginia Rail | | Ea. Phoebe | | European Starling 5+ | H | Red-winged Bl. 10+ | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing 2 | P | Ea. Meadowlark † 2+ | S |
| Killdeer 4 | A | Ea. Kingbird † 2+ | S | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 2+ | H |
| Upla. Sandpiper ‡ 2 | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe 3 | P | Warbling Vireo | | Yellow Wa. 5+ | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch 2 | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow 5+ | H |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

see map page 10

Pg. 9 of 11

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:**
(Project Manager)

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

REV: 2011-05-27 / FORM 031

**Feature No.:** W7 **Habitat Type:** Woods **Time Start:** 8:04 **Time End:** 8:15

***Record location of all significant species on site map.*** - wet, edges brushy. some young trees

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. 3+ | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † - | S | Am. Robin 3+ | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † 1 | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | S |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 1 | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe flyover | X | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

see map page 10 for locations of noted species.

Pg. 11 of 11

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Reid
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June / 201

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 19 | Wind: 2 | Cloud: 10 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #: T**___

**Station:** P25

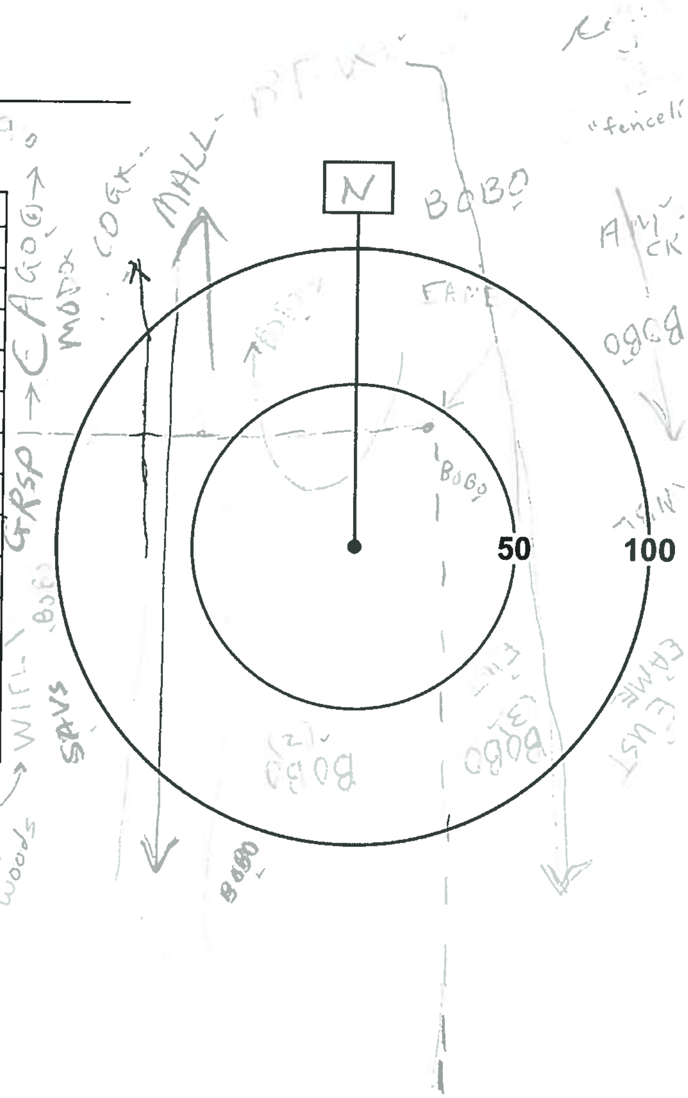
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop

**UTM:** 360337 4833485 T--#19

**Start Time:** 5:20

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BEKI | | | | 1 | A |
| MALL | | | | 1 | A |
| COGR | | | | 1 | A |
| BOBO | 1 | 7 | 4 | | A |
| SAVS | | | 1 | | A |
| EUST | | 1 | 1 | | A |
| EAME | | | 1 | | A |
| RWBL | | | 1 | | A |
| AMCR | | | 2 | | A |
| CAGO | | | | 6 | A |
| MODO | | | | 1 | A |
| GRSP | | | 1 | | O |
| WIFL | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (—) & legible (__).

Signature: P. Read
(Field Personnel)

Signature: 
(Project Manager)

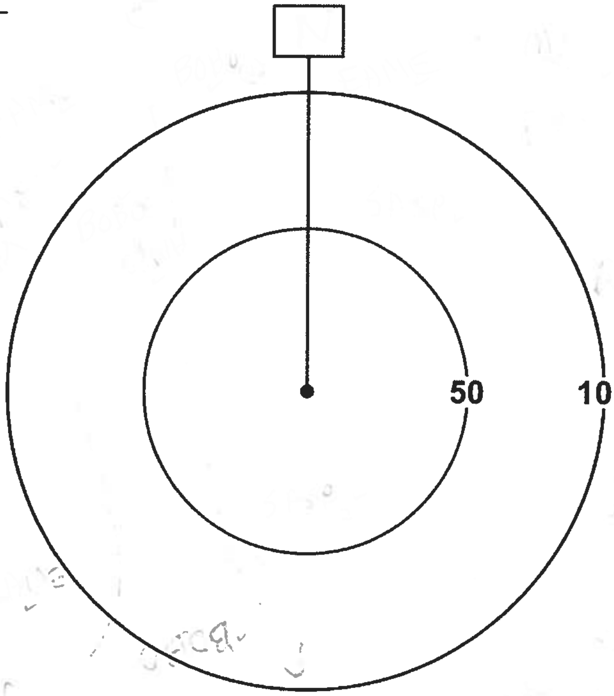
Page 1 of 3

REV: May, 07 Form 020

T- 20
W- 2 (SW)
C -

**Station:** P17
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** 359134 4339832
**Start Time:** 600

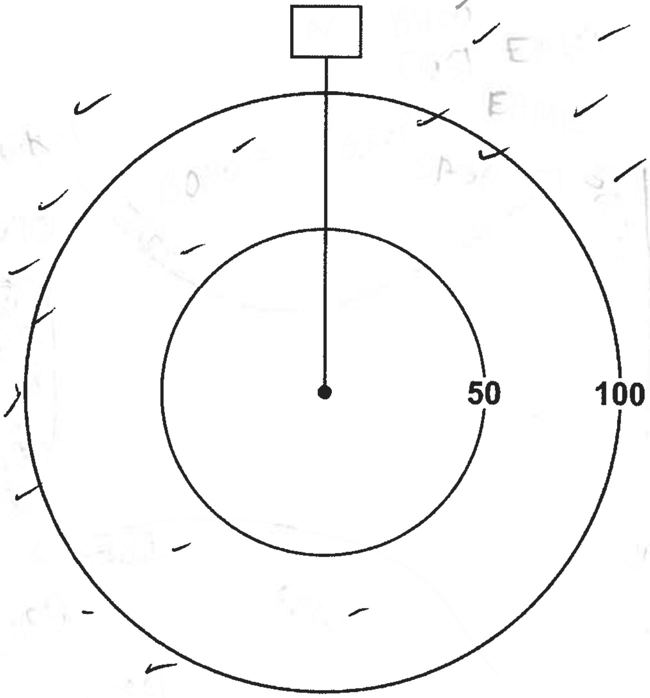
| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | | | 4 | | A |
| BOBO | | 2 | 4 | | A |
| MALL | | | | 1 | A |
| AMRO | | | | 1 | A |
| BARS | | | | 1 | A |
| SASP | 2 | 1 | | | A/O |
| NOHA | | | | 1 | A |
| CAGO | | | | 2 | A |
| RWBL | | | 1 | | A |
| SOSP | | | 1 | | A |
| EAKI | | | 1 | | A |
| HOWR | | | 1 | | A |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** ______
**Habitat:** Forest Swamp Marsh ☑Hay ☑Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | | 3 | 1 | | |
| TRES | | | | 2 | |
| EAKI | | | 2 | | |
| EUST | | | 1 | 1 | |
| YEWA | | | 1 | | |
| EAME | | | 2 | | |
| BHCO | | | 1 | | |
| GRSP | | 1 | 1 | | |
| SASP | | 1 | 1 | | |
| BRTH | | | 2 | | |
| RWBL | | | 1 | | |
| NOHA | | | | 2 | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: P. Road (Field Personnel)
Signature: ____________ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

June'

T-21

**Station:** P6

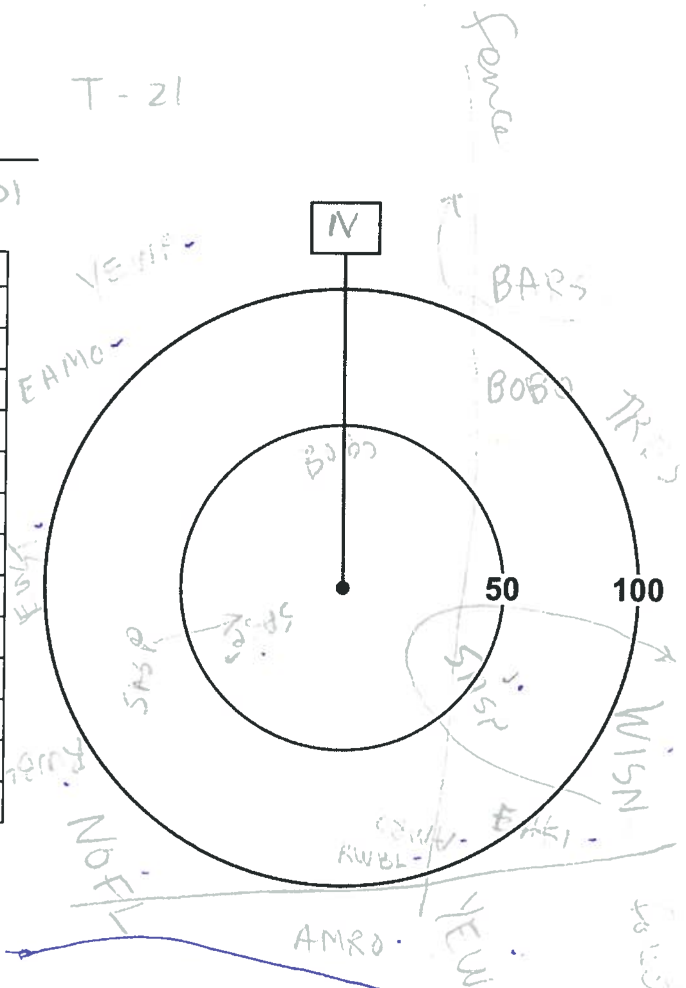
**Habitat:** ☑Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 357702 4899165 #201

**Start Time:** 7:45

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | | | 1 | | A |
| YEWA | | | 2 | | A |
| EUST | | | 1 | | A |
| RWBL | | 1 | 1 | | A |
| NOFL | | | 1 | | A |
| AMRO | | 1 | 1 | | A |
| EAKI | | | 1 | | A |
| WISN | 1 | | | | A |
| SASP | 1 | 2 | | | O |
| BOBO | 1 | 1 | | | A |
| TRES | | | 1 | | A |
| BARS | | | 1 | | A |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P26

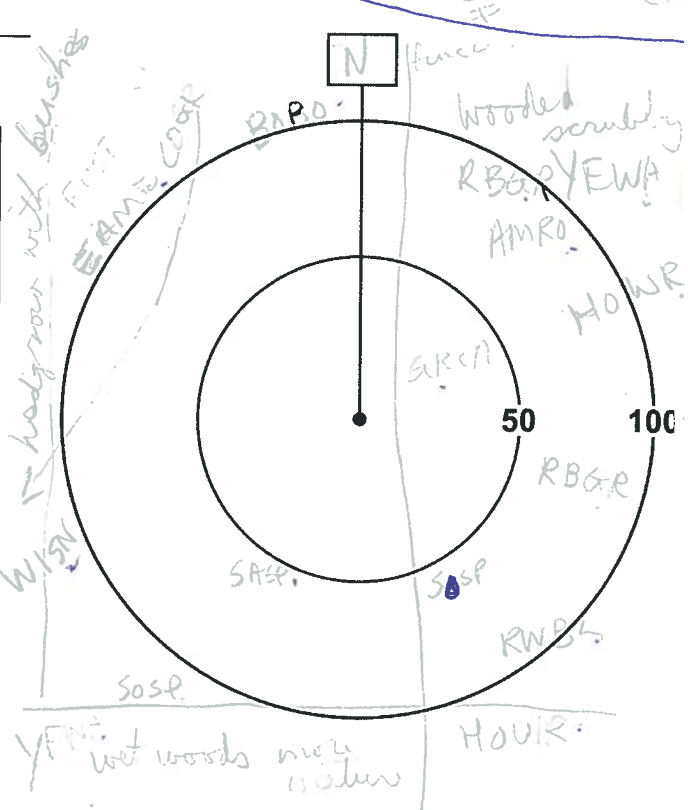
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:** 360778 4388974 #202

**Start Time:** 8:44

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | | | 1 | | A |
| COGR | | | | 1 | A |
| BOBO | | | 1 | | A |
| WISN | | | 1 | | A |
| ~~SOSP~~ | | | ~~1~~ | | [illegible] |
| YEWA | | | 2 | | A |
| HOWR | | 1 | 1 | | A |
| RWBL | | 1 | | | A |
| SASP | | 1 | | | D |
| SOSP | | 1 | 1 | | A |
| RBGR | | 2 | | | A |
| GRCA | 1 | | | | A |
| AMRO | | 1 | | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

Page 3 of 3

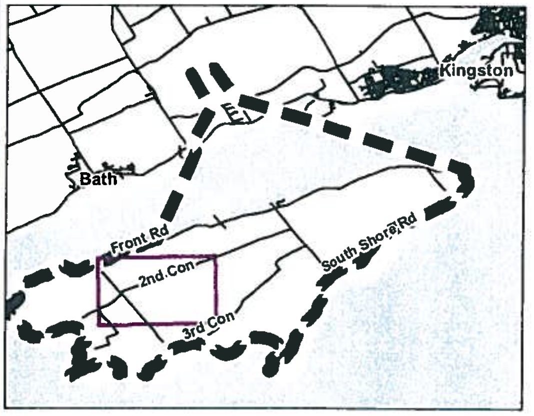
REV: May, 07 Form 020

## Legend

- ▚ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

**FIELD MAPBOOK**

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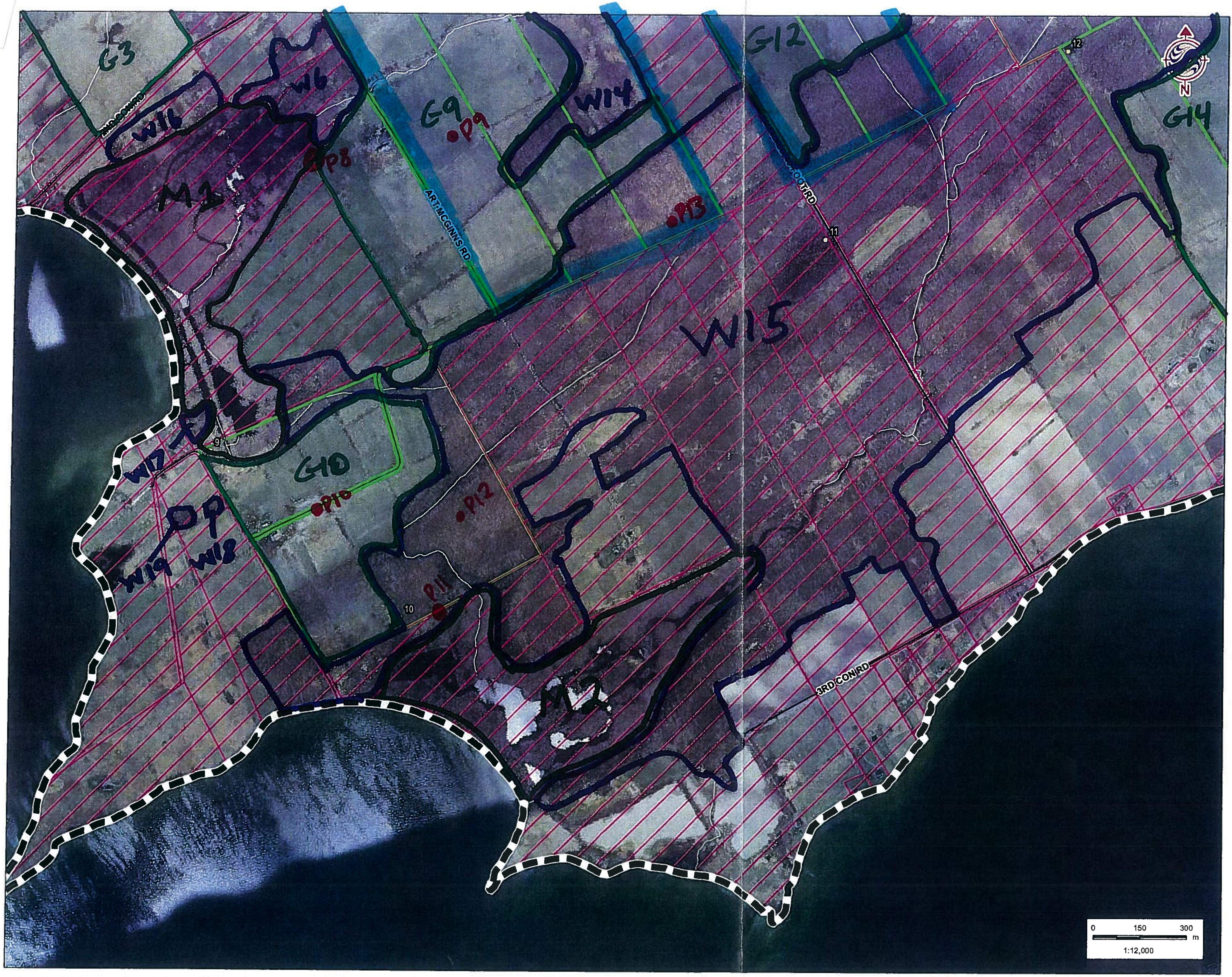
Revised on: 2011-05-27 By: dharvey

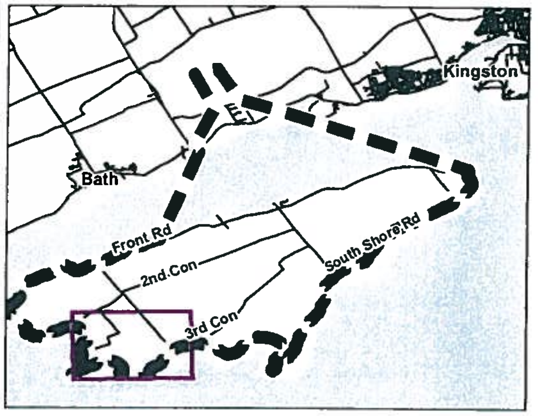


## Legend

- ▚ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 2

Title
**FIELD MAPBOOK**

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Revised on: 2011-05-27 By: dharvey

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 2/2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 12 | Wind: 3 | Cloud: 40% | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #: T** 1

**Station:** P15

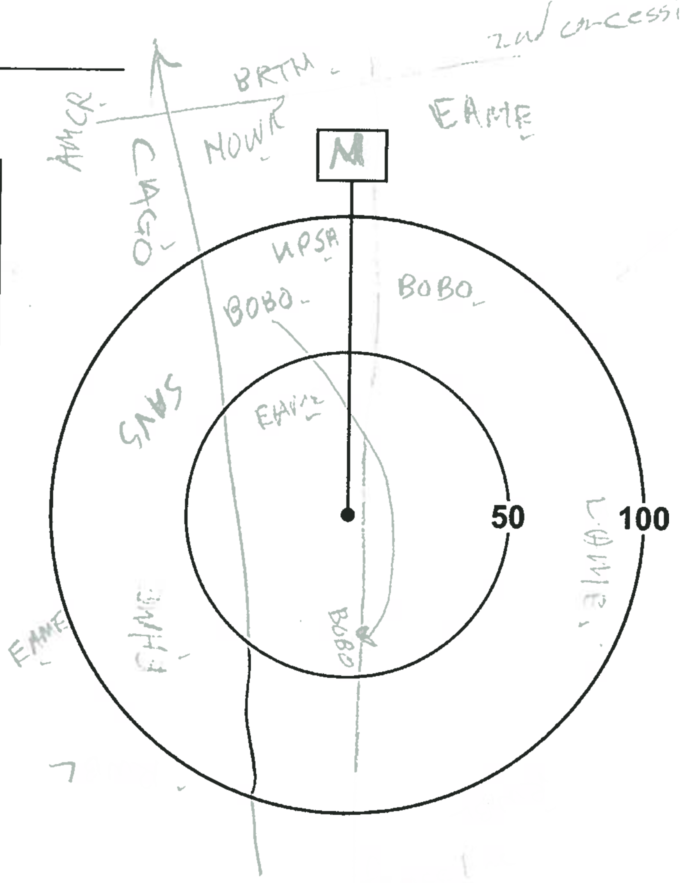
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 358784 4887956 #215

**Start Time:** 5:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | 1 | 2 | 2 | | A/O |
| BOBO | 1 | 1 | | | A |
| SAVS | | 1 | | | A |
| UPSA | | 1 | | | A |
| RWBL | | | 2 | | A |
| HOWR | | | 1 | | A |
| BRTH | | | 1 | | A |
| CAGO | | | | 2 | A |
| AMCR | | | 2 | | A |
| YEWA | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: Peter Read
(Field Personnel)

Signature: Katrina
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

T-12 C 20% W-3 W

**Station:** P7

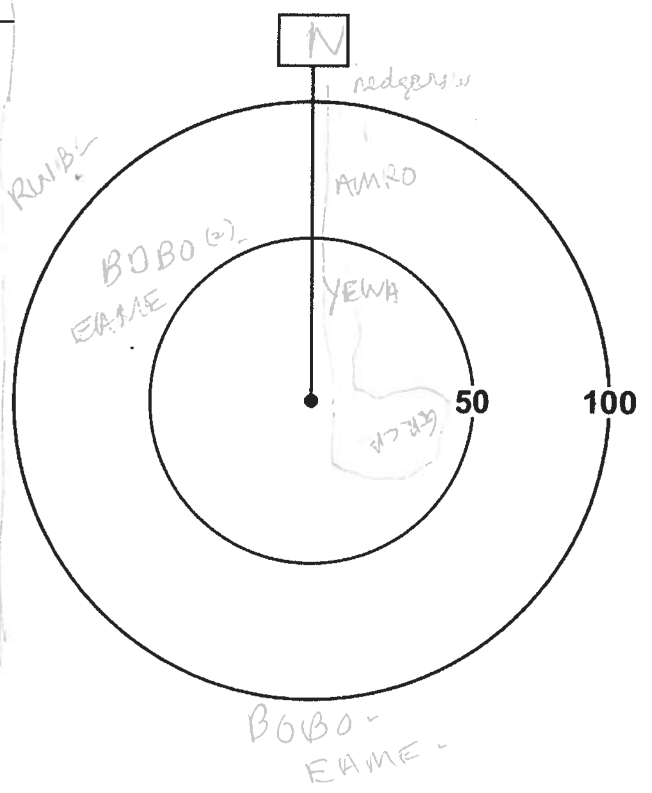
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☑Pasture ☐Crop ______

**UTM:** 358242 4887613 #216

**Start Time:** 6:05

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | 1 | | A |
| BOBO | | 2 | 1 | | A |
| EAME | | 1 | 1 | | A |
| AMRO | | 1 | | | A |
| YEWA | 1 | | | | A |
| GRCA | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



T-12 C 20% W-3 W

**Station:** P9

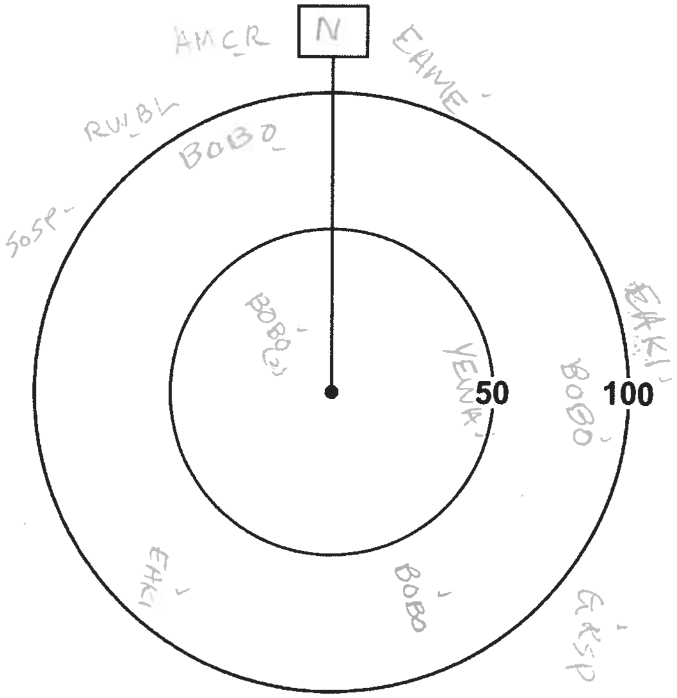
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop ______

**UTM:** 358487 4887133 #217

**Start Time:** 6:35

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMCR | | | 1 | | A |
| EAME | | | 1 | | A |
| RWBL | | | 1 | | A |
| SOSP | | | 1 | | A |
| GRSP | | | 1 | | A/O |
| BOBO | 2 | 2 | | | A |
| EAKI | | 1 | 1 | | A |
| YEWA | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature: Katie S
(Project Manager)

Page 2 of 3

REV: May, 07 Form 020

June 2

T-12 C 80 clouds W-3 NW

**Station:** P13
**Habitat:** ☑Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop
**UTM:** 359059 4886901 #218
**Start Time:** 7:17

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WOTH | | | 2 | | A |
| EWPE | | 1 | 1 | | A |
| RBGR | | 1 | 1 | | A |
| NOFL | | | 1 | | A |
| AMRO | | 2 | | | A |
| REVI | 1 | | | | A |
| BCCH | | | 1 | | A |
| COGR | | | | 1 | A |
| | | | | | |
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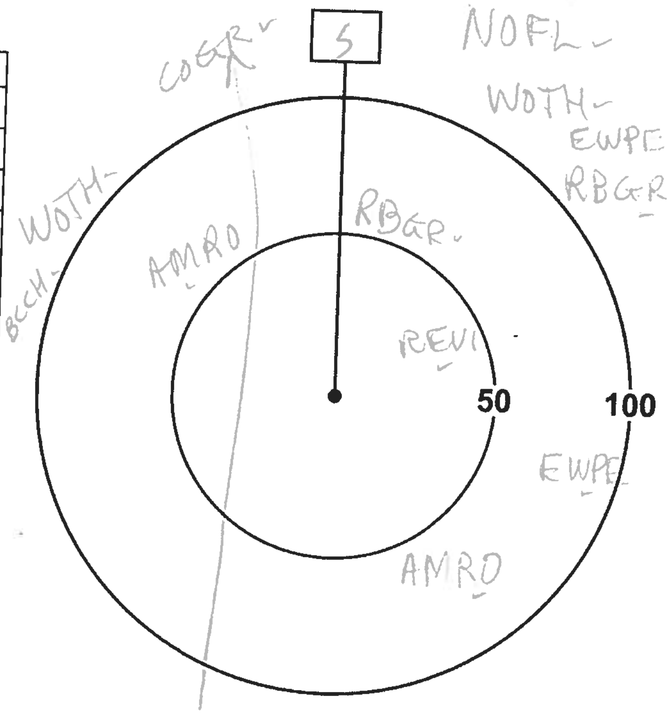

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

T-12 C-90 W-3 W PPT-0

**Station:** P16
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☐Pasture ☐Crop
**UTM:** 359430 4887940 #219
**Start Time:** 8:22

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 2 | 10 | 8 | | A |
| RWBL | | | 2 | | A |
| SAVS | 1 | 1 | 2 | | A/O |
| EAME | | | 1 | | A |
| AMCR | | | 1 | | A |
| NOHA | | 1 | 1 | | A |
| | | | | | |
| | | | | | |
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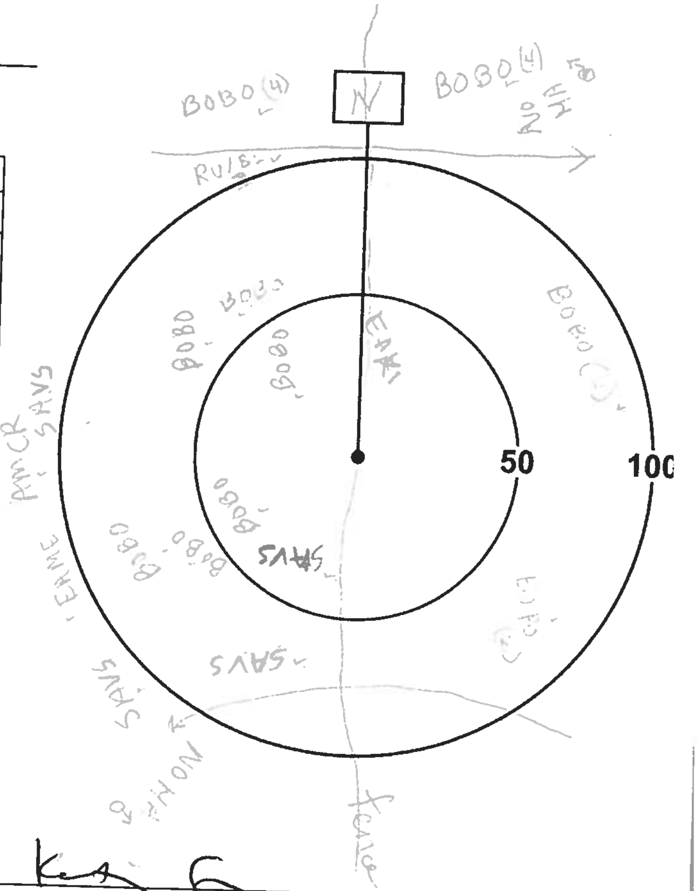


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (—) & legible (—).
Signature: DReed
(Field Personnel)

Signature:
(Project Manager)

Page 3 of 3

REV: May, 07 Form 020

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960595
Project Name: Amherst
Date: June 2/2011
Field Personnel: Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 11 | 3 NW | 40-100% | 0 | 0 |

**Feature No.:** G9 **Habitat Type:** Grassland. **Time Start:** 5:00 **Time End:** 6:56

***Record location of all significant species on site map.*** map of significant species on page 2
* hedgerows in grassland & species and along ditches

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose flyover 40 | X H | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren * 1 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 1 | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 2+ | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. * 3+ | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. * 1 | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin * 4+ | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird * 2 | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † 3+ | S |
| Virginia Rail | | Ea. Phoebe | | European Starling 5+ | FY | Red-winged Bl. 5+ | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 3 | S |
| Killdeer | | Ea. Kingbird † * 3+ | H | Blue-wing. Wa. † | | Co. Grackle 2 | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. 3 | H |
| Upla. Sandpiper ‡ 2 | P | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe 2 | P | Warbling Vireo | | Yellow Wa. * 2 | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch flyover 2 | X H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 8

Quality Control: This form is complete ~~☐ & legible ☐.~~

Signature: Pete Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** N-14 **Habitat Type:** Woods **Time Start:** 6:56 **Time End:** 7:10

***Record location of all significant species on site map.***

- closed to partly open
- wet in spots
- some larger trees - shrubbier at ends
- significant species on page 2

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture flyover | x H | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | H |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven flyover 2 | x H | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 8

Quality Control: This form is complete ☑ & legible ☑

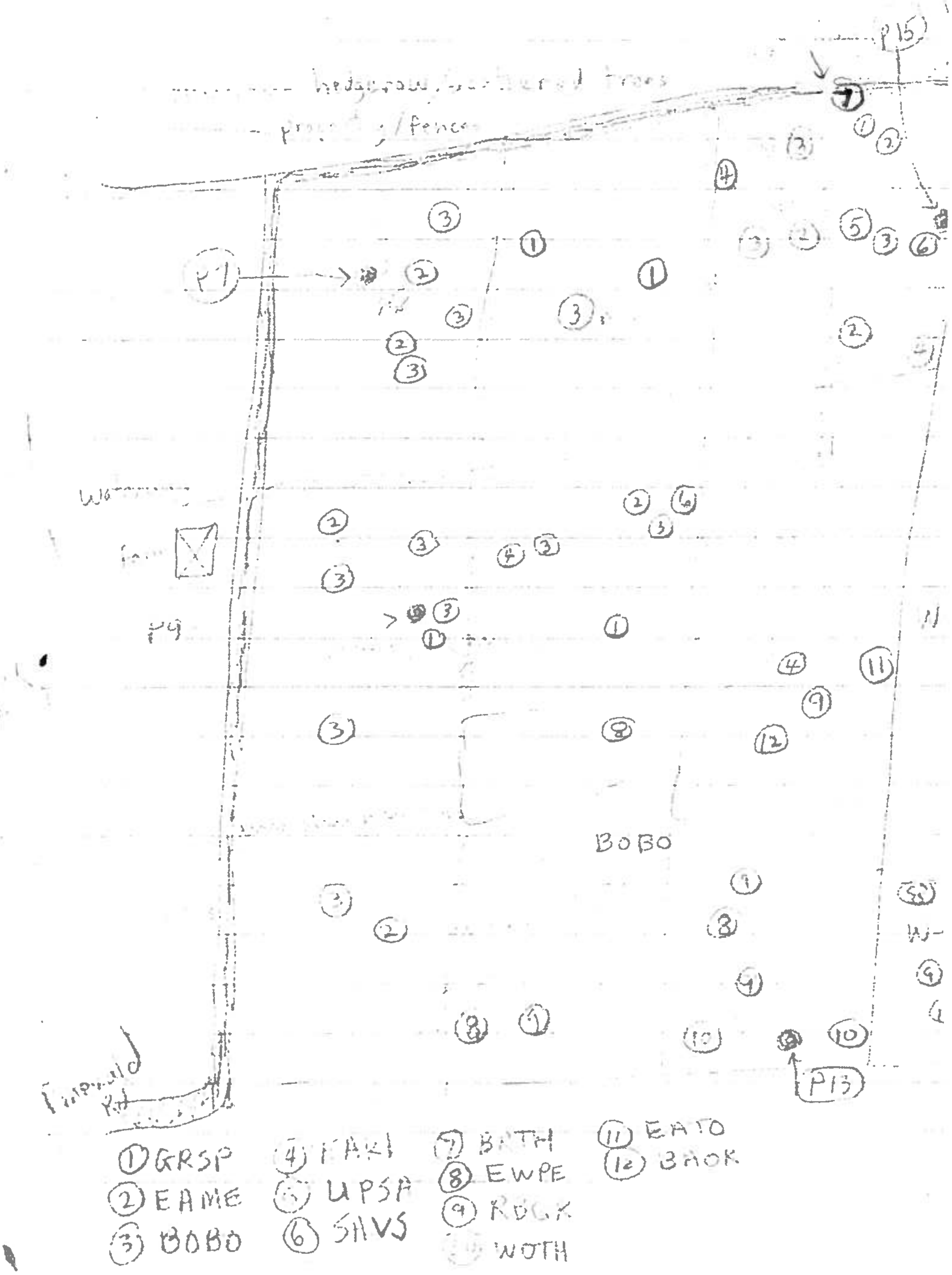
**Signature:** P. Read
(Field Personnel)

**Signature:** Katie S
(Project Manager)

Page 2 of 8

for G7, VV14, G1 part of
G12 part of
on

for June2 Day4.



June 2

**Feature No.:** W-15 **Habitat Type:** Woods in part - south end of G9 **Time Start:** 7:12 **Time End:** 7:47

***Record location of all significant species on site map.***

- closed to partly open canopy
- wet in spots
- some larger trees
- significant species on Map page 2

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † 1 | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † 4+ | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † 4+ | S | Am. Robin 4+ | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † 4+ | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 8

Quality Control: This form is complete ☑ ~~& legible ☑.~~

**Signature:** Peter Read
(Field Personnel)

**Signature:**
(Project Manager)

**Feature No.:** G 12 **Habitat Type:** Grassland **Time Start:** 8:15 **Time End:** 9:15

***Record location of all significant species on site map.*** - dugout D
- map of sign. sp - page 6

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow 5+ | H | Ovenbird ‡ | |
| Mallard Dugout | P | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyover | X - H | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 4+ | S |
| T. Vulture flyover | X - H | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 1 | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ 2 | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † 20+ | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. 5+ | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 3+ | S |
| Killdeer | | Ea. Kingbird † 3+ | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow flyby 2 | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

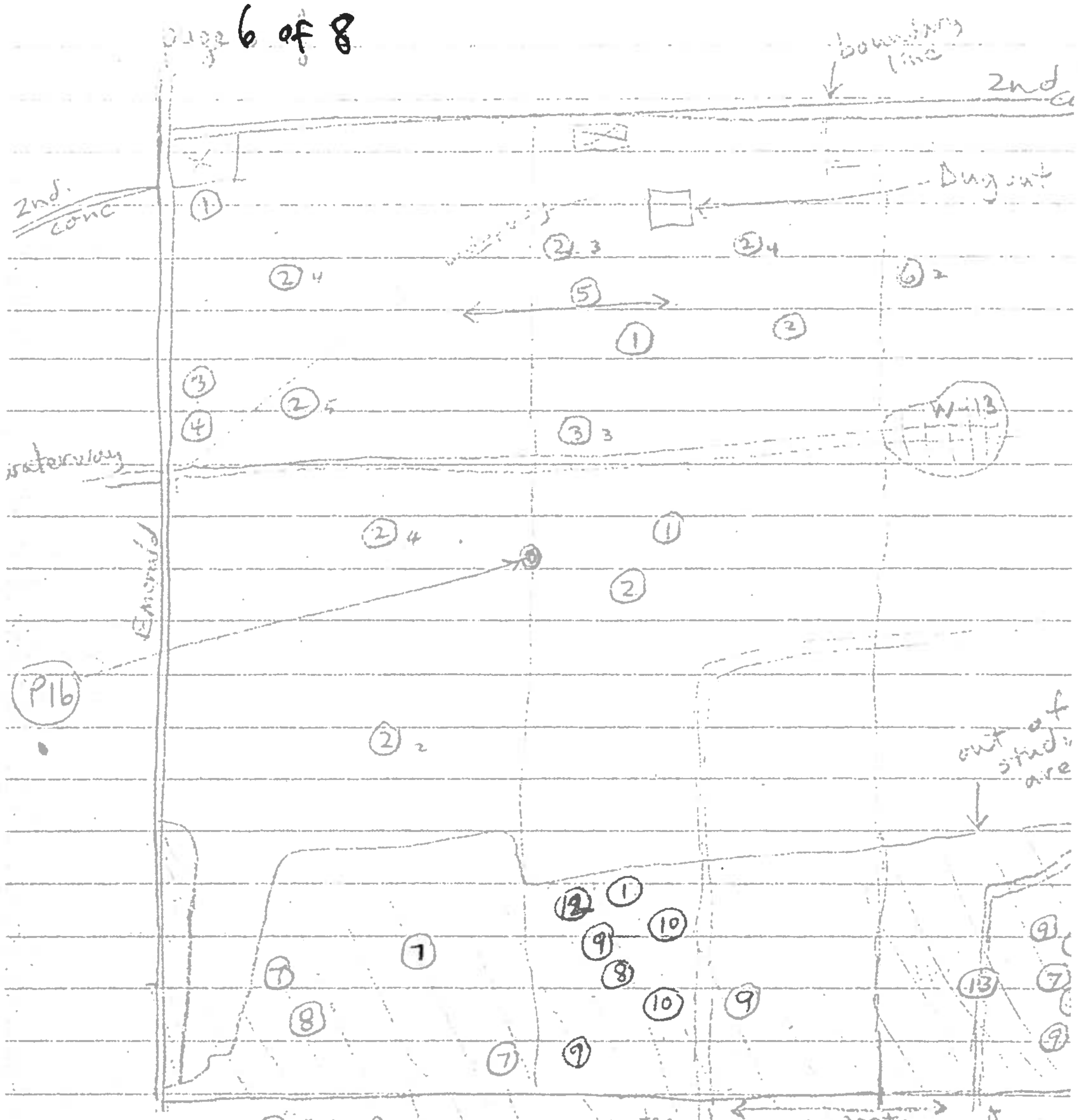
** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)



① EAME
② BOBO
③ SAVS
④ GRSP
⑤ NOHA
⑥ EAKI

⑦ RBGR
⑧ WOTH
⑨ EWPE
⑩ BRCR
⑪ BAOR
⑫ NOWA
⑬ WODU

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960 595

Project Name: Amherst

Date: June 2/2011

Field Personnel: Pete Read.

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 71 | 2 NW | 60%+ | 0 | 0 |

**Feature No.:** W13 **Habitat Type:** woods. **Time Start:** 8:40 **Time End:** 8:45

***Record location of all significant species on site map.*** map page 6. listened at edge

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W 15 **Habitat Type:** Wet Woods **Time Start:** 9:15 **Time End:** 10:40

***Record location of all significant species on site map.***

-map of signif sp. page 6.

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | P | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | S |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ 3 | S | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † 4+ | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † 3+ | S | Am. Robin 5+ | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle 5 | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | H |
| Am. Woodcock | | Red-eyed Vireo 3+ | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

REV: 2011-05-27 / FORM 031

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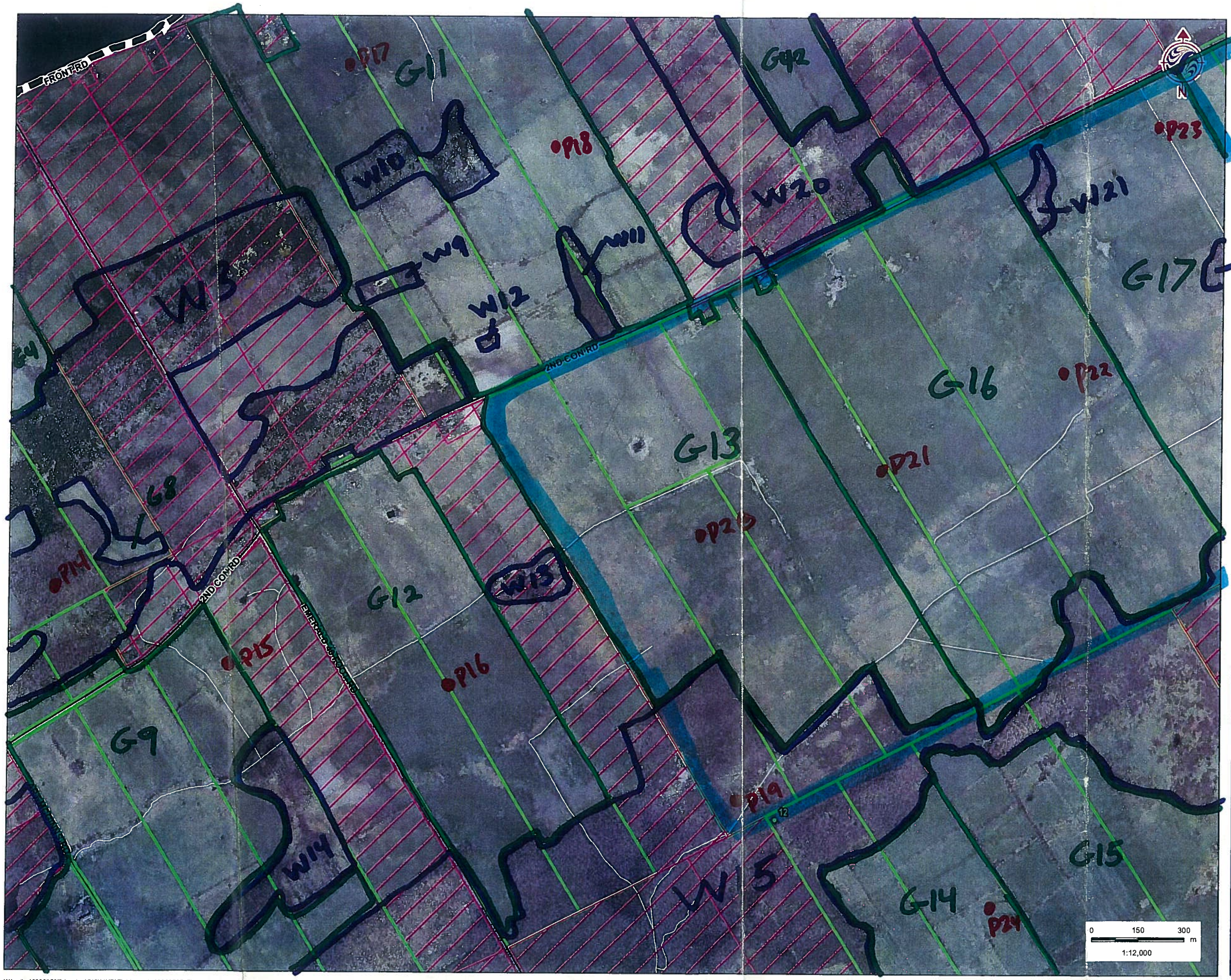
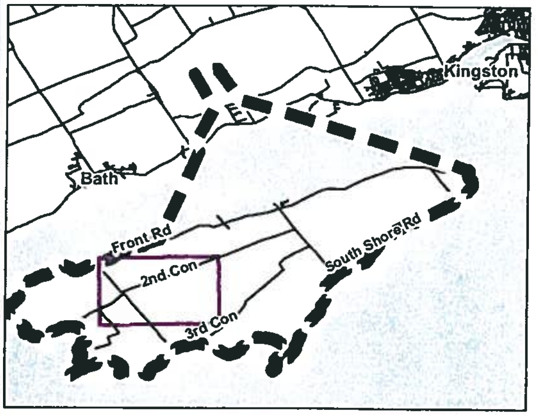


**Legend**

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

**FIELD MAPBOOK**

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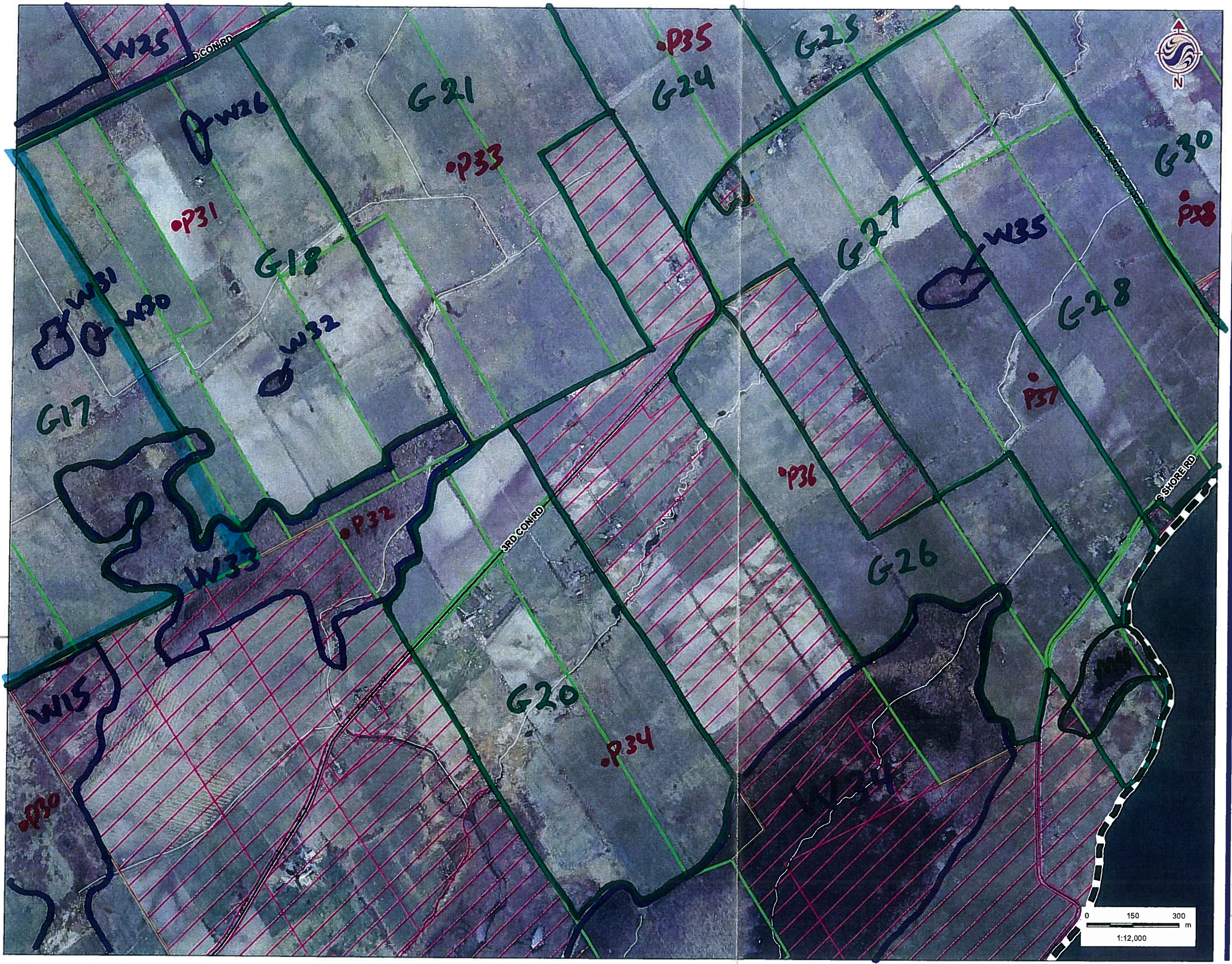
Revised on: 2011-05-27 By: dharvey



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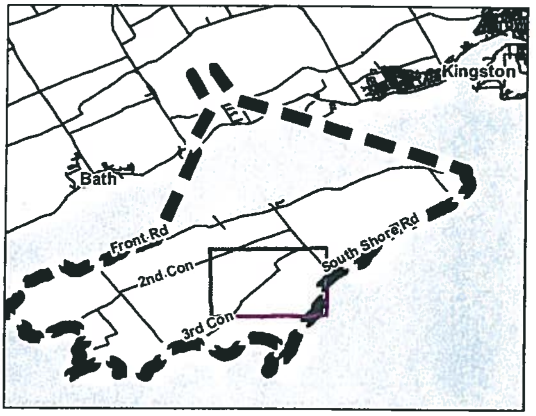
Revised on: 2011-05-27 By: dharvey

## Legend

▨ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 6

Title

**FIELD MAPBOOK**

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

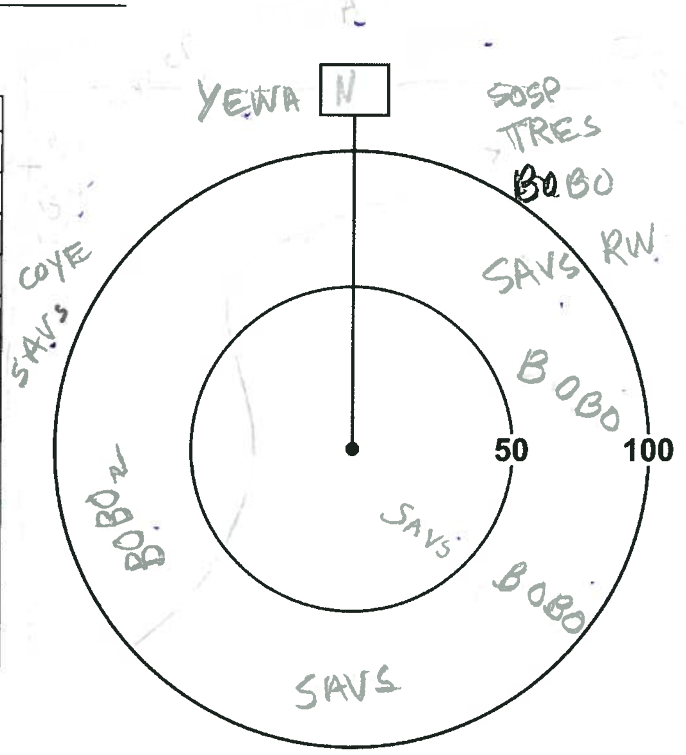
Project Number 160960595
Project Name: Amherst
Date June 3 /2011
Field Personnel: Pete Read

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 13 | 1 | 0 | 0 | 0 |

**GPS #:** T 1

**Station:** P20
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☑Pasture ☐Crop
**UTM:** [illegible]
**Start Time:** 6:05

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RTHA | | | | 2 | B |
| DOWO | | | 1 | | A |
| YEWA | | | 1 | | A |
| AMCR | | | 1 | | A |
| WISN | | | 1 | | A |
| SWSP | | | 1 | | A |
| COYE | | | 1 | | A |
| SAVS | 1 | 2 | 1 | | A/O |
| BOBO | | 4 | 1 | | A |
| RWBL | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓)
Signature: P. Read (Field Personnel)
Signature: (Project Manager)

Page 1 of 3

**Station:** P19

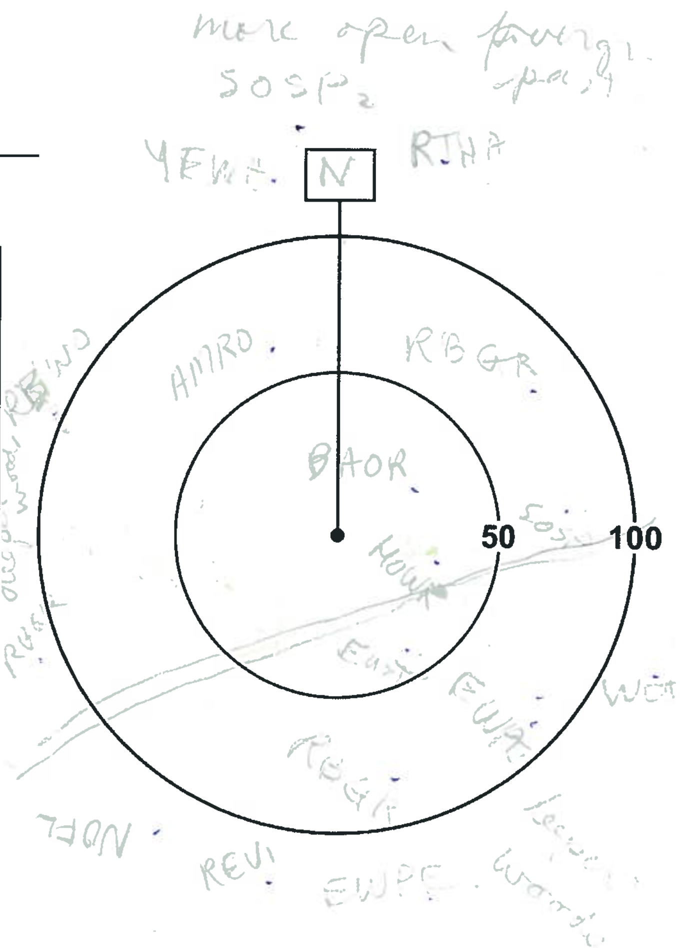
**Habitat:** ☑Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** 360365 4887462 #222

**Start Time:** 6:50

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBWO | | | 1 | | A |
| RBGR | | 2 | 1 | | A |
| NOFL | | | 1 | | A |
| REVI | | | | | A |
| EWPE | | 1 | 1 | | A |
| WOTH | | | 1 | | A |
| SOSP | | 1 | 2 | | A |
| HOWR | 1 | | | | A |
| EUST | 1 | | | | A |
| BAOR | 1 | | | | A |
| AMRO | | 1 | | | A |
| YEWA | | | 1 | | A |
| RTHA | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P22

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop ____________

**UTM:** 361435 888750 # 223

**Start Time:** 8:00

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 3 | 1 | 5 | | A |
| SAVS | 2 | 2 | | | A/O |
| EAKI | | | 2 | | A |
| NOHA | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
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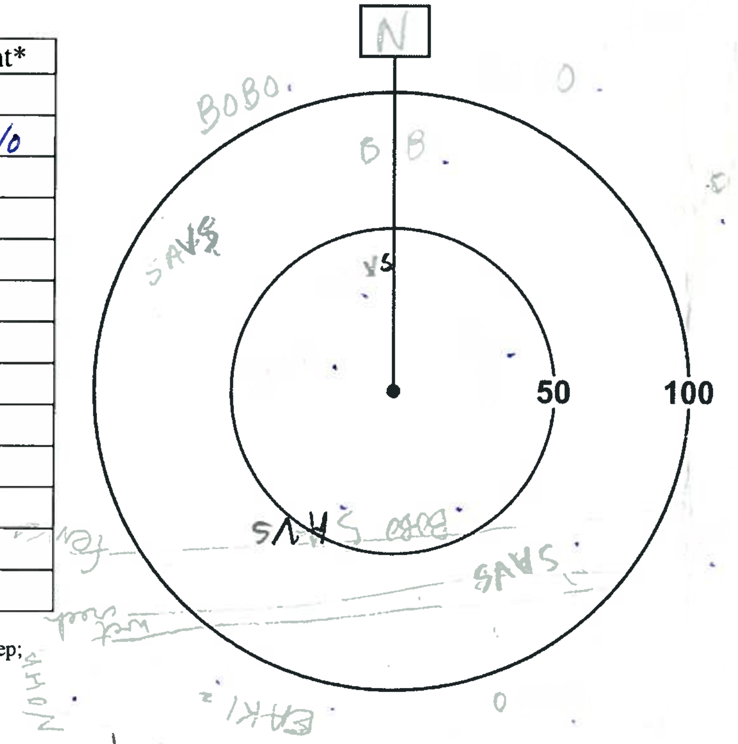
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature: ____________
(Project Manager)

Page 2 of 3

REV: May, 07 Form 020

June 3

T 16 W 2N C 0 PPT 0

**Station:** 21

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop ______

**UTM:** 360966 4888547 #224

**Start Time:** 9:25

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMCR | | | 1 | | A |
| BOBO | 1 | 4 | 4 | | A |
| SAVS | 1 | 4 | 1 | | A/0 |
| | | | | | |
| | | | | | |
| | | | | | |
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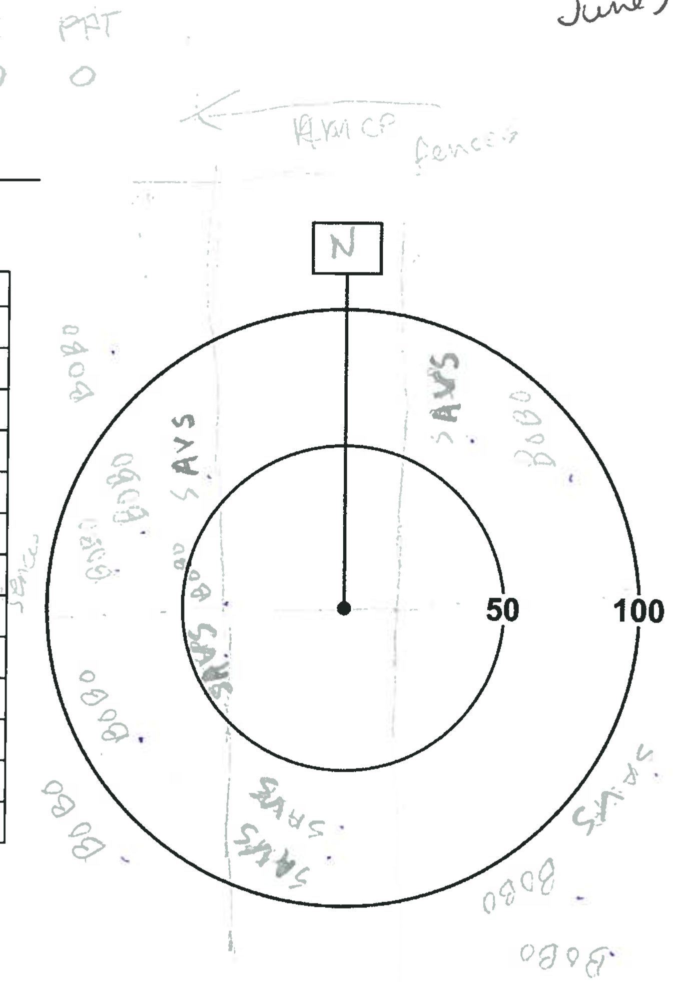


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

T-18 W 2N C 0

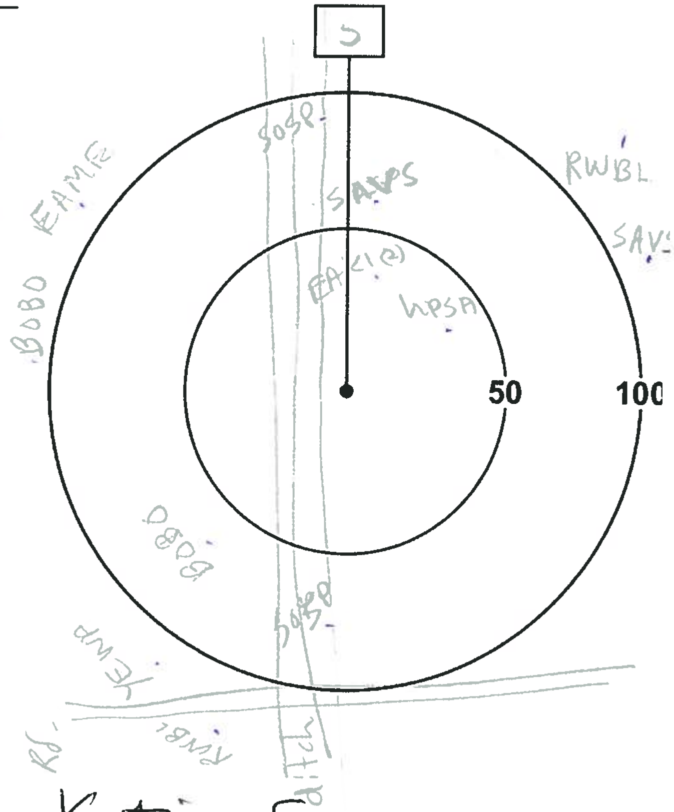
**Station:** 23

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop ______

**UTM:** 361713 4889758 #226

**Start Time:** 9:20

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | | | 1 | | A |
| BOBO | | 1 | 1 | | A |
| SOSP | | 2 | 5 | | A |
| YEWA | | | 1 | | A |
| RWBL | | | 2 | | A |
| UPSA | 1 | | | | A |
| EAKI | 2 | | | | A |
| SAVS | | 1 | 1 | | A/0 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read (Field Personnel) Signature: Katie (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960 595

Project Name:

Date: June 3/2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 9 | WIND: 2 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No.:** G 13 **Habitat Type:** Grassland **Time Start:** ① 5:25 **Time End:** 6:25

② 7:20 – 7:37

③ 8:37 – 9:10

- some fencing & bushes & trees
- along them

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | P | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | NE | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 5+ | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyover | X H | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron flyover | X H | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 10+ | D |
| T. Vulture | | Downy Wo. | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | S | Song Sp. 10+ | S |
| N. Harrier †‡ | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. 5+ | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | P | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † 25+ | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. 10+ | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | DD | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | S | Yellow Wa. 5+ | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch 4+ | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | Say's Phoebe | H |
| Mourn. Dove flyover 2 | X H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of ___

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

**Feature No.:** W-15 **Habitat Type:** Woodlands in part **Time Start:** ① 6:25 **Time End:** 7:20

-part scrubby open canopy
-part bigger trees closed canopy
-also small piece south part of G16 ② 7:45 - 7:50

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | P | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 5+ | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | H | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | S | Song Sp. 10+ | P |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird 5+ | S | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | H | Willow Fly. † 5+ | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. 10+ | S | Baltimore Oriole † | S |
| Am. Woodcock | H | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 12

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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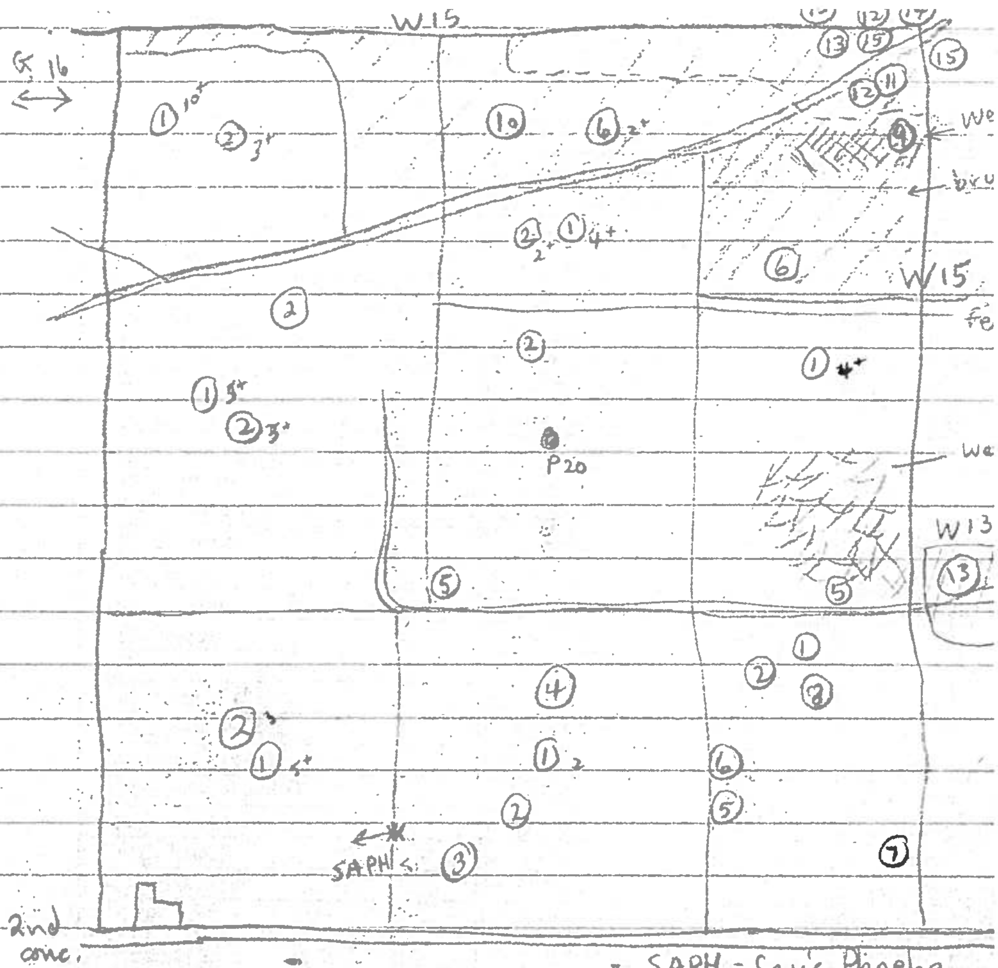

* SAPH = Say's Phoebe

① BOBO
② SAVS
③ UPSA
④ NOHA
⑤ EAKI
⑥ WIFL
⑦ EAME
⑧ RTHA
⑨ VEER
⑩ EATO
⑪ BAOR
⑫ RBGR
⑬ EWPE
⑭ NOFL
⑮ WOTH

BE*

in part (see also June 2)

June 3

**Feature No.:** W-13 **Habitat Type:** Woods **Time Start:** 5:47 **Time End:** 5:52

***Record location of all significant species on site map.*** - grassy grazed smaller trees

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 12

Quality Control: This form is complete ☑ ~~& legible ☐~~.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G 16 **Habitat Type:** Grassland **Time Start:** 7:37 **Time End:** 7:

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 15+ | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 1 | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | H | Least Fly. | | Br. Thrasher † | | Bobolink † 25+ | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven flyover | x H | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 12

Signature: P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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***Record location of all significant species on site map.***

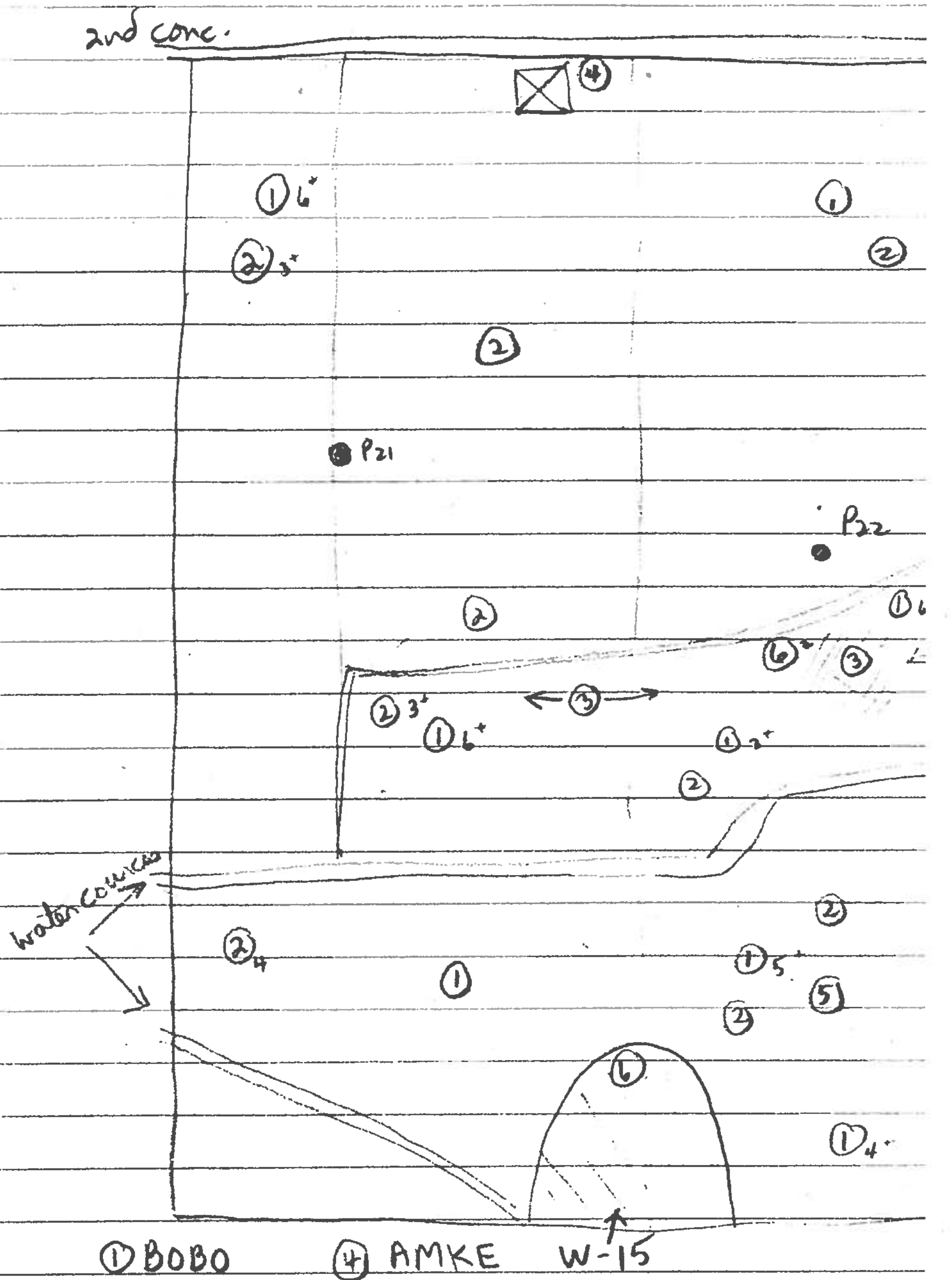
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 15+ | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 1 | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | H | Least Fly. | | Br. Thrasher † | | Bobolink † 25+ | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven fly over | × H | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

page 6 of 12

June 3/2011 in



① BOBO
② SAVS
③ NOHA
④ AMKE
⑤ GRSP
⑥ EAKI

June 3

**Feature No.:** G 17 **Habitat Type:** Grassland. **Time Start:** ① 9:15 **Time End:** 10:00

while checking woodlots { ② 10:20 to 10:35
③ 10:45 to 10:48
④ 10:48 to 11:00

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | S |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † 10+ | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | H | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † 20+ | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | M |
| Upla. Sandpiper ‡ | H | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 12

Signature: P. Reed
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Ketin
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W-21 **Habitat Type:** Woods **Time Start:** 9:35 **Time End:** 9:40

***Record location of all significant species on site map.*** - grassy under - grazed
- some larger trees

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | P |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 12

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Reed (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

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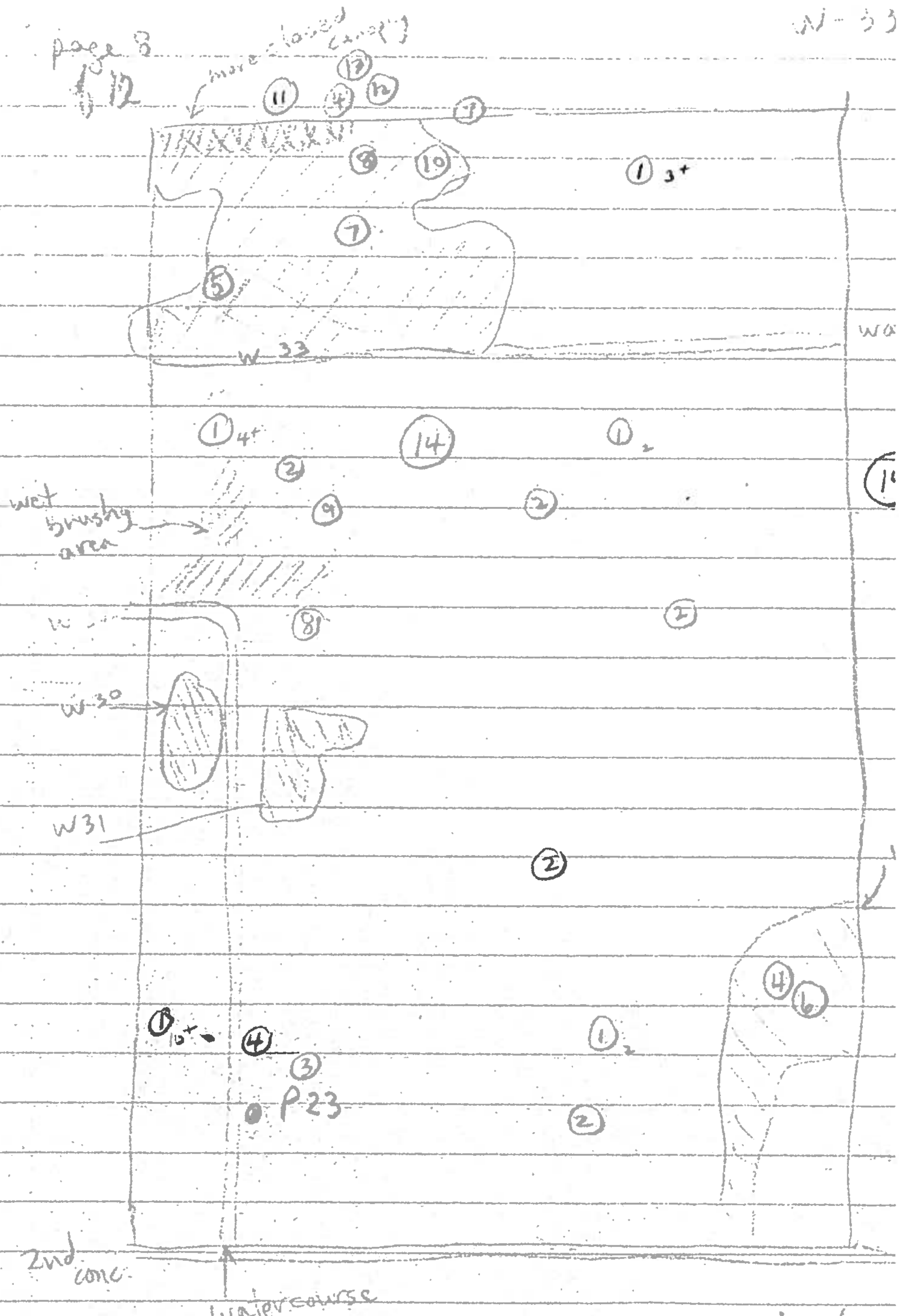
W-33

page 8
of 12



① BODO ③ UPSA ⑤ BAOR ⑦ BRTH

② SAVS ④ EAKI ⑥ EWPE ⑧ WIFL

⑨ CCSP ⑩ EATO ⑪ RBGR ⑫ WOTH ⑬ NOFL ⑭

N

June 3

**Feature No.:** W-33 **Habitat Type:** Woods **Time Start:** 10:00 **Time End:** 10:20

***Record location of all significant species on site map.*** - mature at back boundary
- scrubby with some larger trees to N.

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | H | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | A | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 2 | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. lots | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 10 of 12

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☐ ~~& legible ☐~~.

**Signature:** Katie S
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W-31 **Habitat Type:** Woods **Time Start:** 10:35 **Time End:** 10:45

***Record location of all significant species on site map.*** - grassy floor - grazed
- small trees

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 11 of 12

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

T-19 W 2 N C clear PPT 0

**Feature No.:** W-30 **Habitat Type:** Woods **Time Start:** 10:48 **Time End:** 10:55

- grass below - grazed
- small trees (one larger one)
- wet

June 3

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 12 of 12

Quality Control: This form is complete ~~☐ &~~ legible ~~☐.~~

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

June 3/2011 T-10 W-2N

C-Clear PPT 0

*missed on Day 3 (June 1)

**Feature No.:** W-8 **Habitat Type:** woods. **Time Start:** 5:00 **Time End:**

***Record location of all significant species on site map.*** -small sparce trees - bushes under

part

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 2

Signature: P. Read (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

in part

**Feature No.:** W-3 **Habitat Type:** Woods **Time Start:** 5:11 **Time End:** 5:20

***Record location of all significant species on site map.*** - along Emerald Drive (already have some data from page 8 May 31/2011)

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | S | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | AE | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | S | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | S | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 2

Quality Control: This form is complete ☑ & legible ☑

Signature: Pete Read
(Field Personnel)

Signature: Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

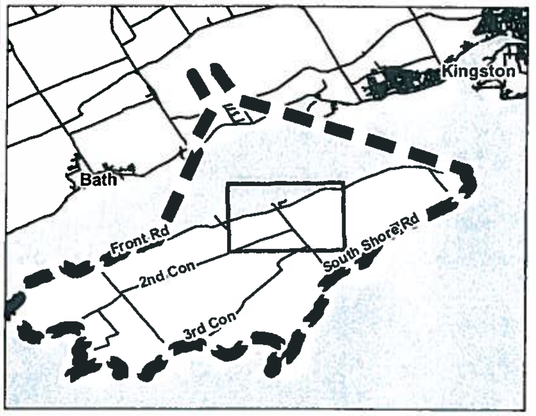
art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

## Legend

▭ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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Revised on: 2011-05-27 By: dharvey

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 4

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595

Project Name: Amherst

Date June 4/2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 13 | Wind: 1 | Cloud: 80%+ | PPT: 0 | PPT in last 24 hrs: 0 |

GPS #: T 1

Station: P41

Habitat: ☐Forest ☐Swamp ☐Marsh ☐Hay ☑Pasture ☐Crop

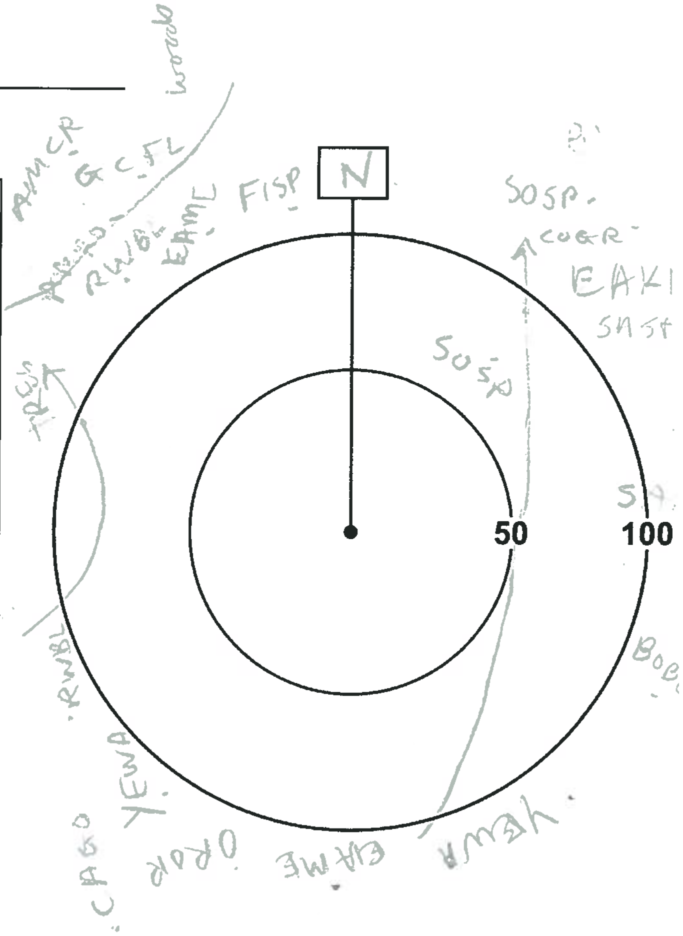
UTM: 363079 4890956 # 228

Start Time: 5:36

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMRO | | | 1 | | A |
| AMCR | | | 1 | | A |
| FISP | | | 1 | | A |
| EAME | | | 2 | | A |
| RWBL | | | 2 | | A |
| GCFL | | | 1 | | A |
| SOSP | | 1 | 1 | | A |
| COGR | | | | 1 | A |
| EAKI | | | 1 | | A |
| SASP | | | 2 | | A/O |
| YEWA | | | 2 | | A |
| CAGO | | | 1 | | A |
| OROR | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep

| | | | | | |
|---|---|---|---|---|---|
| BOBO | | | 1 | | A |
| TRES | | 1 | | | A |



Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 4

REV: May, 07 Form 020

W 1

**Station:** P42 T-14 C 90 PPT 0

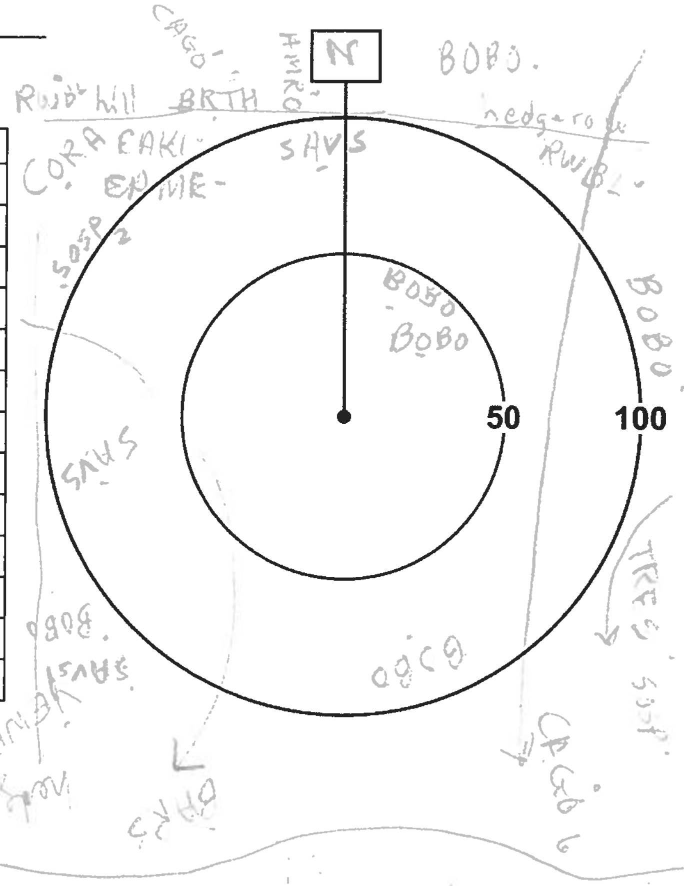
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop

**UTM:** 363511 4891469 # 229

**Start Time:** 10:25

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| CAGO | | | 1 | 6 | A |
| AMRO | | | 1 | | A |
| CORA | | | 1 | | A |
| RWBL | | | 2 | | A |
| BRTH | | | 1 | | A |
| EAKI | | | 1 | | A |
| YEWA | | | 1 | | A |
| BOBO | 2 | 1 | 3 | | A |
| EAME | | 1 | | | A |
| SAVS | | 2 | 1 | | A/o |
| BARS | | | 1 | | A |
| TRES | | | 1 | | A |
| SOSP | | | 3 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P39

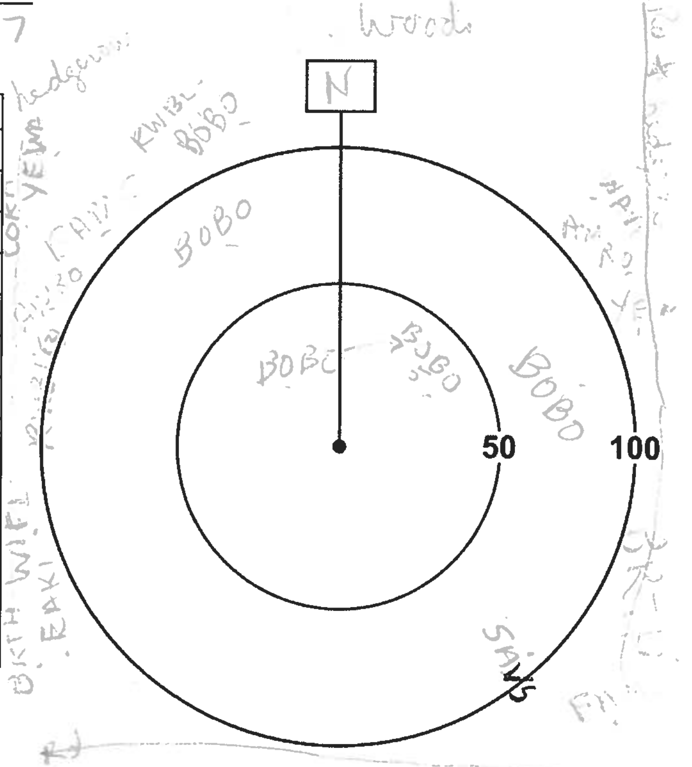
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop

**UTM:** 362681 4890451 #297

**Start Time:** 7:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| YEWA | | | 2 | | A |
| CORA | | | 1 | | A |
| AMRO | | | 2 | | A |
| RWBL | | | 3 | | A |
| WIFL | | | 1 | | A |
| EAKI | | | 1 | | A |
| WAVI | | | 1 | | A |
| BRTH | | | 2 | | A |
| BOBO | 6 | 2 | 1 | | A/O |
| EAME | | | 2 | | A |
| SAVS | | 1 | | | A/o |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 2 of 4

REV: May, 07 Form 020

June 4

T-14 W-1 C-90+ PPT-0

**Station:** P27

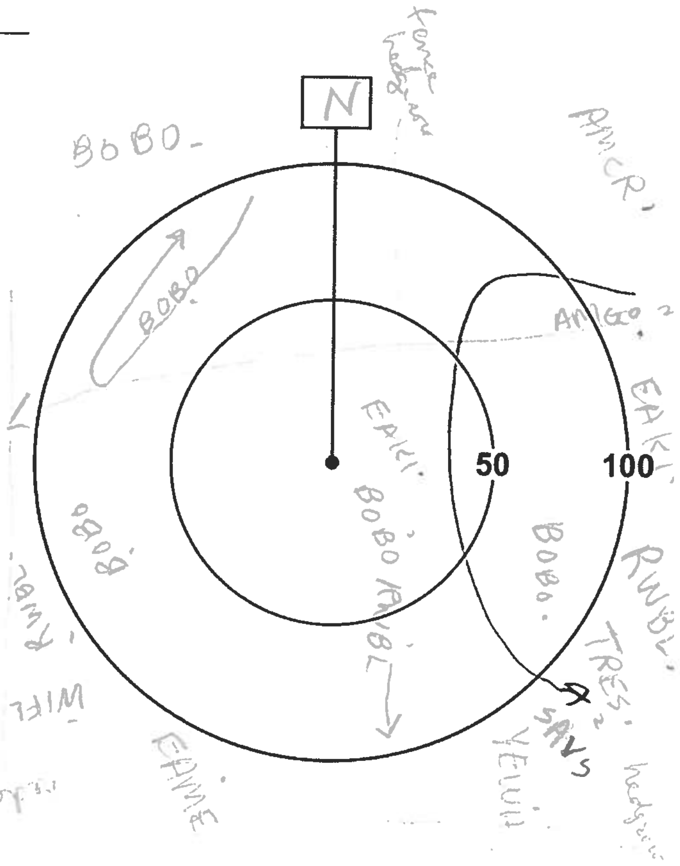
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop

**UTM:** 361684 4890390 #230

**Start Time:** 8:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 1 | 3 | 1 | | A/O |
| EAKI | 1 | | 1 | | A |
| AMCR | | | 1 | | A |
| AMGO | | | | 2 | A |
| RWBL | | 1 | 2 | | A |
| TRES | | 2 | | | A |
| EAME | | | 1 | | A |
| WIFL | | | 1 | | A |
| YEWA | | | 1 | | A |
| SAVS | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P40 T 14 C 100 PPT 0 W 1

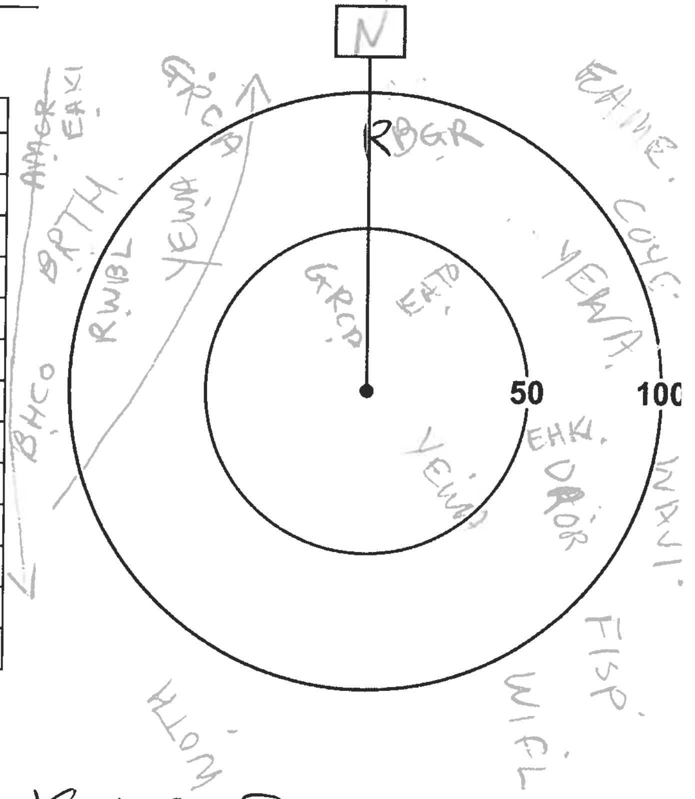
**Habitat:** ☒Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:** 362848 4891489 #231

**Start Time:** 9:40

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMCR | | | | 1 | A |
| BHCO | | | 1 | | A |
| BRTH | | | 1 | | A |
| GRCA | 1 | | | 1 | A |
| RWBL | | 1 | | | A |
| YEWA | 1 | 2 | | | A |
| WIFL | | | 1 | | A |
| FISP | | | 1 | | A |
| OROR | | 1 | | | A |
| EAKI | | 1 | 1 | | A |
| EATO | 1 | | | | A |
| RBGR | | 1 | | | A |
| COYE | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Rood (Field Personnel)

Signature: (Project Manager)

Page 3 of 4

REV: May, 07 Form 020

**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop __________________

**UTM:** ______________________________________

**Start Time:** ______________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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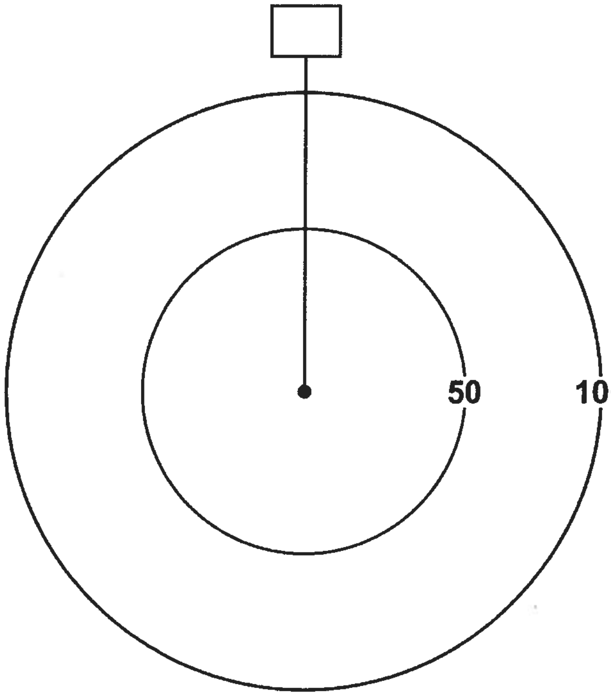

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P40 continued

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop __________________

**UTM:** ______________________________________

**Start Time:** ______________

all over

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | | | 1 | | A |
| WAVI | | | 1 | | A |
| WIDTH | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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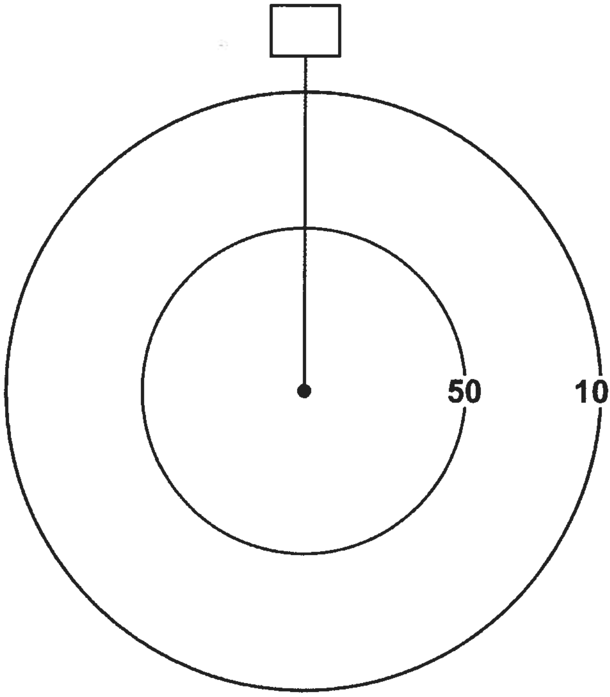

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete ( ) & legible (✓)

Signature: P. Read (Field Personnel)

Signature: ____________ (Project Manager)

Page 4 of 4

REV: May, 07 Form 020

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160 960 595

Project Name: Amherst

Date: June 4/2011

Field Personnel: P. Read

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 13 | 1 | 80% | 0 | 0 |

**Feature No.:** W-29 **Habitat Type:** Woods **Time Start:** ① 4:50 ② 6:55 **Time End:** 4:45 7:00

-wet
-yng trees

***Record location of all significant species on site map.*** Map sign. sp on p7

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 2 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † 2+ | S | Am. Robin 3+ | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 12

Quality Control: This form is complete ☑ ~~& legible ☐.~~

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W-28 **Habitat Type:** woods **Time Start:** ① 4:55 **Time End:** 5:00

***Record location of all significant species on site map.*** - Quiet mostly ② 7:00 7:10

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species map sign. sp. - page 4

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 2 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † 2 | S | Am. Robin 3+ | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | H | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 12

Quality Control: This form is complete ☐ ~~&~~ legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 4

**Feature No.:** G 22 **Habitat Type:** Grassland **Time Start:** ① 5:15 **Time End:** 5:46

② 5:57 6:12
③ 7:10 7:27
④ 9:00 9:15
⑤ 10:00 10:17

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

Sign. sp map p4.

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | S |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | D |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | S |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven flyover | H | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 12

Quality Control: This form is complete ☐ ~~& legible~~ ☐.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W-24 **Habitat Type:** Woods **Time Start:** ① 5:46 **Time End:** 6:12

② 7:55 8:11
③ 9:15 10:10
④ 10:17 10:25

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

+ sign-sp.. page 4.

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ 2 | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | S | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † 3+ | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † 2+ | S |
| Gr. Egret | | Red-bellied Wo. | H | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † 1 | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | P | No. Cardinal | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird 3+ | S | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 3+ | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | D |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | S |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. 1c+3 | S | Baltimore Oriole † | |
| Am. Woodcock | H | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | H | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 12

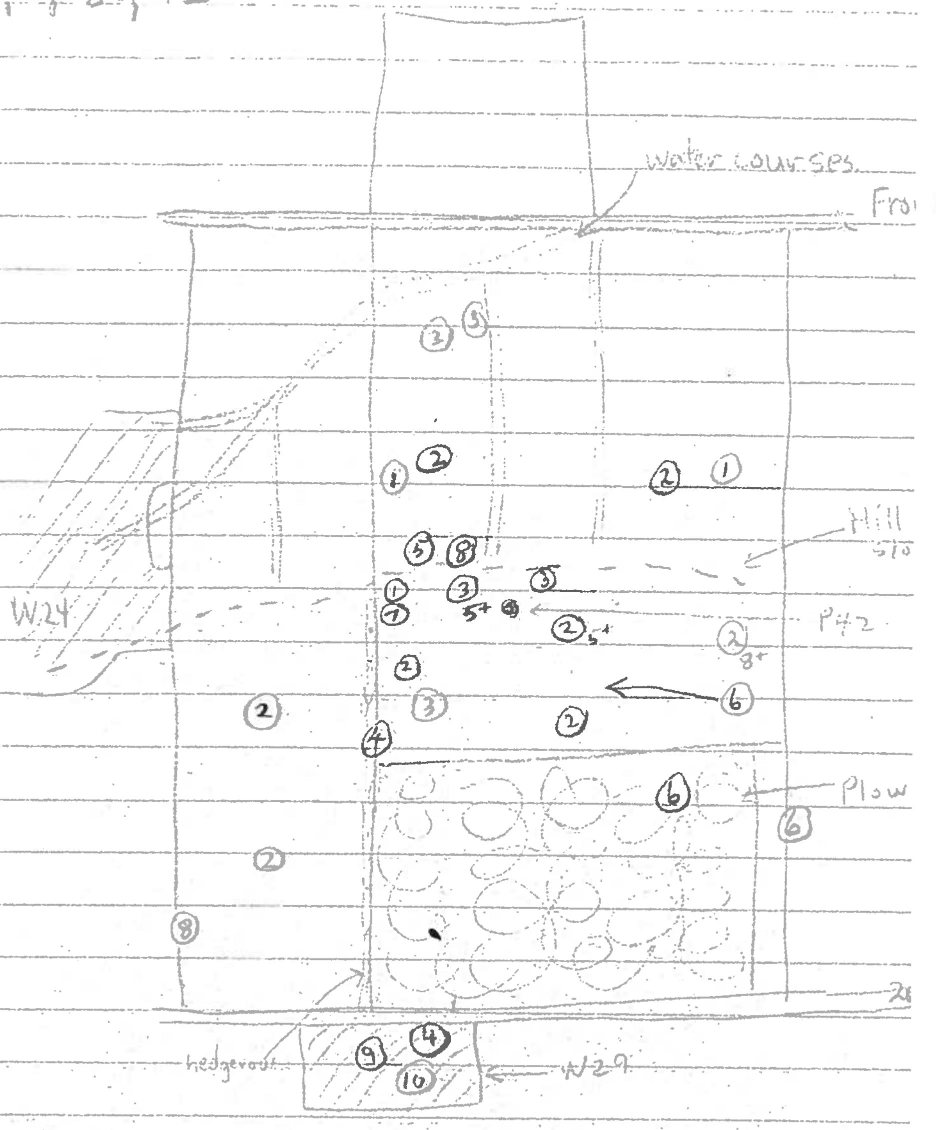
Quality Control: This form is complete ☑ & legible ☑.

Signature: P Reed
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

June [illegible]/2



① EAME
② BOBO
③ SAVS
④ EAKI
⑤ BRTH
⑥ NOHA (3 birds)
⑦ GRSP
⑧ WIFL
⑨ EWPE
⑩ RBGR

**Feature No.:** G-23 south half up to hill mostly. **Habitat Type:** Grassland **Time Start:** 6:12 **Time End:** 6:55

***Record location of all significant species on site map.*** -hill with forest -hedgerows map of sign. sp. page 7

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat pond | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyover | x | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † 2 | S |
| Osprey flyover | x | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. pond | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † lots | DD |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † 3+ | S |
| Killdeer | H | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | H | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 12

Quality Control: This form is complete ☐ ~~& legible~~ ☐

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 4

**Feature No.:** W-27 **Habitat Type:** Woods. **Time Start:** 8:40 **Time End:** 8:59

***Record location of all significant species on site map.*** -larger trees (S)
-brushy (N).

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. 4+ | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo 2+ | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 12

Quality Control: This form is complete ☐ ~~& legible~~ ☐.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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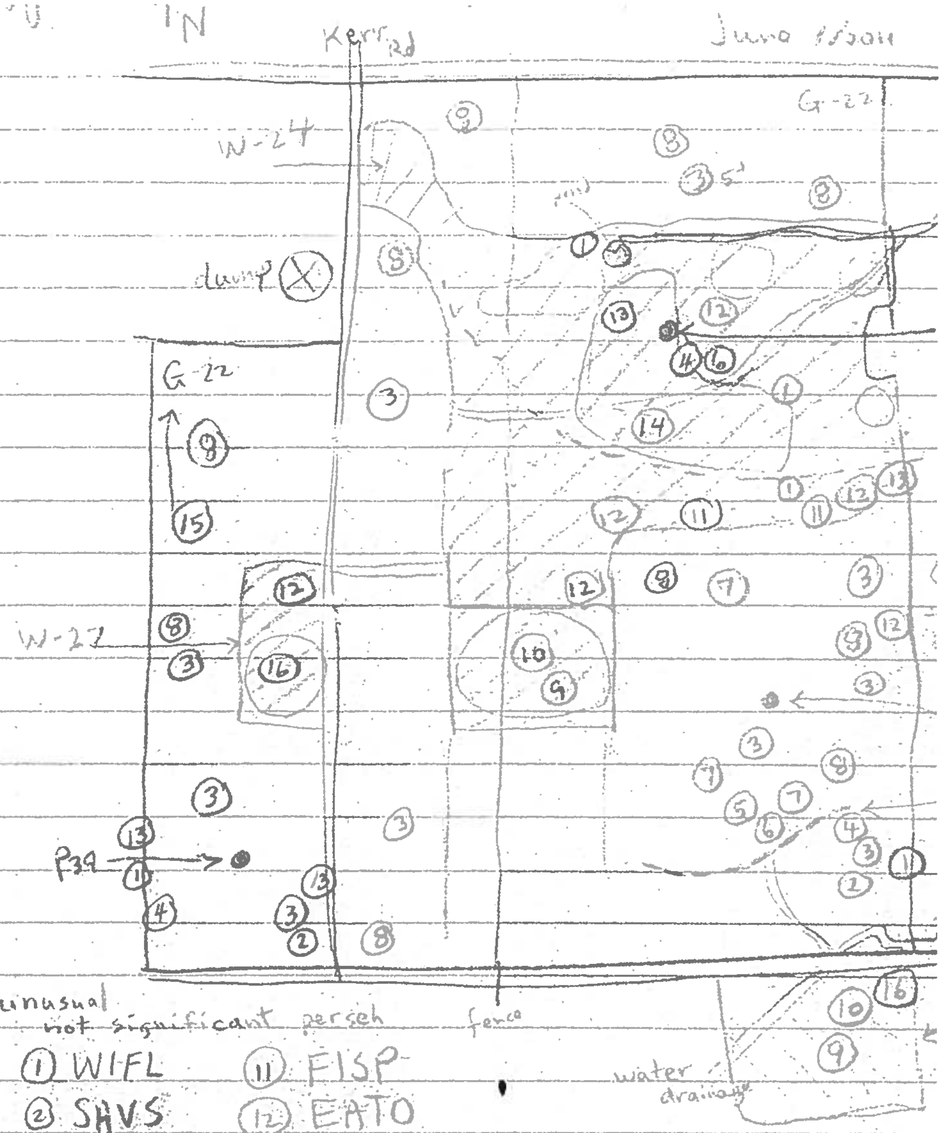
June 1/2011



* unusual
not significant perseh

① WIFL
② SAVS
③ BOBO
④ EAKI
*⑤ CCSP
*⑥ OROR
⑦ GRSP
⑧ EAME
⑨ RBGR
⑩ EWPE
⑪ FISP
⑫ EATO
⑬ BRTH
⑭ WOTH
⑮ NOHA
⑯ BAOR

June 4

**Feature No.:** G-19 **Habitat Type:** Grassland **Time Start:** ① 7:30 **Time End:** 7:55
② 8:11 8:33
③ 10:36 10:52

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. lots | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull flyover | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | H | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 12

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W-25 **Habitat Type:** Woods **Time Start:** 7:30 **Time End:** 7:55

***Record location of all significant species on site map.*** - brushy
- some more mature.

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 5+ | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † 2+ | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. lots | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin lots | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird 2+ | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † 2+ | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † 2+ | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. 10+ | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. lots | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | AE | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 11 of 12

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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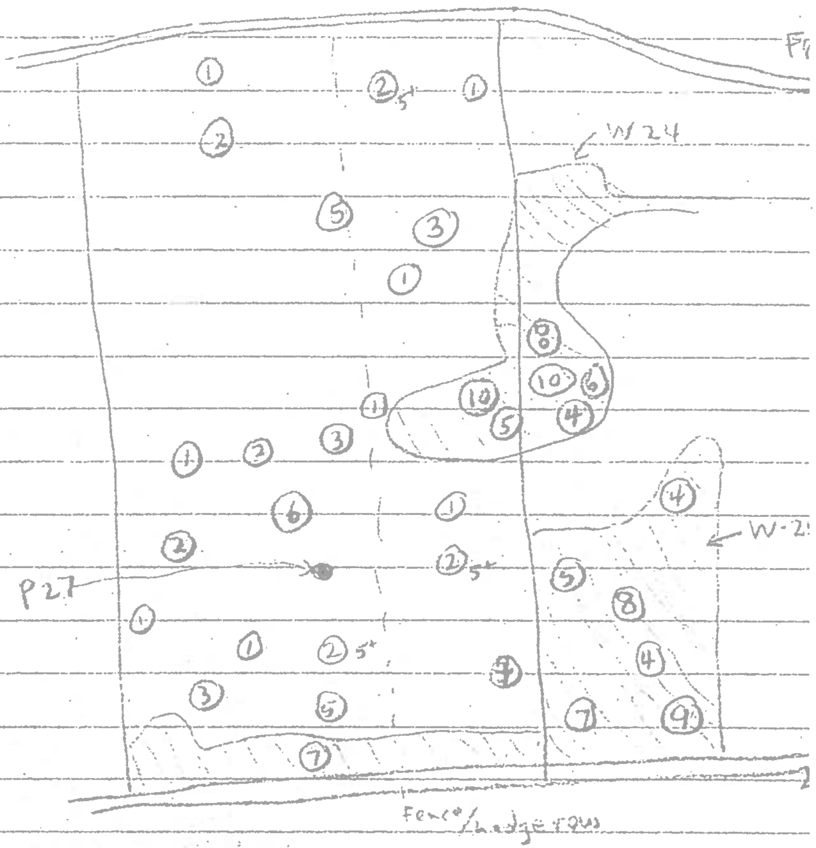
page 12 of 12 N-25



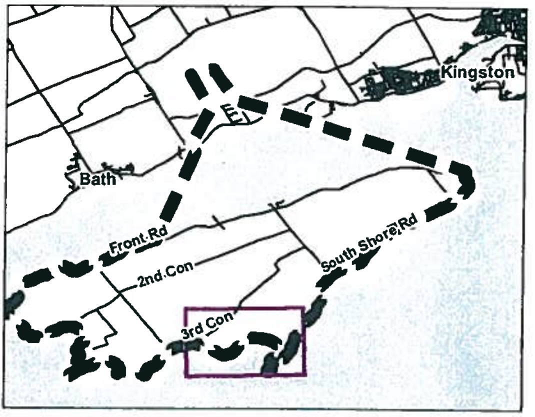
① EAME
② BOBO
③ SAVS
④ BRTH
⑤ EAKI
⑥ WIFL
⑦ BAOR "
⑧ EATO
⑨ EWPE
⑩ FISP

## Legend

🔲 Study Area
— Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 7

Title

**FIELD MAPBOOK**

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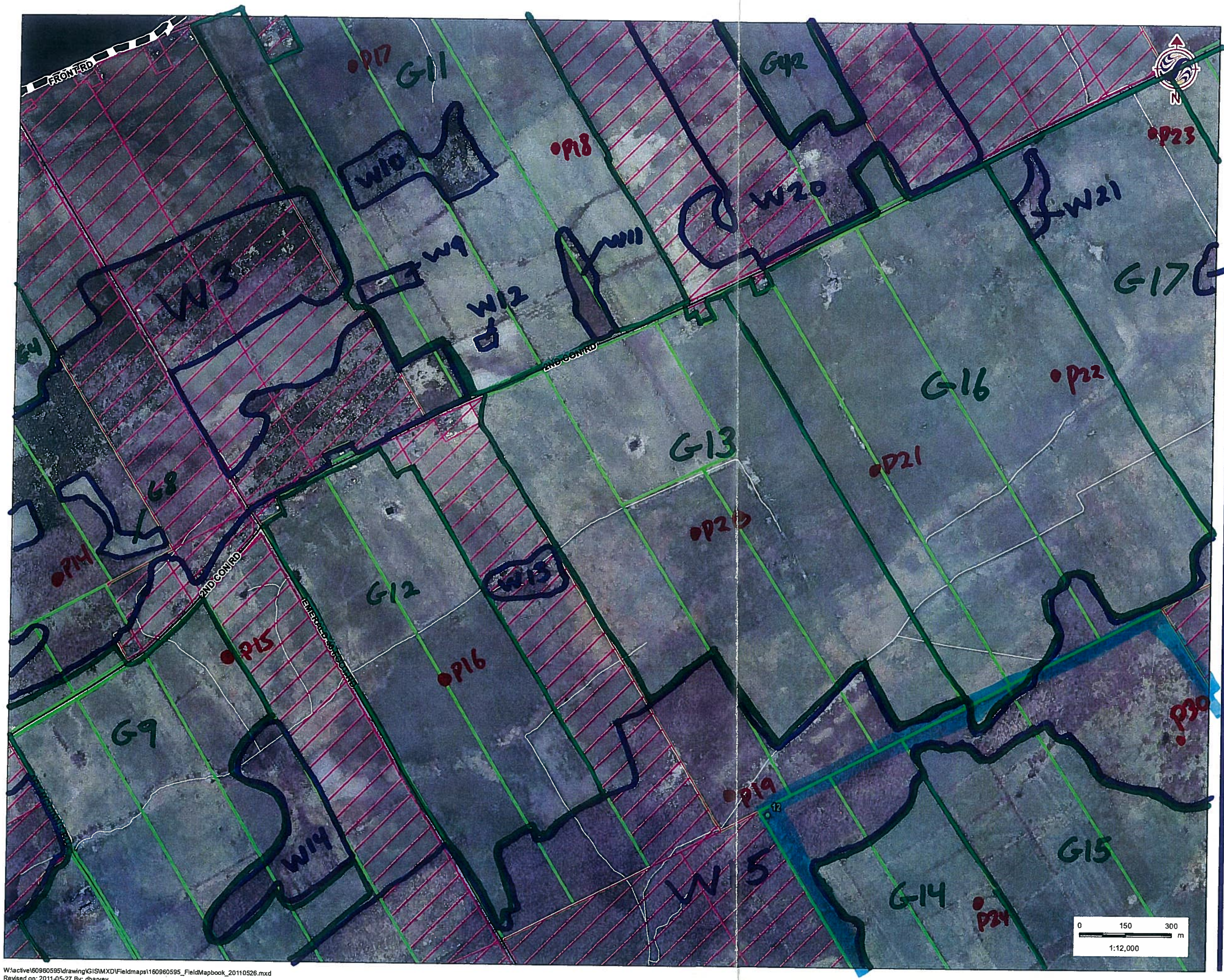
Revised on: 2011-05-27 By: dharvey

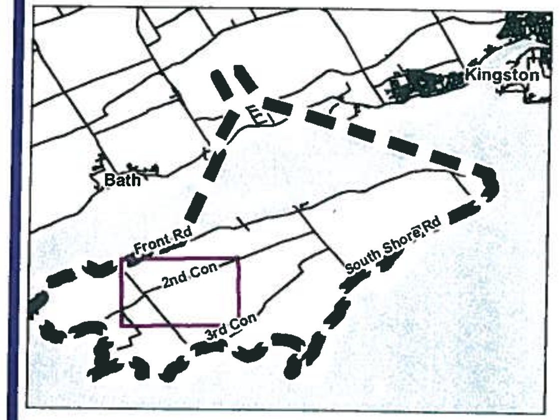


## Legend

- ▭ Study Area
- — Road
- Watercourse
- ● Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 3

Title
FIELD MAPBOOK

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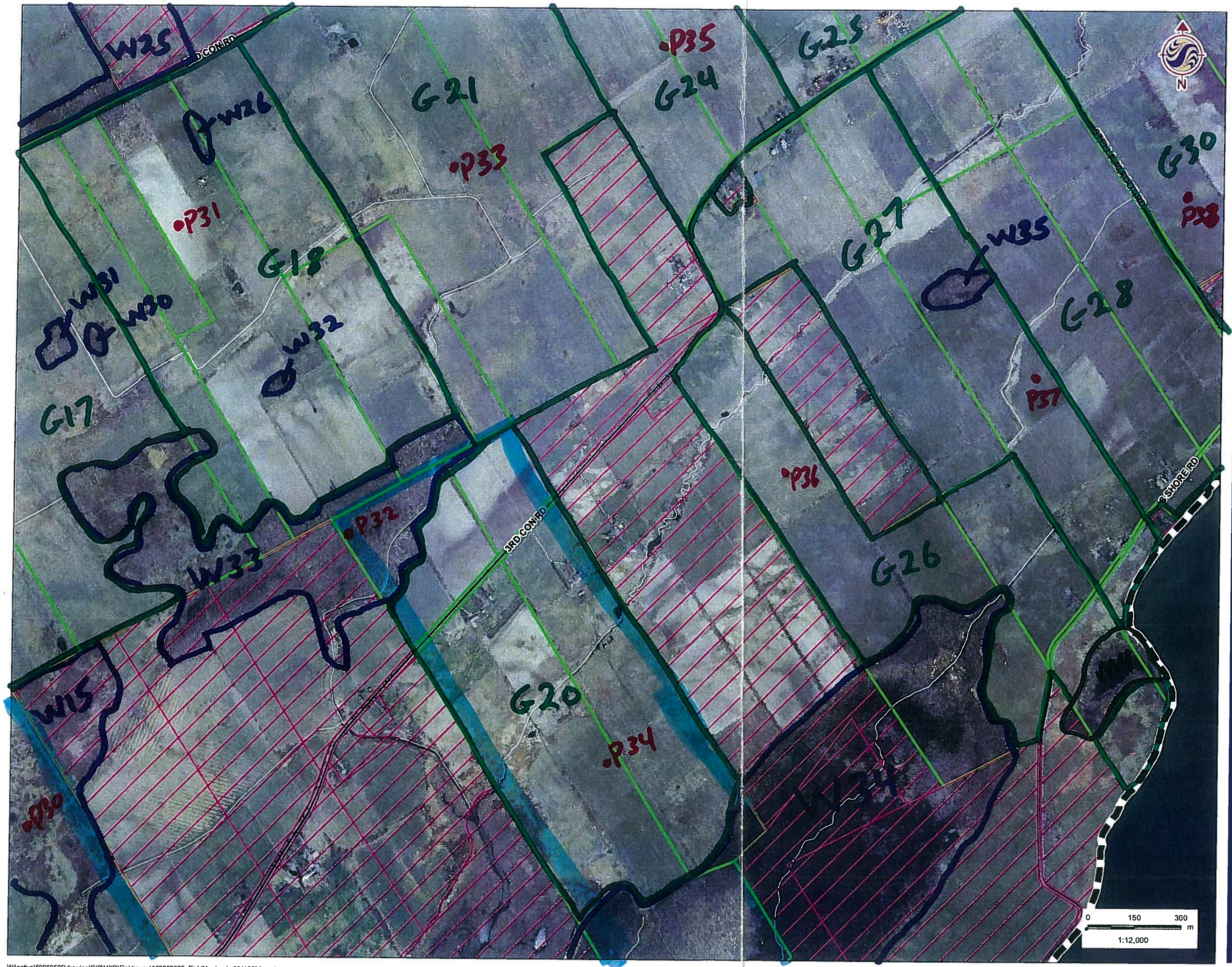
Revised on: 2011-05-27 By: dharvey



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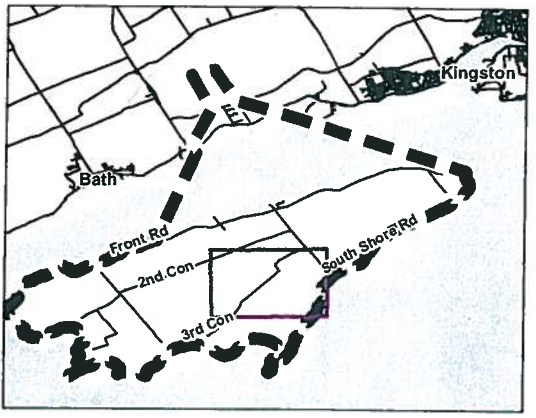
Revised on: 2011-05-27 By: dharvey

## Legend

- ▭ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 6

Title

FIELD MAPBOOK

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595

Project Name: Amherst

Date June 5 /2001

Field Personnel: P. Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 12 | Wind: 0 | Cloud: 90 % | PPT: 0 | PPT in last 24 hrs: .1 cm |

**GPS #:** T 1

**Station:** P62

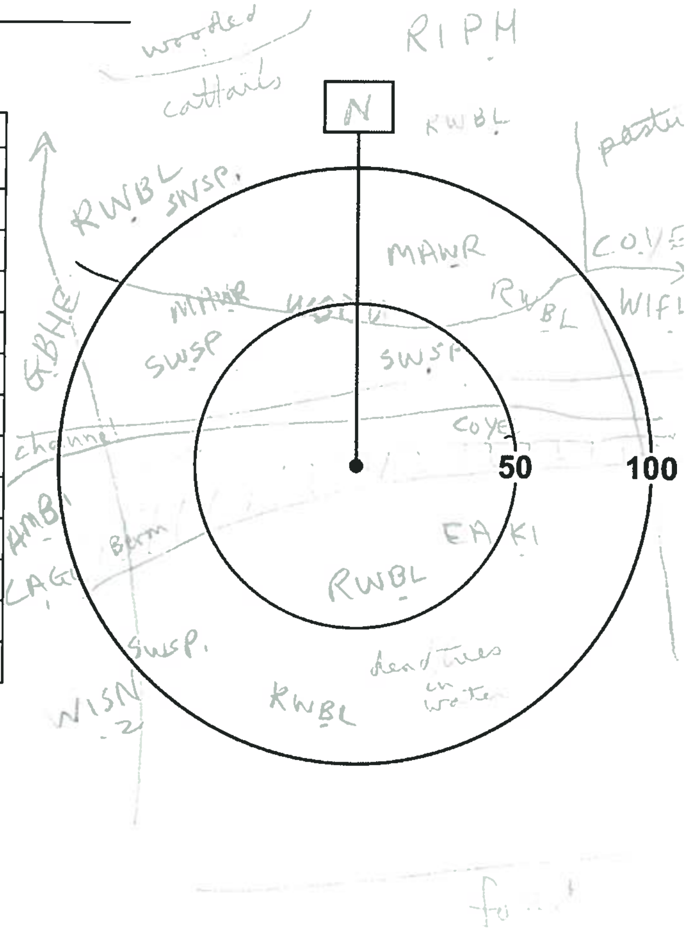
**Habitat:** ☐Forest ☐Swamp ☑Marsh ☐Hay ☐Pasture ☐Crop

**UTM:** 363678 4887419 #233

**Start Time:** 10:00

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | 1 | 2 | 2 | | A |
| SWSP | 1 | 2 | 1 | | A/O |
| MAWR | | 2 | | | A |
| GBHE | | | | 1 | A |
| WODU | | | | 1 | A |
| COYE | 1 | | 1 | | A/O |
| EAKI | 1 | | | | A |
| WIFL | | | | 1 | A |
| AMBI | | | 1 | | O |
| CAGO | | | 1 | | O |
| WISN | | | 2 | | A/O |
| -RIPH | | | 1 | | O |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (—) & legible (✓)

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 7

REV: May, 07 Form 020

**Station:** P62 Marsh Birds. Playback
**Habitat:** ☐Forest ☐Swamp ☑Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** See page before
**Start Time:** 6:10

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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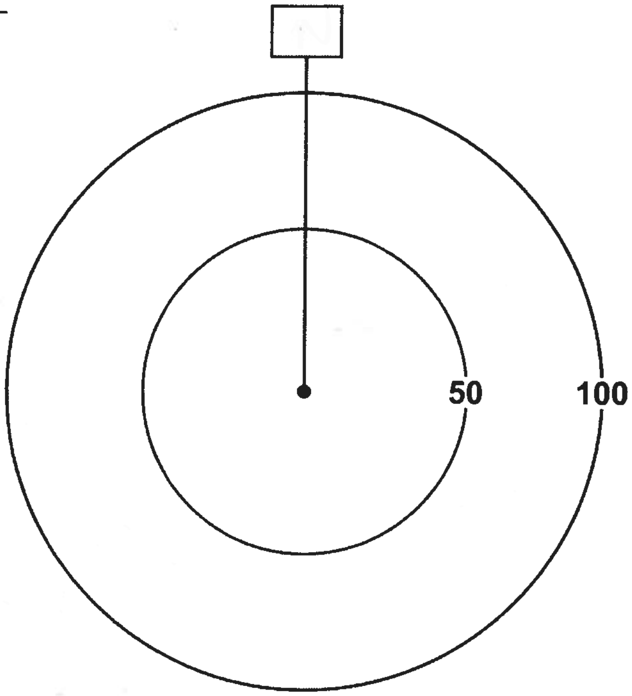

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**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** 63
**Habitat:** ☑Forest ☐Swamp ☐Marsh Hay Pasture Crop ____________
**UTM:** 364070 4887454 +234
**Start Time:** 7:00

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMRO | | | 3 | | A |
| HOWR | 2 | | | | A |
| BHCO | | 1 | | | A |
| EWPE | | 2 | | | A |
| REVI | | 1 | | | A |
| NOFL | | | 1 | | A |
| AMRE | 1 | | 1 | | A |
| RBGR | | 1 | | | A |
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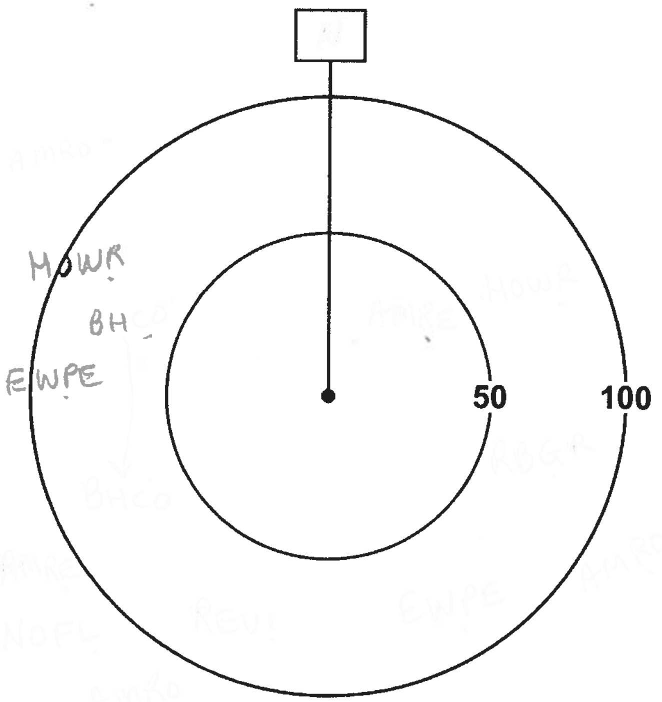

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**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: ____________ (Field Personnel)
Signature: ____________ (Project Manager)

Page 2 of 7

REV: May, 07 Form 020

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: June 5/2011
Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 | 1 W | 100 % | 0 | |

GPS #: T – 1

Station: 34
Feature: Grass
UTM: 363921
4887825
#235
Start Time: 7:30
End Time: 7:40
Habitat: ☐Forest / ☐Swamp / ☐Marsh / ☑Hay / ☑Pasture / ☐Crop

| Species | <50m | 50-100m | >100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RIPH | | | 1 | | A |
| YEWA | | 1 | | | A |
| SOSP | | 1 | | | A |
| BOBO | 3 | 6 | 1 | | A |
| RWBL | | | 2 | | A |
| WISN | | | 1 | | A |
| RBGU | | | 30 | | O |
| EAKI | 1 | | | | A |
| SAVS | | 1 | | | A |
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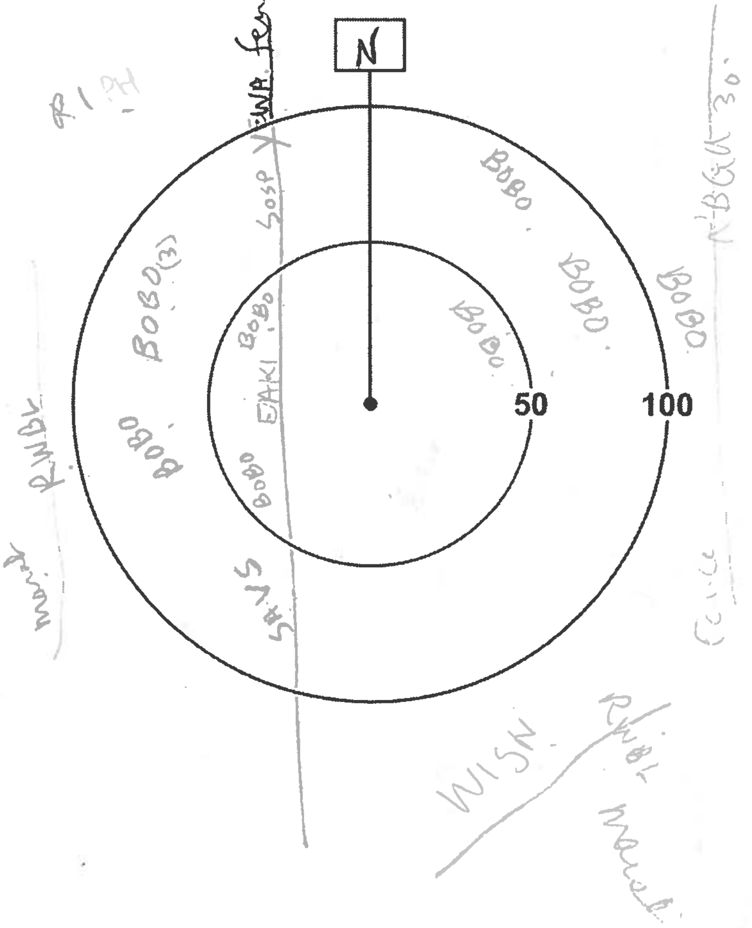


** Height of blade sweep varies from project to project; check with project manager.*
**O**-On ground; **A**-Below height of blade sweep; **B**-At height of blade sweep;
**C**-Above height of blade sweep; **D**-Well above height of blade sweep

Page 3 of 7

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature: Katie
(Project Manager)

T-15 C 100% W 1 w PPT 0

**Station:** P32 **Feature:** Woods **UTM:** 362934 4888565

**Start Time:** 8:05 **End Time:** 8:15 #236

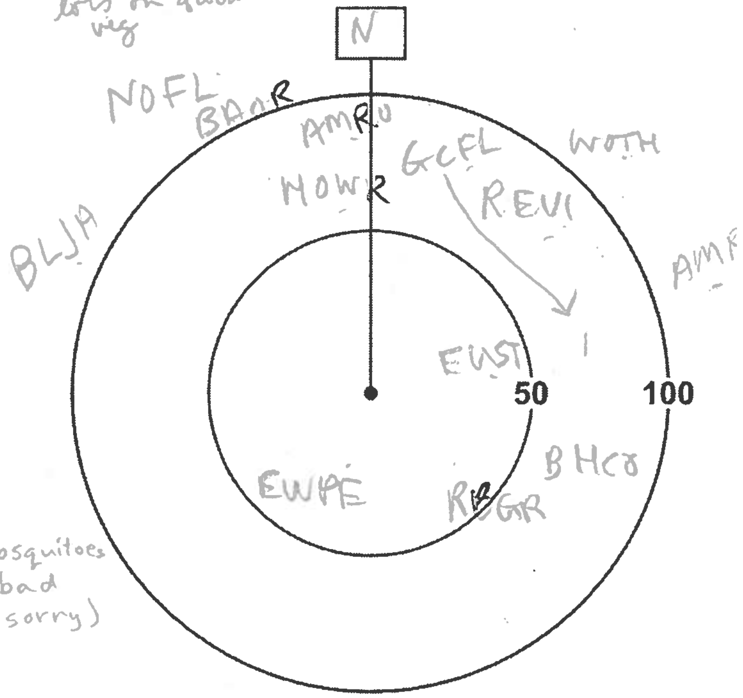
**Habitat:** ☑Forest / ☐Swamp / ☐Marsh / ☐Hay / ☐Pasture / ☐Crop

deep but lots on ground veg

| Species | <50m | 50-100m | >100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NOFL | | | 1 | | A |
| BAOR | | | 1 | | A |
| BLJA | | | 1 | | A |
| AMRO | | 1 | 1 | | A |
| WOTH | | | 1 | | A |
| GCFL | | 1 | | | A |
| REVI | | 1 | | | A |
| HOWR | | 1 | | | A |
| EWPE | 1 | | | | A |
| EWST | 1 | | | | A |
| RBGR | | 1 | | | A |
| BHCO | | 1 | | | A |
| | | | | | |

** Height of blade sweep will vary from project to project; check with project manager.*
**O**-On ground; **A**-Below height of blade sweep; **B**-At height of blade sweep;
**C**-Above height of blade sweep; **D**-Well above height of blade sweep

mosquitoes bad (sorry)



T-15 C-70% W-1 w PPT-0

**Station:** P28 **Feature:** Marsh **UTM:** 361649 4886291

**Start Time:** 8:35 **End Time:** 8:45 #237

**Habitat:** ☐Forest / ☑Swamp / ☐Marsh / ☐Hay / ☐Pasture / ☐Crop

| Species | <50m | 50-100m | >100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | | | 1 | A |
| YEWA | 1 | 2 | | | A |
| RWBL | | 4 | 1 | | A |
| KILL | | | 1 | | O |
| SWSP | 1 | 2 | | | A/O |
| CAGO | | | 1 | | O |
| AMRO | | 1 | 1 | | A |
| DOWO | | 1 | | | A |
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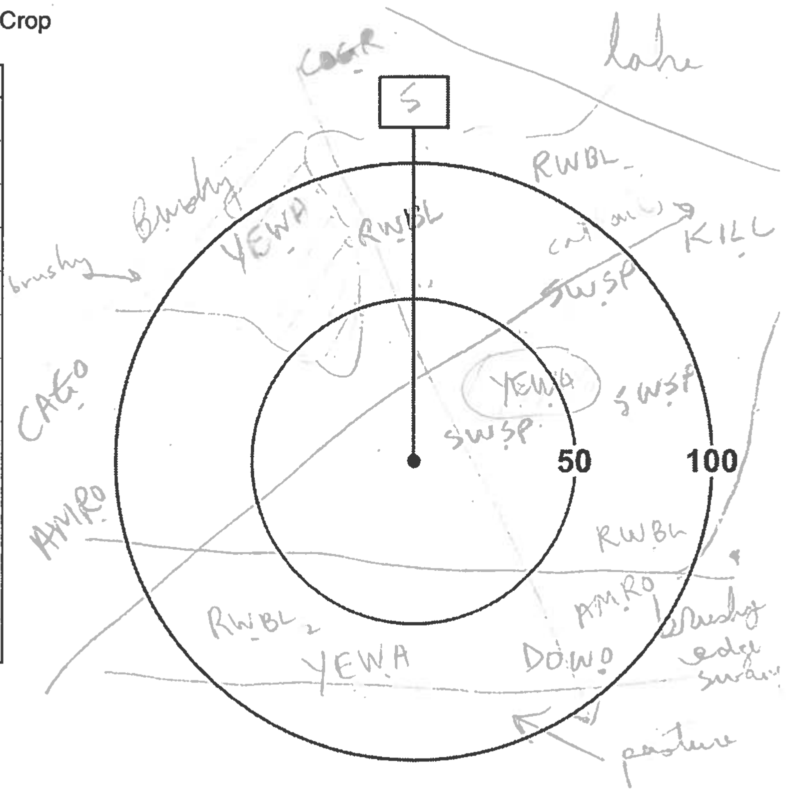
** Height of blade sweep will vary from project to project; check with project manager.*
**O**-On ground; **A**-Below height of blade sweep; **B**-At height of blade sweep;
**C**-Above height of blade sweep; **D**-Well above height of blade sweep



Page 4 of 7

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-04 / FORM 020

June 5

**Station:** 28 Marsh Birds Playback

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ______

**UTM:** see other page

**Start Time:** 8:45

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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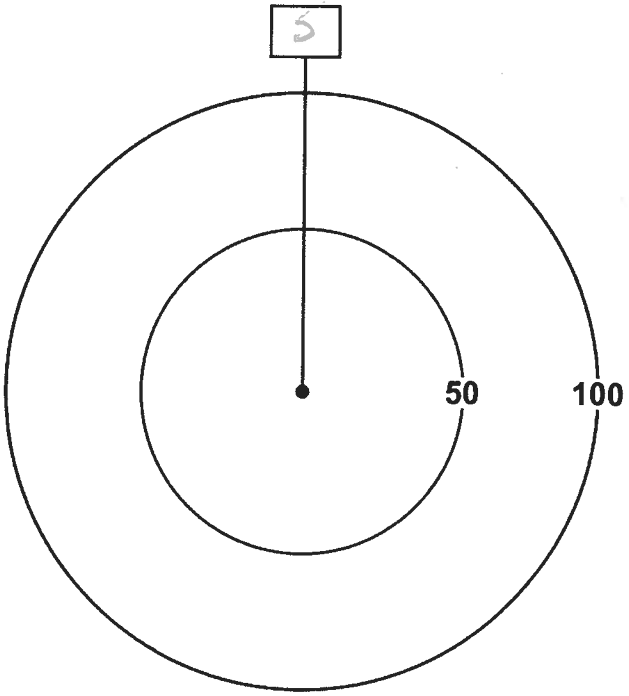

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P-29

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop ______

**UTM:** 361671 4886860 # 240

**Start Time:** 9:25

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 3 | 2 | 2 | | A |
| SAVS | 1 | | 1 | | A/O |
| RWBL | | | 1 | | A |
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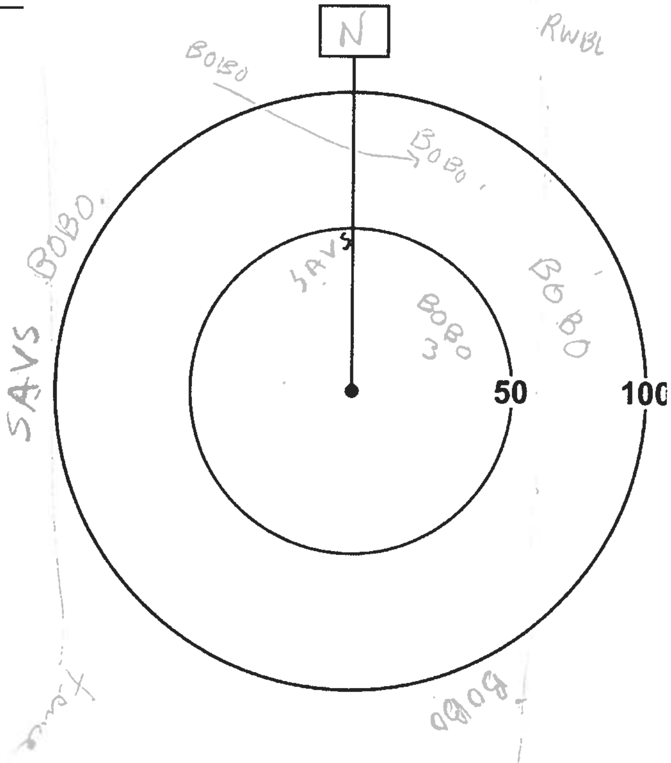

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**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: P Read (Field Personnel)

Signature: Keith (Project Manager)

Page 5 of 7

REV: May, 07 Form 020

T-16
C-0 W-1-2

**Station:** P-30

**Habitat:** ☑Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop Brushy overgrown field

**UTM:** 361756 4887690 #244

**Start Time:** 10:10

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COYE | | 1 | 2 | | A |
| AMRO | | | 2 | | A |
| TRES | | | | 1 | A |
| SOSP | 1 | 1 | 1 | | A |
| WIFL | | 1 | | | A |
| RWBL | | 3 | | | A |
| YEWA | 1 | 1 | | | A |
| | | | | | |
| GRCA | 1 | | | | A |
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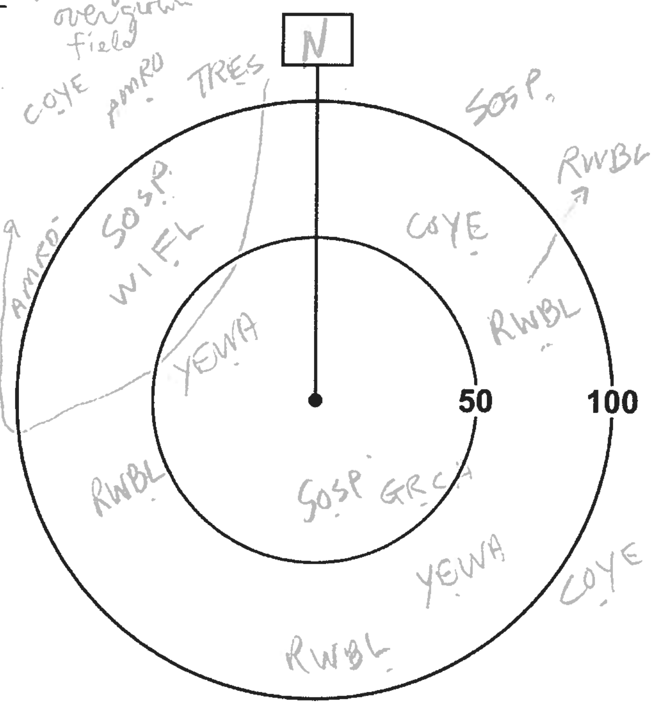
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________________

**UTM:** ________________________________________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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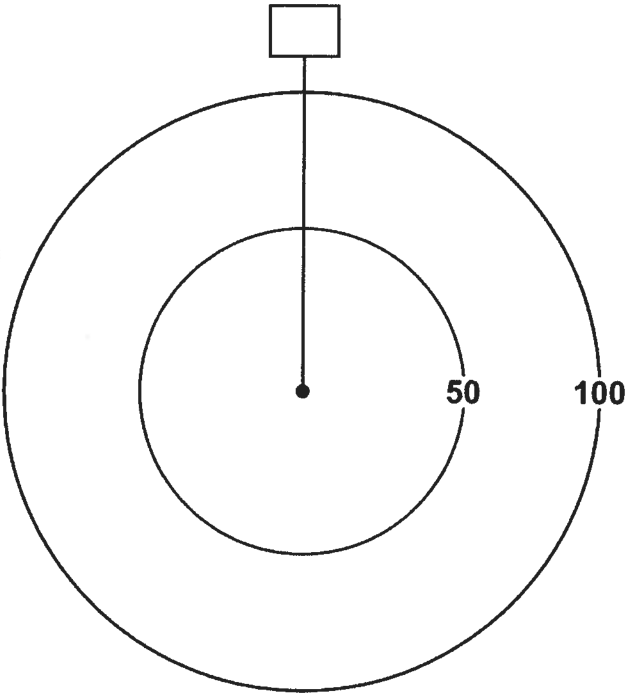
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓)

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 6 of 7

REV: May, 07 Form 020

June 5

T-17 W 1 N C 40% PPT 0

**Station:** 24

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 3612223 4887218 #242

**Start Time:** 9:47

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 4 | 2 | 4 |  | A |
| WAVI |  | 1 |  |  | A |
| SOSP |  | 1 | 1 |  | A |
| AMRO |  |  | 1 | 1 | A |
| SAVS |  |  | 1 |  | A |
| YEWA |  | 1 |  |  | A |
| GRSP |  |  | 1 |  | A |
| EAME |  |  | 1 |  | A. |
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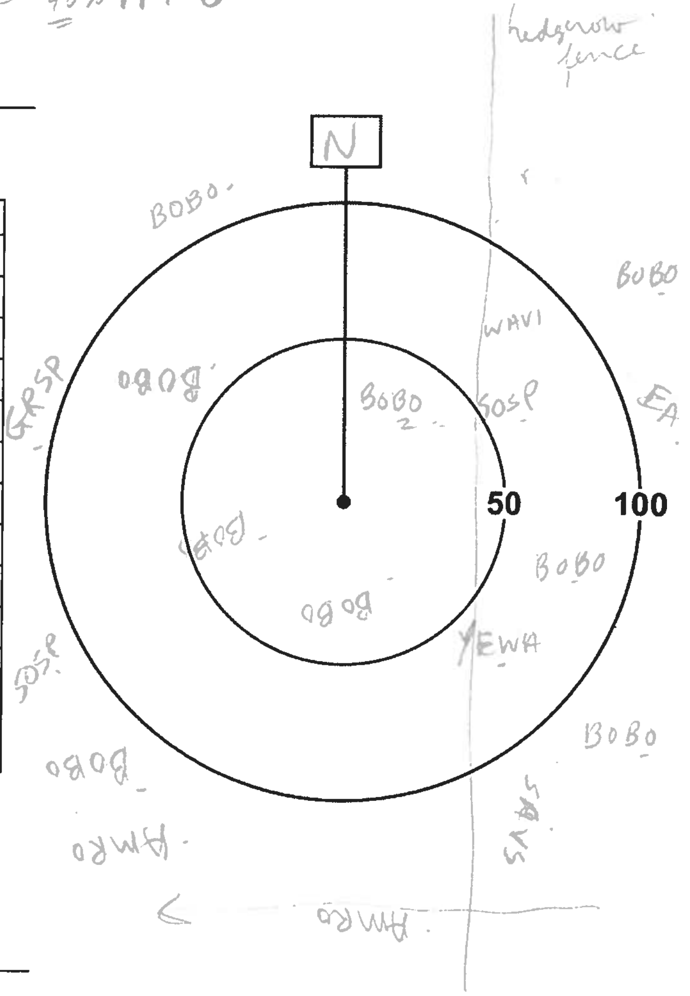
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:**

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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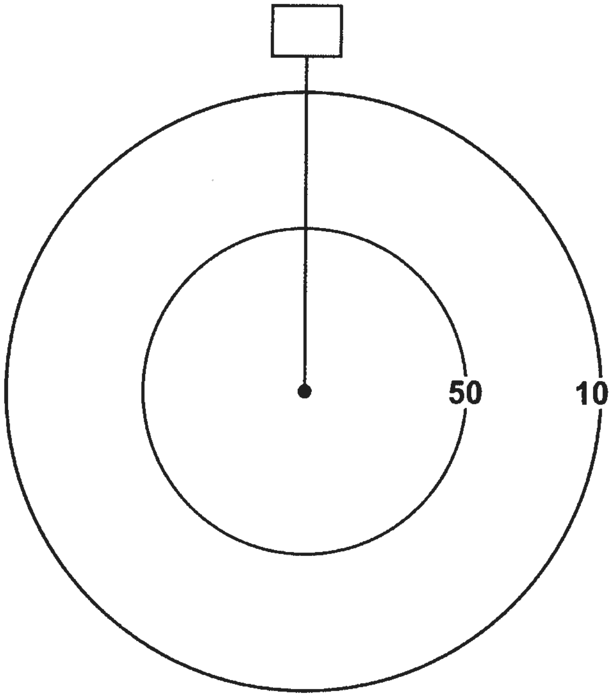
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 7 of 7

REV: May, 07 Form 020

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960 595
Project Name: Amherst
Date: June 5 / 2011
Field Personnel: Pete Read

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 13 | 1 s | 100 % | 0 | .1 cm |

**Feature No.:** G 20 **Habitat Type:** Grassland **Time Start:** ① 5:15 **Time End:** 6:40

- fences + hedgerows ② 7:20 7:50

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

*species in trees near houses.

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | H | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee * | S | No. Waterthrush ‡ | |
| R. N. Pheasant | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch * | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren * | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. * | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin lots | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † lots | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. lots | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo * | S | Yellow Wa. | S | Baltimore Oriole † * | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. 2+ | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove * | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 12

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** M-3 **Habitat Type:** Marsh **Time Start:** ① 5:40 **Time End:** 6:40
doing P62 etc (east)
② 8:30 9:15
doing P28 etc. (west)

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | H | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. flyover | H | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow flyover | X | Ovenbird ‡ | |
| Mallard flyover | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 5+ | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyover | H | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | S | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron flyover | H | Red-headed Wo** † | | Marsh Wren 2+ | S | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. lots | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. lots | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle flyover | CF |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull flyover | H | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow flyover | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 12

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 5

**Feature No.:** W-34 **Habitat Type:** Woods **Time Start:** 6:45 **Time End:** 7:20

***Record location of all significant species on site map.***

- some closed canopy drier
- some more open wet

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ 2+ | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | S | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 12

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W-33 **Habitat Type:** Woods **Time Start:** 8:00 **Time End:** 8:25

***Record location of all significant species on site map.***

- some mature closed canopy
- some brushy edge

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | H |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 12

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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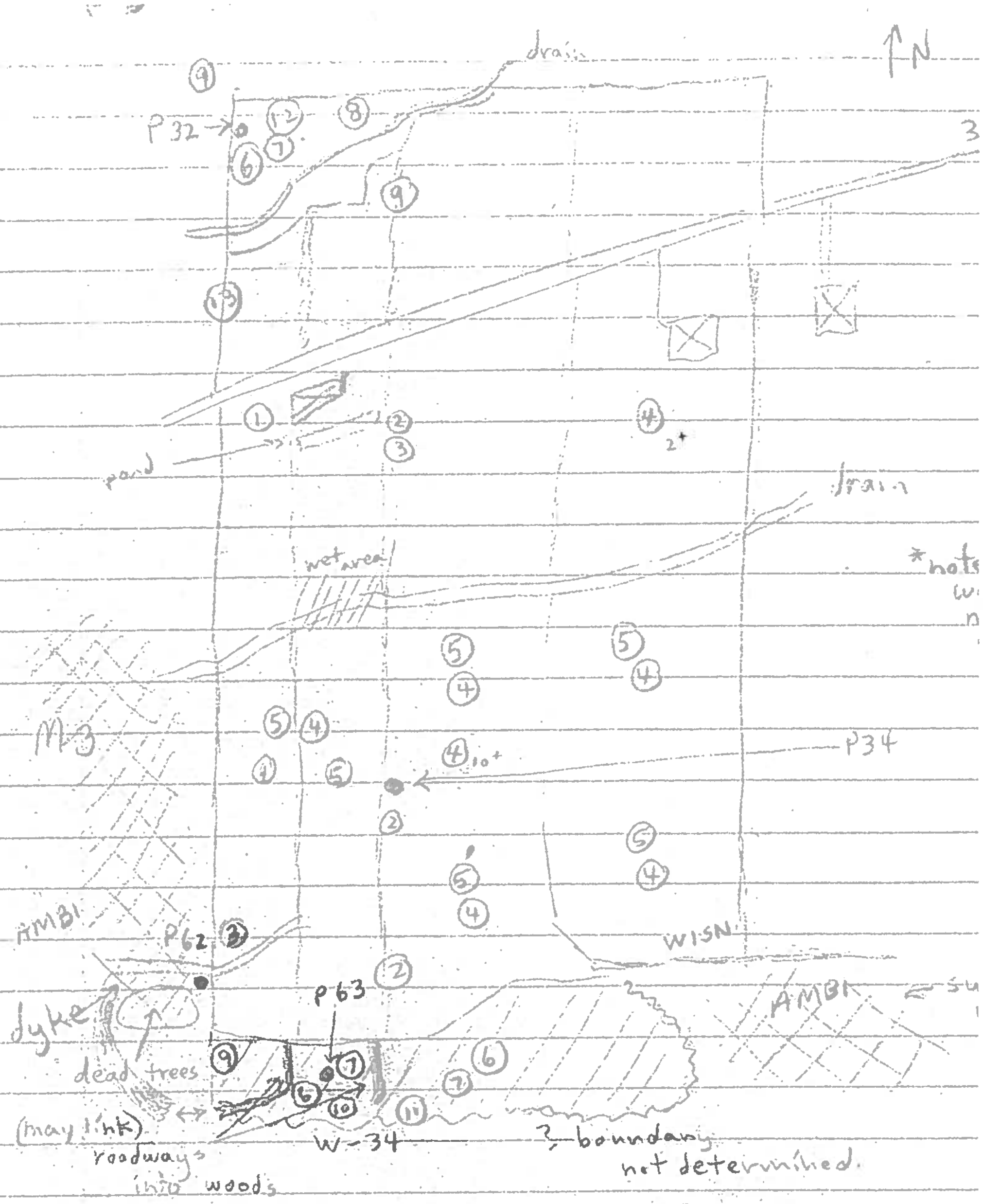

① RIPH (penned ?)
② EAKI
③ WIFL
④ BOBO
⑤ SAVS
⑥ EWPE
⑦ RBGR
⑧ WOTH
⑨ NOFL
⑩ AMRE
⑪ BRCR
⑫ BAOR
⑬ BRTH

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960595

Project Name: Amherst

Date: June 5 / 2011

Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 1 W | 100% | 0 | <1 cm |

**Feature No.:** W-36 **Habitat Type:** Woods **Time Start:** ① 8:25 **Time End:** 8:30

- swamp with buttonbush (W)
- wet woods some brush areas (E)

② 11:28 11:34.

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | S | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | A |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 12

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G 14 **Habitat Type:** Grassland **Time Start:** ① 9:15 **Time End:** 9:25
② 9:40 9:57
③ 11:10 11:34

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 12

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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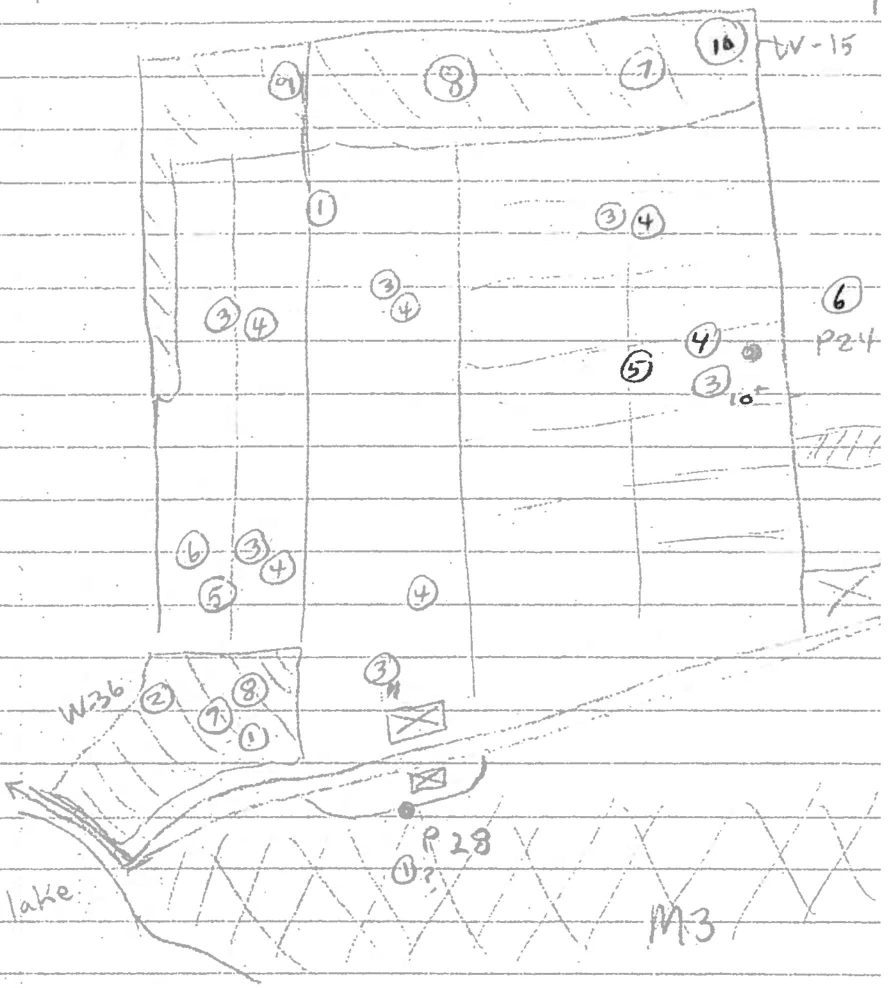
Significant species

G 14, W-15, W-

p8 of 12



① WIFL
② NOFL
③ BOBO
④ SAVS
⑤ GRSP
⑥ EAME
⑦ RBGR
⑧ EWPE
⑨ YBSA
⑩ AMRE

**Feature No.:** G-15 **Habitat Type:** Grassland **Time Start:** ① 9:25 ② 9:57 **Time End:** 9:40 10:03

June 5

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 12

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W-37 **Habitat Type:** "Woods" **Time Start:** 9:36 **Time End:** 9:40

- wetland cattails
phragmites
bushes & few trees

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 11 of 12

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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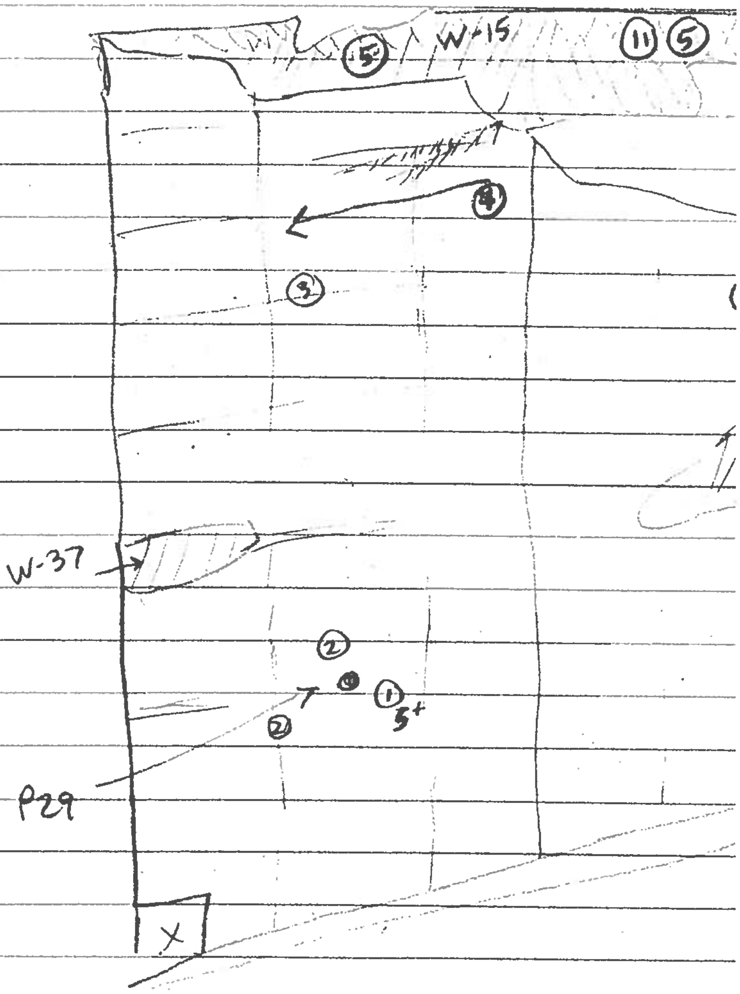
p10 of 12

Significant Spe

G 15, W-



① BOBO
② SAVS
③ WIFL
④ NOHA
⑤ RBGR
⑥ EWPE
⑦ EAKI
⑧ WIFL
⑨ BA
⑩ W
⑪ Y

June 5

**Feature No.:** W-15 **Habitat Type:** Woods **Time Start:** 10:03 **Time End:** 11:10

***Record location of all significant species on site map.*** - some older more closed canopy
- some brushy areas
- scattered bush & trees

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | H | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ 2 | M | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | M | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | P | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | H | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

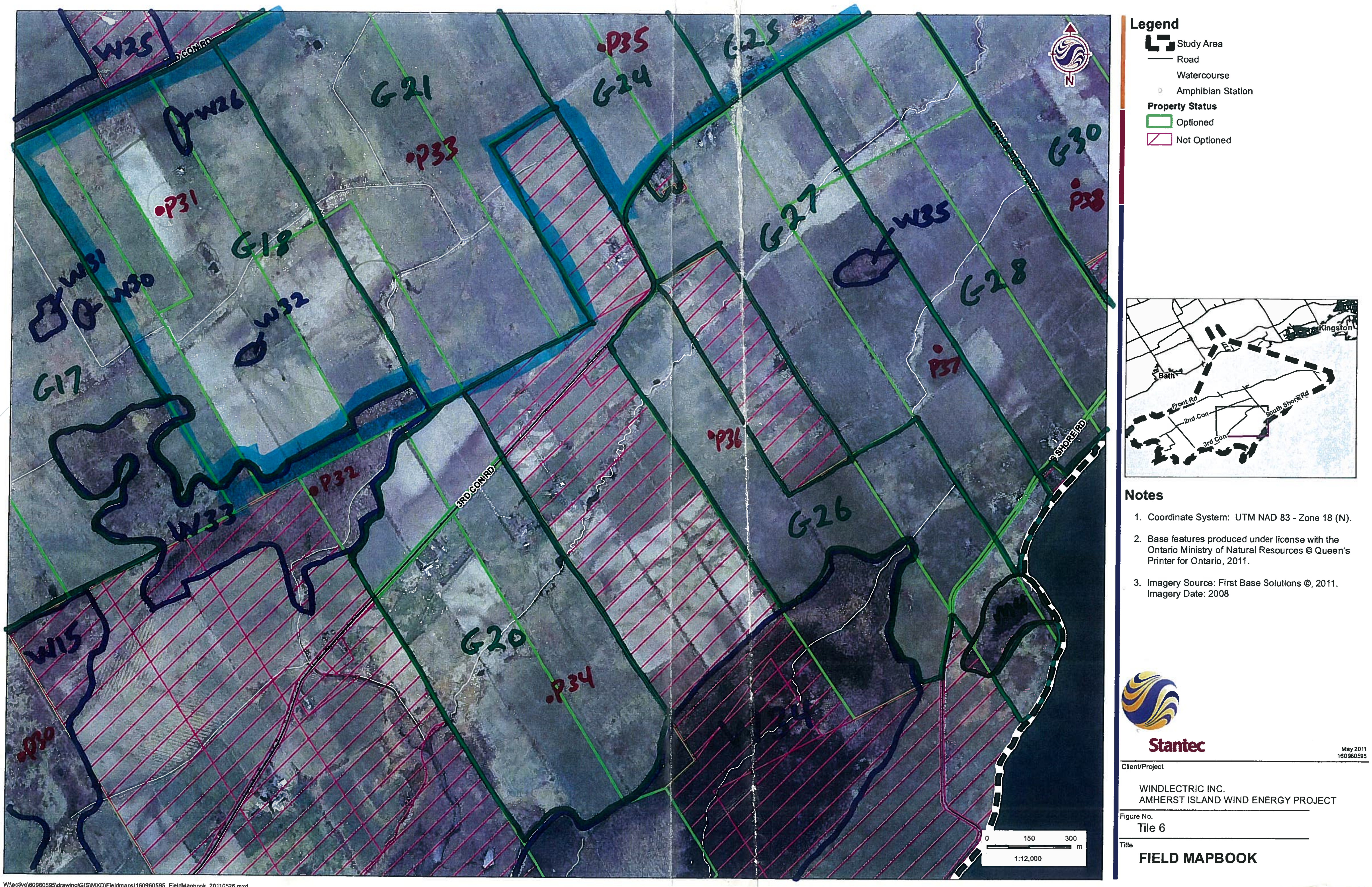
** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 12 of 12

Quality Control: This form is complete ☑ & legible ☑.

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)



## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
## FIELD MAPBOOK

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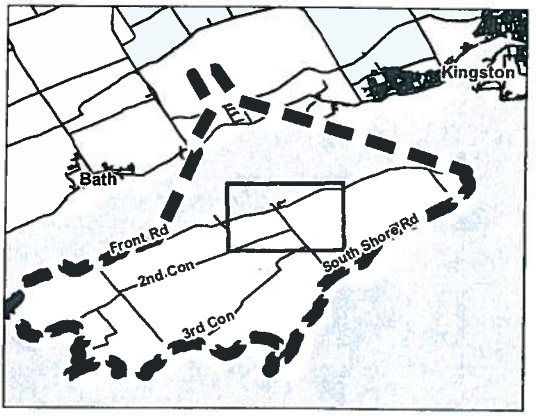
Revised on: 2011-05-27 By: dharvey

## Legend

▭ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 5

Title

**FIELD MAPBOOK**

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Revised on: 2011-05-27 By: dharvey

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595

Project Name: Amherst

Date June 6/2011

Field Personnel: Pete Read

| **Weather Conditions:** | Temp: 12 | Wind: 0 | Cloud: 0 fog vis >100 m | PPT: 0 | PPT in last 24 hrs: 0 |
|---|---|---|---|---|---|

**GPS #: T**-1

**Station:** P44

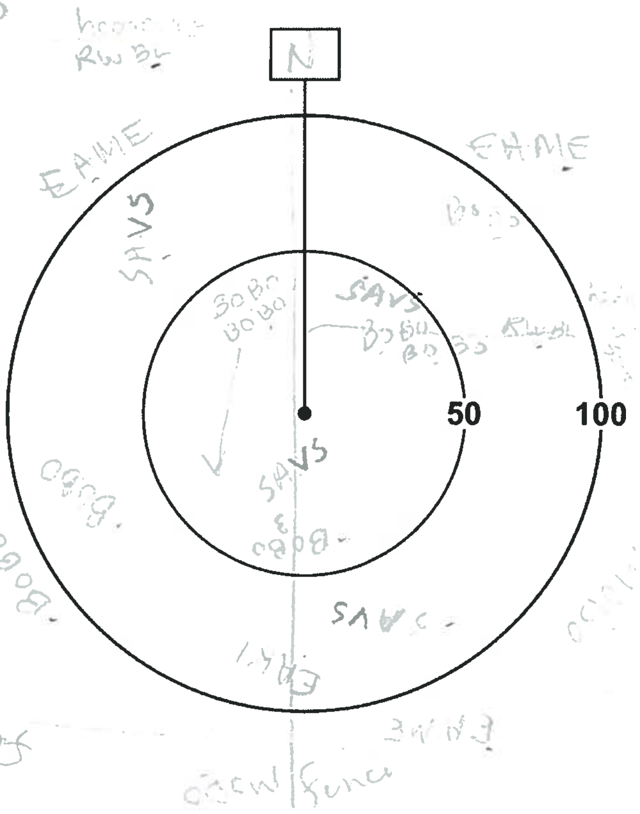
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☐Pasture ☐Crop

**UTM:** 364437 4320804 #248

**Start Time:** 5:50

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | 1 | 1 | | A |
| EHME | | | 3 | | A |
| BOBO | 7 | 2 | 1 | | A |
| SAVS | 2 | 2 | | | A |
| MODO | | | 2 | | A |
| SOSP | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

C light fog visibility >400m

**Station:** 43

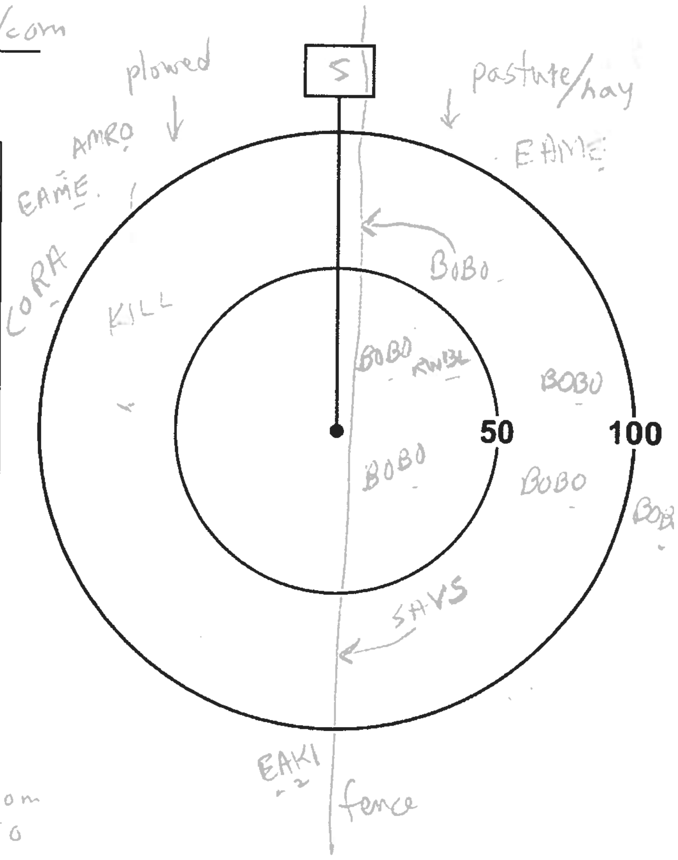
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☑Crop plowed field/corn

**UTM:** 363789 4890437 #450

**Start Time:** 6:20

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMRO | | | 1 | | A |
| EAME | | | 2 | | A |
| CORA | | | 1 | | A |
| BOBO | 2 | 3 | 1 | | A |
| RWBL | 1 | | | | A |
| SAVS | | 1 | | | A |
| EAKI | | | 2 | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



T-10 C light fog vis >300m
W-0 PPT 0
clear above

**Station:** 35

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop

**UTM:** 363809 4890106 #351

**Start Time:** 6:40

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 3 | 5 | 13 | | A |
| EAME | 1 | | | | A |
| SAVS | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |
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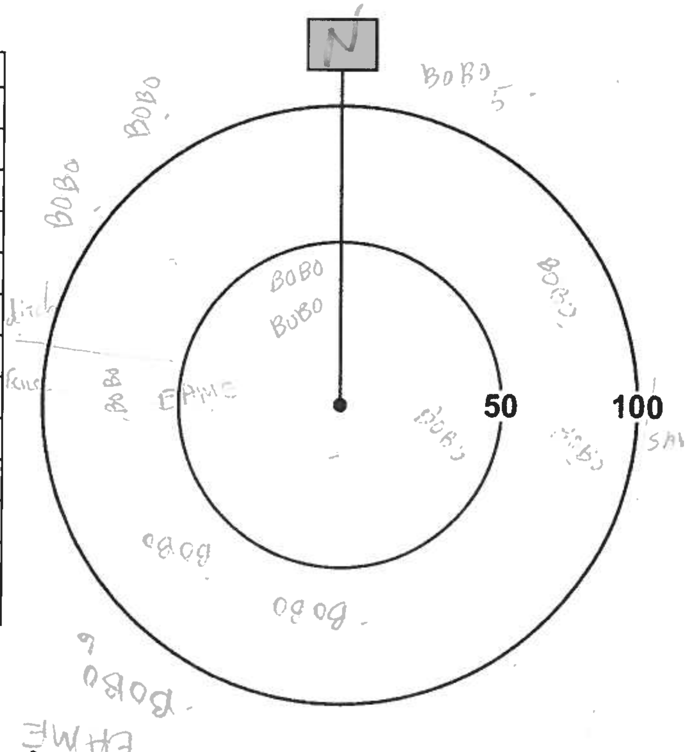
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: P. Reed
(Field Personnel)

Signature:
(Project Manager)

Page 2 of 3

REV: May, 07 Form 020

light fog vis >300m

June 6

**Station:** 31

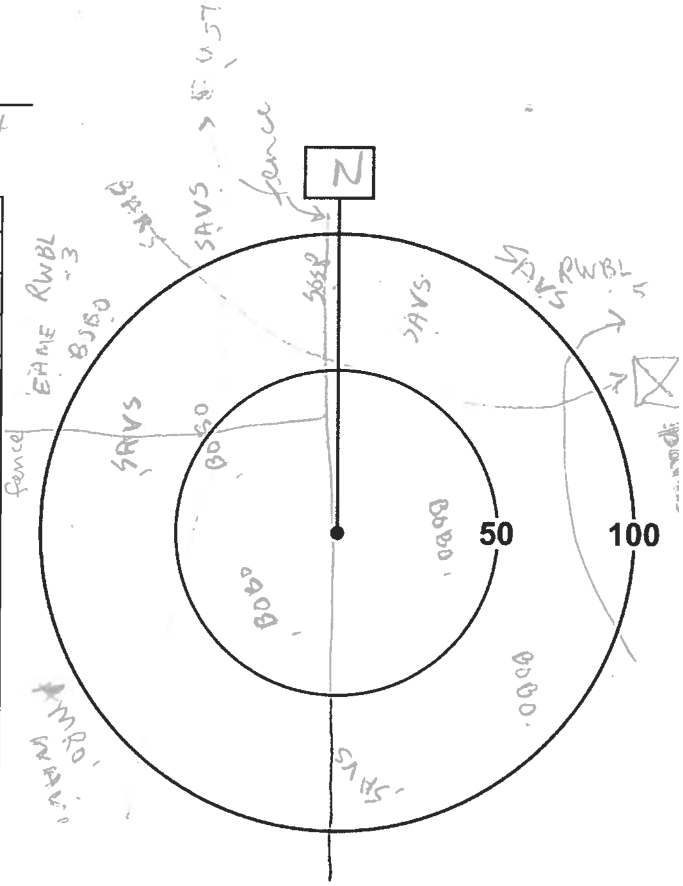
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 362279 4889644 #254

**Start Time:** 7:35

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EUST | | | | 1 | A |
| SAVS | | 3 | 2 | | A |
| BOBO | 3 | 1 | 1 | | A |
| SOSP | | 1 | | | A |
| RWBL | | 5 | 3 | | A |
| EAME | | | 1 | | A |
| AMRO | | | 1 | | A |
| WAVI | | | 1 | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P33

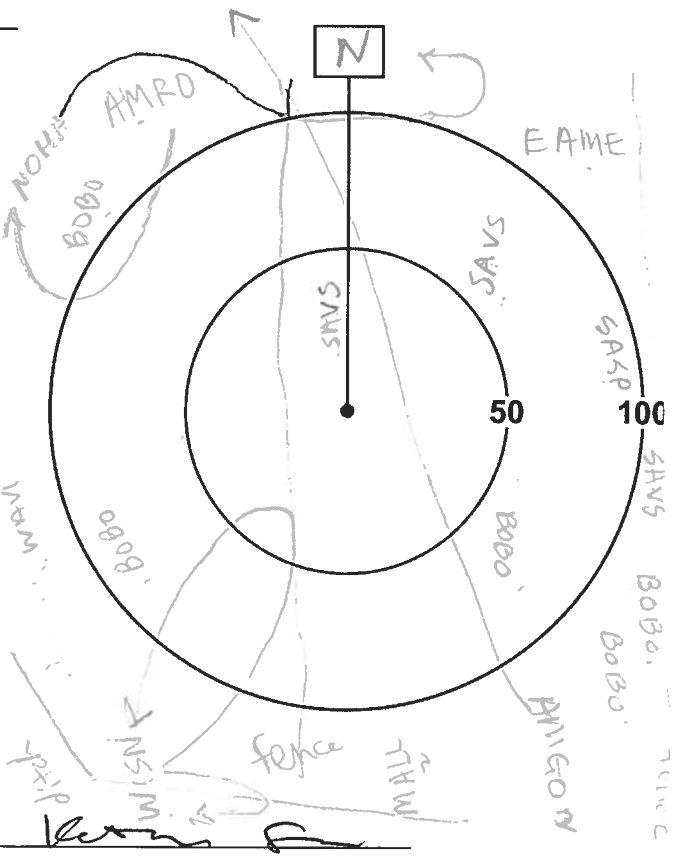
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 363180 4889908 #255

**Start Time:** 8:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NOHA | | | | 1 | A |
| AMRO | | | 1 | | A |
| BOBO | | 2 | 3 | | A |
| EAME | | | 1 | | A |
| SAVS | 1 | 2 | | | A |
| WAVI | | | 1 | | A |
| WISN | | | | 1 | A |
| MALL | | | 2 | | A |
| AMGO | | | | 2 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 3 of 3

REV: May, 07 Form 020

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160 960 595

Project Name: Amherst

Date: June 6 / 2011

Field Personnel: P. Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 12 | 0 | light 0 fog | 0 | 0 |

**Feature No.:** G 25 **Habitat Type:** Grassland – some hedgerow **Time Start:** 5:00 **Time End:** 6:05

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | P |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | H | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 12

Quality Control: This form is complete ~~☐ & legible ☐~~.

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

**Feature No.:** G-24 **Habitat Type:** Grassland **Time Start:** 6:07 **Time End:** 7:05

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ |  |
| Mallard | P | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat | S |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren |  | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † | P |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. | S |
| N. Harrier †‡ |  | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † |  | Am. Robin | S | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird |  | Rose-br. Grosbeak † |  |
| Red-tailed Hawk |  | Willow Fly. † |  | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. |  | Br. Thrasher † |  | Bobolink † | D |
| Virginia Rail |  | Ea. Phoebe |  | European Starling | H | Red-winged Bl. | T |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † | S |
| Killdeer | DD | Ea. Kingbird † | P | Blue-wing. Wa. † |  | Co. Grackle |  |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ | S | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo |  | Yellow Wa. | S | Baltimore Oriole † |  |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow | H | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

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Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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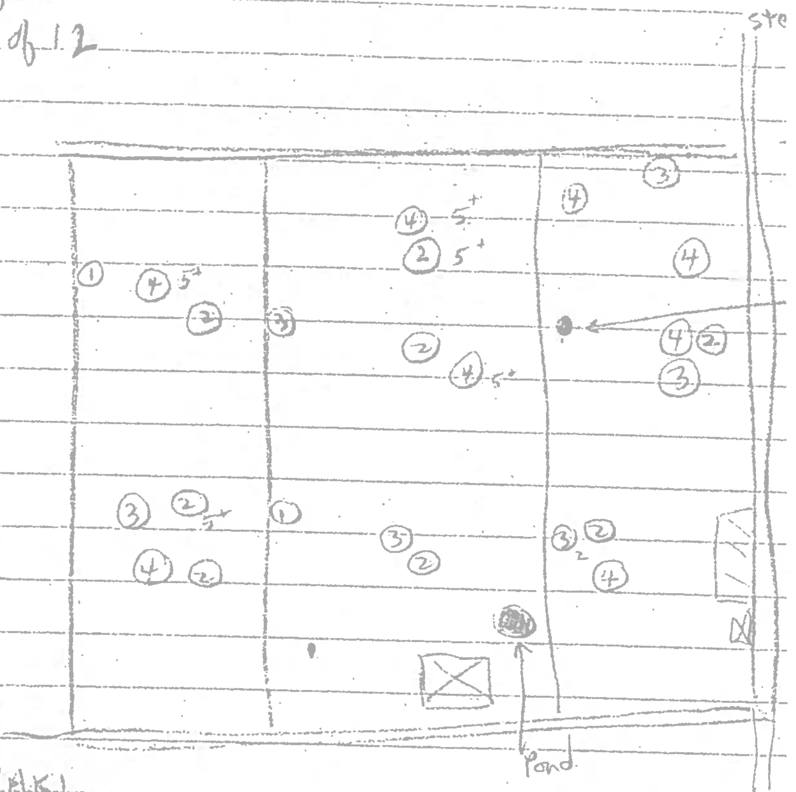
# Significant Species

page 3 of 12

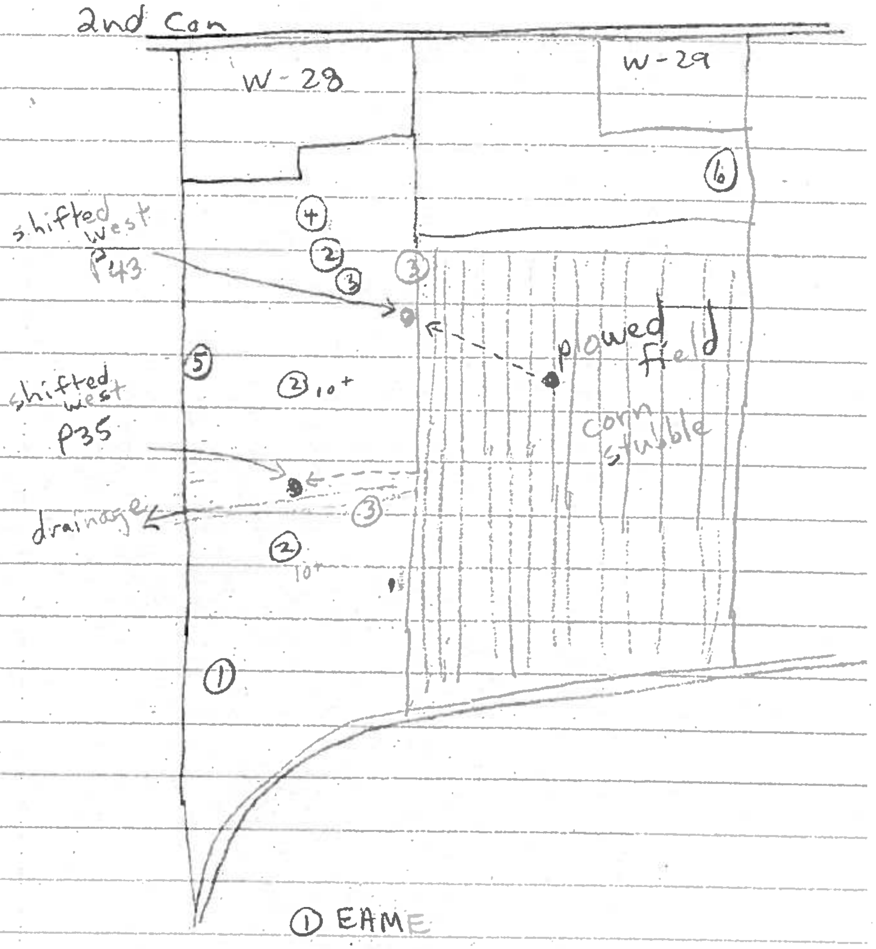
G: 25



① EAKI
② SAVS
③ EAME
④ BOBO

Significant Species

p4 of 12 G-24



① EAME
② BOBO
③ SAVS
④ EAKI
⑤ UPSA
⑥ NOHA

① 7:29 – 8:06 June 6

**Feature No.:** G 18 **Habitat Type:** Grassland **Time Start:** ② 9:10 **Time End:** 9:26

***Record location of all significant species on site map.*** - some hedgerows. ③ 9:25 – 9:31

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | P | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | P | Ea. Meadowlark † | S |
| Killdeer | P | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole Flyover | * H |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

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Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

new on map ↓ area south of W-25 north of 2nd Conc.

**Feature No.:** W-25 **Habitat Type:** Woods **Time Start:** 7:15 **Time End:** 7:25

***Record location of all significant species on site map.***

-wet thicker more closed canopy to N
-more open scattered trees/bushes
-approx size 200x300m.

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | CF |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 12

Quality Control: This form is complete ☐ ~~& legible ☐.~~

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

June 6

**Feature No.:** W 33 **Habitat Type:** Woods **Time Start:** ② 9:16 **Time End:** 9:25

*includes part in G18 and G21 along south drain

① 9:10 - 9:15

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | P | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 12

Quality Control: This form is complete ☐ & legible ☐.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W-32 **Habitat Type:** Woodland **Time Start:** 9:31 **Time End:** 9:38

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | FY | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 12

Signature: P Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Kevin
(Project Manager)

REV: 2011-05-27 / FORM 031

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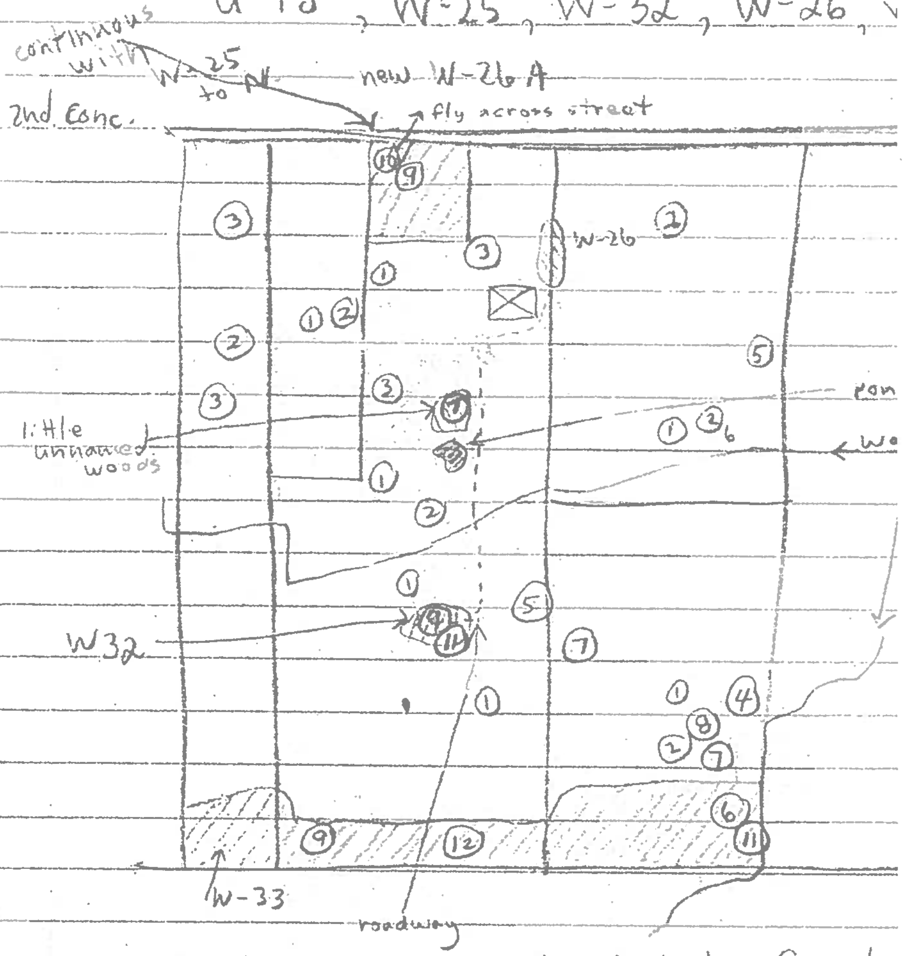
Significant Species

p8 of 12

new extra ↓ new does not ↓

G-18, W-25, W-32, W-26,



W-26 just a few tr
a laneway
W-26A is a small w
north of farm
W-25 continuous w
across

① SAVS
② BOBO
③ EAME
④ WIFL
⑤ NOHA
⑥ NOFL
⑦ EAKI
⑧ GRSP
⑨ EWPE
⑩ BRTH
⑪ BAOR
⑫ RBGR

W50 unnamed small woods next to dugout

June 6

**Feature No.:** ______ **Habitat Type:** Woods **Time Start:** 7:48 **Time End:** 7:53

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 10 of 12

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 6

**Feature No.:** G-21 **Habitat Type:** Grassland **Time Start:** 8:06 **Time End:** 9:10

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ 35 flyover | X | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | P |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | H | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | | Baltimore Oriole † * | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* in dead trees - likely came from W33

Pg. 11 of 12

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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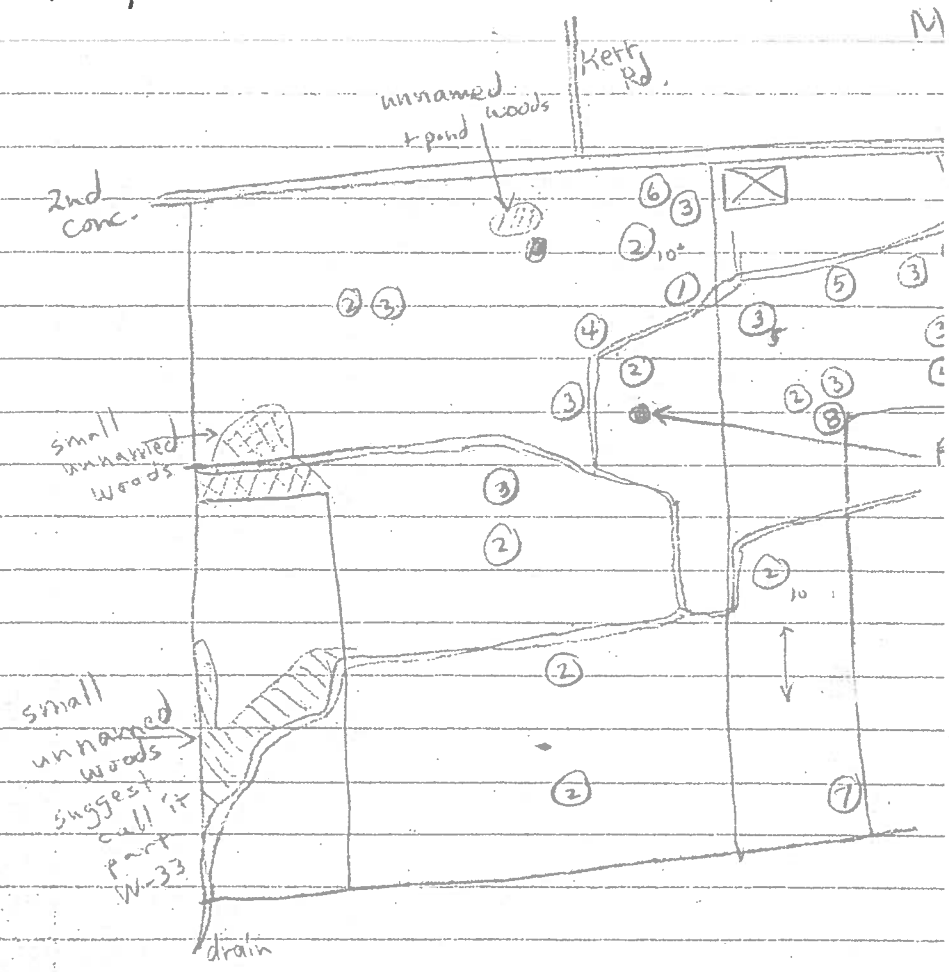
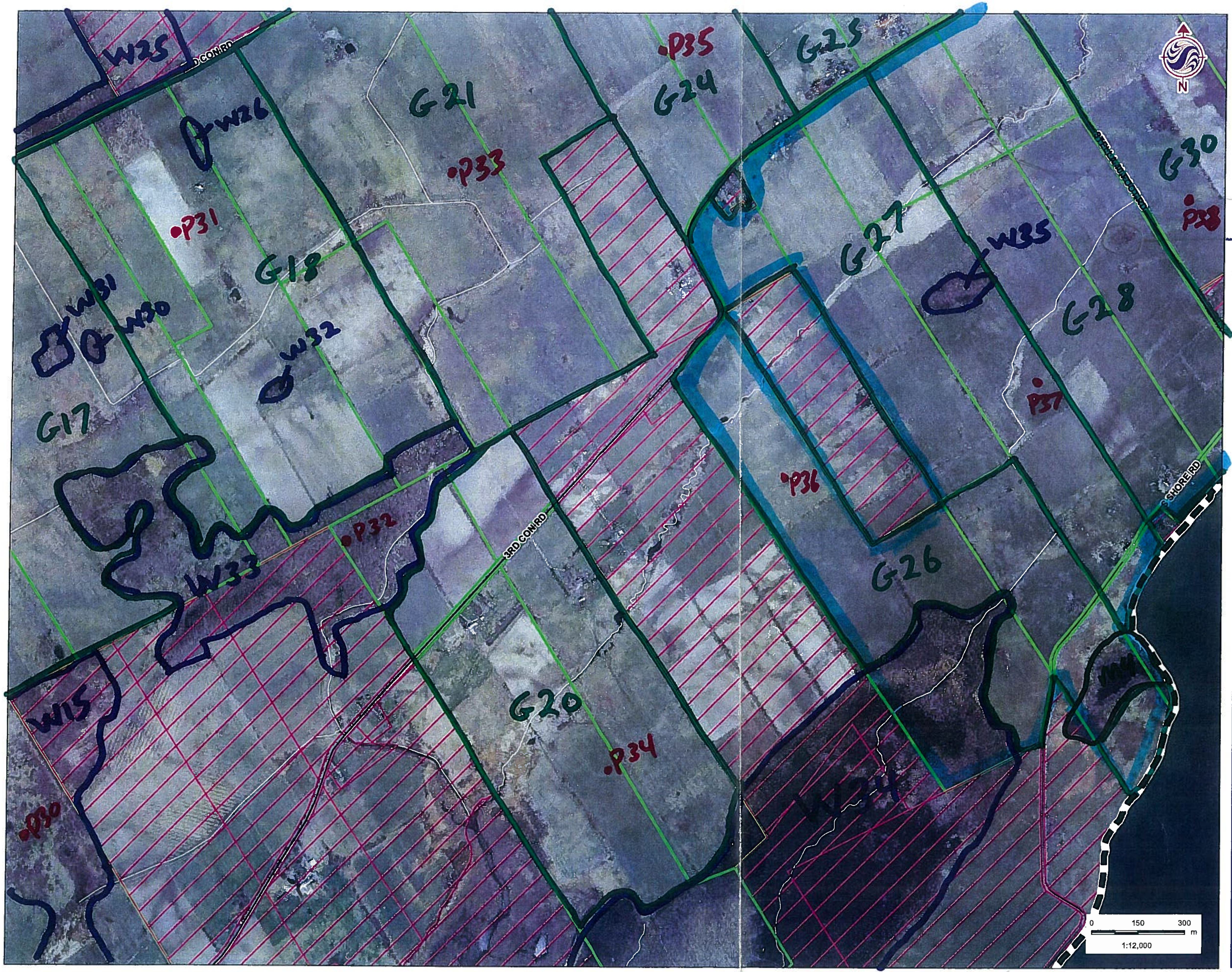
p2 of 12 G-21 + add new on small portion u



① EAME
② BOBO
③ SAVS
④ NOHA
⑤ EAKI
⑥ UPSA
⑦ WIFL
⑧ BAOR



## Legend

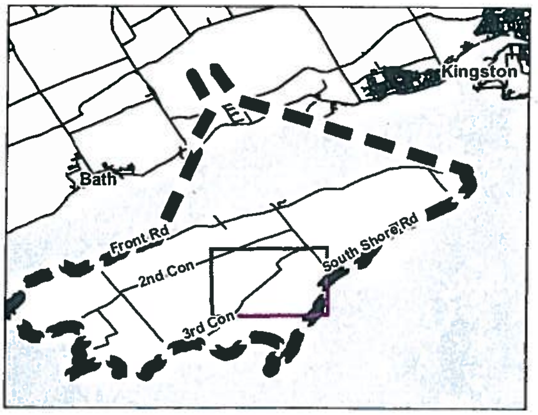
- ▙▜ Study Area
- —— Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned

wooded area along ditch

small woods



## Notes

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Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

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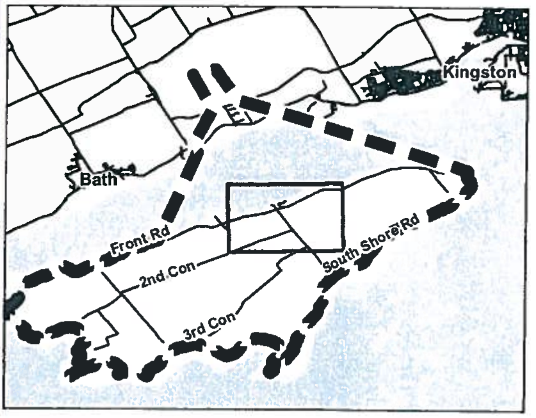
Revised on: 2011-05-27 By: dharvey

## Legend

▭ Study Area
— Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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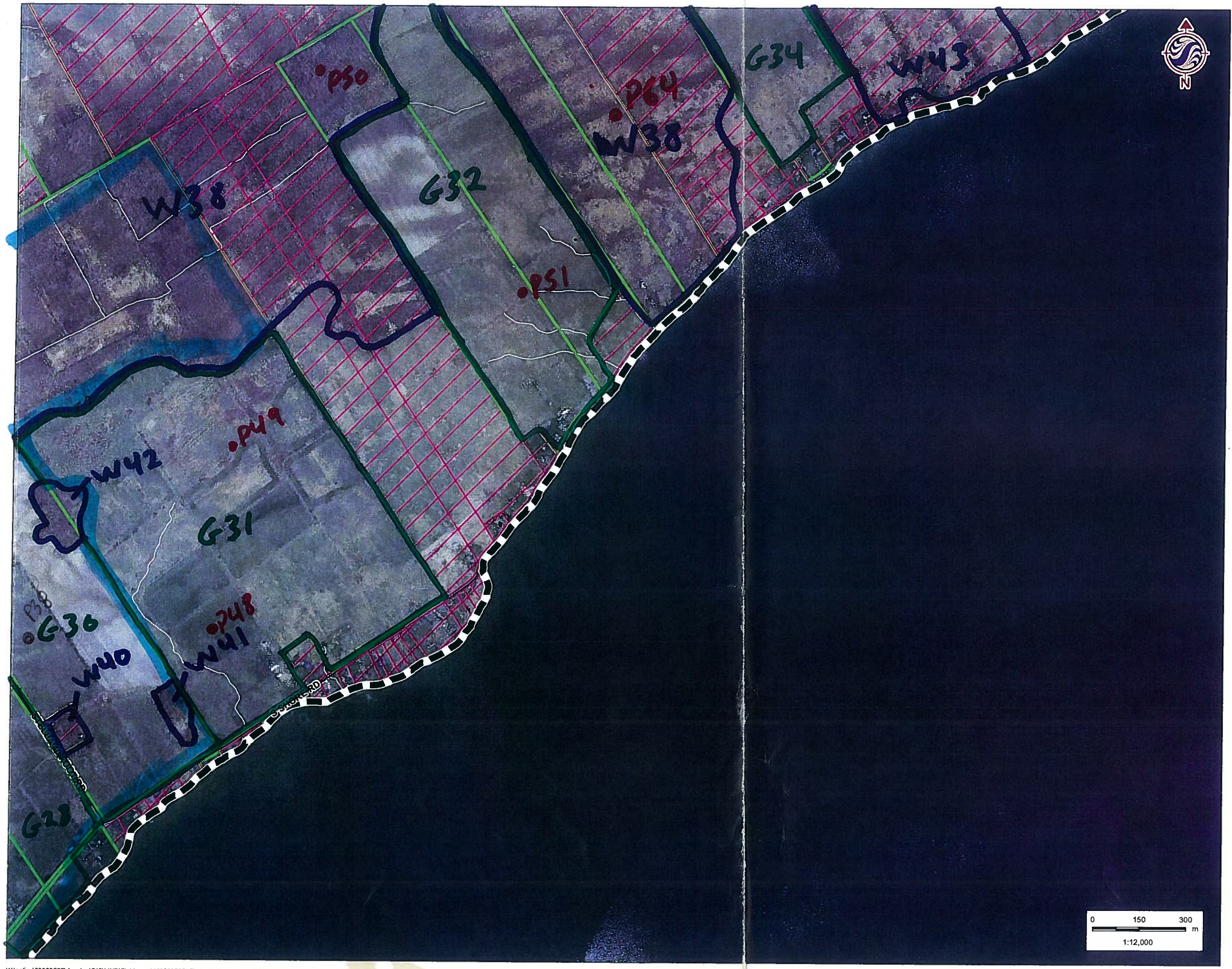
Revised on: 2011-05-27 By: dharvey

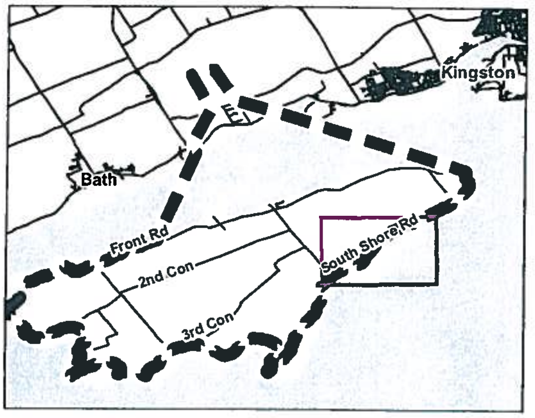


## Legend

- ▙ Study Area
- ― Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 8

Title

**FIELD MAPBOOK**

0 150 300 m
1:12,000

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Revised on: 2011-05-27 By: dharvey

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595
Project Name: Amherst
Date June 7/2011
Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 13 | Wind: 1 | Cloud: 40 % | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #:** T 1

**Station:** 38

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☐Pasture ☐Crop hedgerow

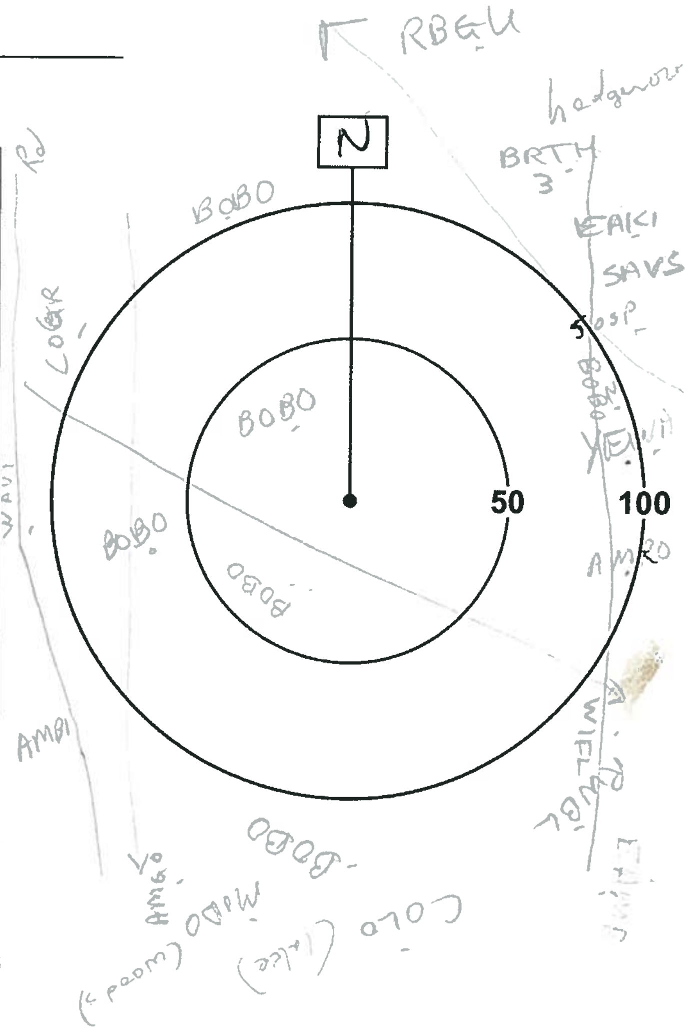
**UTM:** 365008 4889797 #257

**Start Time:** 5:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGU | | | | 1 | A |
| BOBO | 2 | 3 | 2 | | A |
| BRTH | | | 3 | | A |
| EAKI | | | 1 | | A |
| SAVS | | | 1 | | A |
| SOSP | | | 1 | | A |
| YEWA | | 1 | | | A |
| AMRO | | 1 | | | A |
| WAVI | | | 1 | | A |
| AMGO | | | | 1 | A |
| MODO | | | 1 | | A |
| COLO | | | 1 | | O |
| RWBL | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

| | | | | | |
|---|---|---|---|---|---|
| EAME | | | 1 | | A |
| WIFL | | | 1 | | A |
| COGR | | | 1 | | A |
| AMBI | | | 1 | | A |



Quality Control: This form is complete (✓) & legible (✓)
Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

T-15 C 40% W 1-5 PPT-0

**Station:** 37

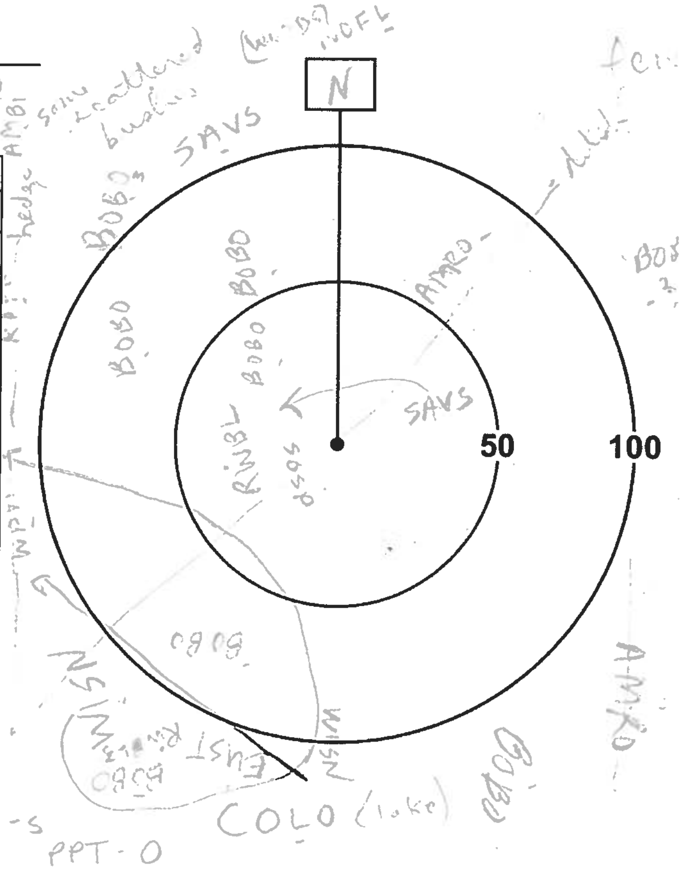
**Habitat:** ☐Forest ☐Swamp ☒Marsh ☐Hay ☐Pasture ☐Crop

**UTM:** 365056 4889243 #259

**Start Time:** 6:35

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NOFL | | | 1 | | A |
| SAVS | 1 | | 1 | | A/O |
| BOBO | 1 | 3 | 7 | | A/O |
| RWBL | 1 | | 1 | | A |
| RIPH | | | 1 | | O |
| WAVI | | | 1 | | A |
| WISN | | | | 1 | A |
| COLO | | | 1 | | O |
| EUST | | | | 1 | A |
| AMRO | | | 1 | | A |
| SOSP | 1 | 1 | | | A |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



T-17 C-40 W 2-5 PPT-0

**Station:** 36

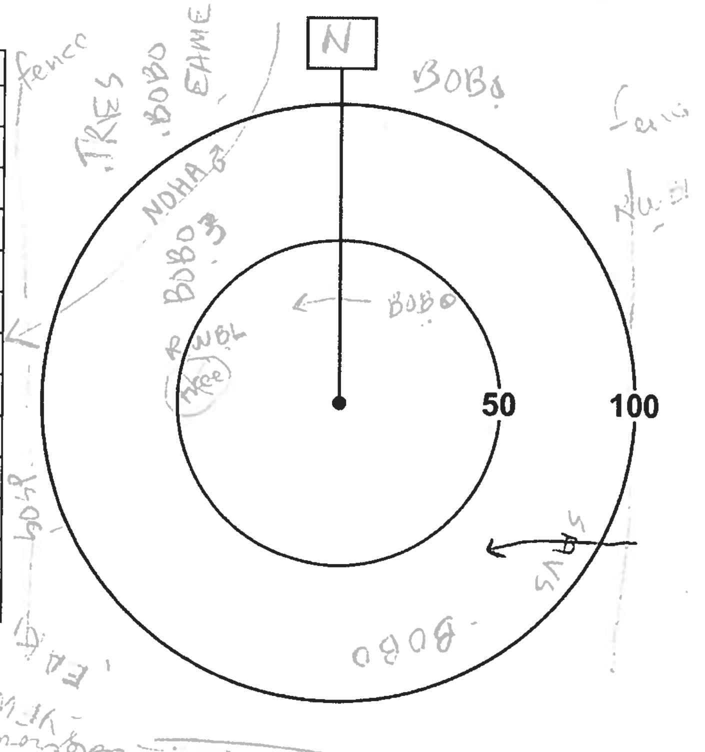
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☒Hay ☒Pasture ☐Crop

**UTM:** 364329 4888888 #261

**Start Time:** 8:50

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 1 | A |
| BOBO | 1 | 4 | 2 | | A |
| EAME | | | 1 | | A |
| EAKI | | | 1 | | A |
| YEWA | | | 1 | | A |
| SOSP | | | 1 | | A |
| SAVS | | 1 | | | A |
| RWBL | | 1 | 1 | | A |
| NOHA | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 2 of 3

REV: May, 07 Form 020

June 7

T-17
W-1s
C - ~~20~~ 25

**Station:** P47 -trees scattered + open canopy (grn ash)
-wet + some standing water
-sedges, grasses

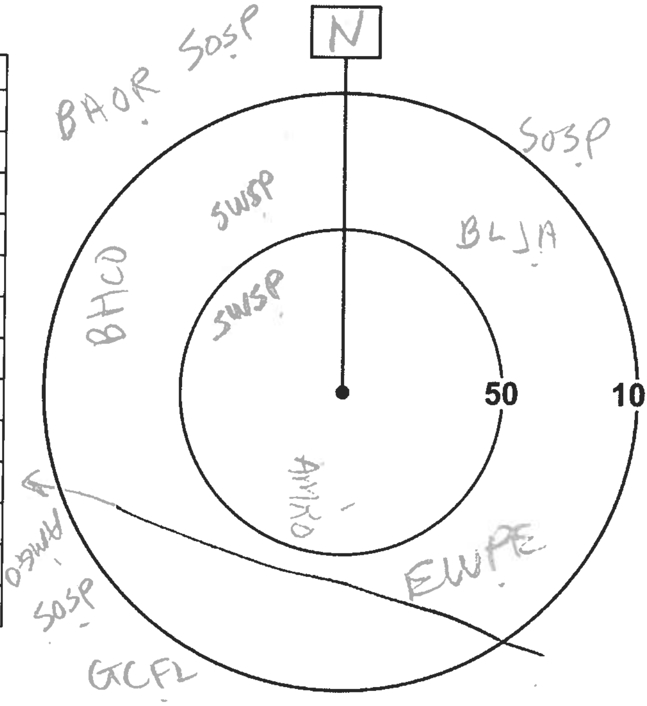
**Habitat:** ☑Forest ☑Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** 365563 4890707 # 263

**Start Time:** 9:58

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SOSP | | | 3 | | A |
| BAOR | | | 1 | | A |
| GCFL | | | 1 | | A |
| AMGO | | | | 1 | A |
| EWPE | | 1 | | | A |
| HOWR | | | 1 | | A |
| BLJA | | 1 | | | A |
| SWSP | 1 | 1 | | | A/O |
| AMRO | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** ________
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________
**UTM:** ________
**Start Time:** ________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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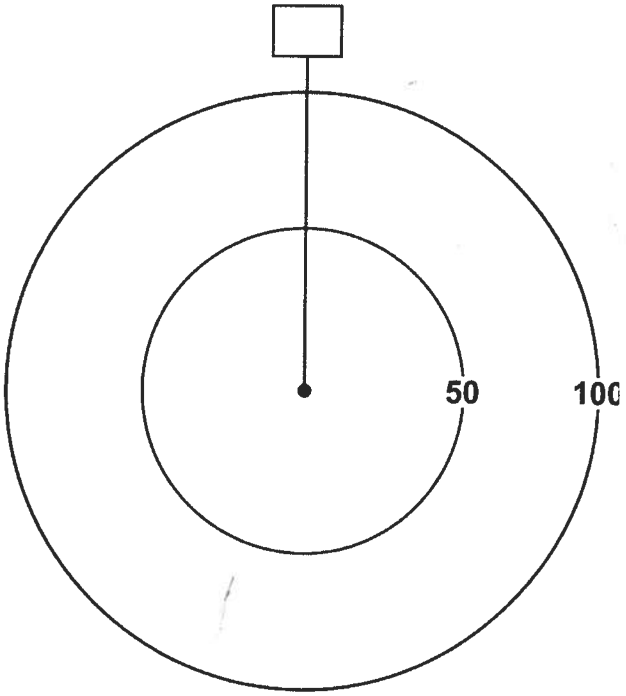
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete ( ) & legible ( ).
Signature: P Read (Field Personnel)
Signature: ________ (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960595
Project Name: Amherst
Date: June 7/2011
Field Personnel: P. Read.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 13 | WIND: 1 | CLOUD: 40% | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No.:** G-30 **Habitat Type:** Grassland **Time Start:** ① 5:00 **Time End:** 5:35
② 5 45 – 5:50
③ 6:00 – 6:05
④ 9:35 – 9:40
⑤ 10:44 – 10:49

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ flyover A | X | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | D | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | CF |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | P |
| Killdeer | DD | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | P | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 16

Quality Control: This form is complete ☐ ~~& legible ☐.~~

**Signature:** P. Read
(Field Personnel)

**Signature:** Katie
(Project Manager)

+ unnamed woods immediately to west

**Feature No.:** W-42 **Habitat Type:** Woods **Time Start:** 5:35 **Time End:** 5:45

***Record location of all significant species on site map.*** -scrubby but some large trees

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren 3 | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † 2 | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. 3 | S | Br. Thrasher † 3 | D | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. 1 | S | Baltimore Oriole † | |
| Am. Woodcock | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 16

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

June 7

**Feature No.:** W-41 **Habitat Type:** Woods **Time Start:** 5:50 **Time End:** 6:00

***Record location of all significant species on site map.*** - scrubby + few tall trees
- openish

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 16

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

**Feature No.:** W-40 **Habitat Type:** Woodland **Time Start:** ① 5:00 **Time End:** 5:08

② 6:00 6:05

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ |  |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee | H | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat | S |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren | S | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. | M | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. | S |
| N. Harrier †‡ |  | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird | S | Rose-br. Grosbeak † |  |
| Red-tailed Hawk |  | Willow Fly. † | S | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. | S | Br. Thrasher † |  | Bobolink † |  |
| Virginia Rail |  | Ea. Phoebe |  | European Starling |  | Red-winged Bl. | M |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † | M | Blue-wing. Wa. † |  | Co. Grackle | M |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † |  |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

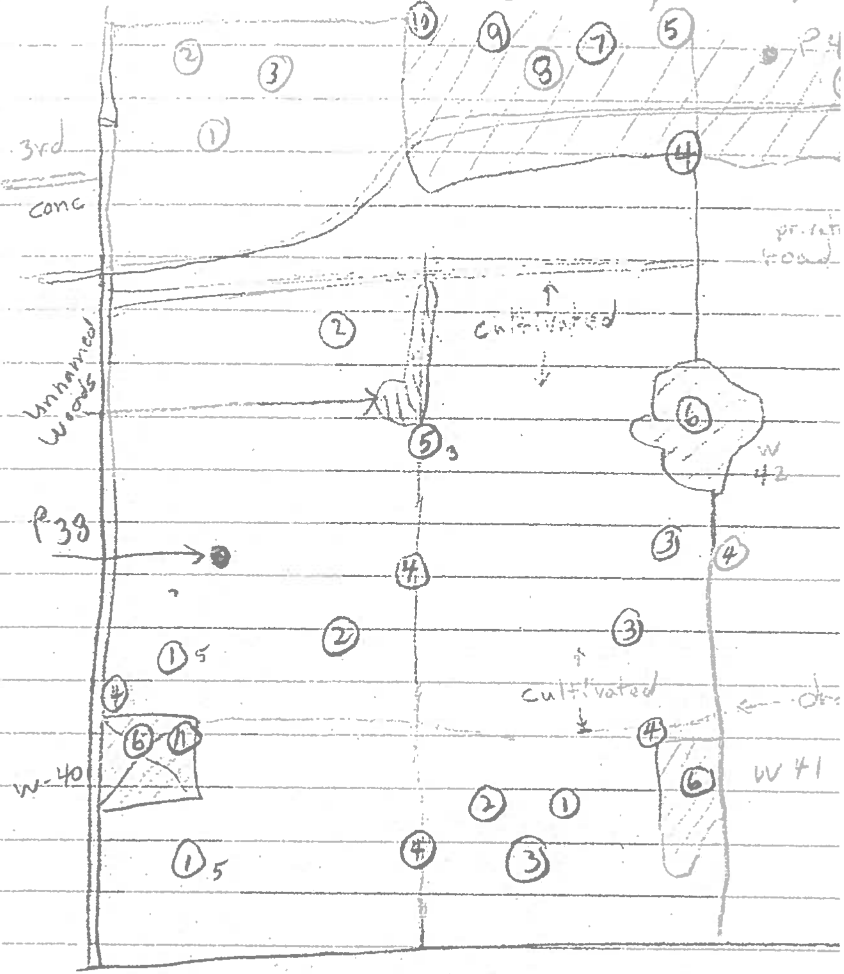
Pg. 4 of 16

Signature: P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

stella    G-30, W 38, W



① BOBO
② EAME
③ SAVS
④ WIFL
⑤ BRTH
⑥ EWPE
⑦ BAOR
⑧ NOFL
⑨ WOTH

⑩ BLCU
⑪ EAKI

G 28, includes

unnamed

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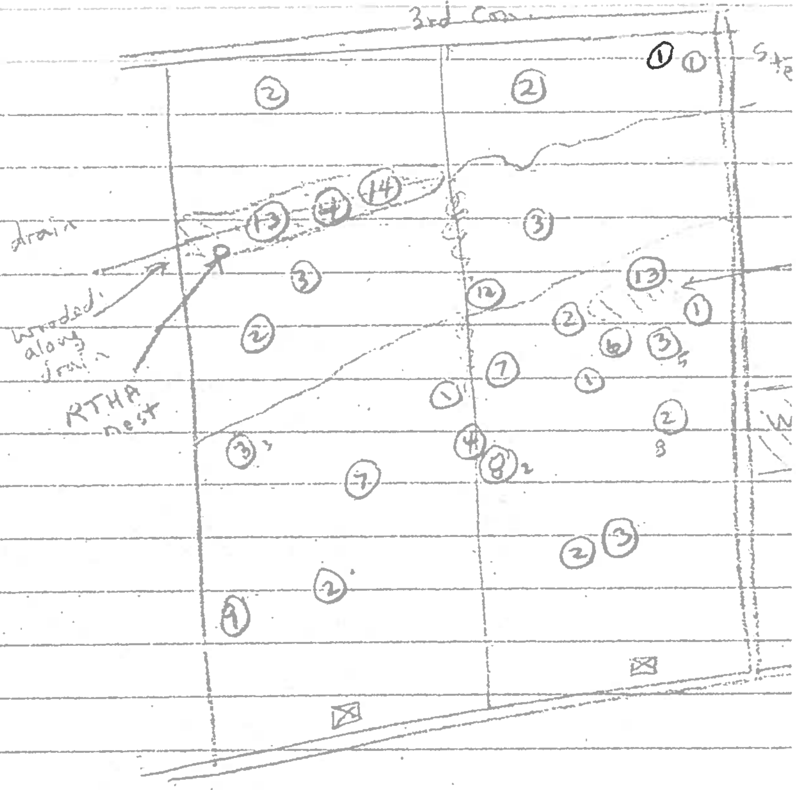

① EAME
② BOBO
③ SAVS
④ WIFL
⑥ EAKI
⑦ GRSP
⑧ UPSA
⑨ NOHA
⑫ RBGR
⑬ BAOR
⑭ EWPE

Jun 7

**Feature No.:** G. 28 **Habitat Type:** Grassland **Time Start:** 6:05 **Time End:** 6:25

*** Record location of all significant species on site map.*** * some hedgerow 7:20 - 7:45

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | D | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | CF |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing 7 | H | Ea. Meadowlark † | P |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | P | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 16

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G 27 **Habitat Type:** Grassland **Time Start:** 6:30 7:00 **Time End:** 6:50 7:20

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Pigeon → Rock Dove | H | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 16

Quality Control: This form is complete ☐ & legible ☐.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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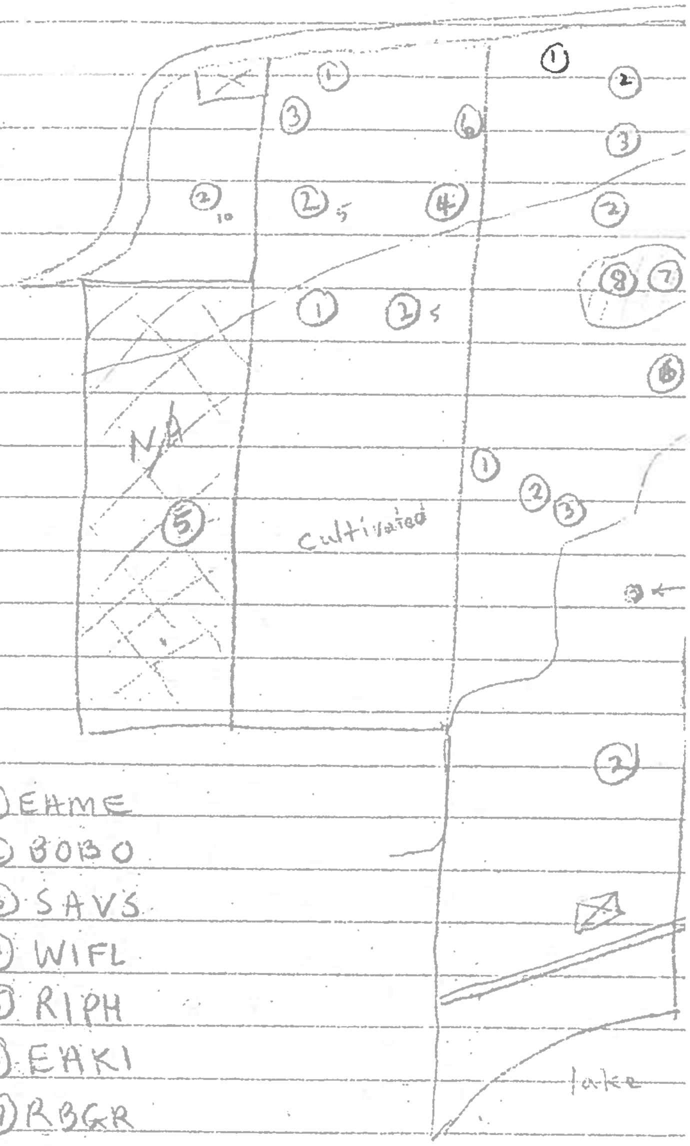
4/9/96 G27, W35



① EAME
② BOBO
③ SAVS
④ WIFL
⑤ RIPH
⑥ EAKI
⑦ RBGR
⑧ EWPE

June 7

**Feature No.:** W-35 **Habitat Type:** Woods **Time Start:** 6:50 **Time End:** 7:00

***Record location of all significant species on site map.***
- some larger trees
- some smaller
- dry upland forest + wet areas.

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ |  |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee | H | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat |  |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren | S | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. | S |
| N. Harrier †‡ |  | No. Flicker † | H | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird |  | Rose-br. Grosbeak † | S |
| Red-tailed Hawk |  | Willow Fly. † |  | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. | S | Br. Thrasher † |  | Bobolink † |  |
| Virginia Rail |  | Ea. Phoebe |  | European Starling | H | Red-winged Bl. |  |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † |  | Blue-wing. Wa. † |  | Co. Grackle |  |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo 1 | S | Yellow Wa. | S | Baltimore Oriole † |  |
| Am. Woodcock |  | Red-eyed Vireo 2 | S | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 10 of 16

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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WS1

Feature No.: unnamed in G28 **Habitat Type:** Woods **Time Start:** 7:20 **Time End:** 7:35

***Record location of all significant species on site map.*** -along N. ditch from G-27 border, eastward

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | N | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 11 of 16

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 7

**Feature No.:** G-26 **Habitat Type:** Grassland **Time Start:** ① 8:30 **Time End:** 9:15
② 9:25 9:30

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose 20 | H | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | AE | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 12 of 16

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Reid
(Field Personnel)

Signature: Kati
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** M4 **Habitat Type:** Marsh **Time Start:** ① 7:49 **Time End:** 8:30

+② 5:00 → 5:45

June 11

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | H | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | FY | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ offshore | x | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ offshore | x | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † flyover | x | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren 5+ | S | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. lots | P |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper along lake | H | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | A | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull offshore/over | x | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | Common Merg 10+ | x |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | Common Moorhen 1 | P |

off sho

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Mute Swan P
Green-winged Teal H
② Ruddy Duck H

② new species for June 11

Pg. 13 of 16

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______________________ (Field Personnel)

Signature: Katrin ______________________ (Project Manager)

REV: 2011-05-27 / FORM 031

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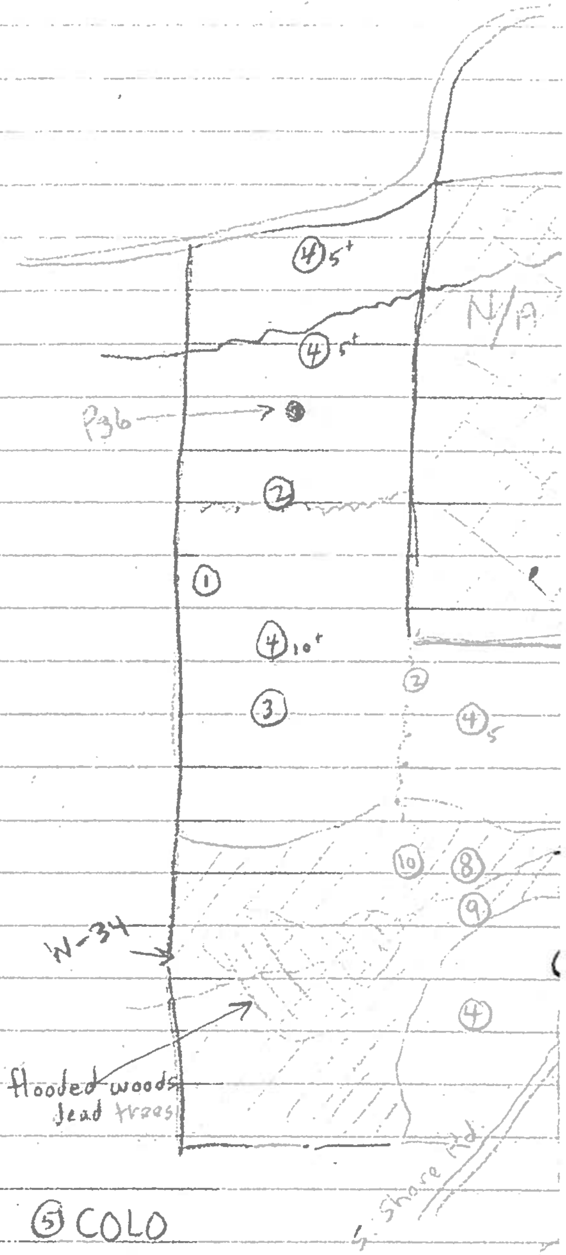

① FAKI
② WIFL
③ SAVS
④ BOBO
⑤ COLO
⑥ DCCO
⑦ BEKI
⑧ BAOR
⑨ EWPE
⑩ NOFL

June

**Feature No.:** W-34 **Habitat Type:** Woods **Time Start:** 9:15 **Time End:** 9:28

-"drowned" section of dead trees
-standing water

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | H | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | AE | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 15 of 16

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W-38 **Habitat Type:** Woods **Time Start:** 9:40 **Time End:** 9:44

***Record location of all significant species on site map.*** - wet swampy
- some drier areas at edge

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | H |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † 2 | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | H | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock 2 | H | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 16 of 16

**Signature:** P Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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## Legend

▬ Study Area

— Road

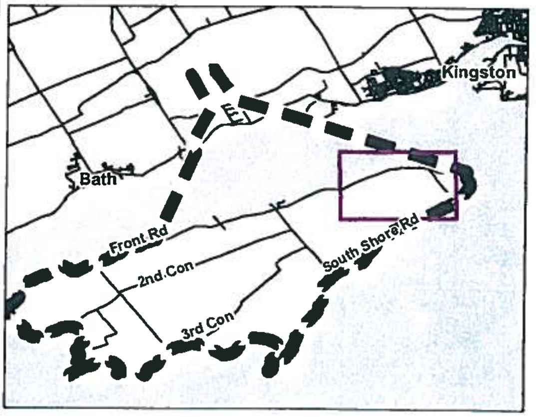
Watercourse

● Amphibian Station

**Property Status**

🟩 Optioned

▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

**FIELD MAPBOOK**

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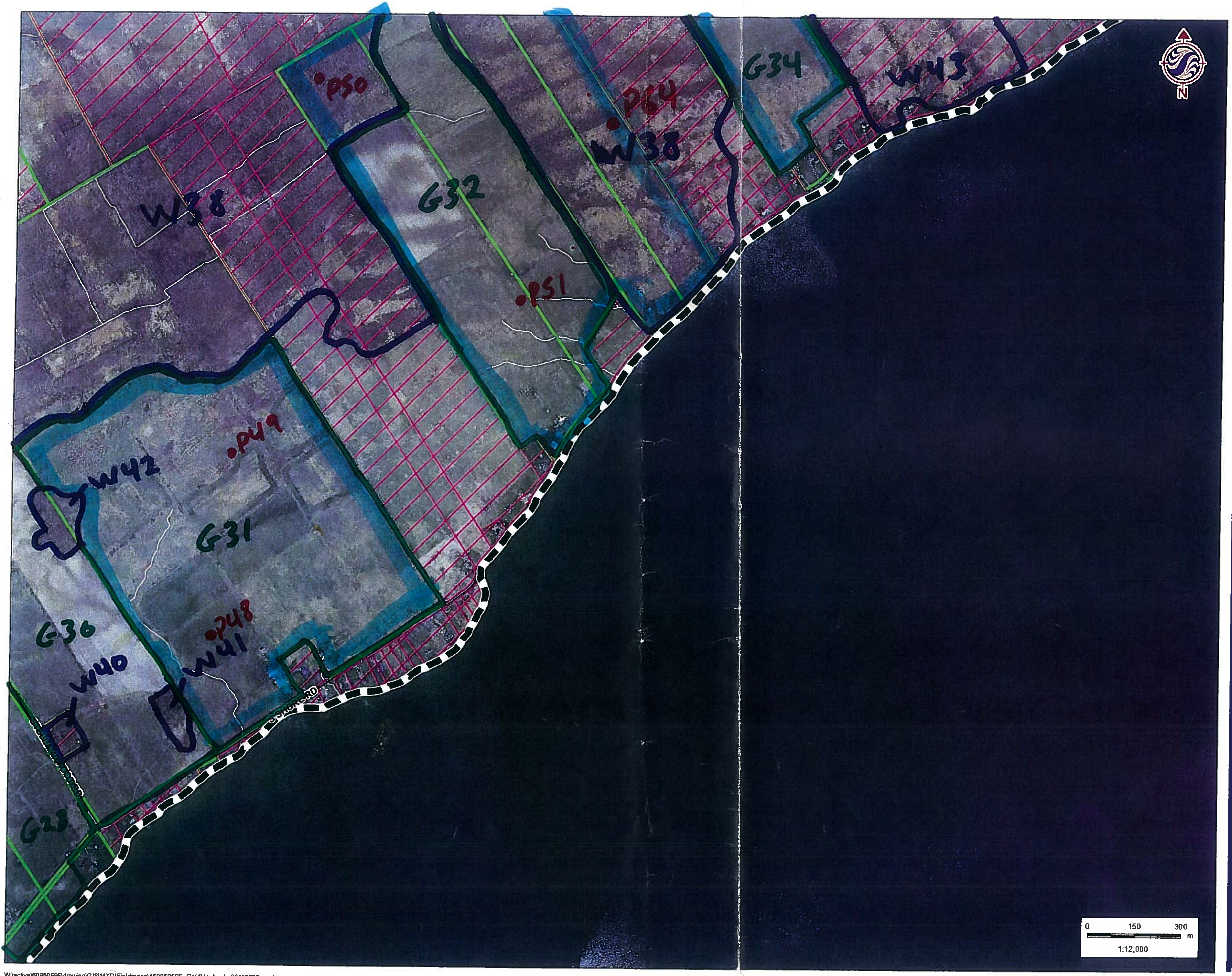
Revised on: 2011-05-27 By: dharvey

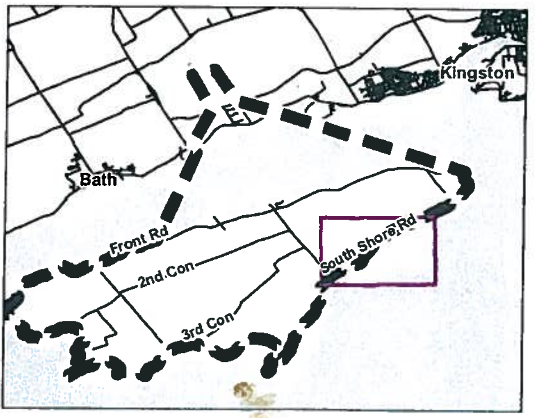


## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 8

Title

# FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595
Project Name: Amherst
Date June 8/2011
Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>14 | Wind:<br>2 5 | Cloud:<br>light fog | PPT:<br>0 | PPT in last 24 hrs:<br>0 |

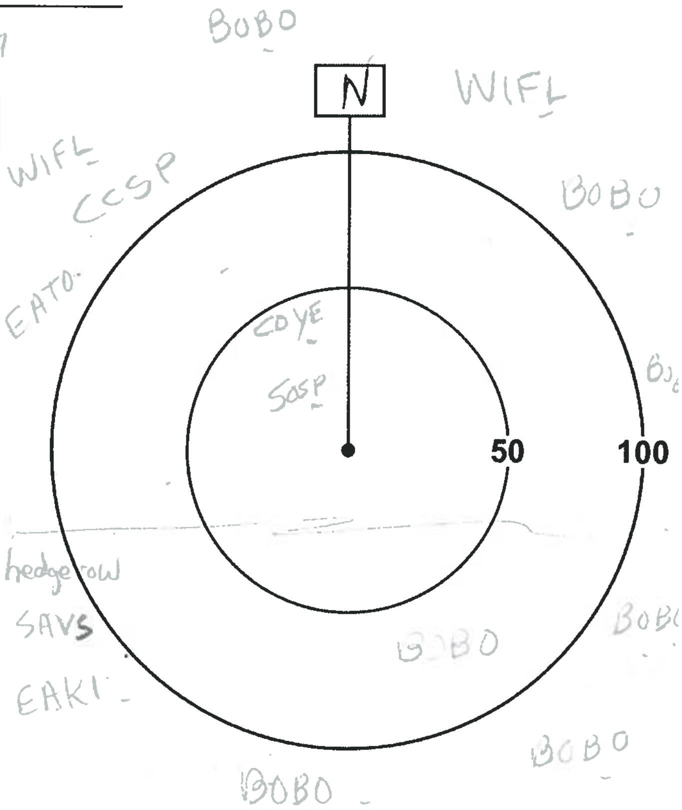
Vis > 300 m

**GPS #: T** 1

**Station:** P 54
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop — some bushes
**UTM:** 367828 4891868 #267
**Start Time:** 5:30

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WIFL | | | 2 | | A |
| CCSP | | | 1 | | A |
| EATO | | | 1 | | A |
| SAVS | | | 1 | | A |
| EAKI | | | 1 | | A |
| BOBO | | 1 | 6 | | A/O |
| SOSP | 1 | | | | A |
| COYE | 1 | | | | A/O |
| | | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)
Signature: P Read (Field Personnel)
Signature: (Project Manager)

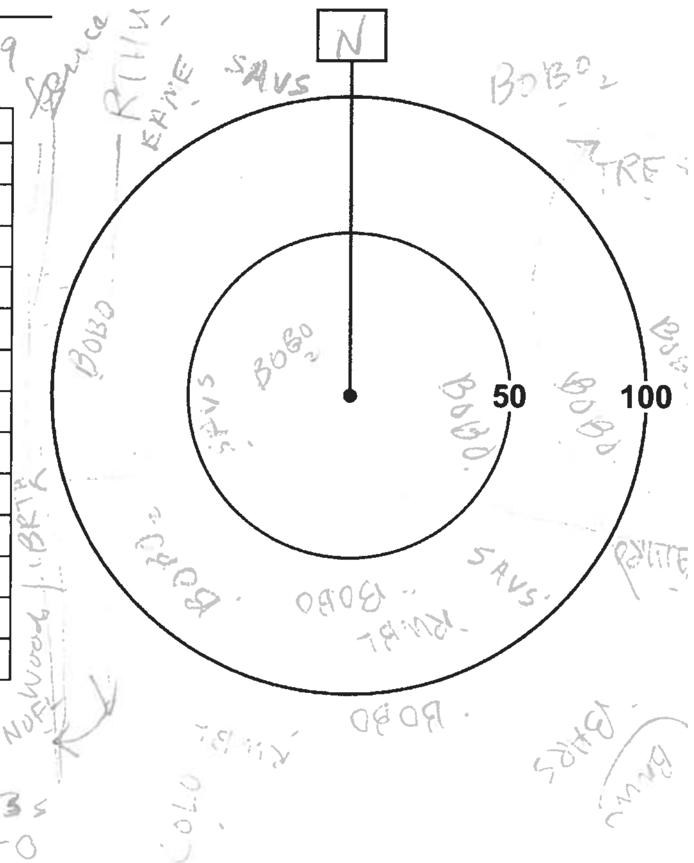
Page 1 of 3

T-16 W-2s C-mist
O above

**Station:** 48
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop
**UTM:** 366137 4889717 #269
**Start Time:** 6:50

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RTHU | | | | 1 | A |
| EAME | | | 1 | | A |
| SAVS | 1 | 1 | 1 | | A/o |
| BOBO | 3 | 5 | 4 | | A/o |
| RWBL | | 1 | 1 | | A |
| COLO | | | 1 | | O |
| AMRO | | | 1 | | A |
| NOFL | | | 1 | | A |
| BRTH | | | 1 | | A |
| BARS | | | 1 | | A |
| TRES | | | 1 | | A |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

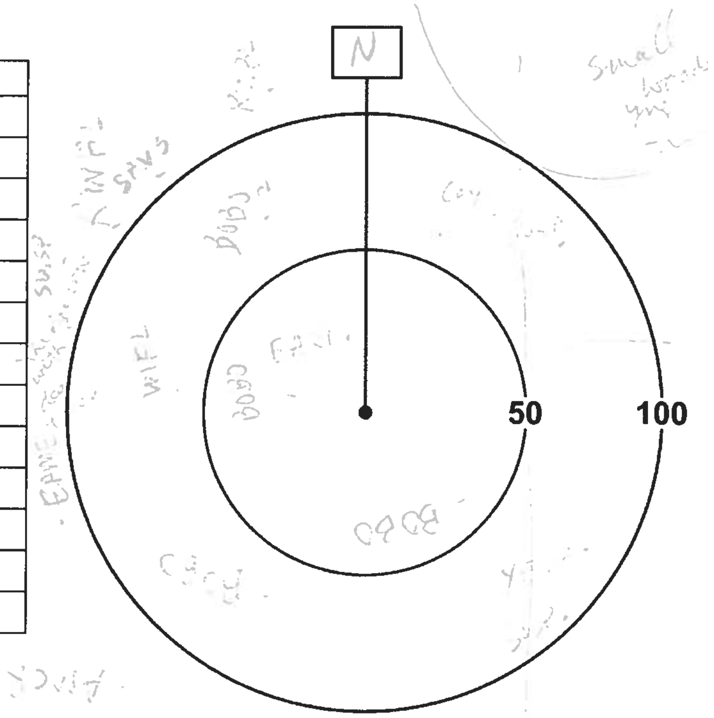


B-2+ T-17 W-3s
C-0

**Station:** 49
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop
**UTM:** 366295 4890363 # 27
**Start Time:** 7:30

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | 2 | | A |
| SAVS | | | 1 | | A |
| SWSP | | | 1 | | A/O |
| EAME | | | 1 | | A |
| AMCR | | | 1 | | A |
| BOBO | 2 | 3 | 4 | | A |
| EPKI | 1 | | | | A |
| WIFL | | 1 | | | A |
| YEWA | | 1 | | | A |
| SOSP | | 2 | | | A |
| COYE | | 1 | | | A/o |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________________ (Field Personnel)
Signature: Katie S (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

June 8

T-17 C-0 W-3.5

**Station:** 51

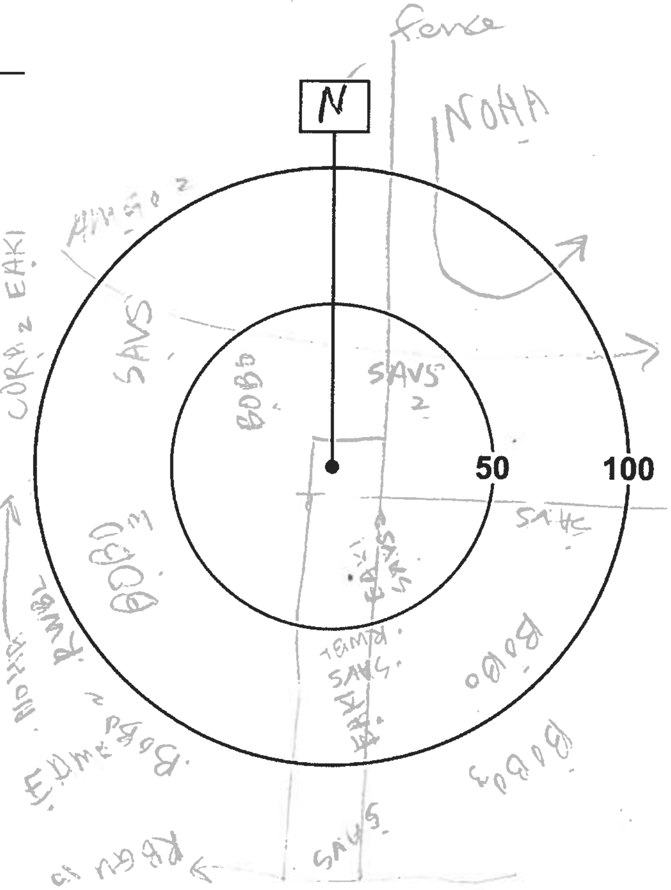
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 367142 4490921 #273

**Start Time:** 8:57

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMGO | | | | 2 | A |
| NOHA | | | | 2 | A |
| CORA | | | 2 | | A |
| EAKI | 1 | 1 | 1 | | A |
| | | | | | |
| EAME | | | 1 | | A |
| RWBL | | 1 | 1 | | A |
| BOBO | 1 | 4 | 5 | | A/2 |
| SAVS | 4 | 3 | 1 | | A/O |
| RBGU | | | 10 | | A |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** 50 closed canopy big trees T-17 C-0 W-1 s

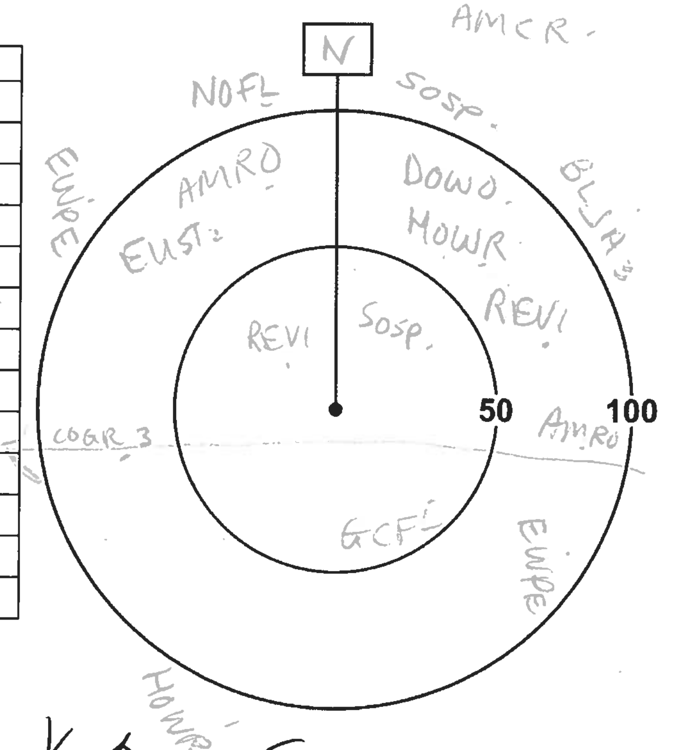
**Habitat:** ☑Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:** 366 466 4391574 # 275

**Start Time:** 9:30

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NOFL | | | 1 | | A |
| EWPE | | 1 | 1 | | A |
| AMRO | | 2 | | | A |
| SOSP | 1 | | 1 | | A |
| BLJA | | | 3 | | A |
| DOWO | | 1 | | | A |
| HOWR | | 1 | 1 | | A |
| REVI | 1 | 1 | | | A |
| COGR | | | | 3 | A |
| GCFL | 1 | | | | A |
| AMCR | | | 1 | | A |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature: Katie G
(Project Manager)

Page 3 of 3

REV: May, 07 Form 020

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160 960 595
Project Name: Amherst
Date: June 8/2011
Field Personnel: Pete Read.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>14 | WIND:<br>2 S | CLOUD:<br>light fog<br>vis > 300m | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No.:** G-34 **Habitat Type:** Grassland **Time Start:** 5:00 **Time End:** 6:30

- some small bushes & trees in part

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | S |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | P | No. Flicker † | X | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | P | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W-43 **Habitat Type:** Woods **Time Start:** W 5:40 **Time End:** 5:50

brushy - west W E 5:50 6:30
brushy - east E

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | M | No. Waterthrush ‡ | |
| R. N. Pheasant | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | S | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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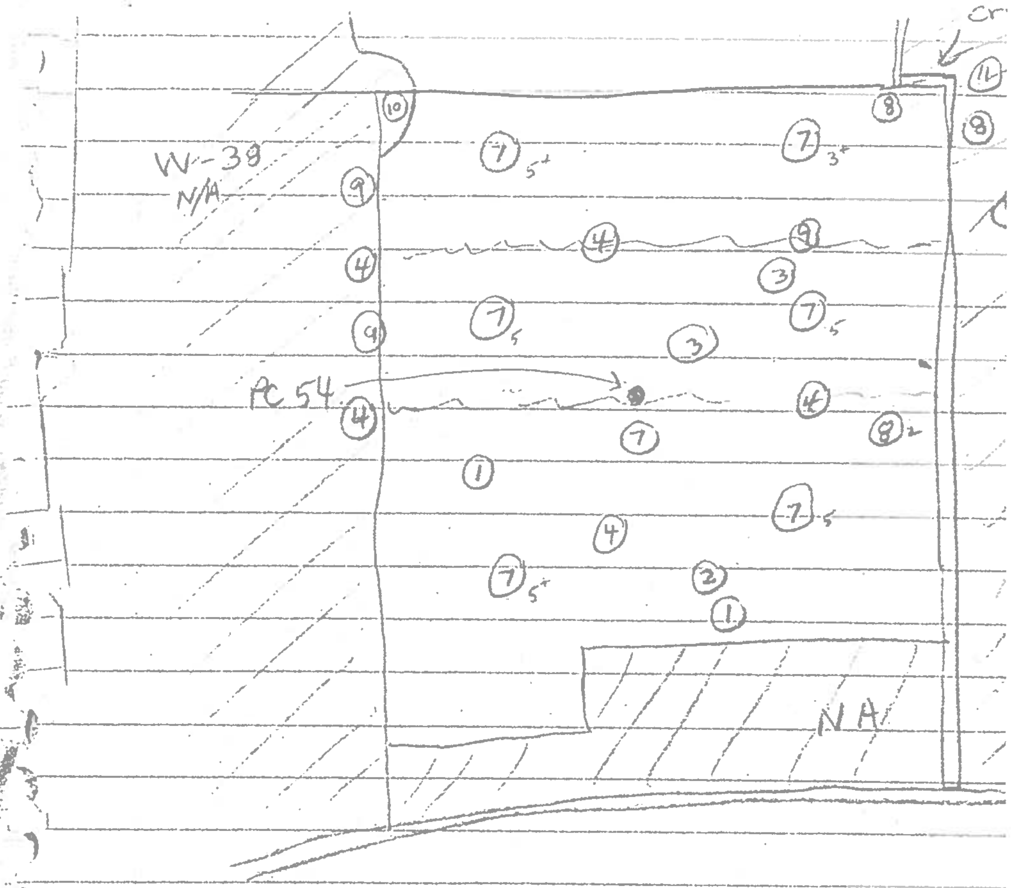
G-34, W43 in part
W38 in part.



① UPSA
② NOHA
③ SAVS
④ WIFL
⑤ RIPH
⑦ BOBO
⑧ EAKI
⑨ EATO
⑩ YBSA
⑪ NOFL

June 8

**Feature No.:** G-31 **Habitat Type:** Grassland. - some area hedgerow + brushy **Time Start:** 6:35 8:05 **Time End:** 7:45 8:35

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | X | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | N | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | P |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | | |
| Mourn. Dove | X | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 9

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W-38 **Habitat Type:** Woods **Time Start:** 7:45 **Time End:** 8:05

***Record location of all significant species on site map.***

- brushy parts } diff.
- wet swampy } habitats
- larger trees

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | P | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | N | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | N | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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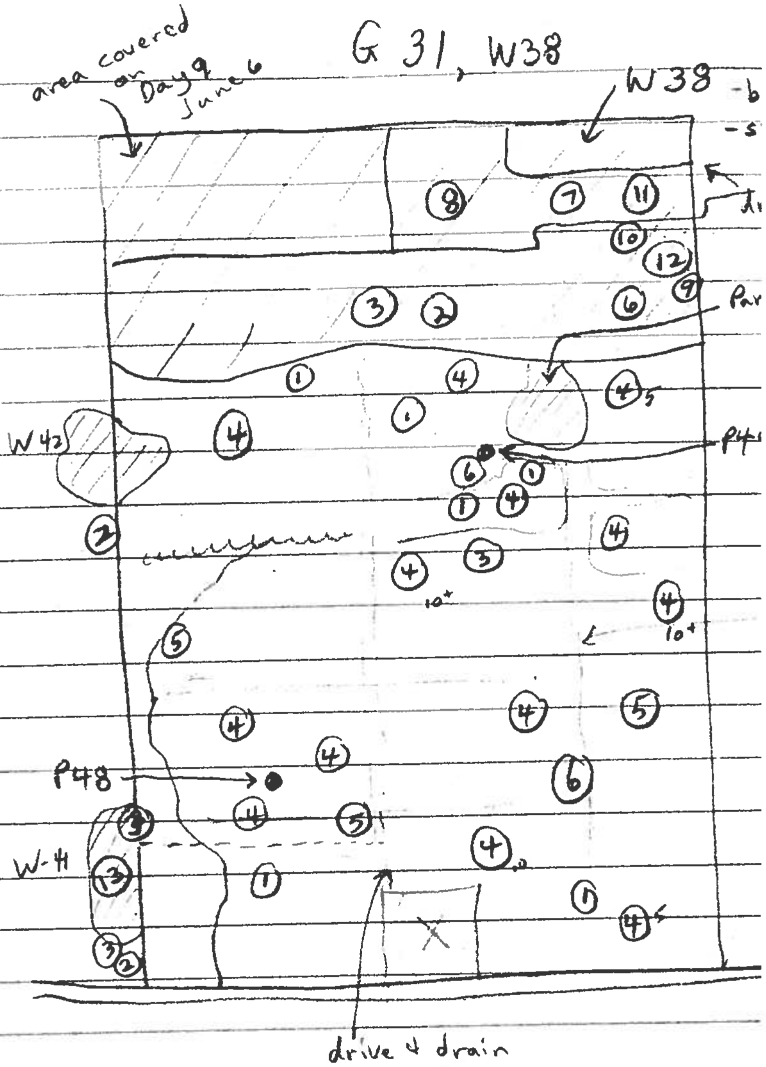
6 of 7

G 31, W38



① SAVS
② BRTH
③ WIFL
④ BOBO
⑤ EAME
⑥ EAKI
⑦ BAOR
⑧ WOTH
⑨ EATO
⑩ EWPE
⑪ RBGR
⑫ AMRE
⑬ NOFL

June 8

**Feature No.:** G-32 **Habitat Type:** Grassland **Time Start:** 8:40 **Time End:** 9:26.

9:49 10:17

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | H | No. Flicker † | X | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | P |
| Killdeer | H | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | H | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | S | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | H | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

**Feature No.:** W-38 **Habitat Type:** Woodlands **Time Start:** 9:10 **Time End:** 9:26

***Record location of all significant species on site map.***
1 - brushy to W 9:26 9:49
2 - closed canopy N
3 - brushy to E 9:53 10:09

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | N | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

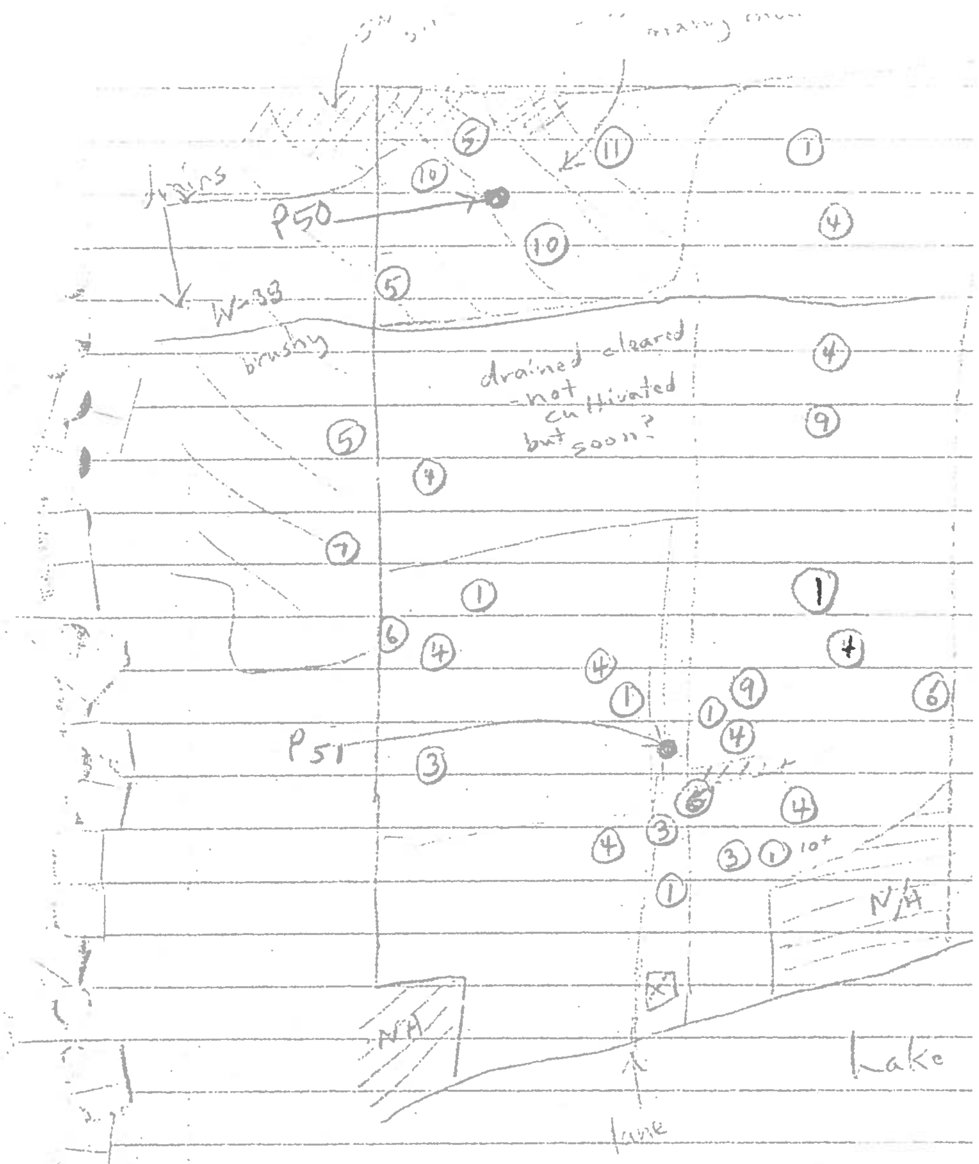
** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:** Kati
(Project Manager)



① BOBO
② UPSA
③ EAME
④ SAVS
⑤ NOFL
⑥ EAKI
⑦ WIFL
⑧ EATO
⑨ NOHA
⑩ EWPE
⑪ WOTH
⑫ BAOR

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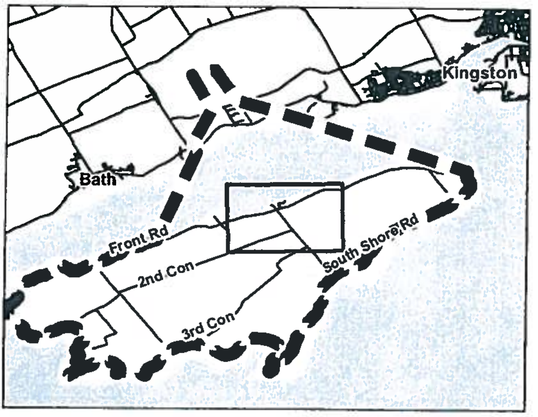
Revised on: 2011-05-27 By: dharvey

## Legend

- ▭ Study Area
- — Road
- Watercourse
- • Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

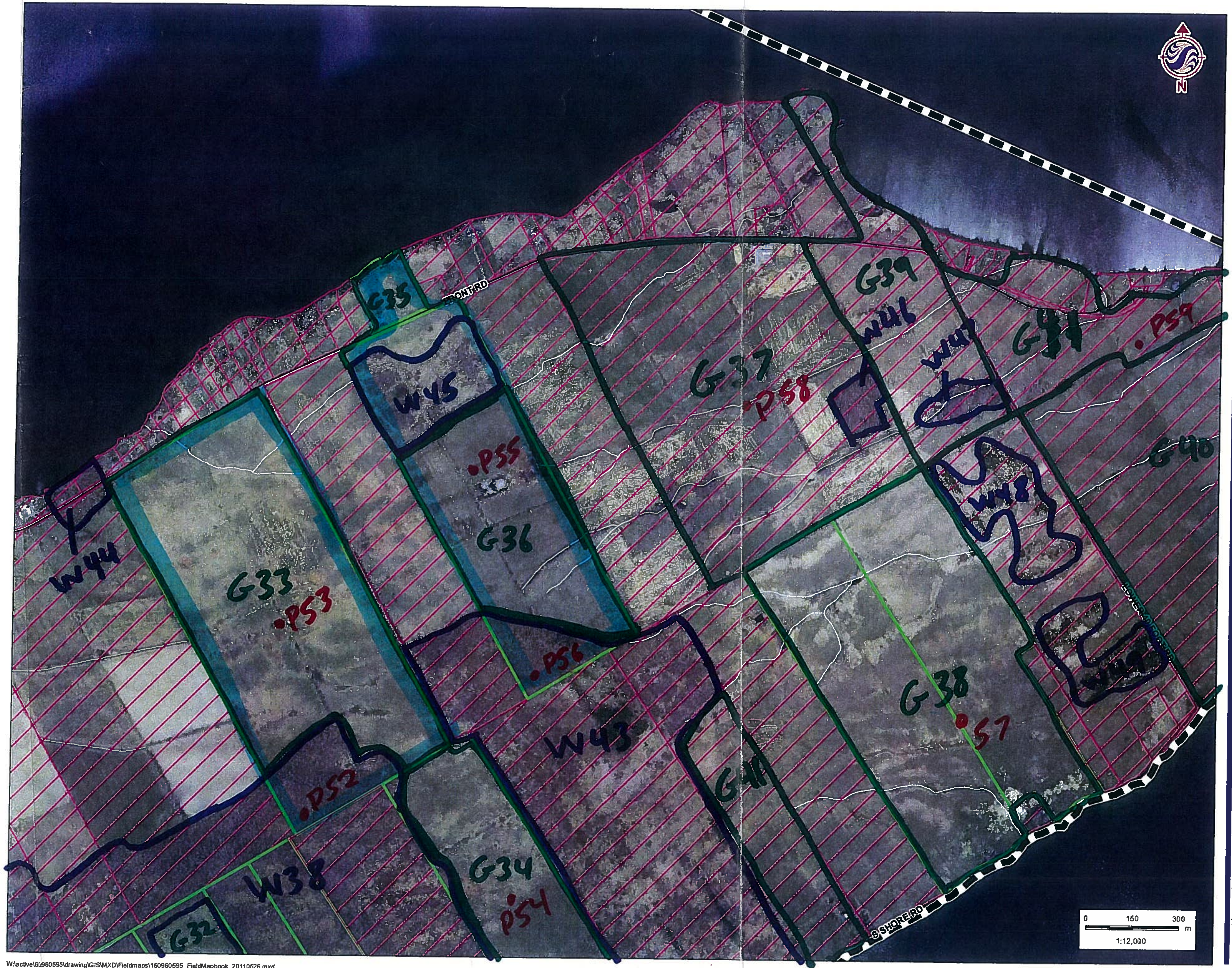
May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 5

Title
## FIELD MAPBOOK

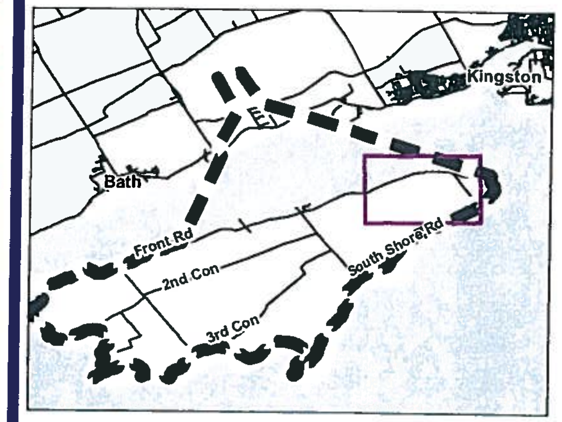


## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

# FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160 960 595

Project Name: Amherst

Date: June 9/2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 15 | WIND: 2 sw | CLOUD: <40 | PPT: 0 | PPT (in last 24 hrs): 1 cm |

**Feature No.:** G 29 **Habitat Type:** Grassland **Time Start:** out ① 5:00 back ② 6:10 **Time End:** 5:30 6:30

***Record location of all significant species on site map.*** *includes hedgerows and some wet spots

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ flyover B | X | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron flyover A | X | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | D |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of ___

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W 38 (pt) **Habitat Type:** Woodland **Time Start:** 5:30 **Time End:** 6:10

***Record location of all significant species on site map.***

-scrubby to more mature
-swampy areas

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | S | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | H | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | S | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird | S | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

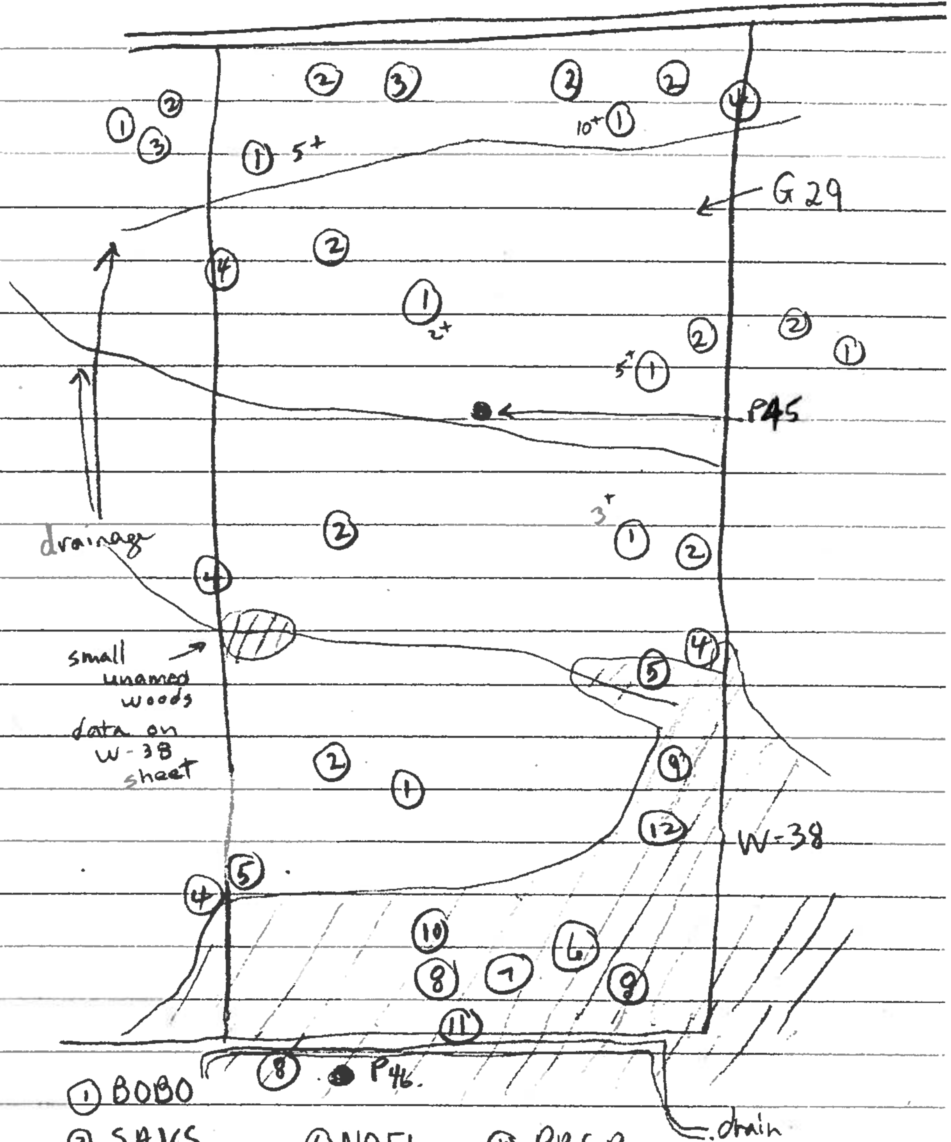
Pg. 2 of 14

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

p 3 of 14 G-29, W-38(pt) ↑



① BOBO
② SAVS
③ EAME
④ EAKI
⑤ WIFL
⑥ NOFL
⑦ BAOR
⑧ EWPE
⑨ EATO
⑩ RBGR
⑪ BBCU
⑫ WIWR

June 9

**Feature No.:** W-44 **Habitat Type:** Woodland **Time Start:** 6:40 / 10:15 **Time End:** 6:45 / 10:25

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 14

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 9

**Feature No.:** G-33 **Habitat Type:** Grassland **Time Start:** ① 6:48 **Time End:** 7:40

***Record location of all significant species on site map.*** - hedgerows included ② 8:05 8:11

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | H | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | H | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | H | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 14

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

GAA-CA Conservation Authority Grasslands June 9

**Feature No.:** CA **Habitat Type:** Grasslands **Time Start:** 6:50 **Time End:** 7:05

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 14

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W-38 (pt) **Habitat Type:** Woodland **Time Start:** 7:40 **Time End:** 8:05

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | P | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | A | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 14

Quality Control: This form is complete ☑ & legible ☑

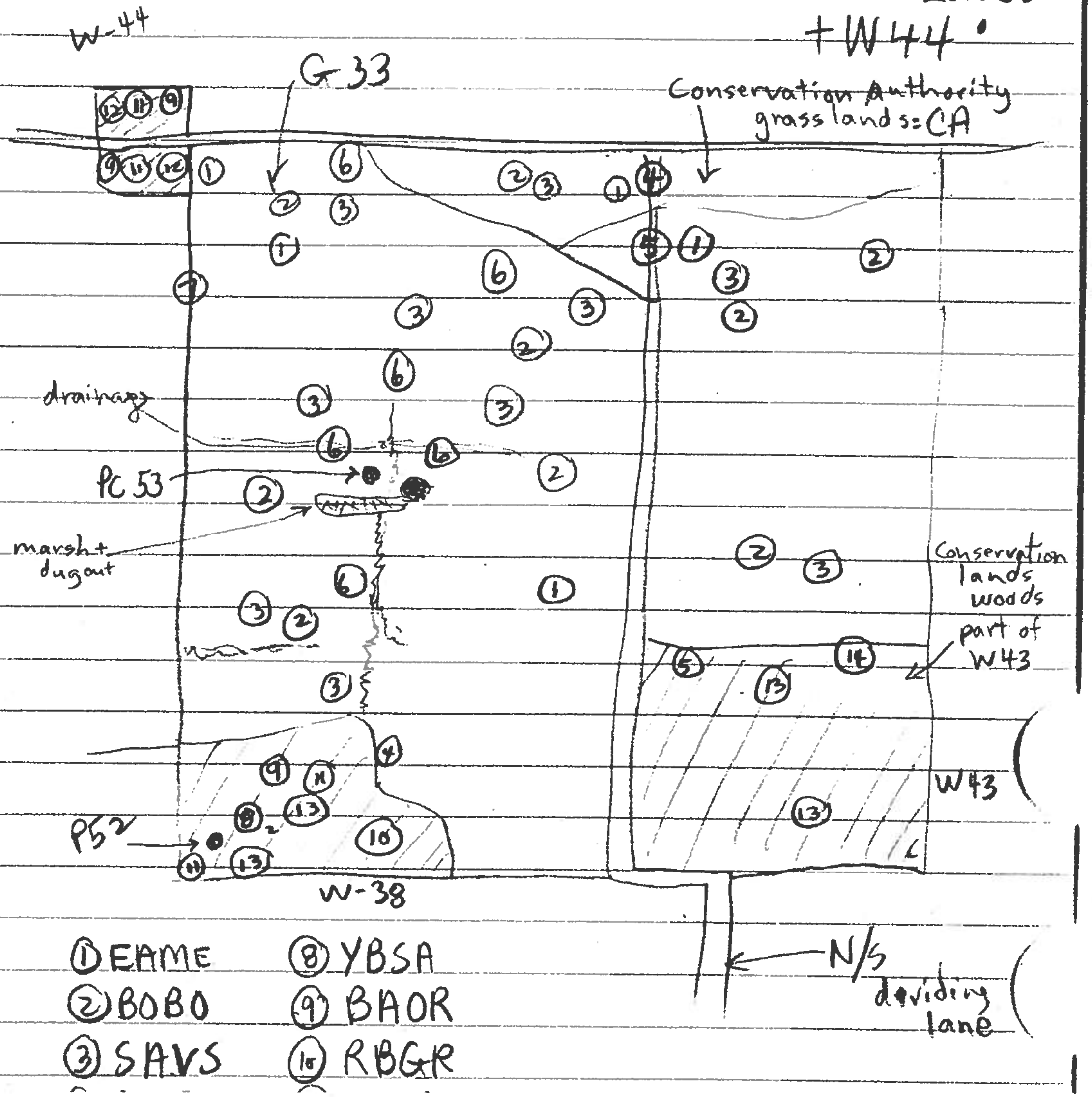
**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

p 8 of 14

G 33, W38 (pt), + Conservation Authority Lands. (CA +W43) +W44.



① EAME
② BOBO
③ SAVS
⑧ YBSA
⑨ BAOR
⑩ RBGR

June 9

Conservation Authority Lands

**Feature No.:** W-43 **Habitat Type:** Woodland **Time Start:** 8:10 **Time End:** 8:20

***Record location of all significant species on site map.*** -brushy dry open canopy

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | H | Red-eyed Vireo | | Chestnut-s. Wa. | S | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 14

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

**Feature No.:** W-43 pt at south of G36 **Habitat Type:** Woodland **Time Start:** 8:20 **Time End:**

-part brushy
-part closed canopy large trees

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | M | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | M | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 10 of 14

Quality Control: This form is complete ☑ & legible ☐

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 9

**Feature No.:** G - 36 **Habitat Type:** Grassland **Time Start:** 8:48 **Time End:** 9:27

***Record location of all significant species on site map.*** with hedgerows + small marsh (M) (open water, cattails, sedges phragmites)

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | D D |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | P |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. M | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. M + elsewhere | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer M | H | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe M | S | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | GWTE M | H |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 11 of 14

Signature: P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 9

**Feature No.:** W-45 **Habitat Type:** Woodlands **Time Start:** 9:27 **Time End:** 9:49

***Record location of all significant species on site map.***

-brushy mostly
-some young tree patches
-includes drain with marsh area (M)

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | GIWTE M | H |
| Mourn. Dove | | No. R. W. Swal. | P | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 12 of 14

Quality Control: This form is complete ☑ & legible ☑

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 9

**Feature No.:** G-35 **Habitat Type:** Grassland **Time Start:** 9:49 **Time End:** 10:06

***Record location of all significant species on site map.*** - 2 sides of road
· N side against lakefront (some trees)

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee trees at lake | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | P |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

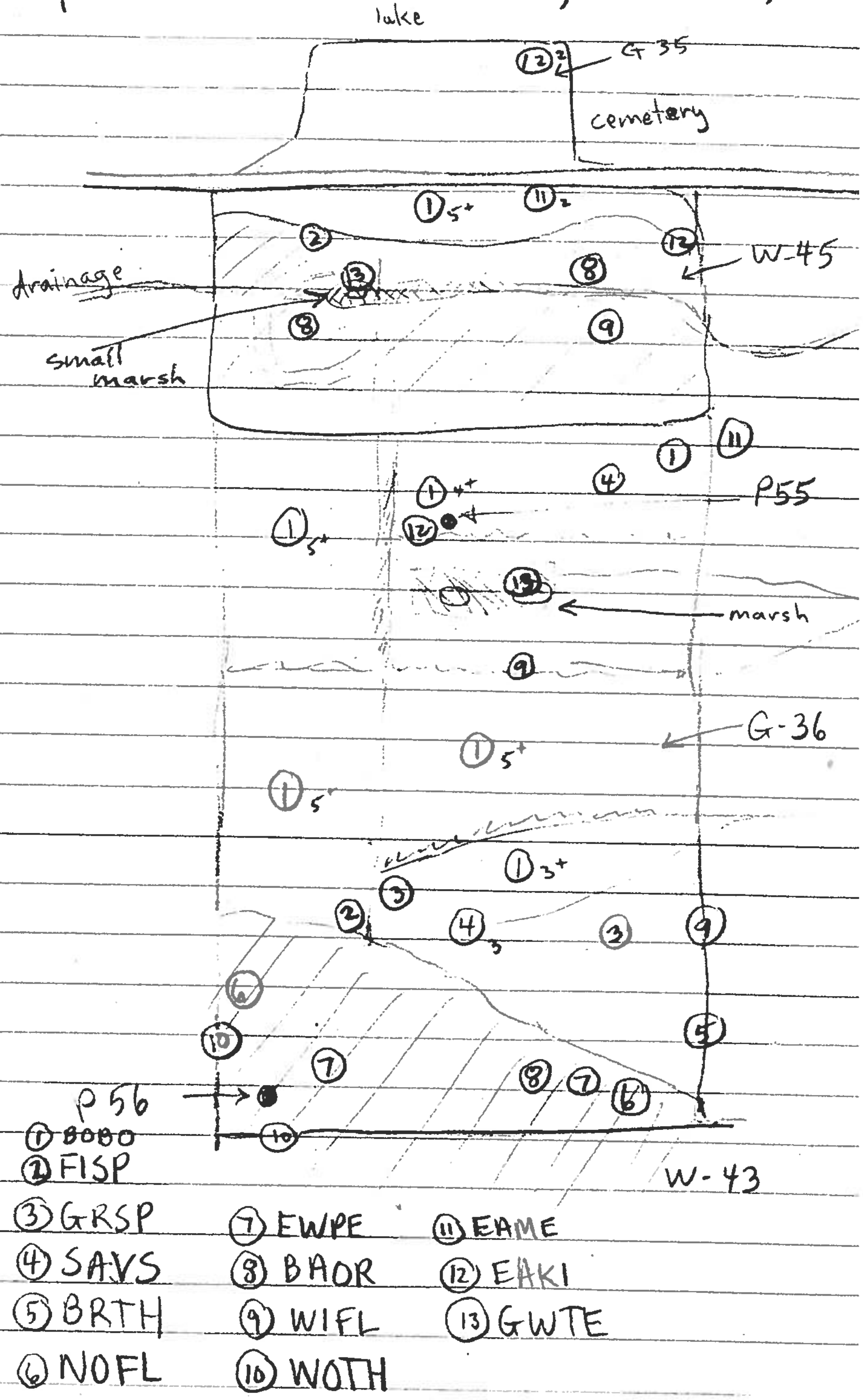
Pg. 13 of 14

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature: Katie
(Project Manager)

p 17 of 14 G 36, W43(i~~pt~~), W45



① BOBO
② FISP
③ GRSP
④ SAVS
⑤ BRTH
⑥ NOFL
⑦ EWPE
⑧ BAOR
⑨ WIFL
⑩ WOTH
⑪ EAME
⑫ EAKI
⑬ GWTE

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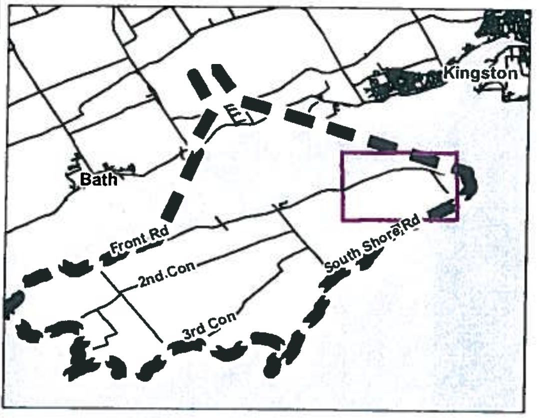
Revised on: 2011-05-27 By: dharvey

## Legend

- ⌐┘ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

FIELD MAPBOOK

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960595
Project Name: Amherst
Date: June10/2016
Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 13 | 2 N | 80% | 0 | .1cm |

**Feature No.:** W-23 **Habitat Type:** Woodlands **Time Start:** 4:55 **Time End:** 5:10

***Record location of all significant species on site map.*** - from roadway.

*map see over

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | D | No. Cardinal | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | S | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ ~~& legible~~ ☐.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W-22 **Habitat Type:** Woodland **Time Start:** ① 5:12 **Time End:** 5:35

- fairly closed canopy

June 10

- includes area to west of W-22

② June 11 9:06 - 9:16

scrubby brush (W) if species only see/found there

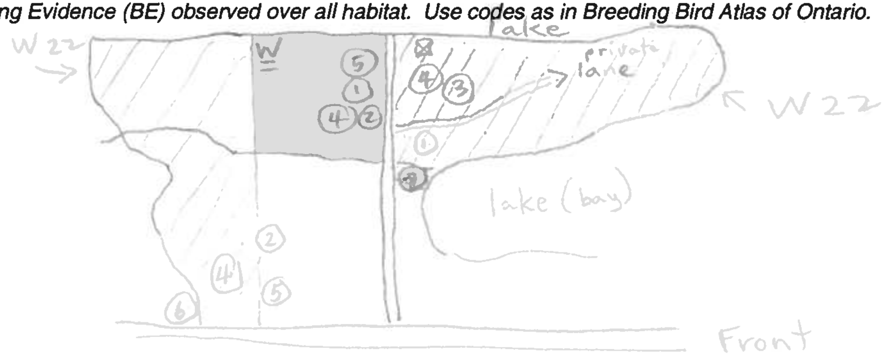
***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ ② | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat W | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † ② E W | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. ② | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. W | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | ~~H~~ S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † W | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † W | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing ② W | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. W | S |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. W | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. W | S | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

① EATO
② BRTH
③ RBGR
④ BAOR
⑤ WIFL
⑥ EAKI
⑦ AMRE



Pg. 2 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160 960 595

Project Name: Amherst

Date: June 10/2011

Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 13 | 2 N | 80% | 0 | <.1 m |

**Feature No.:** G 37 **Habitat Type:** Grassland - scattered bushes, trees, hedgerows **Time Start:** ① 6:00 **Time End:** 6:37
② 7:30 - 7:50

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose in fields | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyover | X | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern flyover | X | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | D |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | P |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | D | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | P | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull in fields | X | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | N |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** G-38 **Habitat Type:** Grassland **Time Start:** ① 6:37 **Time End:** 7:20

***Record location of all significant species on site map.*** ver few scattered bushes ② June 11 9:25 → 9:57

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyby | X | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern flyby | X | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ 3 | FY | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † lots | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper (2) | H | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. (2) | H |
| Upla. Sandpiper ‡ | P | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull in/over field | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow (2) | N |
| Common Tern | | Purple Mart. | H | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. (2) | H | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:** Kertin S
(Project Manager)

REV: 2011-05-27 / FORM 031

June 10

**Feature No.:** W-48 **Habitat Type:** Woodlands **Time Start:** 7:09 **Time End:** 7:15

***Record location of all significant species on site map.*** - plantation mostly evergreens -walking past

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W-47 **Habitat Type:** Woodland -scrubby to more tall trees -walked by- **Time Start:** ① 7:26 ② 7:55 **Time End:** 7:32 8:05

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ |  |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-~~eared~~ Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat |  |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren |  | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. | S |
| N. Harrier †‡ |  | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird |  | Rose-br. Grosbeak † |  |
| Red-tailed Hawk | A | Willow Fly. † | S | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. | S | Br. Thrasher † |  | Bobolink † |  |
| Virginia Rail |  | Ea. Phoebe |  | European Starling | H | Red-winged Bl. | T |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † |  | Blue-wing. Wa. † |  | Co. Grackle |  |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † |  |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Road
(Field Personnel)

**Signature:**
(Project Manager)

June 10

**Feature No.:** W-46 **Habitat Type:** Woodland **Time Start:** 7:30 **Time End:** 7:37

-mature (closed canopy)

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl * | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | S | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | H |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* Mark Ritchie (owner)
had seen 2 there
first week June.

Pg. 7 of 9

Quality Control: This form is complete ☑ ~~& legible ☐~~

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

① 7:37 7:50

**Feature No.:** G - 39 **Habitat Type:** Grassland **Time Start:** ② 7:55 **Time End:** 8:00

June 11 ③ 10:00 - 10:15

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † (3) | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | P | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | P | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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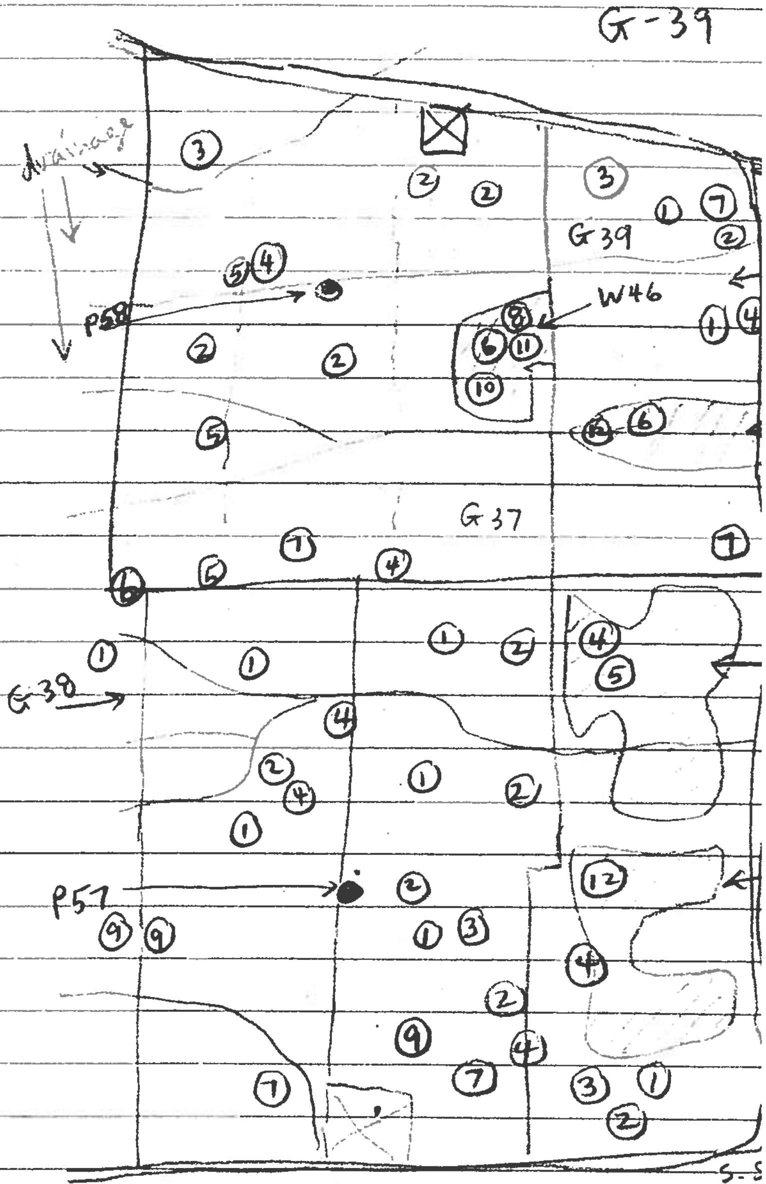
W-47, W

G-39



① BOBO
② SASP
③ EAME
④ EAKI
⑤ BRTH
⑥ EWPE
⑦ UPSA
⑧ NOFL
⑨ NOHA
⑩ BAOR
⑪ RBGR
⑫ WIFL

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595

Project Name: Amherst

Date June 9 / 2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15 | Wind: 2 SW | Cloud: <40 | PPT: 0 | PPT in last 24 hrs: 1 cm |

**GPS #: T** 1

**Station:** P45

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop #278

**UTM:** 365287 4892037

**Start Time:** 5:13

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | 2 | | A |
| BOBO | 1 | 2 | 10 | | A |
| EAME | | | 1 | | A |
| GBHE | | | | 1 | A |
| SAVS | | 1 | 1 | | A |
| EUST | | | 2 | | A |
| BHCO | | | | 1 | A |
| | | | | | |
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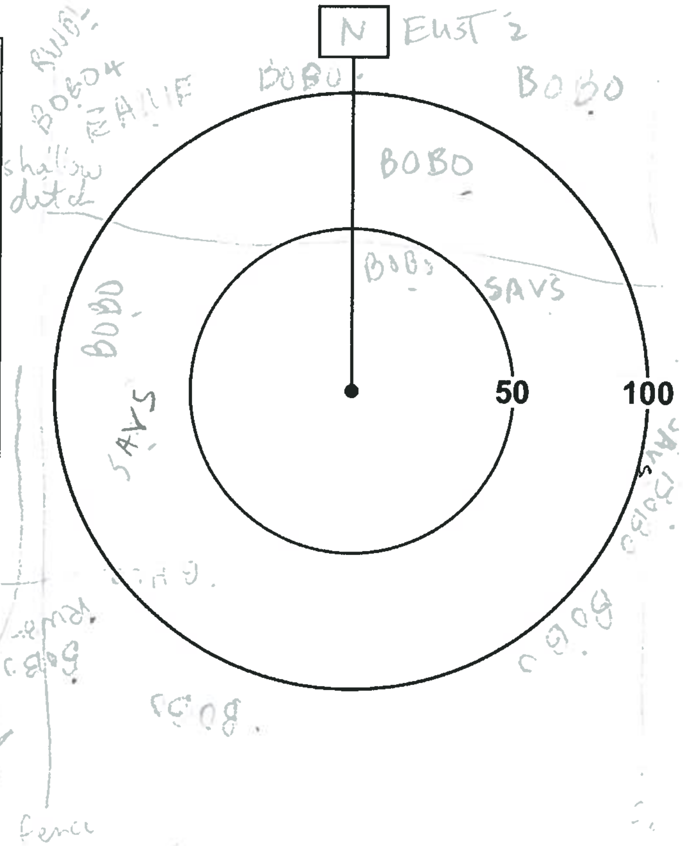


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: P Read (Field Personnel)

Signature: (Project Manager)

Page 1 of 5

REV: May, 07 Form 020

T-16 C-<40% W-2 sw PPT 0

**Station:** P46

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ■Pasture ☐Crop

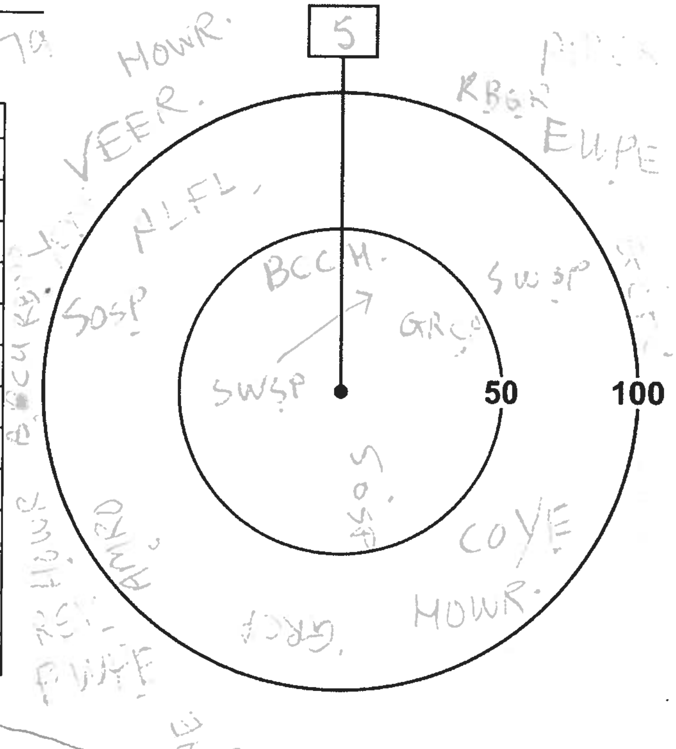
**UTM:** [illegible] #279

**Start Time:** 5:40

continued page

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| HOWR | | 1 | 2 | | A |
| VEER | | | 1 | | A |
| YEWA | | | 1 | | A |
| RBWO | | | 1 | | A |
| BBCU | | | 1 | | A |
| REVI | | | 1 | | A |
| EWPE | | | 2 | | A |
| COYE | | 1 | 1 | | A |
| SOSP | 1 | 1 | | | A |
| GRCA | 1 | 1 | | | A |
| SWSP | 1 | 1 | | | A |
| BCCH | 1 | | | | A |
| ALFL | | 1 | | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



T-17 C-<40% W-1 PPT 0

COYE

**Station:** 53

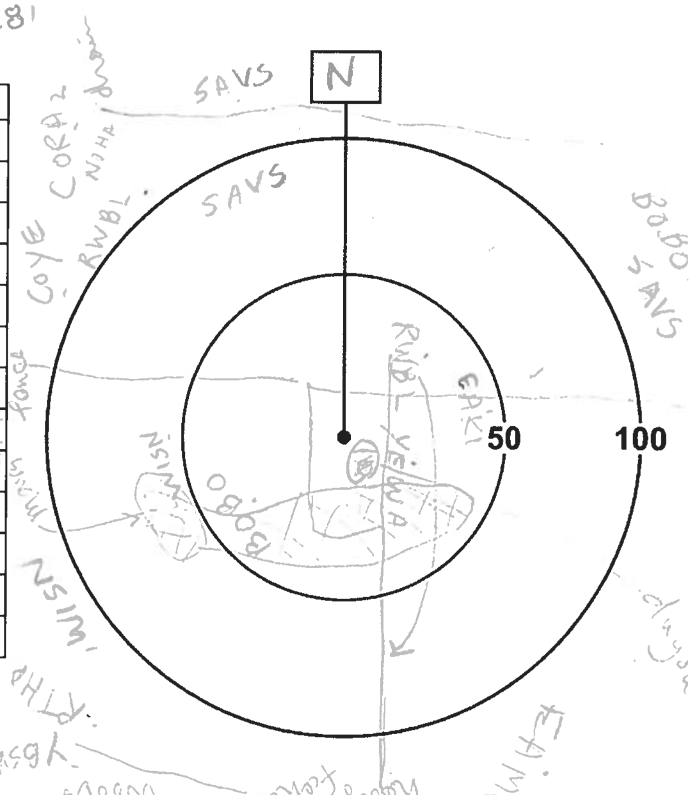
**Habitat:** ☐Forest ☐Swamp ☐Marsh ■Hay ☐Pasture ☐Crop

**UTM:** 367043 4892779 #281

**Start Time:** 7:30

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SAVS | | 1 | 2 | | A/O |
| RWBL | 1 | | 1 | | A |
| COYE | | | 1 | | A |
| YEWA | 1 | | | | A |
| EAKI | 1 | | | | A |
| BOBO | 1 | | 1 | | A |
| WISN | | 1 | 1 | | A |
| RTHA | | | 1 | | A |
| YBSA | | | 1 | | A |
| EAME | | | 1 | | A |
| CORA | | | 2 | | A |
| NOHA | | | 1 | | A |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: P Read
(Field Personnel)

Signature:
(Project Manager)

Page 2 of 5

REV: May, 07 Form 020

June 9

**Station:** P 46

**Habitat:** ☑Forest ☑Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** see page 2 for part.

**Start Time:** 5=40

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGR | | | 1 | | A |
| GCFL | | | 1 | | A |
| AMRO | | 1 | | | A |
| | | | | | |
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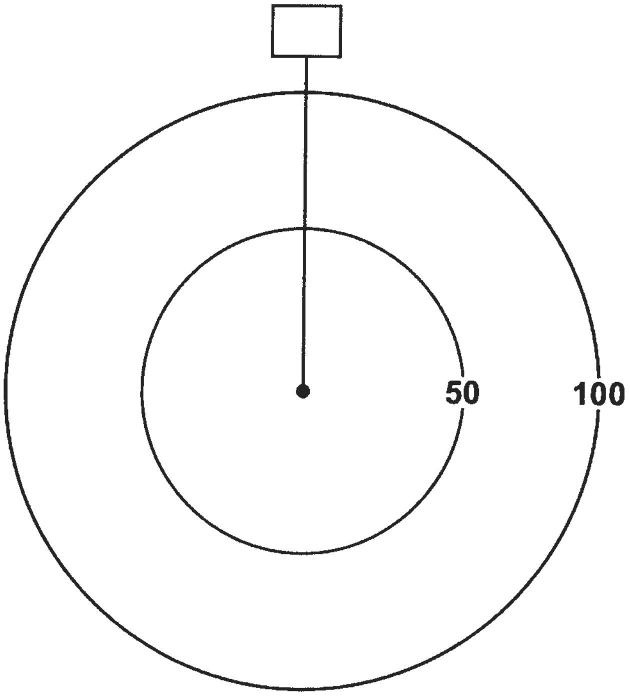

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

**Start Time:** ________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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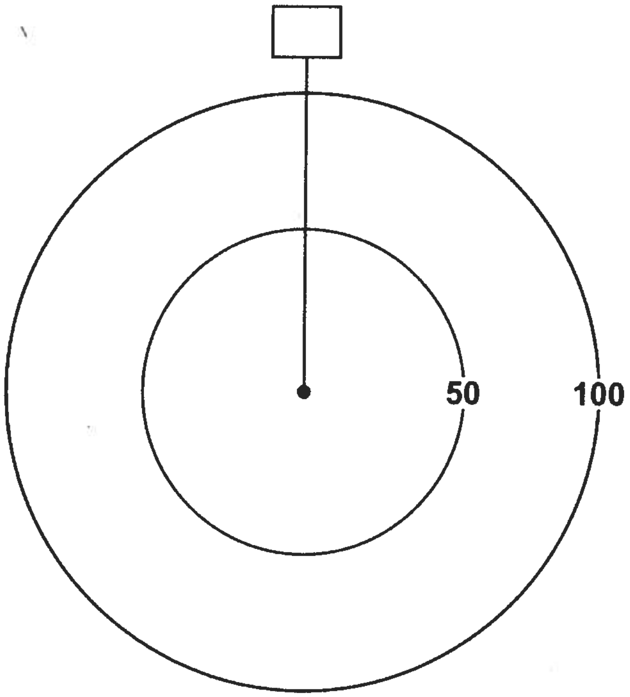


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature: Kati S
(Project Manager)

Page 3 of 5

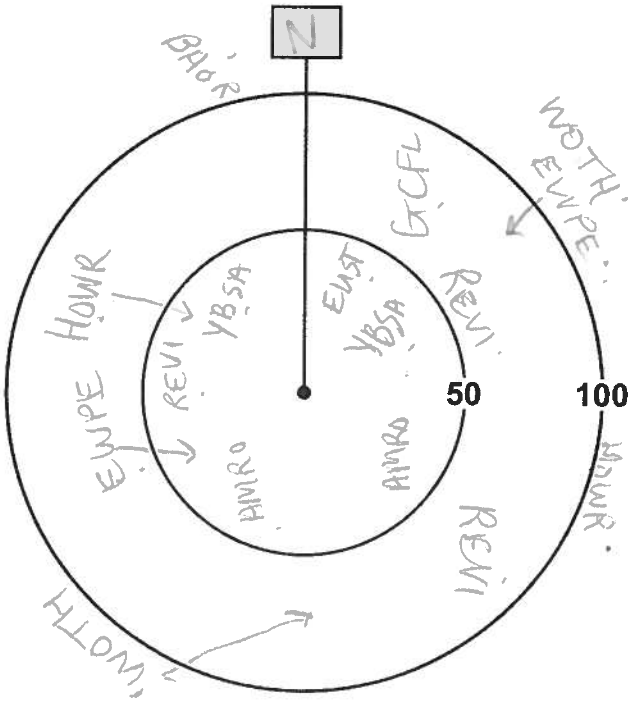
REV: May, 07 Form 020

June 9

T-18 C - <30% W - 1 sw PPT - 0

**Station:** 52
**Habitat:** ☑Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** 367116 4892174 #282
**Start Time:** 7:45 -

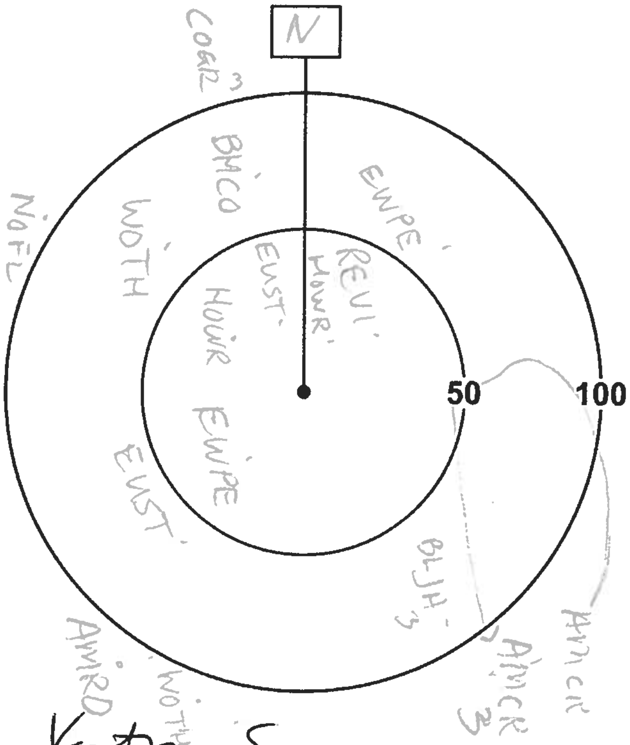
| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BAOR | | | 1 | | A |
| WOTH | | 1 | 1 | | A |
| EWPE | 1 | 1 | | | A |
| HOWR | | 1 | 1 | | A |
| YBSA | 2 | | | | A |
| EUST | 1 | | | | A |
| REVI | 1 | 2 | | | A |
| GCFL | | 1 | | | A |
| AMRO | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** 56
**Habitat:** ☑Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** 367816 4892589 #283
**Start Time:** 8:25

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | | 3 | | A/O |
| BHCO | | 1 | | | A |
| WOTH | | 1 | 1 | | A |
| NOFL | | | 1 | | A |
| EWPE | 1 | 1 | | | A |
| HOWR | 2 | | | | A |
| EUST | 1 | 1 | | | A |
| BLJA | | 3 | | | A |
| AMCR | 1 | | 3 | | A |
| AMRO | | | 1 | | A |
| REVI | 1 | | | | A |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete (✓) & legible ( ).
Signature: R. Read
(Field Personnel)
Signature: ____________
(Project Manager)

Page 4 of 5

REV: May, 07 Form 020

T-18 C-<30% W-2 S PPT-0

**Station:** P55

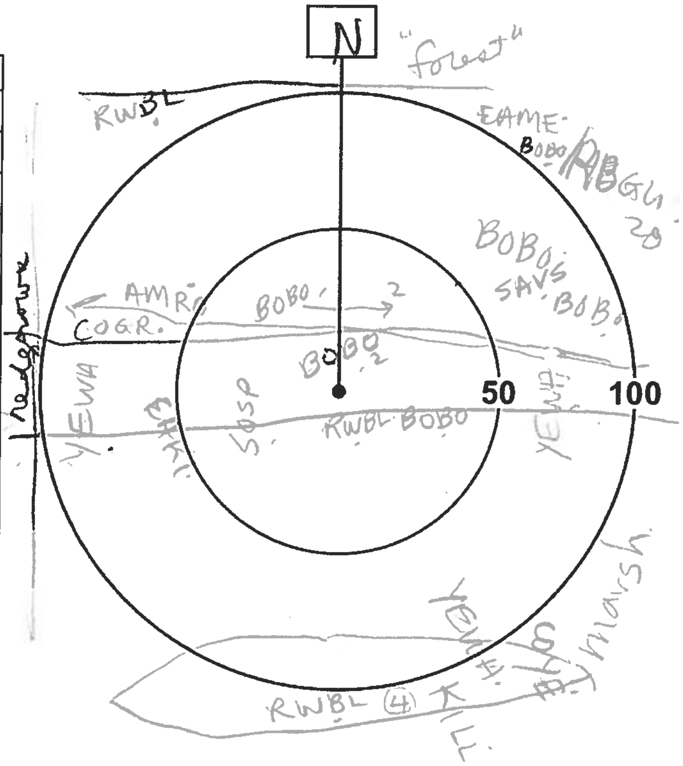
**Habitat:** ☐Forest ☐Swamp ☑Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 367713 4893283 #285

**Start Time:** 9:15

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | 1 | | 5 | | A |
| AMRO | | | | 1 | A |
| COGR | | | | 1 | A |
| YEWA | | 3 | | | A |
| EAKI | | 1 | | | A |
| BOBO | 5 | 2 | 1 | | A/O |
| SOSP | 1 | | | | A |
| SAVS | | 1 | | | O |
| COYE | | | 1 | | A |
| KILL | | | 1 | | A |
| RBGU | | | 20 | | O |
| EAME | | | 1 | | A |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:**

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:**

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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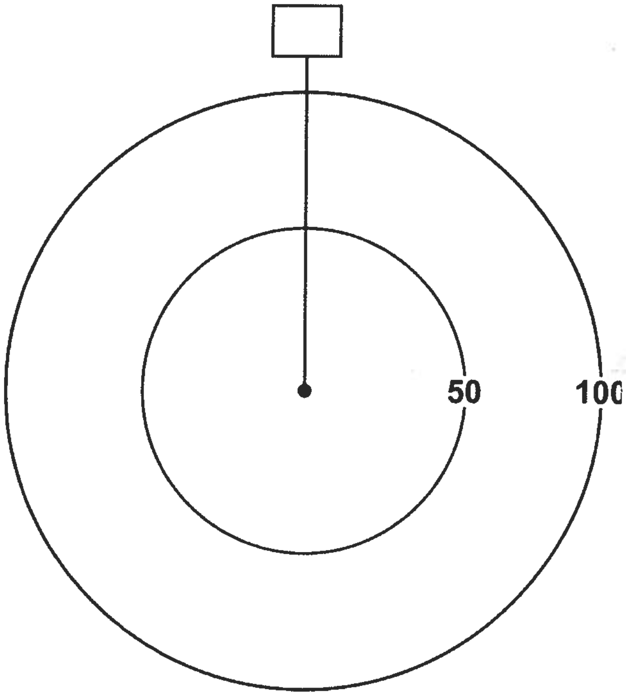
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: P Read
(Field Personnel)

Signature: Katie
(Project Manager)

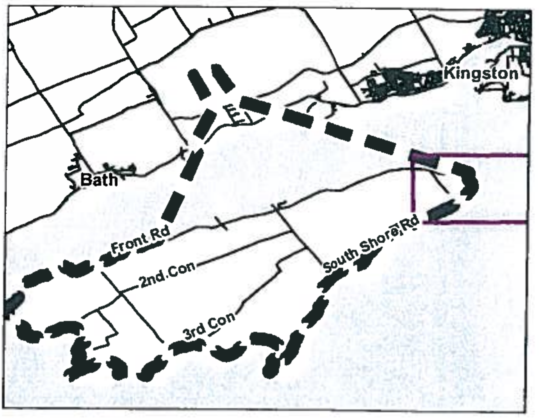
Page 5 of 5

## Legend

▙ Study Area
— Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 10

Title

**FIELD MAPBOOK**

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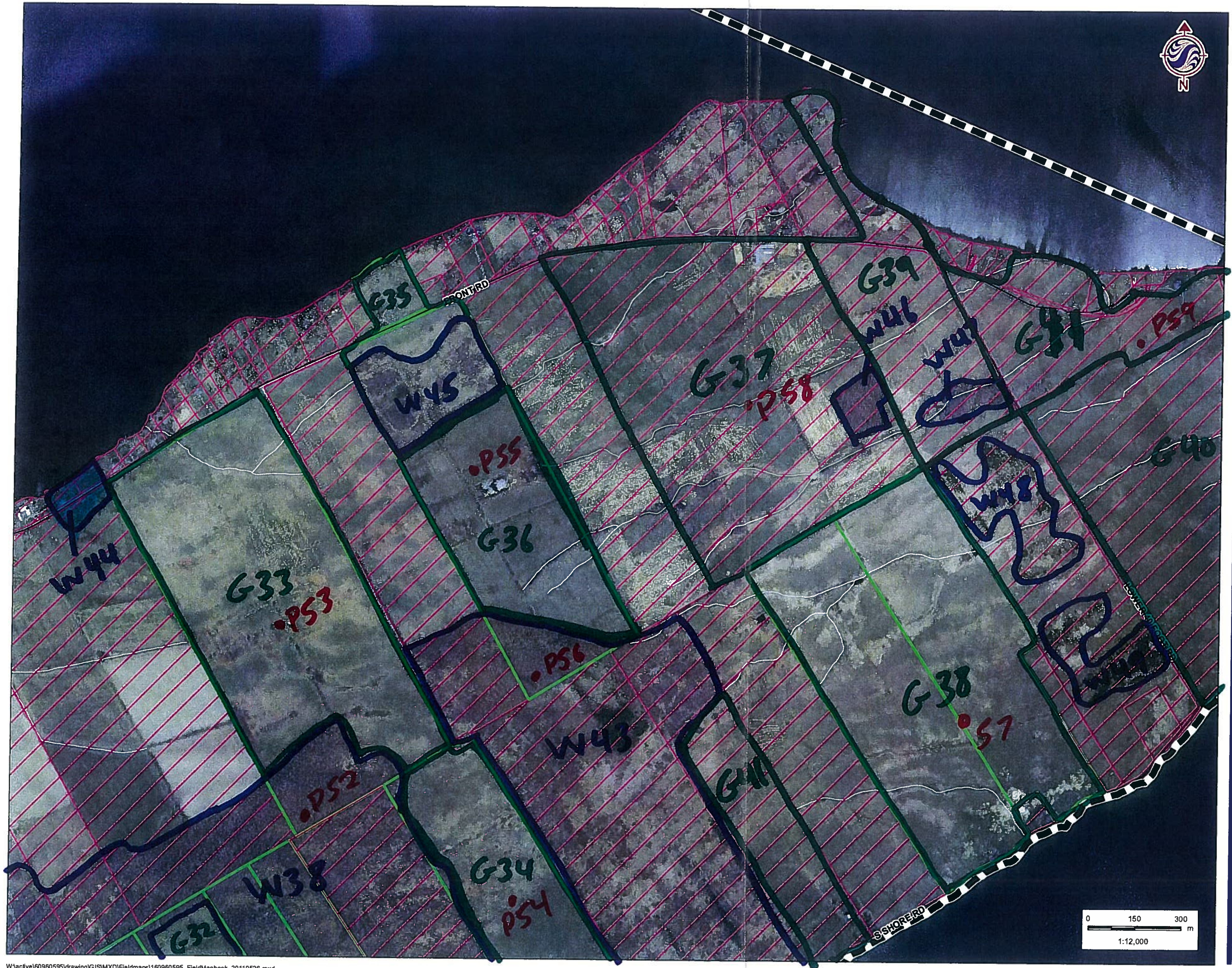
Revised on: 2011-05-27 By: dharvey



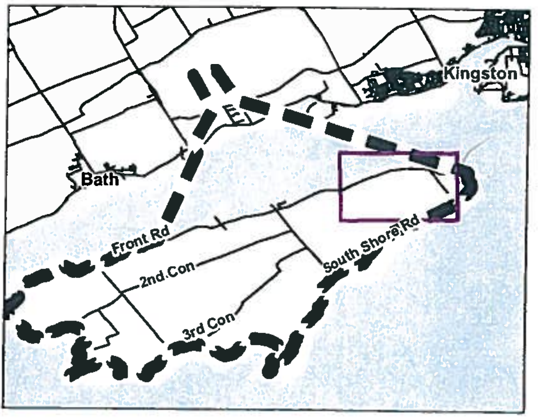
W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

## Legend

- ▚ Study Area
- — Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 9

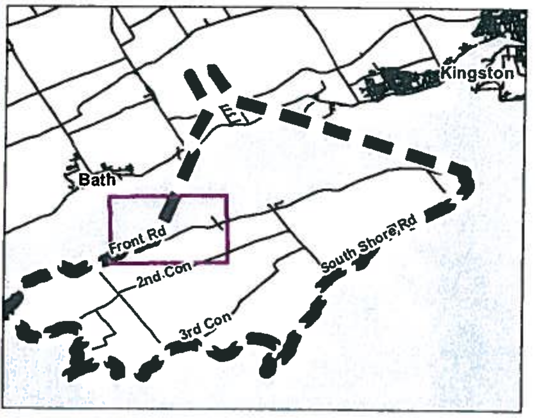
Title
FIELD MAPBOOK

## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 4

Title

## FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595

Project Name: Amherst

Date June 10/2011

Field Personnel: Pete Read

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 16 | 2-3 NE | 100% | 0 | <.1cm |

**GPS #: T**-1

**Station:** P59

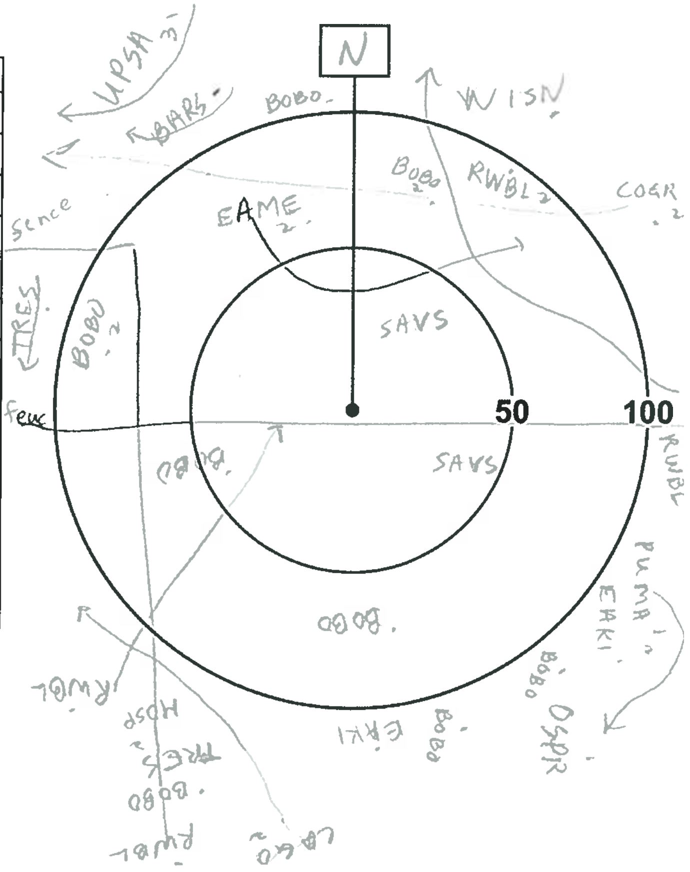
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 369845 4893620 #291

**Start Time:** 8:30

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| UPSA | | | | 3 | A |
| BARS | | | | 1 | A |
| BOBO | 1 | 5 | 4 | | A |
| EAME | 2 | | | | A |
| TRES | | | 2 | 1 | A |
| WISN | | | | 1 | A |
| COGR | | | | 2 | A |
| SAVS | 2 | | | | A/O |
| RWBL | 1 | 2 | 1 | 1 | A |
| EAKI | | | 2 | | A |
| OSPR | | | 1 | | A |
| PUMA | | | | 2 | A |
| HOSP | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

T-19 C-

**Station:** 60

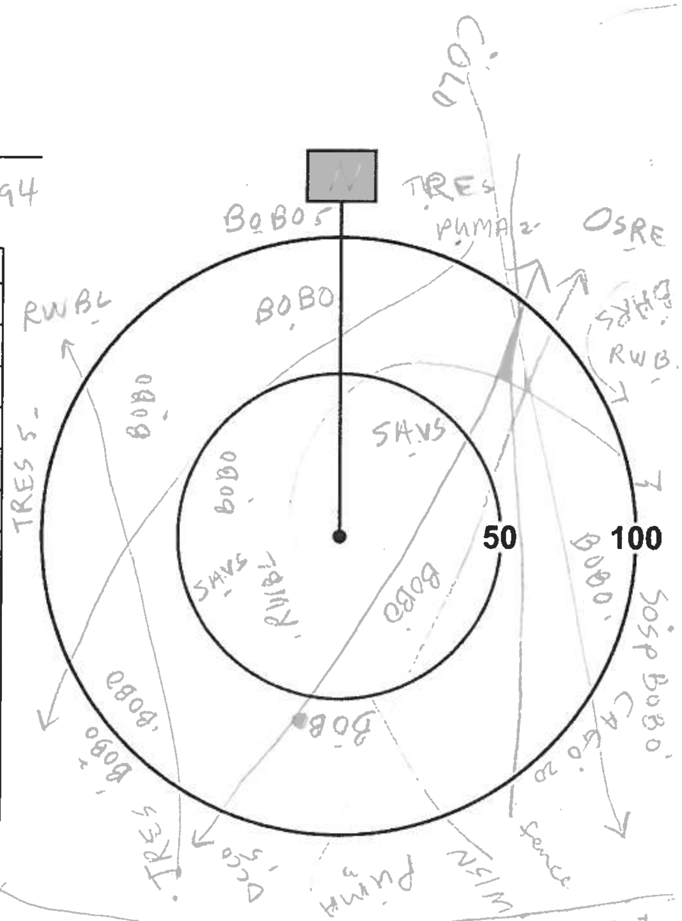
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** 370157 4892939 #294

**Start Time:** 9:20

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COLO | | | | 1 | A |
| TRES | | | 6 | 1 | A |
| OSPR | | | 1 | | A |
| PUMA | | | | 5 | A |
| RWBL | 1 | | 2 | | A |
| DCCO | | | | 5 | A |
| SAVS | 2 | | | | A/O |
| SOSP | | | 1 | | A |
| BARS | | | | 1 | A |
| WISN | | | | 1 | A |
| BOBO | 2 | 5 | 8 | | A |
| CAGO | | | 20 | | O |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** 61 grassy marsh with some open water

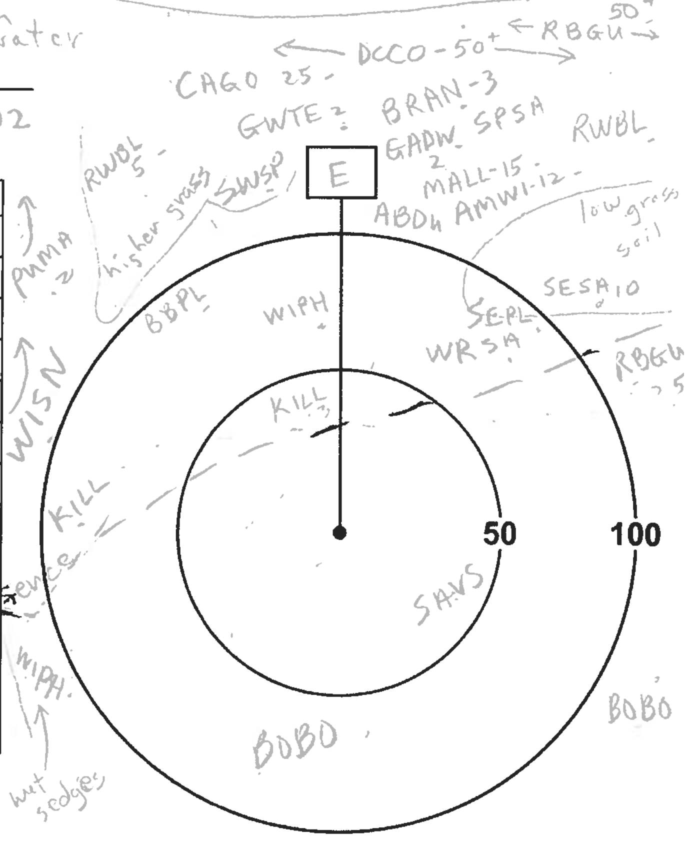
**Habitat:** ☐Forest ☐Swamp ☑Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** 370354 4893108 #302

**Start Time:** 9:57

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| CAGO | | | 25 | | O |
| GWTE | | | 2 | | O |
| BRAN | | | 3 | | O |
| GADW | | | 2 | | O |
| MALL | | | 15 | | O |
| SWSP | | | 1 | | O |
| RWBL | | | 6 | | A |
| PUMA | | | | 2 | A |
| WISN | | | | 1 | A |
| BBPL | | 1 | | | O |
| WIPH | | 1 | 1 | | O |
| KILL | 3 | 1 | | | O |
| WRSA | | 1 | | | O |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



more on next page

Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature: K
(Project Manager)

Page 2 of 3

REV: May, 07 Form 020

June 10/2011

**Station:** 61
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** see other sheet p 2

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SESA | | | 10 | | O |
| SEPL | | | 1 | | O |
| RBGU | | | 25 | 50+ | O/A |
| DCCO | | | | 50+ | A |
| BOBO | | 1 | 1 | | A |
| SAVS | 1 | | | | O |
| TRES | | | | 5+ | A |
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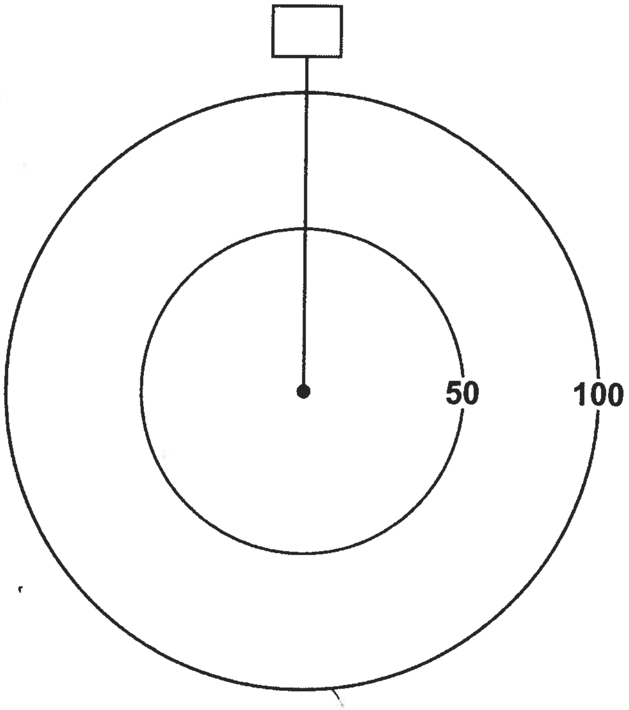

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**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** ____
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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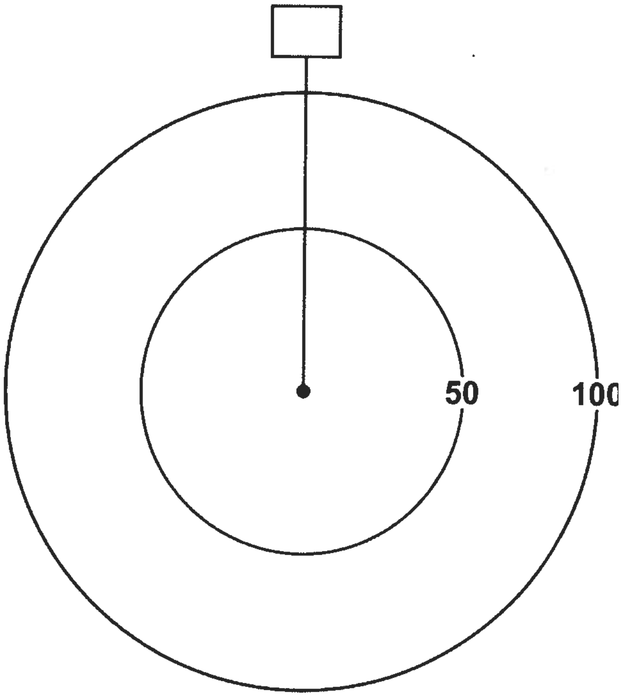


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: P. Read
(Field Personnel)
Signature: ____________
(Project Manager)

Page 3 of 3

REV: May, 07 Form 020

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960595

Project Name: Amherst

Date June 10/2011

Field Personnel: Pete Read

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 13 | 2 N | 80% | 0 | <.1 mm |

**GPS #: T** 1

**Station:** 58 Some

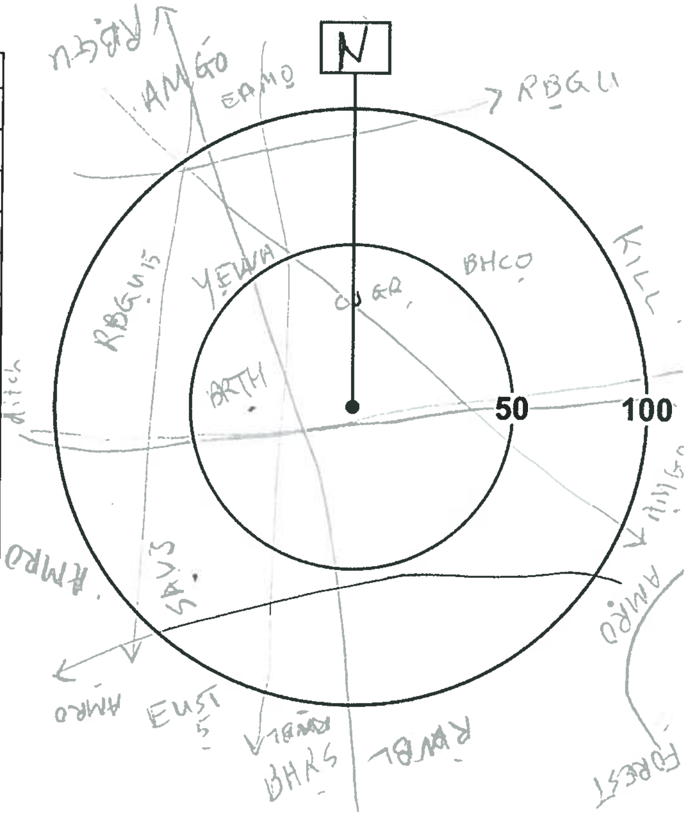
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☑Hay ☑Pasture ☐Crop

**UTM:** 368 577 4893492 #287

**Start Time:** 6:07

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGU | | 15 | | 2 | A/O |
| AMRO | | | 1 | 1 | A |
| BRTH | 1 | | | | A |
| YEWA | | 1 | | | A |
| AMGO | | | | 2 | A |
| COGR | 1 | | | | A |
| BHCO | | 1 | | | A |
| KILL | | | 1 | | A |
| EUST | | | 5 | | A |
| BARS | | | | 1 | A |
| RWBL | | | 2 | | A |
| SAVS | | 1 | | | A |
| EAME | | | 1 | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible ( ).

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 2

REV: May, 07 Form 020

**Station:** 57

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

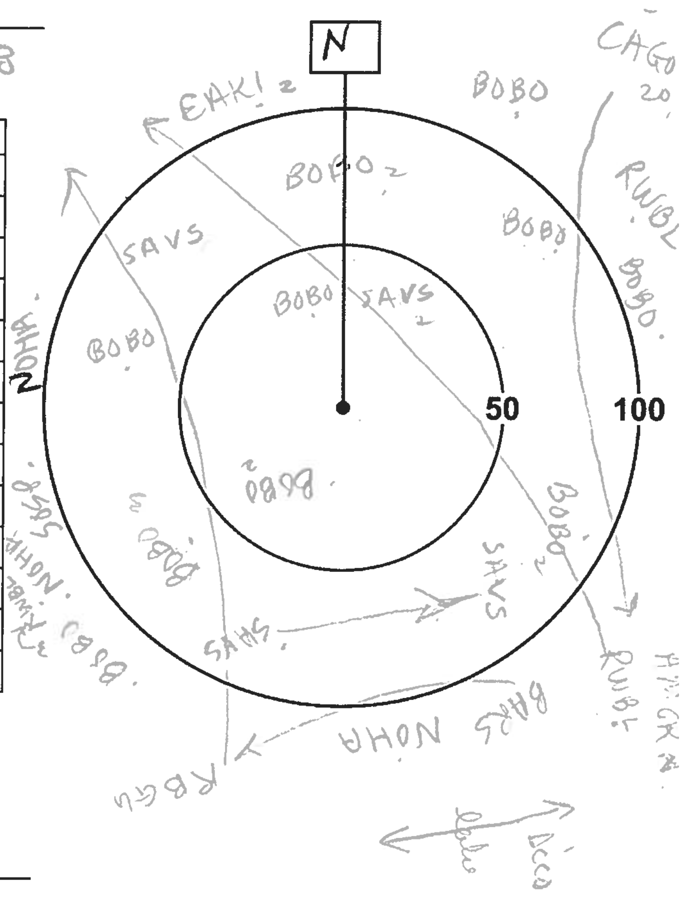
**UTM:** 369165 4892640 #288

**Start Time:** 6:52

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAKI | | | 2 | | A |
| RWBL | | | 4 | 1 | A |
| BOBO | 3 | 9 | 3 | | A |
| SAVS | 2 | 2 | | | A/O |
| BARS | | | | 1 | A |
| NOHA | | | 3 | | A |
| CAGO | | | | 20 | A |
| AMCR | | | 2 | | A |
| SOSP | | | 1 | | A |
| | | | | | |
| | | | | | |
| DCCO | | | | many | A |
| RBGU | | | | many | A |

over lake

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:**

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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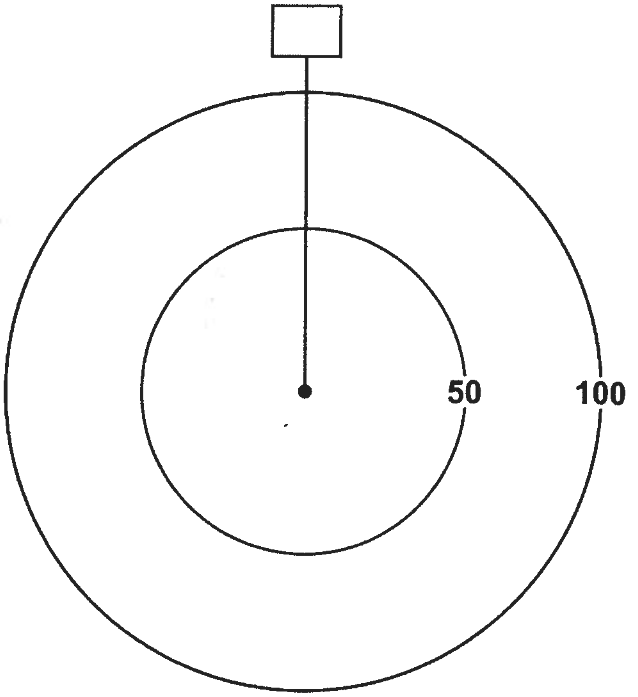

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓)

Signature: P. Read (Field Personnel)

Signature: (Project Manager)

Page 2 of 2

REV: May, 07 Form 020

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160960595

Project Name: Amherst

Date: June 10/2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>16 | WIND:<br>2 NE | CLOUD:<br>100% | PPT:<br>0 | PPT (in last 24 hrs):<br>< .1 cm |

**Feature No.:** G 43 **Habitat Type:** Grassland **Time Start:** 8:05 **Time End:** 8:49.

***Record location of all significant species on site map.*** - scattered bushes

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | H | Ea. Meadowlark † | P |
| Killdeer | D | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | CF |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | P | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | S | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** G-40 **Habitat Type:** Grassland **Time Start:** ① 8:20 **Time End:** 8:49

***Record location of all significant species on site map.*** - not many shrubs. ② 9:10 10:40

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose fly + on gr. | H | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard flyover | X | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ flyover | X | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyover | x | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey next to marsh | N | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | D |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | S | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | N |
| Common Tern | | Purple Mart. | N | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | WIPH | A |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 4

Quality Control: This form is complete ☑ ~~& legible ☑~~

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 10

**Feature No.:** M 5 **Habitat Type:** Marsh -grassy/sedges (no cattails) **Time Start:** ① 9:32 **Time End:** 10:30

June 11 ② 10:15 11:15

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose fly + on Ground | X | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck 1 | H | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard 15 | FY | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flybys | X | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern ② | S | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | X | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | N | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | DD | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | H | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull fly + on field | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| ② Herring Gull fly + on field | X | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| ② Caspian Tern fly over | X | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | N | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | AMWI 15 | X |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | BRAN 3 | X |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

| | |
|---|---|
| SESA 10 | X |
| WRSA | X |
| SEPL 1 | X |
| BBPL | X |
| WIPH | N |
| ② NOPI | H |
| ABDU | H |

*all are from June 10 unless new on June 11 (which are marked ②)

Pg. 3 of 4

Signature: P. Read
(Field Personnel)

Quality Control: This form is complete ~~☐ & legible ☐.~~

Signature:
(Project Manager)

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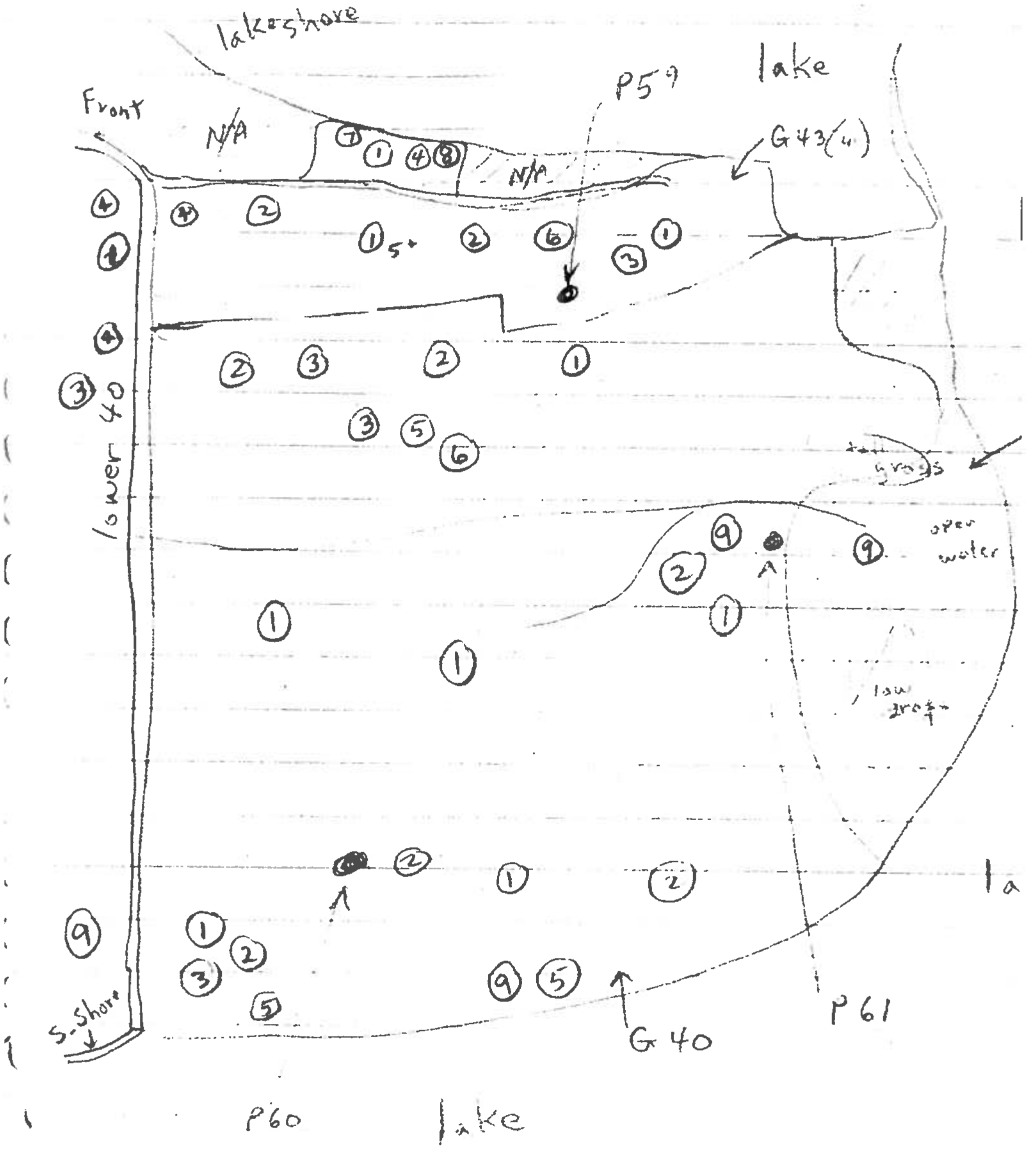
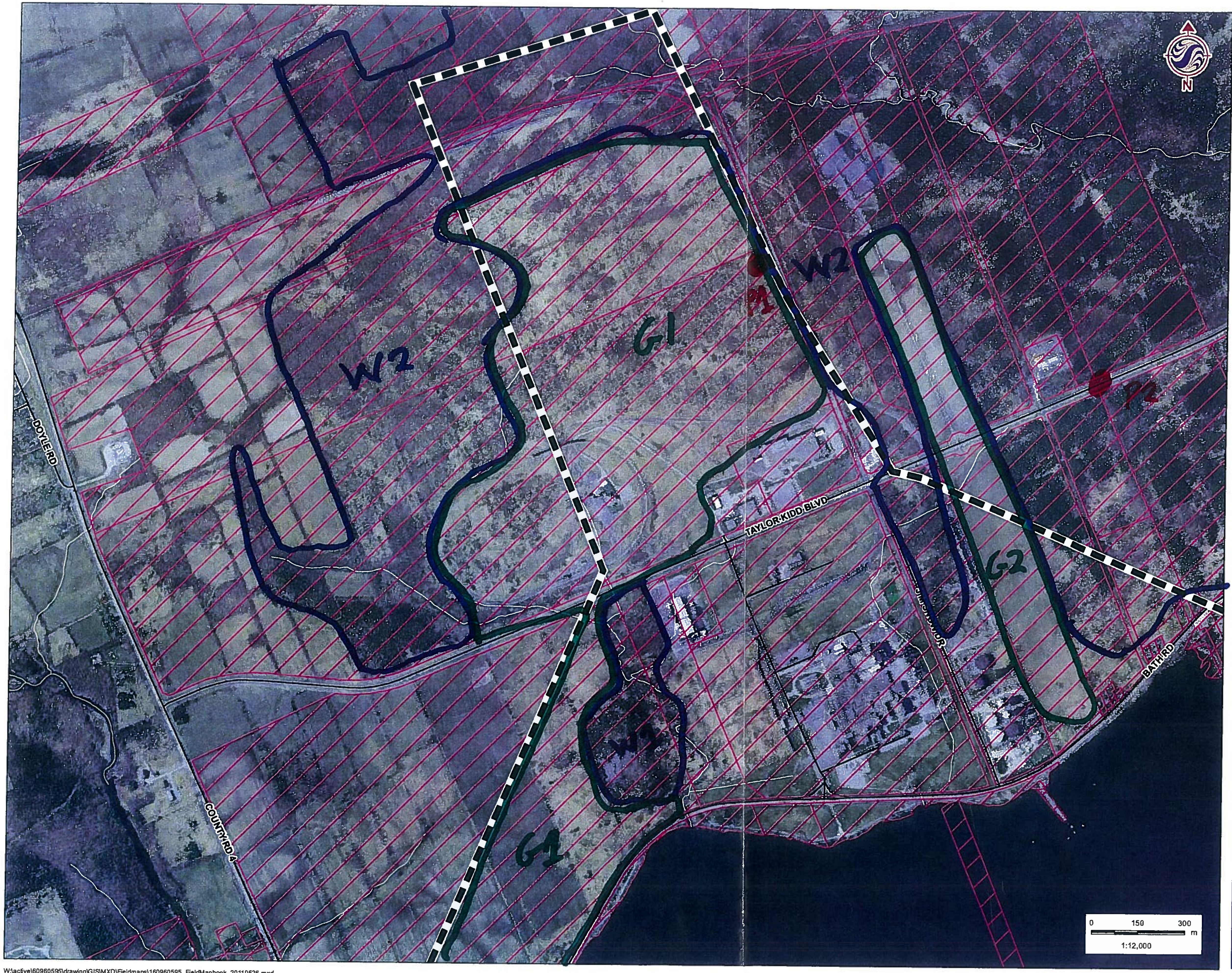
REV: 2011-05-27 / FORM 031

G 43(41), G 40, M 5

4 of 4



① BOBO
② SAVS
③ EAME
④ UPSA
⑤ FAKI
⑥ NOHA
⑦ NOFL
⑧ WIFL
⑨ WIPH



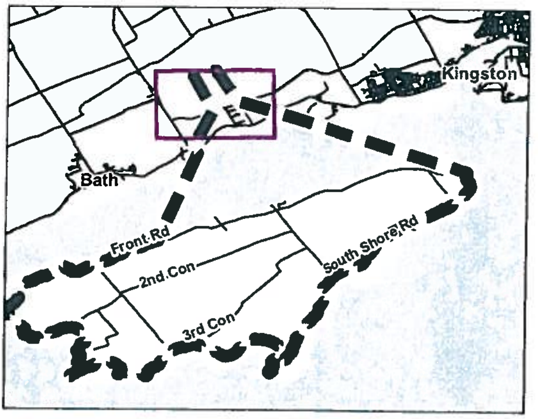
W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

## Legend

▚ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 11

Title

# FIELD MAPBOOK

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160 960 595

Project Name: Amherst

Date June 11 /2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15 | Wind: 1 E | Cloud: 80 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #: T** 1

**Station:** 2

**Habitat:** ☑ Forest ☐ Swamp ☐ Marsh ☐ Hay ☐ Pasture ☐ Crop

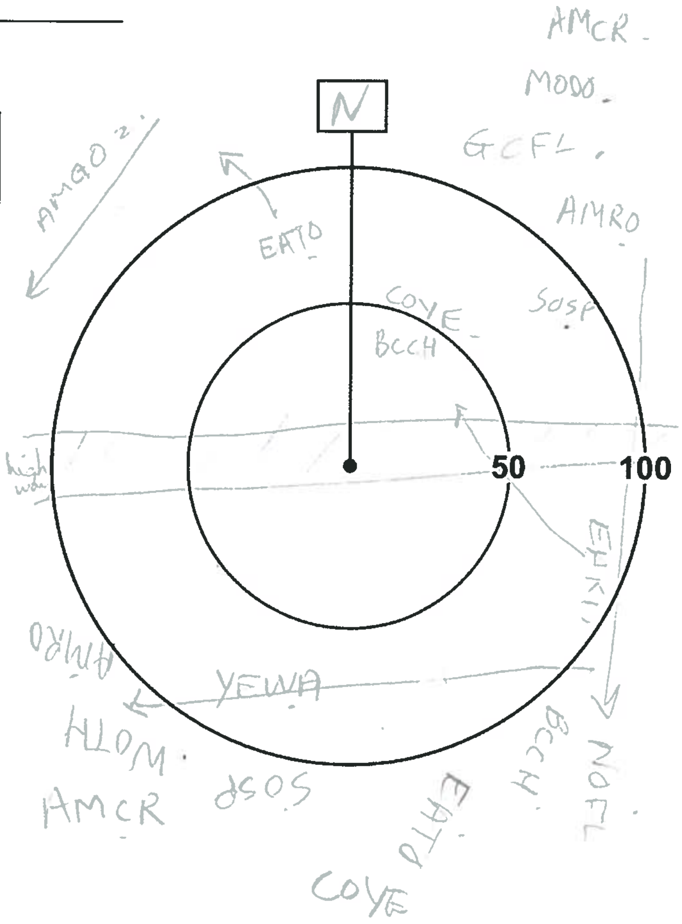
**UTM:** 363706 4897484 #299

**Start Time:** 6-25

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMGO | | | | 2 | A |
| EATO | | 1 | 1 | | A |
| AMCR | | | 2 | | A |
| MODO | | | 1 | | A |
| GCFL | | | 1 | | A |
| AMRO | | | 2 | | A |
| SOSP | | 1 | 1 | | A |
| WOTH | | | 1 | | A |
| YEWA | | | | 1 | A |
| COYE | | 1 | 1 | | A |
| BCCH | | | 1 | | A |
| NOFL | | | 1 | | A |
| EAKI | 1 | | | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

- 3 cars passed



Quality Control: This form is complete (✓) & legible (✓).

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 2

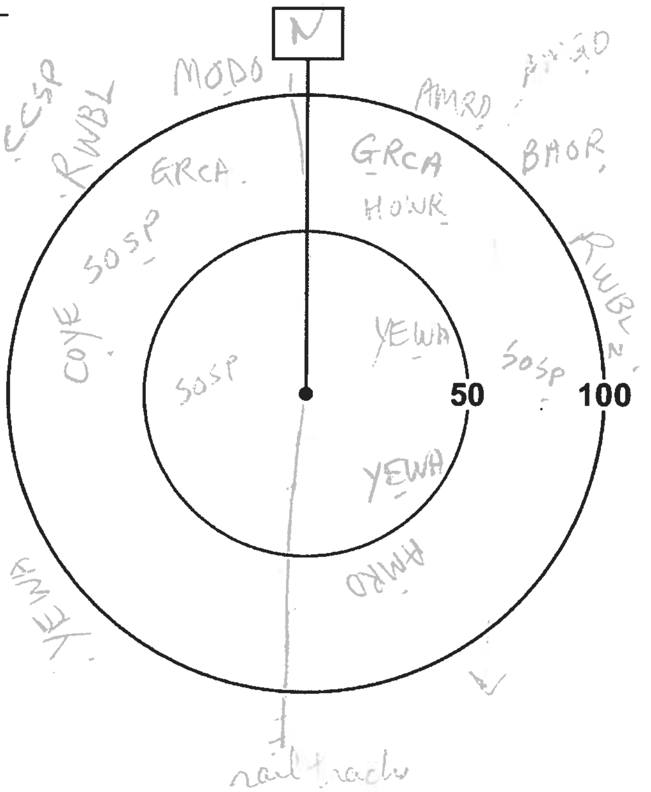
REV: May, 07 Form 020

calm

**Station:** 1 scrubby - a few big trees
**Habitat:** ☒Forest ☐Swamp ☐Marsh ☐Hay ☒Pasture ☐Crop ________ scattered trees
**UTM:** 362451 4897893 #301
**Start Time:** 7:00

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| CCSP | | | 1 | | |
| RWBL | | | 3 | | |
| MODO | | | 1 | | |
| AMRO | | 1 | 1 | | |
| GRCA | | 2 | | | |
| HOWR | | 1 | | | |
| SOSP | | 2 | | | |
| YEWA | 2 | | 1 | | |
| COYE | | 1 | | | |
| BAOR | | | 1 | | |
| AMGO | | | | 1 | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** ______
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________
**UTM:** ________
**Start Time:** ________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
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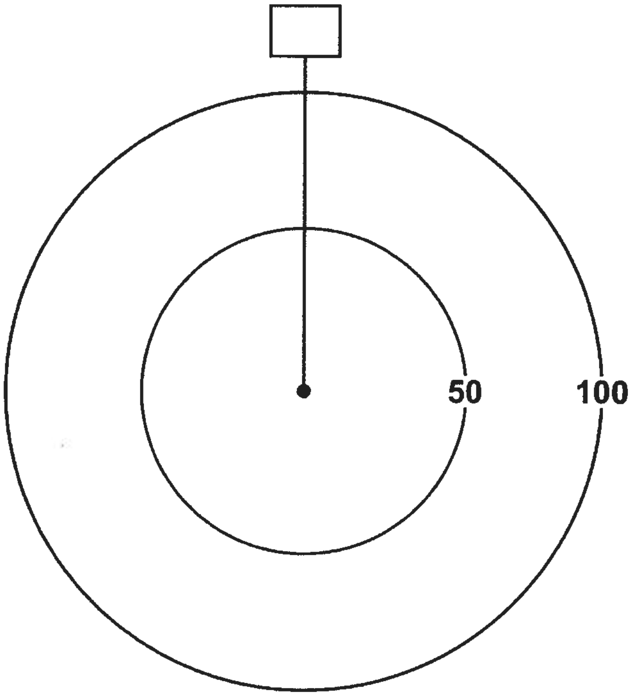
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: P. Reed (Field Personnel)
Signature: ________ (Project Manager)
Page 2 of 2
REV: May, 07 Form 020

See also June

June 11/2011

T-15 C-80% PPT 0
W-3 E PPT-0

**Station:** P62* see map Day 9. M4

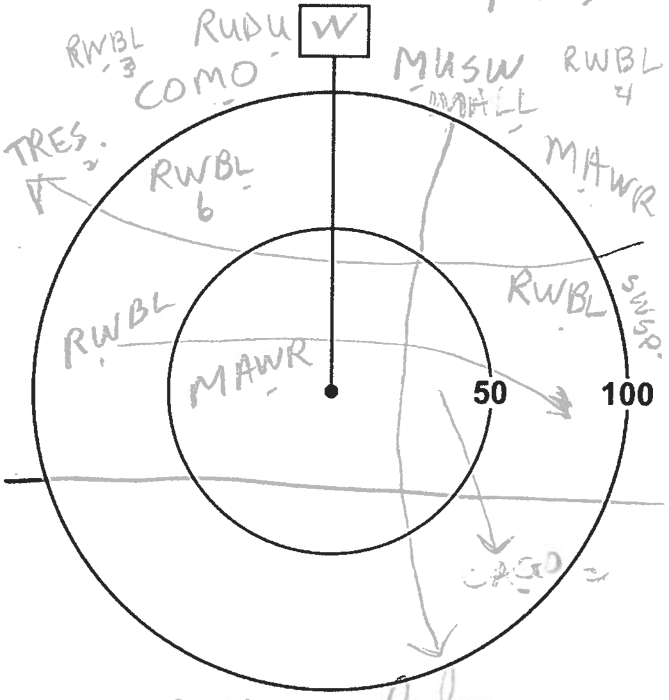
**Habitat:** ☐Forest ☐Swamp ☑Marsh ☐Hay ☐Pasture ☐Crop ______

**UTM:** 365514 4888255 #298

**Start Time:** 5:00

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COMO | | | 1 | | [illegible] |
| MUSW | | | 1 | | A |
| RUDU | | | 1 | | A |
| MALL | 1 | | | | O/A |
| CAGO | 2 | | | | A |
| MAWR | 1 | | 1 | | A |
| RWBL | 1 | 6 | 7 | 150 | A |
| SWSP | | | 1 | | A/O |
| TRES | | | | 2 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Marsh



150 RWBL flew out at 5:05

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

* new species or upgrades to breeding level on sheets from Day 9.

**Station:** P62 Marsh Bird Monitoring

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ______

**UTM:** ______

**Start Time:** 5:20

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COMO | | | 1 | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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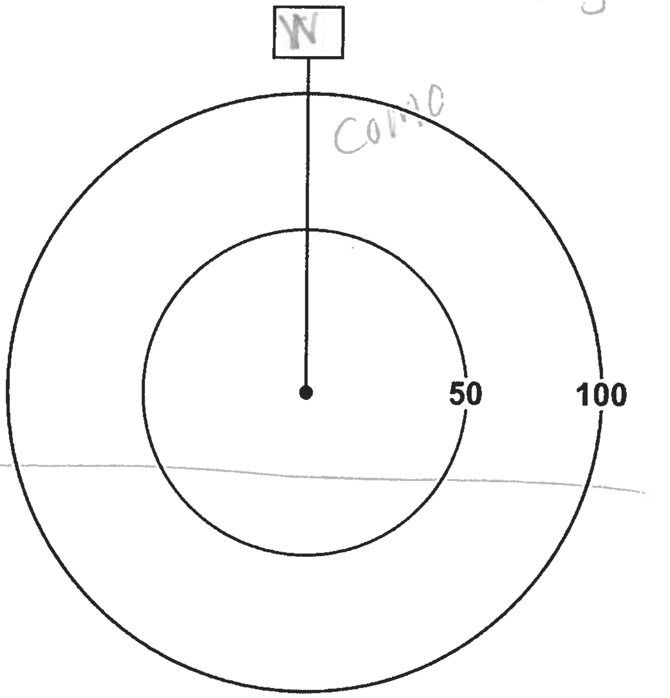

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete (✓) & legible (__).

Signature: P. Read (Field Personnel)

Signature: ______ (Project Manager)

Page 1 of 1

REV: May, 07 Form 020

T-20 C-90% W-2 E PPt 0

June 11/2011

**Feature No.:** W-49 **Habitat Type:** Woodlands **Time Start:** 9:35 **Time End:** 9:57

***Record location of all significant species on site map.*** -planted on grassland (from edge G-38 + Lower 40 Rd) (see map on Day 12)

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ flyover | X | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. * | X | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | FY |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. flyover | X | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

*RBWO - large trees near intersection Lower 40 and S. Shore Rds

Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type.)

Project Number: 160 960 595
Project Name: Amherst
Date: June 11/2011
Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | 1 E | 80 | 0 | 0 |

**Feature No.:** W-2 **Habitat Type:** Woods **Time Start:** ① 6:25 **Time End:** 7:36.

- some scrubby ② 7:47 - 8:05
- some mature

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | H | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | H | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | S | No. Cardinal | S |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird | S | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | H | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | S | Cedar Waxwing | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 5

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** P. Read.
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G1 **Habitat Type:** "Grassland" -rather overground field **Time Start:** ① 6:45 **Time End:** 7:24

② 7:36 - 8:25

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | S |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | H | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | H | Bobolink † | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 5

Quality Control: This form is complete ☑ & legible ☑

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

June 11

**Feature No.:** G-2 **Habitat Type:** Grassland **Time Start:** 7:25 **Time End:** 7:45

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † south only | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | T |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 5

Signature: P Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

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REV: 2011-05-27 / FORM 031

**Feature No.:** W1 **Habitat Type:** Woodland - scrubby - some mature trees. **Time Start:** ① 7:36 N S ② 8:10 **Time End:** 7:46. 8:20

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 5

**Signature:** P Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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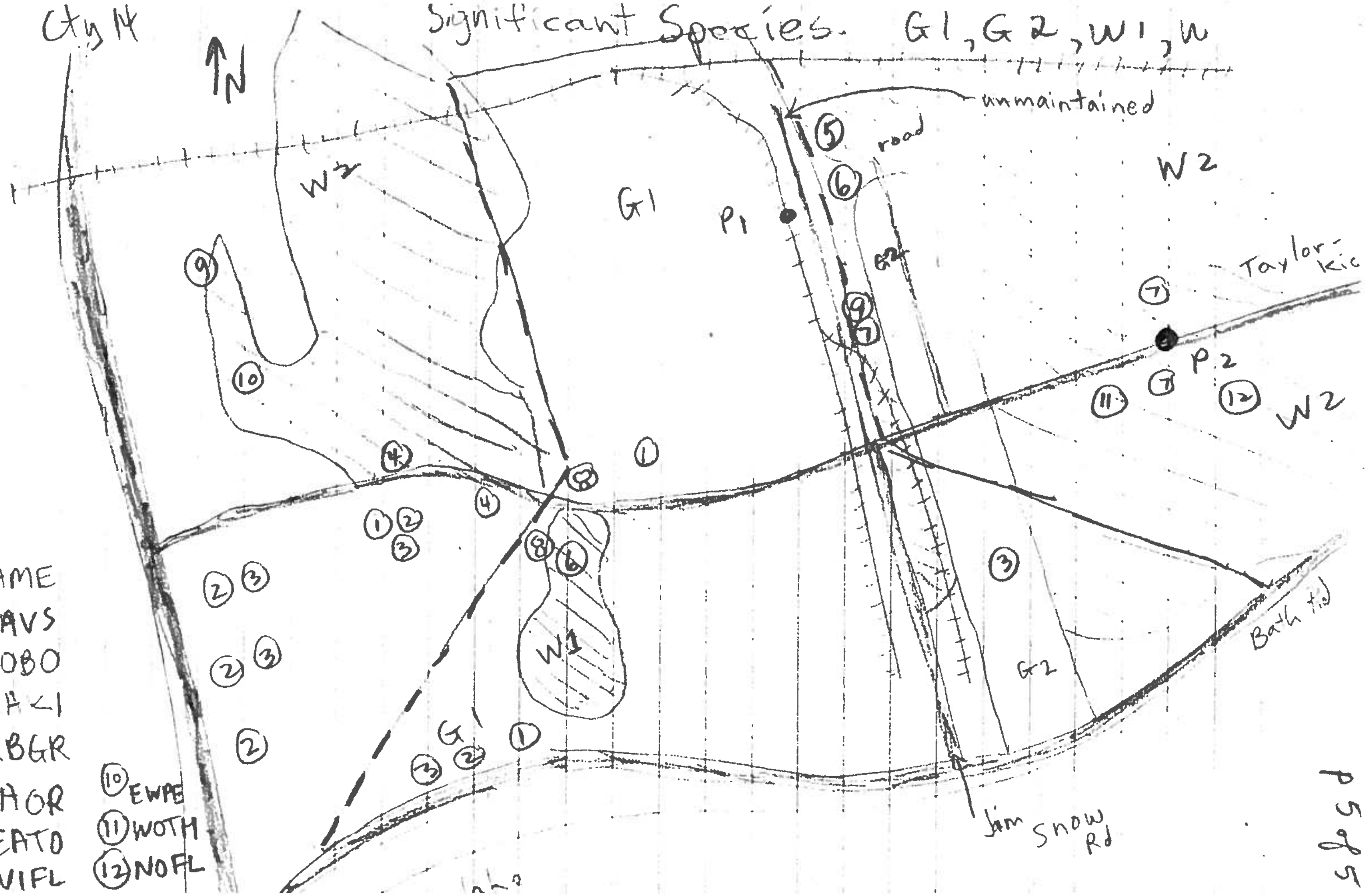
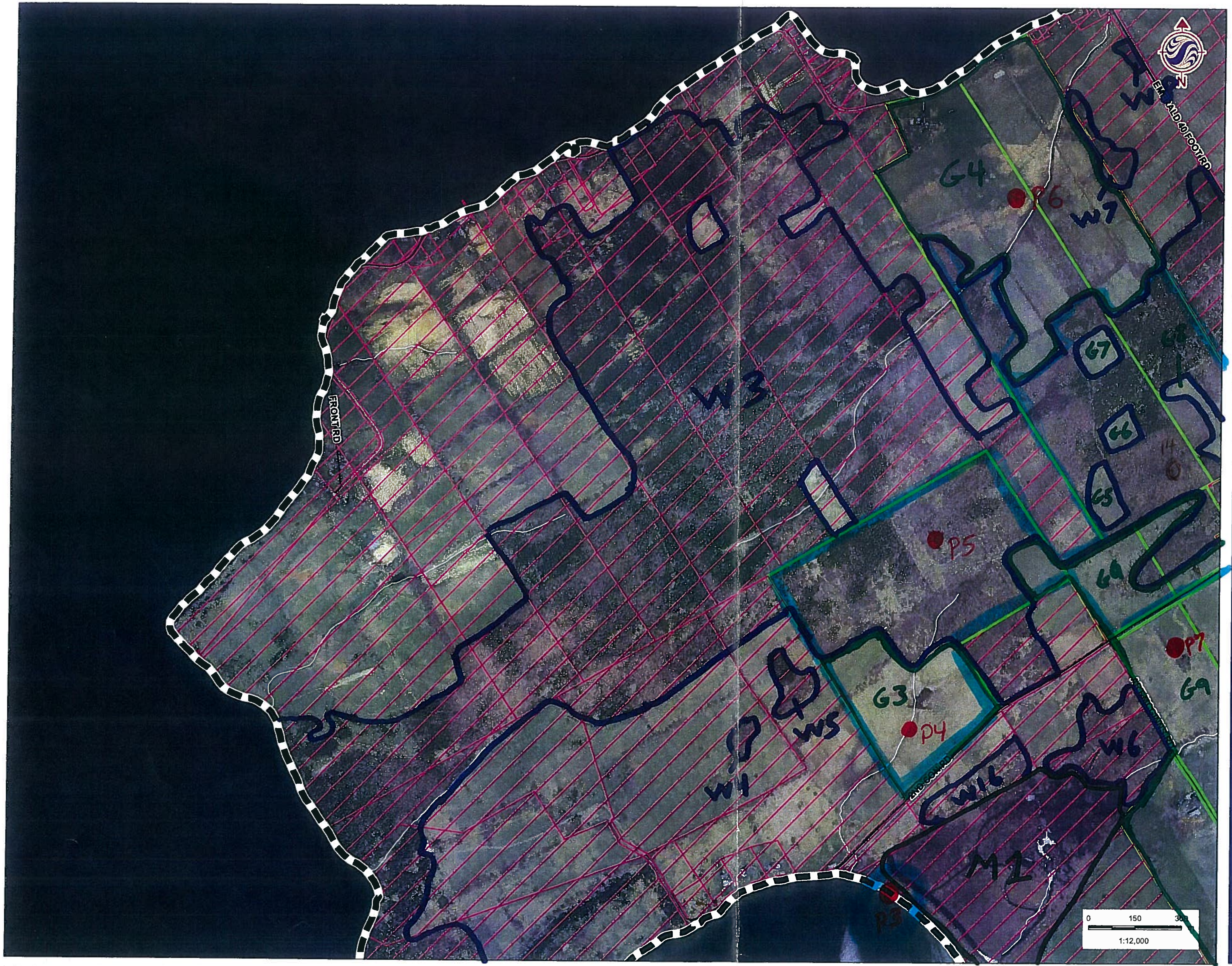
Significant Species. G1, G2, W1, W



EAME
SAVS
BOBO
EAKI
RBGR
BAOR
EATO
WIFL
⑩ EWPE
⑪ WOTH
⑫ NOFL

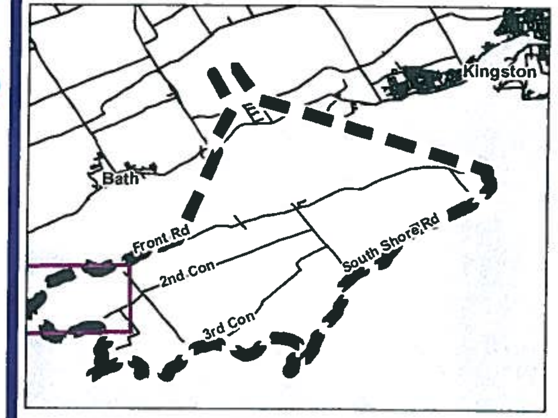


## Legend

- ▚ Study Area
- — Road
- Watercourse
- ● Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 1

Title

**FIELD MAPBOOK**

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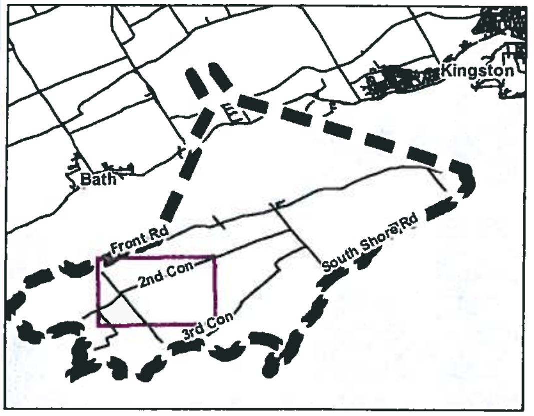
Revised on: 2011-05-27 By: dharvey

## Legend

- ⬚ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

**FIELD MAPBOOK**

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Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 15/11
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 13 | NW WIND: 2 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** M1 **Habitat Type:** ______ **Time Start:** 0515 **Time End:** 0635

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

(*) = edge (lake/marsh interface) – shoreline

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | X | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | S | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | H | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. (*) | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin (*) | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird (*) | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. (*) | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | S | Warbling Vireo | | Yellow Wa. (*) | S | Baltimore Oriole † (*) | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☐ ~~& legible ☐~~

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G3 **Habitat Type:** ____________ **Time Start:** 0645 **Time End:** 0722

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | H | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † CF | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling P | P | Red-winged Bl. CF | CF |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † SM | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Stantec**

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 15/11
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 14 | NW WIND: Light 1 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W3 **Habitat Type:** ______ **Time Start:** 0718 **Time End:** 0955

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ SM | S |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † SM | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † SM | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ SM | S | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † SM | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. SM | S | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. SM | S |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † SM | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. P | P | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. SM | S |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. P SM | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo SM | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | P | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow H | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch SH | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove H | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 9

Quality Control: This form is complete ☑ ~~&~~ legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Kartin S
(Project Manager)

REV: 2011-05-27 / FORM 031

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N Cloud - W

**Feature No.:** G 9 **Habitat Type:** ______ **Time Start:** 0805 **Time End:** 0831

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † SM | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † SM | FY |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | S | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † SM | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

- NW square has been ploughed in the recent past
- 2 pairs of Field Sparrow (as marked)
- 2 ♂ towhees (as marked)

Pg. 4 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: Aw
(Field Personnel)

Signature: Katie S
(Project Manager)

REV: 2011-05-27 / FORM 031

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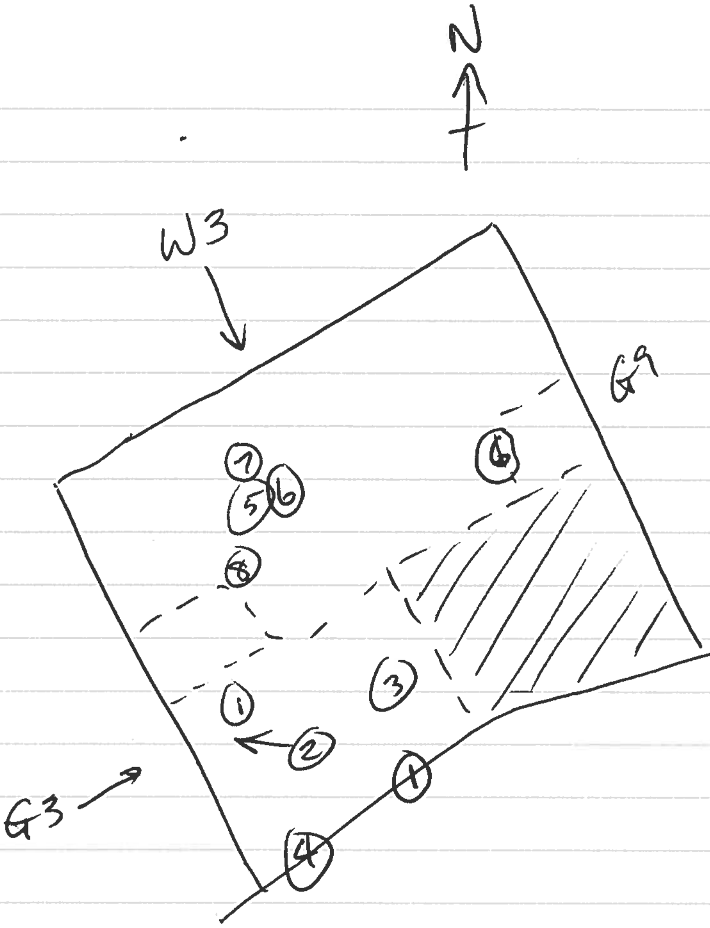
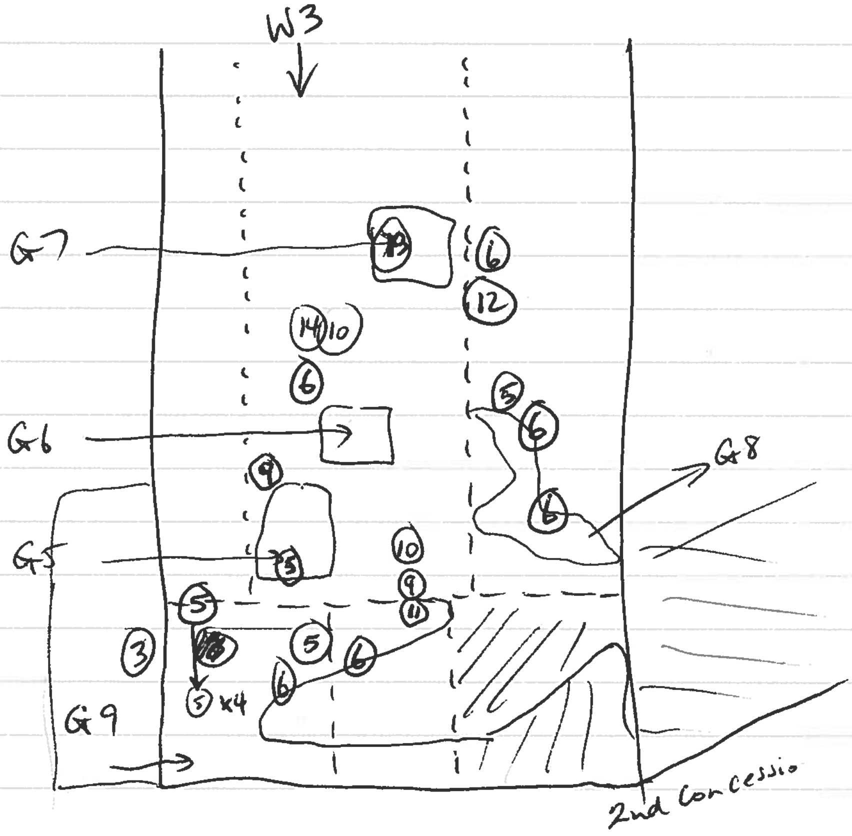
June 15/11



① E Kingbird
② Upland S
③ Bobolink
④ E Meadowlark
⑤ Field Sparrow
⑥ E Towhee
⑦ Br Thrasher
⑧ Willow Flyc.
⑨ Wood Thrush
⑩ Ovenbird
⑪ Giant Swallowtail
⑫ Hermit Thrush
⑬ Grasshopper Sp
⑭ E W Pewee



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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 15/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | LgLt WIND: NW 1 | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G8 **Habitat Type:** ________ **Time Start:** 0852 **Time End:** 0901

***Record location of all significant species on site map.*** 2♂ towhee (as mapped)

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † SM | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing SH | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. SM | S |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ ~~& legible ☑~~

**Signature:** ____________ (Field Personnel)

**Signature:** ____________ (Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G7 **Habitat Type:** ____________ **Time Start:** 0925 **Time End:** 0935

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † SM | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SH | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk SH | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. SH | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

– Grasshopper Sparrow ♂ ~~[illegible]~~ ~~centre~~ west-central of field

Pg. 6 of 9

Signature: AW (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Katie [illegible] (Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

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1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 15/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: 0 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): |

**Feature No::** G6 **Habitat Type:** **Time Start:** 0940 **Time End:** 0943

***Record location of all significant species on site map.***

Mostly just grass, with not much herbaceous cover

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | X | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G5 **Habitat Type:** ____________ **Time Start:** 0945 **Time End:** 0951

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 9M | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † SM | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow FO | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ~~☐ & legible~~ ☐.

**Signature:** ____________ (Field Personnel)

**Signature:** ____________ (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: Jun 15/11
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 24 | WIND: 0 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** Wb **Habitat Type:** ____ **Time Start:** 1014 **Time End:** 1021

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. H | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | FY |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 9

Quality Control: This form is complete ☒ ~~& legible~~ ☒

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Birding Point Counts Survey Observation Form

Project Number 160960595

Date June 15/11

Project Name: Amherst

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 12 | Wind: MOD NW | Cloud: 10 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #:** T___

**Station:** P3 / 357428 4886833

**Habitat:** ☐Forest ☐Swamp Marsh Hay Pasture ☐Crop ____________

**UTM:** ____________

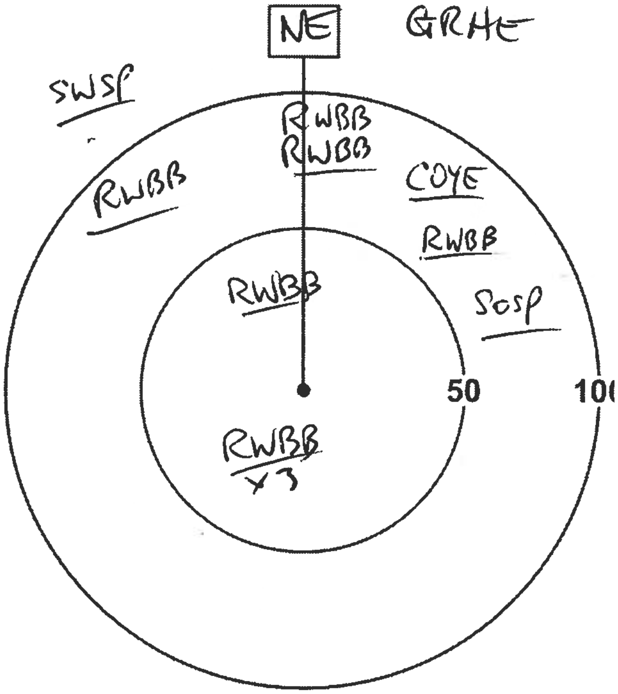
**Start Time:** 0535

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| Bank Sw | # | | | 1 | A |
| GRHE | | | 1 | | A |
| COGR | | | | 1 | A |
| TRES | | | | 1 | A |
| BAOR | | | | 1 | A |
| | | | | | |
| * WISN | 1 | | | | B |
| | | | | | |
| | | | | | |
| SWSP | | | 1 | | O |
| RWBL | 4 | 4 | | | O |
| COYE | | 1 | | | O |
| SOSP | | 1 | | | O |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep

GRHE 1 A

* displaying overhead (post 1st point count) WISN



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: Katie (Project Manager)

Page 1 of 3

REV: May, 07 Form 020

**Station:** P4 /160

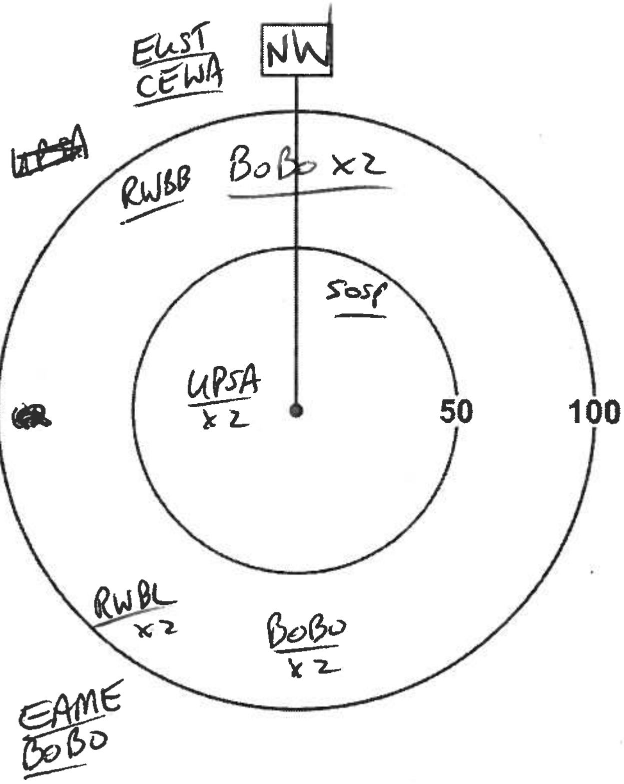
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0655

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BAOR | | | | 2 | A |
| UPSA | 2 | | | | A |
| BoBo | | 4 | | | A |
| SOSP | 1 | | | | O |
| GRCA | | | | 1 | A |
| RBGU | | | | 3 | B |
| EUST | | | 2 | | A |
| Waxw CEWA | | | 2 | | A |
| RWBL | | 3 | | | O |
| EAME | | | 1 | | A |
| BoBo | | | 1 | | O |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P5 / 162 Excellent strawberries!

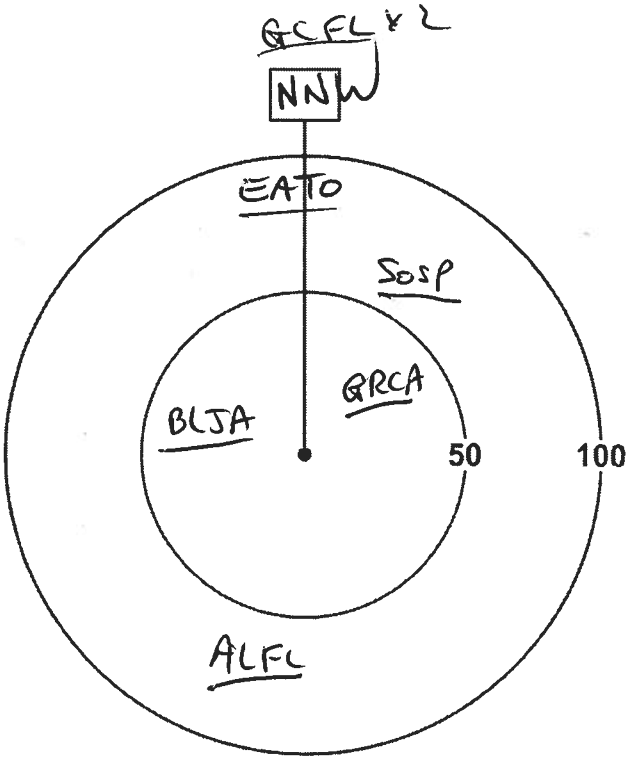
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0742

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| GCFL | | | 2 | | A |
| ALFL | | 1 | | | O |
| GRCA | 1 | | | | O |
| BLJA | 1 | | | | A |
| SOSP | | 1 | | | O |
| EATO | | 1 | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: ____________ Signature: ____________
(Field Personnel) (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

**Station:** P14 / 172
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________
**UTM:** ______________________________
**Start Time:** 0837

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| REVI | 1 | | | | A |
| WOTH | | 1 | | | A |
| OVEN | | 1 | | | A |
| EAWP | 1 | | | | A |
| | | | | | |
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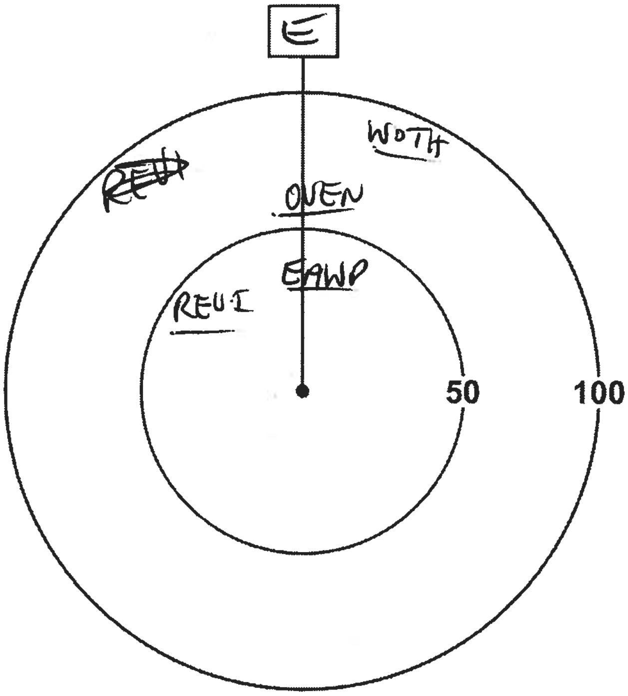
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________
**UTM:** ______________________________
**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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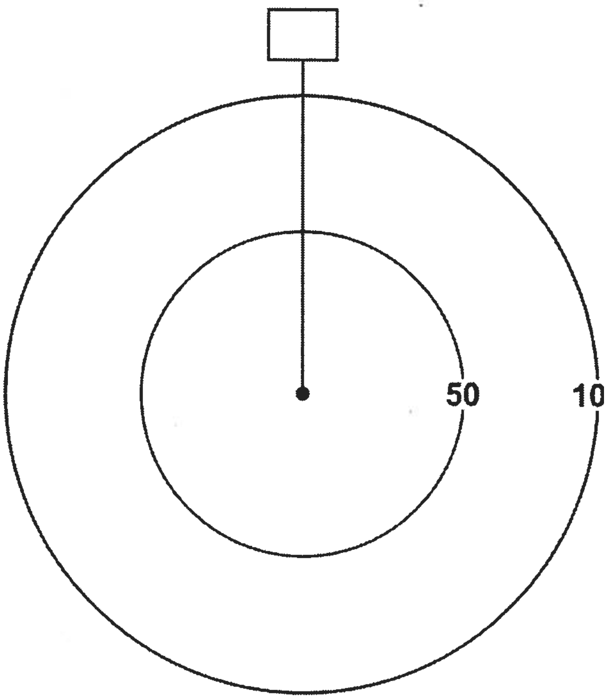
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

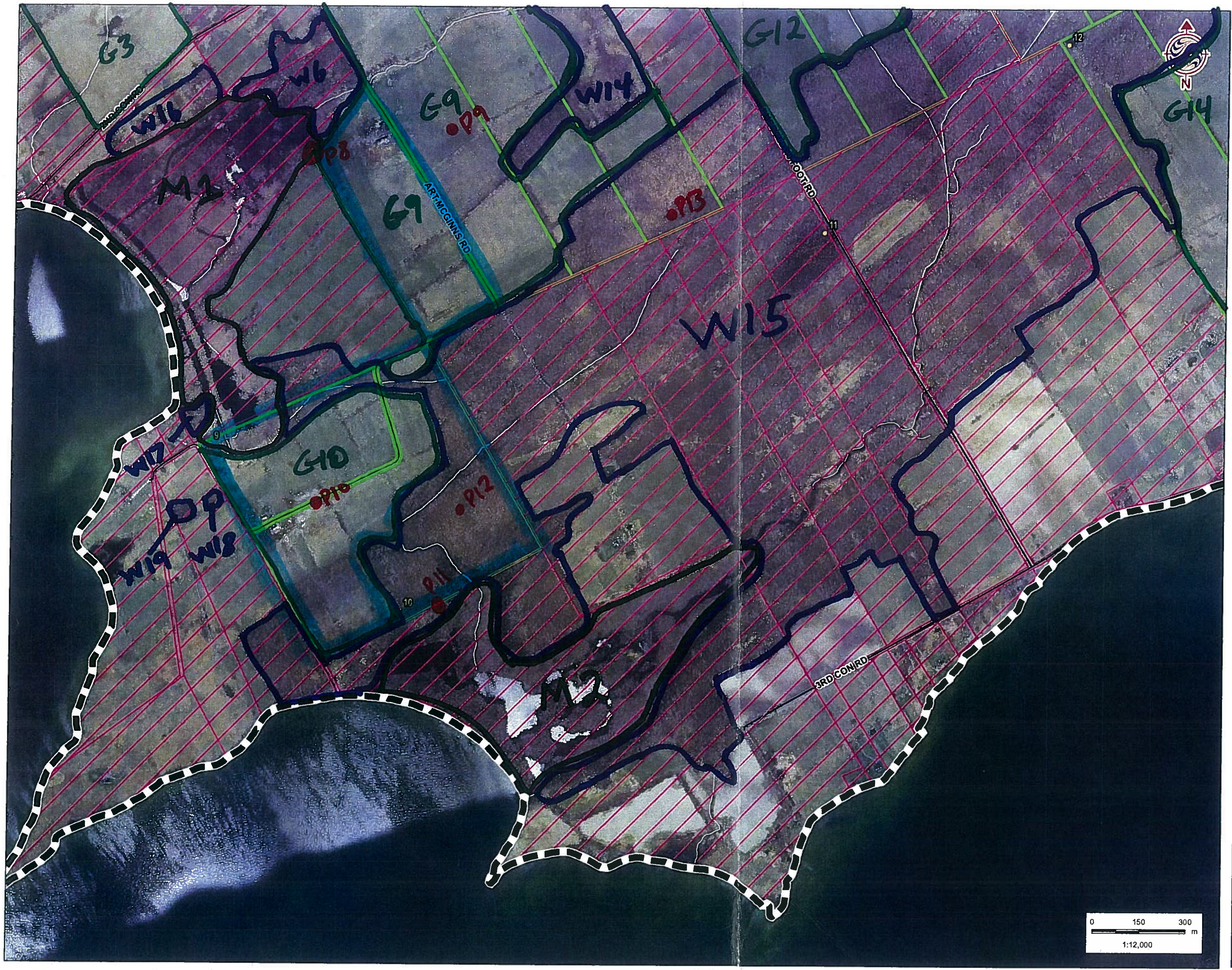


Quality Control: This form is complete (✓) & legible (__).

Signature: ____________________ (Field Personnel)

Signature: ____________________ (Project Manager)

Page 3 of 3

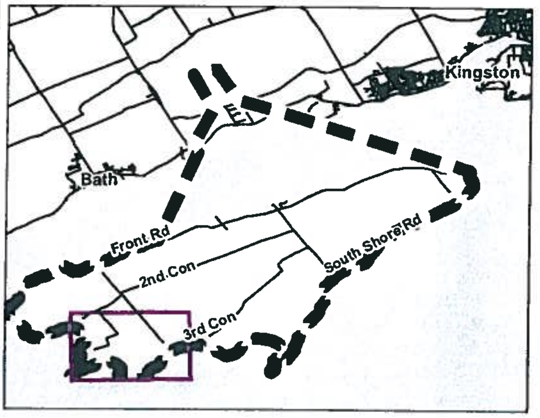


## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 2

Title

## FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: Jun 16/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 10 | WIND: 1 SE | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G10 **Habitat Type:** ______ **Time Start:** 0525 **Time End:** 0600

0730 0740

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SH SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † SM | S |
| Virginia Rail | | Ea. Phoebe | | European Starling r | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. SM | S | Cedar Waxwing | | Ea. Meadowlark † SM | S |
| Killdeer A | A | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. H | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay P A | P | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow CF | CF |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 6

Quality Control: This form is complete ☑ ~~& legible~~ ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W15 **Habitat Type:** ____________ **Time Start:** 0600 **Time End:** 0730

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch H | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. SH | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † SM | S | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † SM | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling SH | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | SM | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 6

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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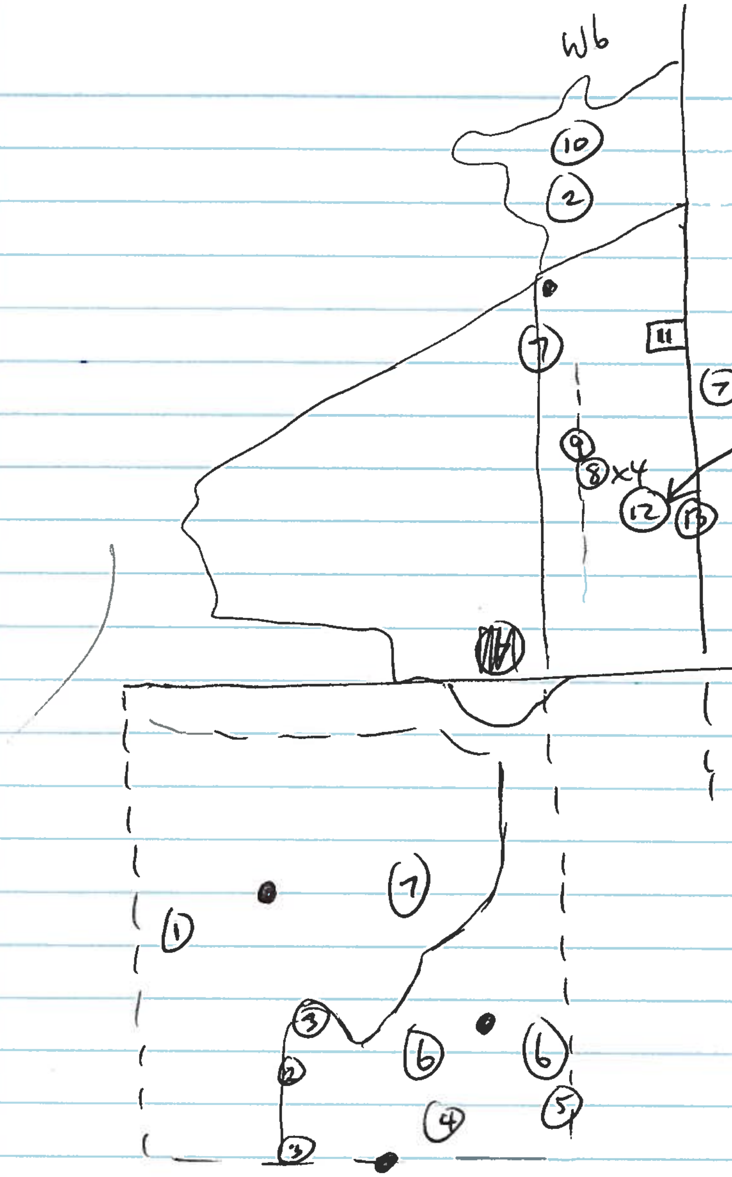

① Sav Sparrow
② Ba Oriole
③ Rose-br Grosb
④ Pewee
⑤ N Flicker
⑥ Wood Thrush
⑦ E Meadowlark
⑧ Bobolink
⑨ Grasshopper Sp
⑩ Gr Flycatcher
⑪ Barn/Cliff nesting barn (steel shed)
⑫ ♂ N Harrier hunting
⑬ E Kingbird

June 16/11

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 16/11
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | 0 | 0 | 0 | 0 |

**Feature No::** M2 **Habitat Type:** ______ **Time Start:** 0615 **Time End:** 0643

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. 517 | H | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | X | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | P |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | SM | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of ~~4~~ 6

Quality Control: This form is complete ☑ ~~& legible ☑.~~

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G9 **Habitat Type:** ______ **Time Start:** 0800 **Time End:** 902

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | N | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow H | N | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. SM | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † H | H |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ ♂ | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | P | Ea. Meadowlark † SM | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. H | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | X |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pair of WISN in adjacent MI

Multiple pairs each of Barn/Cliff Swallow nesting in shed (barn

Pg. 4 of 6

**Signature:** AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 16/11
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 0 | 0 | 0 | 0 |

**Feature No::** W6 **Habitat Type:** ______ **Time Start:** 0825 0904 **Time End:** 0853 0917

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | P | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. SM | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove SM | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 6

Quality Control: This form is complete ~~☐ & legible~~ ☐.

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** M1 **Habitat Type:** ______ **Time Start:** 0815 **Time End:** 0845

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | P |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | P | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | P | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | P | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 6

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______ (Field Personnel)

**Signature:** ______ (Project Manager)

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595
Project Name: Amhert
Date June 16/11
Field Personnel: Alan Wormington

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 10 | SE 1 | 0 | 0 | 0 |

**GPS #:** T___

**Station:** P10/171

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

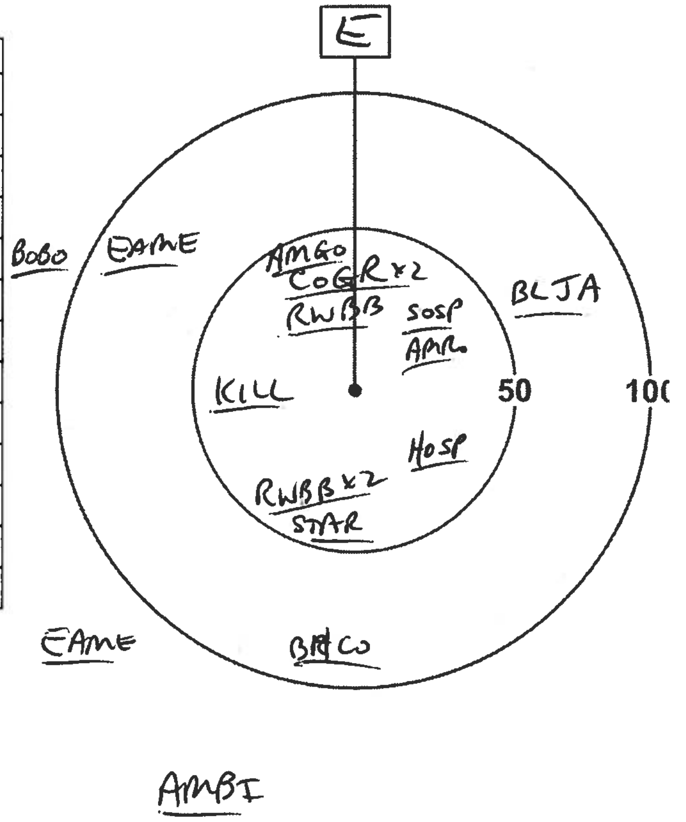
**UTM:**

**Start Time:** 0524

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 1 | A |
| COGR | | | | 67 | A/B |
| EUST | | | | 6 | A |
| RBGU | | | | 1 | B |
| EUST | | | | 1 | A |
| RBGU | | | | 1 | B |
| BOBO | | | 1 | | 0 |
| EAME | | 1 | 1 | | 0 |
| KILL | 1 | | | | 0 |
| AMGO | 1 | | | | 0 |
| COGR | 2 | | | | 0 |
| RWBL | 3 | | | | 0 |
| BLJA | | 1 | | | 0 |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep

| | | | |
|---|---|---|---|
| BHCO | | 1 | 0 |
| EUST | 1 | | 0 |



AMBI – calling from marsh way off to the West

| | | |
|---|---|---|
| HOSP | 1 | 0 |
| AMRO | 1 | 0 |
| SOSP | 1 | 0 |

Quality Control: This form is complete (__) & legible (__).
Signature: AW (Field Personnel)
Signature: Kat (Project Manager)

Page 1 of 3
REV: May, 07 Form 020

**Station:** P11 / 358503 / 4885561 358503

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0615

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WODU | 1 | | | | O |
| WAVI | | 1 | | | A |
| WISN | 1 | | | | B |
| SWSP | 1 | 1 | 1 | | O |
| RWBL | 4 | 1 | | | O |
| | | | | | |
| | | | | | |
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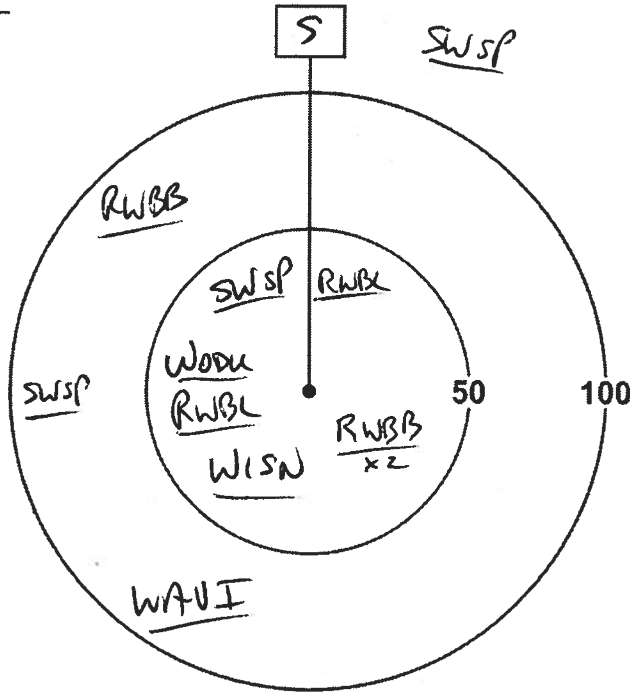
*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



**Station:** P12 / 358599 / 4885899

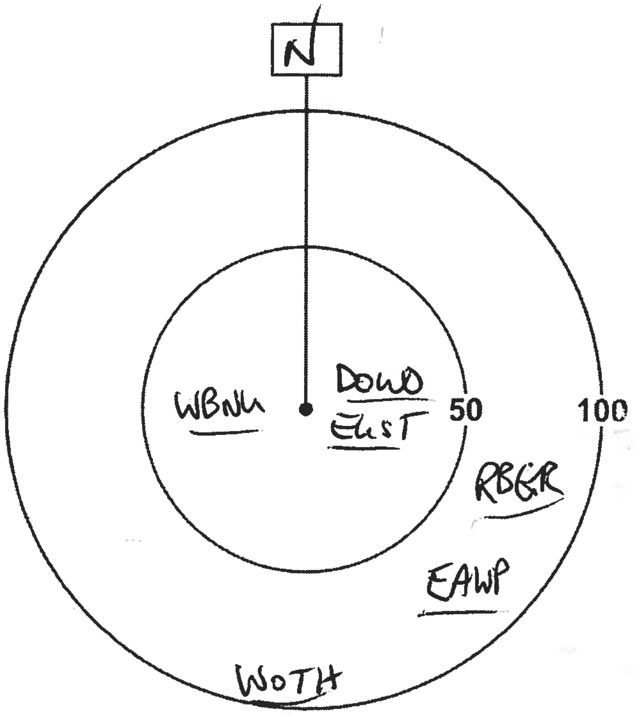
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0712

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAST | 1 | | | | A |
| WBNU | 1 | | | | A |
| WOTH | | 1 | | | O |
| EAWP | ~~1~~ | 1 | | | A |
| RBGR | | 1 | | | A |
| DOWO | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of 3

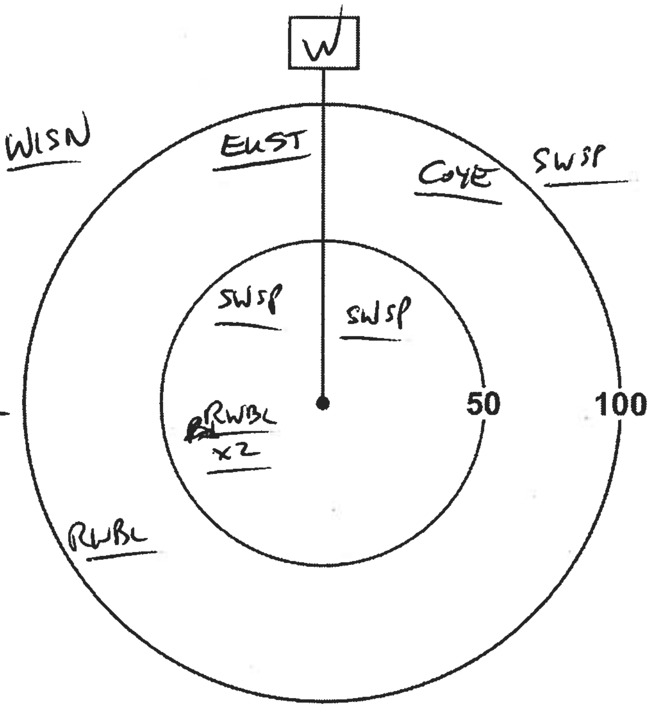
REV: May, 07 Form 020

June 16/11

**Station:** P8/ 170
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________
**UTM:** ________
**Start Time:** 0825

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 2 | A |
| WISN | | | 2 | | O |
| EUST | | | 2 | | O |
| COYE | | 1 | | | O |
| SWSP | 2 | | 1 | | O |
| RWBL | 2 | 1 | | | O |
| | | | | | |
| | | | | | |
| MALL | | | | 2 | B |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



**Station:** ________
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________
**UTM:** ________
**Start Time:** ________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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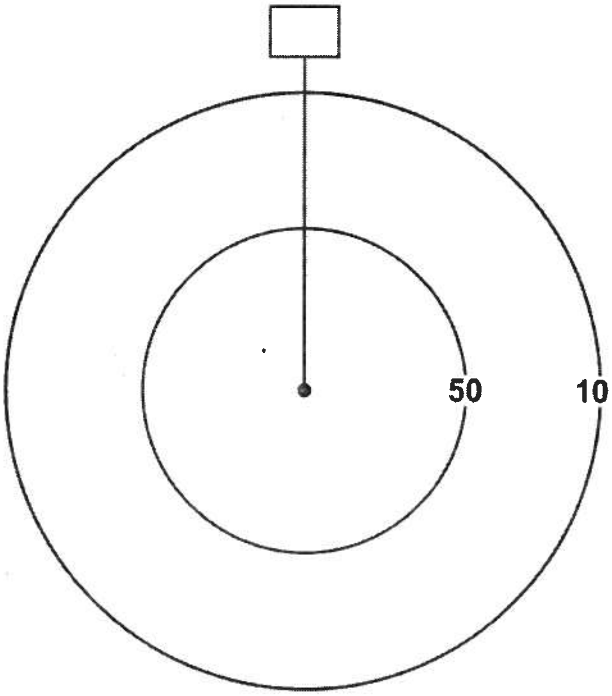
*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: ________ (Field Personnel)
Signature: ________ (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

P6

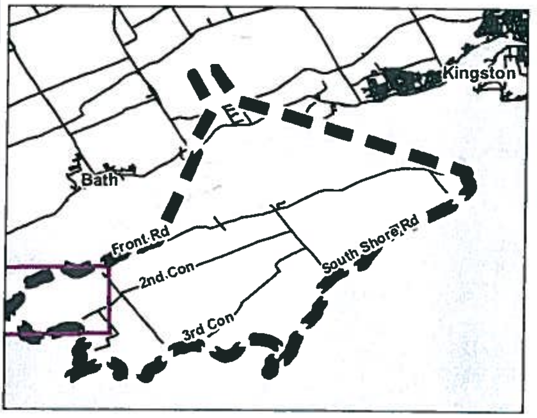
## Legend

Study Area
Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned

① Upland San
2 E Meadowl
3 Wood Pewee
4 Willow Fly
⑤ B Oriol
6 SAVS



## Notes

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**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 1

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

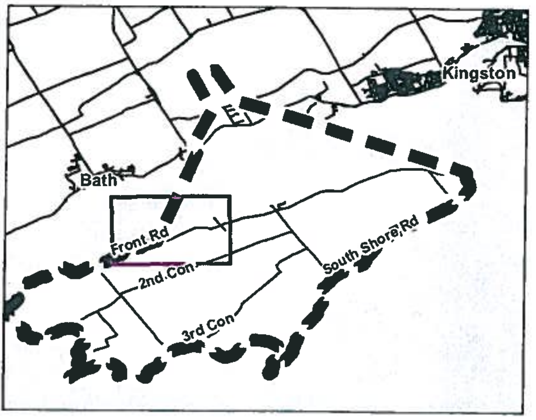
P25
P26

## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 4

Title

**FIELD MAPBOOK**

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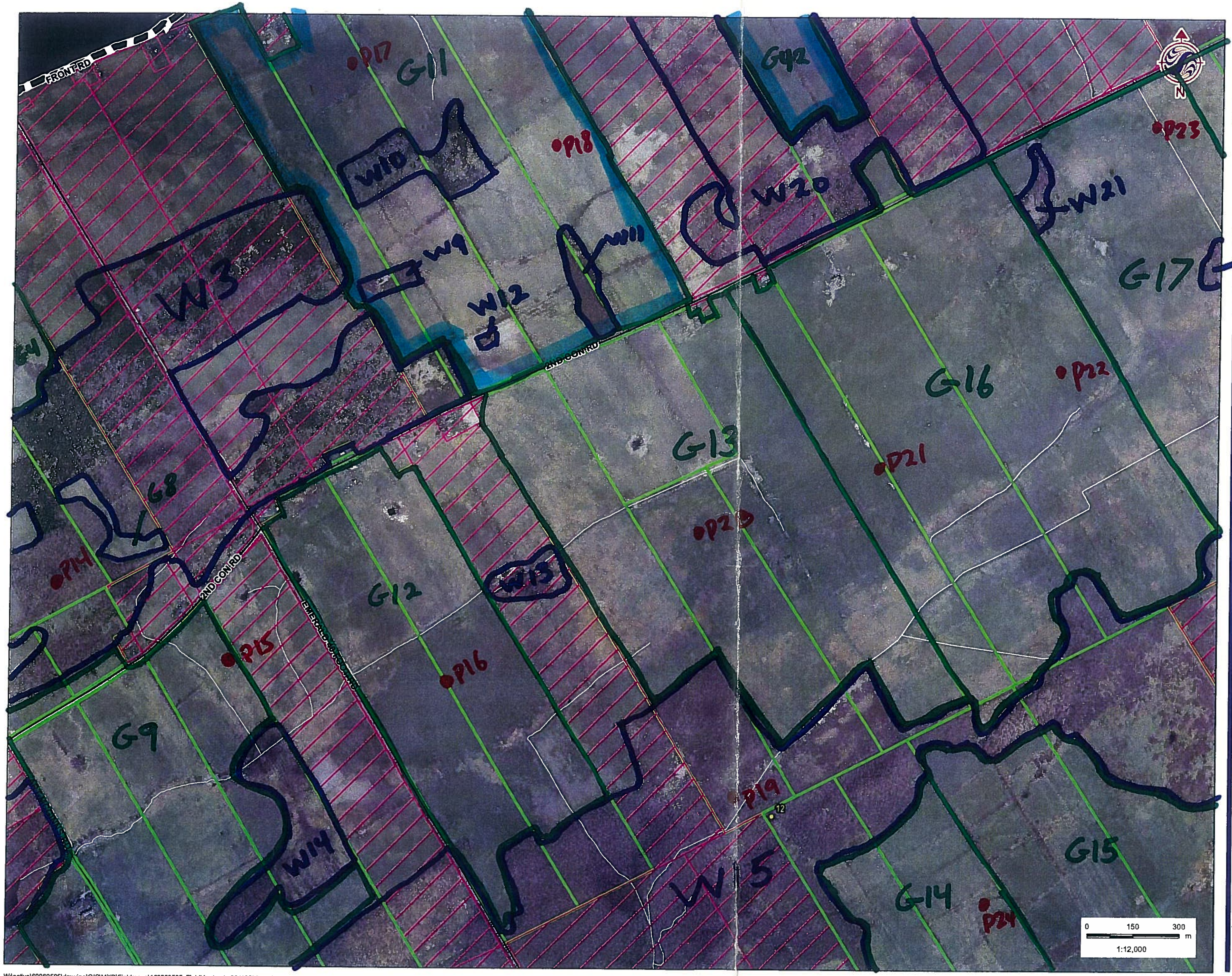
Revised on: 2011-05-27 By: dharvey



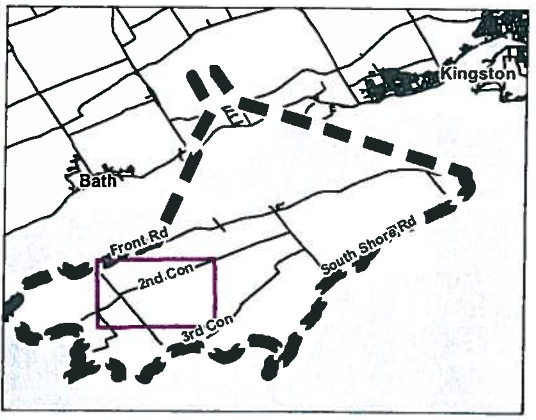
## Legend

P17
P18

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 13/11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10 | 0 | 10 | 0 | 0 |

**Feature No::** G42 **Habitat Type:** ______ **Time Start:** 0525 **Time End:** 0640

***Record location of all significant species on site map.***

G42

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ V flyover | X | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM SH | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † SM | S | Bobolink † CF P SM | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † SH | H |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | P | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☐ ~~& legible~~ ☐

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W8 **Habitat Type:** **Time Start:** 1124 **Time End:** 1129

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SH 3 | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SH | H | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 9

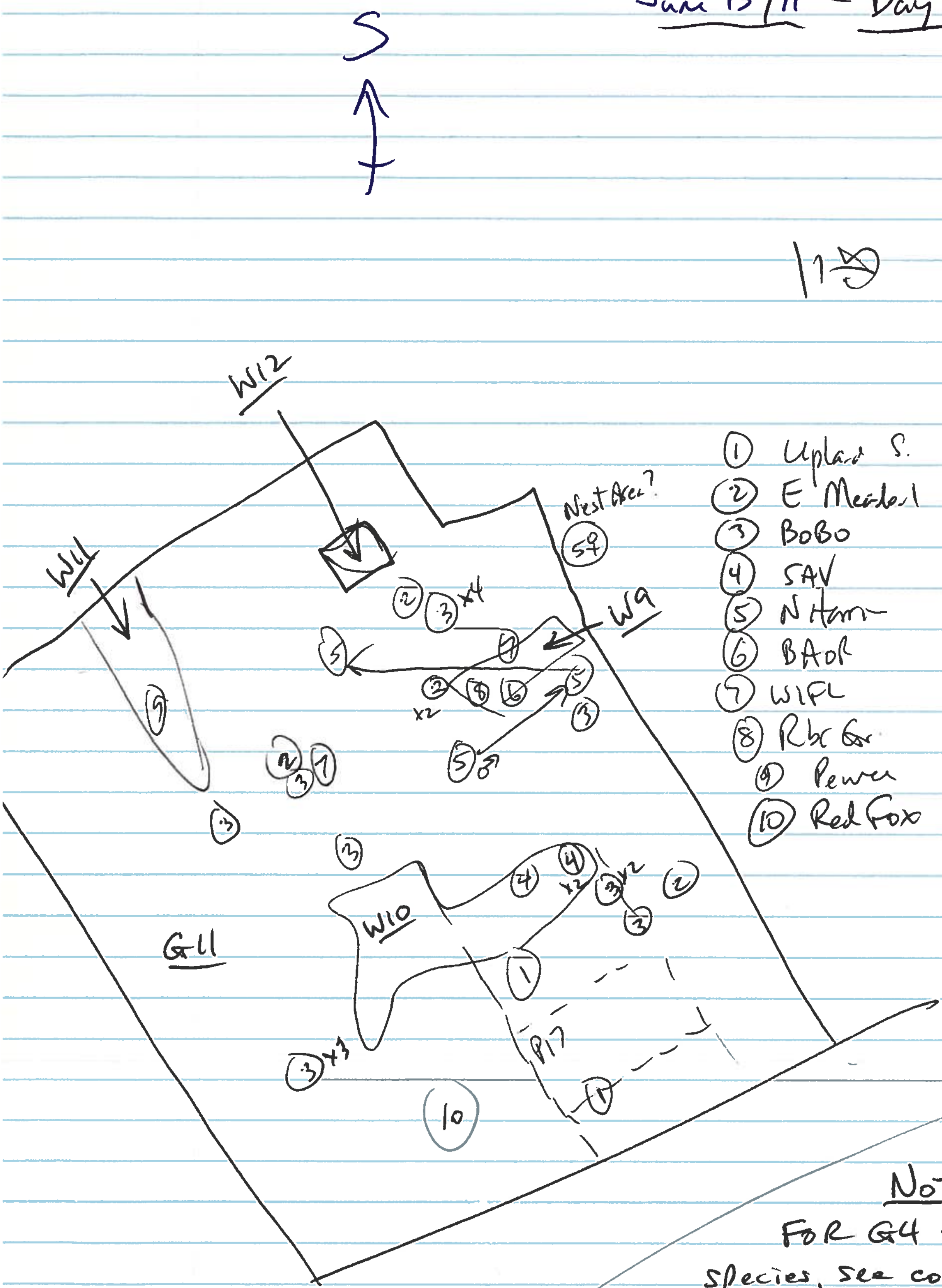
Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: (Project Manager)

REV: 2011-05-27 / FORM 031

G 11
June 13/11 – Day 3



① Upland S.
② E Meadowl
③ BoBo
④ SAV
⑤ N Harr
⑥ BAOR
⑦ WIFL
⑧ Rbr Gr
⑨ Pewee
⑩ Red Fox

NOTE:
FOR G4 significant species, see colour map

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 13/11

Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 10 | 0 | 25 | 0 | 0 |

**Feature No::** W20 **Habitat Type:** ________ **Time Start:** 0602 **Time End:** 0619

***Record location of all significant species on site map.***

W20

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † SM | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee SH | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin FY ~~SH~~ | FY | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † SH | P | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † SM | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † SH | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Quality Control: This form is complete ☑ ~~& legible ☑~~.

Signature: (Field Personnel)

Signature: (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 13/11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 9 | 1 | 70 | 0 | 0 |

**Feature No::** G11 **Habitat Type:** ______ **Time Start:** 705 **Time End:** 1005

***Record location of all significant species on site map.***

Red Fox

- ** Endangered, Threatened or Special Concern
- † Partners In Flight
- ‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | [illegible] | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † ~~P~~ A | A |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † SM | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ SH | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † SM | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † SM P | P |
| Killdeer | | Ea. Kingbird † [illegible] P | P | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. ✓ | X | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 9

Quality Control: This form is complete ☑ ~~& legible ☐~~.

Signature: ______________________
(Field Personnel)

Signature: Katie S
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W10 **Habitat Type:** Woodland **Time Start:** 0735 **Time End:** 0810

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. SM | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. P | P |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin FY | FY | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling SH | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle SH | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 9

Quality Control: This form is complete ☑ & legible ☑.

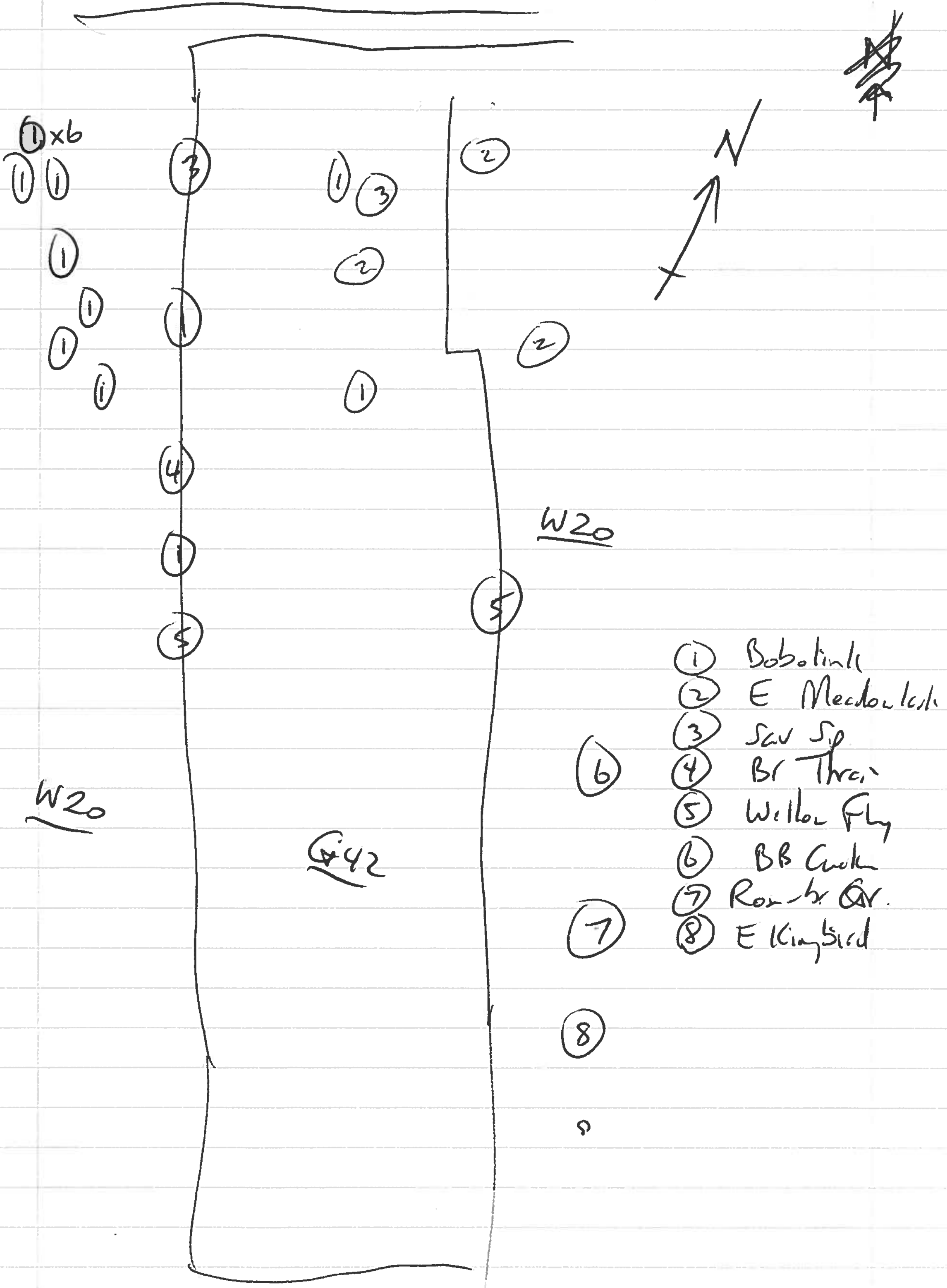
**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

June 13/11 - Day 3

G42



Stantec

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1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 13 / 11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 12 | 1 | 60 | 0 | |

**Feature No::** W9 **Habitat Type:** ______ **Time Start:** 0822 **Time End:** 0843

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin P | P | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird A | A | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † SH | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † A | A |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W11 **Habitat Type:** ____ **Time Start:** 0855 **Time End:** 0922

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird A | A | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling S·A | H | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** ____ (Field Personnel)

**Signature:** ____ (Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 13/11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 12 | 1 | 50 | 0 | 0 |

**Feature No::** G4 **Habitat Type:** ____________ **Time Start:** 1020 **Time End:** 1120

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † SM | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron flyover | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. Sm | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird Sm | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. SmA | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † P | P |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove Sm | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ ~~& legible ☑~~

**Signature:** ______________________ (Field Personnel)

**Signature:** ______________________ (Project Manager)

**Feature No.:** W7 **Habitat Type:** **Time Start:** 1101 **Time End:** 1113

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin SH | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. SM | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | H | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

flushed N end of section

Pg. 8 of 9

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 13/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 10 | Wind: 0 | Cloud: 10 | PPT: 0 | PPT in last 24 hrs: 0 |

P25

**GPS #: T**___

**Station:** P25

✓ **Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay [✓ ☐Pasture] ☐Crop

**UTM:**

**Start Time:** 0535

NRWS

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWSW | 2 | | | | A |
| YEWA | 1 | | | | A |
| EAME | | 1 | | | O |
| BoBo | | 1 | | | O |
| BoBo | | 2 | | | A |
| BoBo | 3 | | | | O |
| RWBB | 2 | | | | A |
| | | | | | |
| | | | | | |
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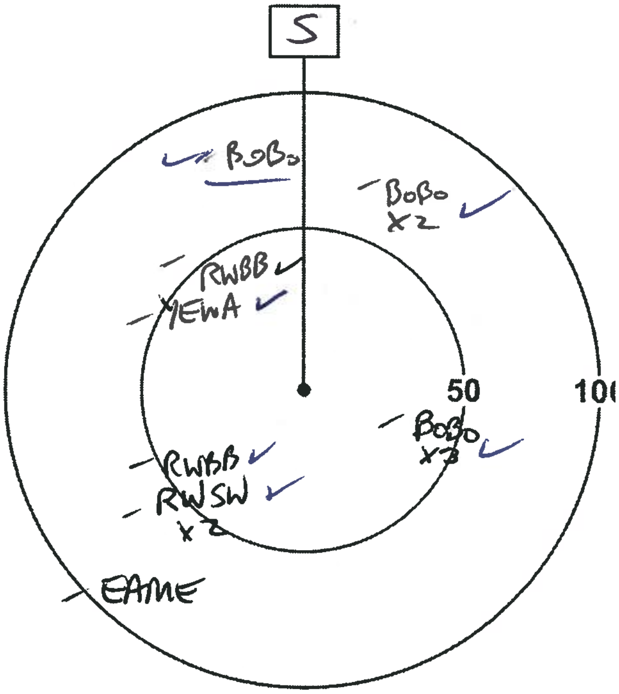
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Rough-w Swallow



G42

Quality Control: This form is complete (✓) & legible (✓).
Signature: AW
(Field Personnel)

Signature:
(Project Manager)

Page 1 of ~~6~~ 4

REV: May, 07 Form 020

✓ **Station:** P26

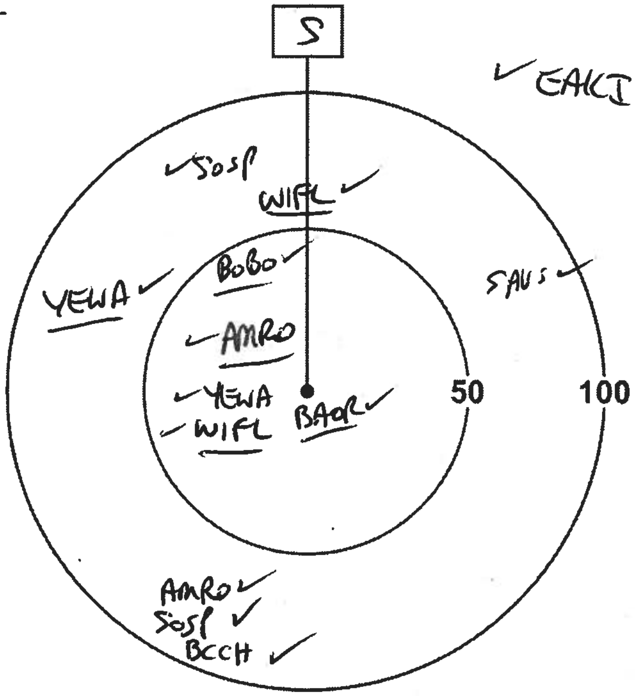
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0602

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WIFL | 1 | | | | O |
| WIFL | | 1 | | | O |
| AMRo | 1 | | | | A |
| BAOR | 1 | | | | A |
| SOSP | ~~2~~ | 2 | | | A |
| AMRo | | 1 | | | A |
| BCCH | | 1 | | | A |
| YEWA | 1 | 1 | | | O |
| BoBo | 1 | | | | O |
| SAVS | | 1 | | | O |
| EAKI | | | 1 | | A |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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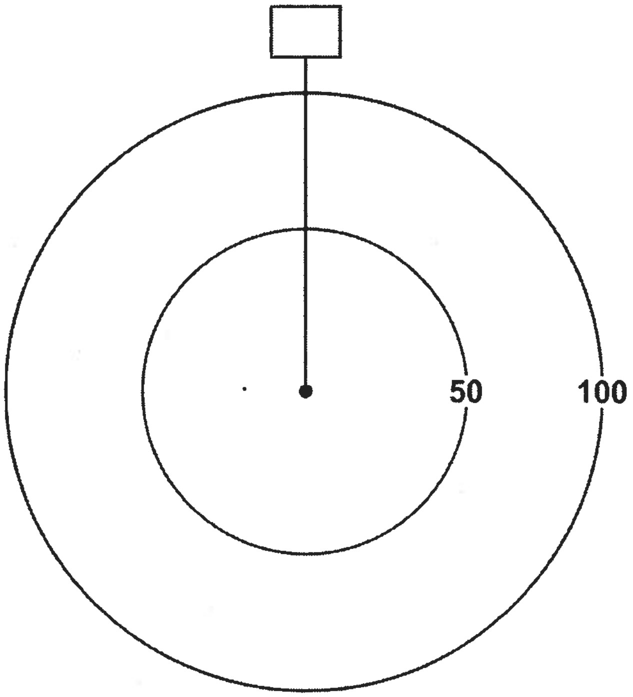
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of ~~5~~ 4

REV: May, 07 Form 020

✓

**Station:** P17 198 G11 ✓

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☑Pasture ☐Crop

**UTM:**

**Start Time:** 0714

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | | | 1 | |
| BoBo | | 5 | | | A |
| SAVS | 2 | | | | O |
| SAVS | | ~~#~~ 5 | | | O |
| EAME | | 1 | | | O |
| GRSP | 1 | | | | O |
| GRSP | | 1 | | | O |
| EAKI | 1 | | | | A |
| UPSA | | 1 | | | A |
| | | | | | |
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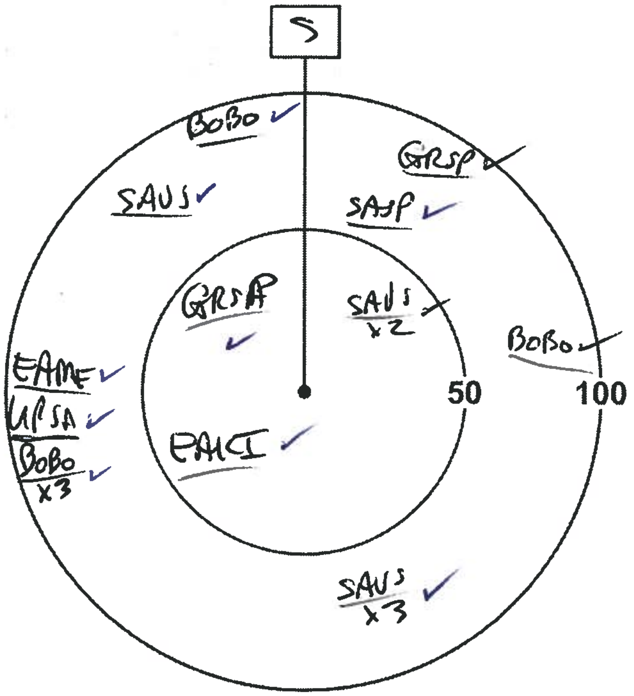
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P18 199 G11 ✓

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 0931

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SAVS | | 3 | | | O |
| SoSP | | | 1 | | O |
| RWBB | | | 1 | | O |
| TREJ | | | | 2 | A |
| BoBo | | 2 | | | A |
| RWBB | | | | 1 | A |
| | | | | | |
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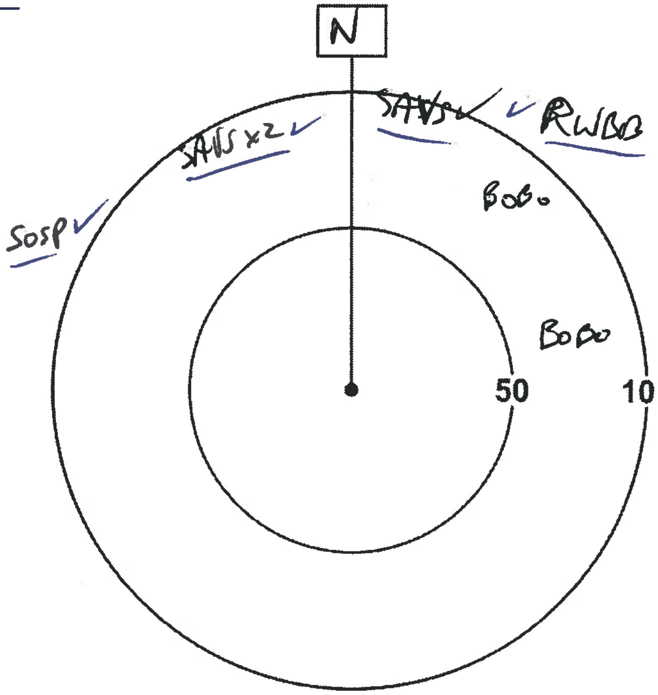
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: (Project Manager)

Page 3 of ~~#~~ 4

REV: May, 07 Form 020

Wrong location
GPS died (batteries)

**Station:** P6
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay [✓ ☐Pasture] ☐Crop ________________
**UTM:** ______________________________
**Start Time:** 1028

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| UPSA | 1 | 1 | | | A |
| KILL | | 2 | | | O |
| RWBB | 1 | | | | A |
| EAME | | | 2 | | O |
| SAVS | 1 | 1 | | | O |
| BoBo | 3 | | | | O |
| BARS | | | | 2 | A |
| | | | | | |
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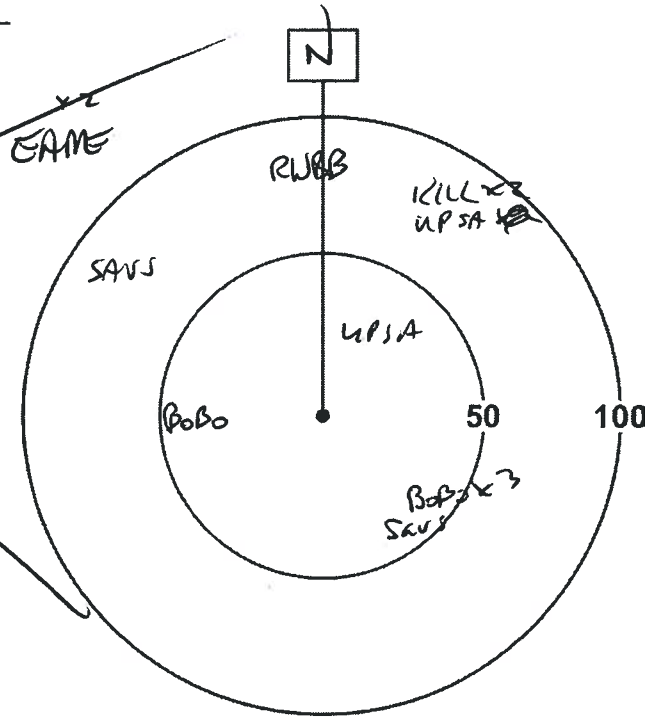

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

✓ G4

✓ **Station:** P6
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________
**UTM:** ______________________________
**Start Time:** 1045

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SOSP | 1 | | | | O |
| SOSP | | 1 | | | O |
| HOWR | 1 | | | | O |
| EAKI | | 1 | | | O |
| RWBB | | 2 | | | A |
| | | | | | |
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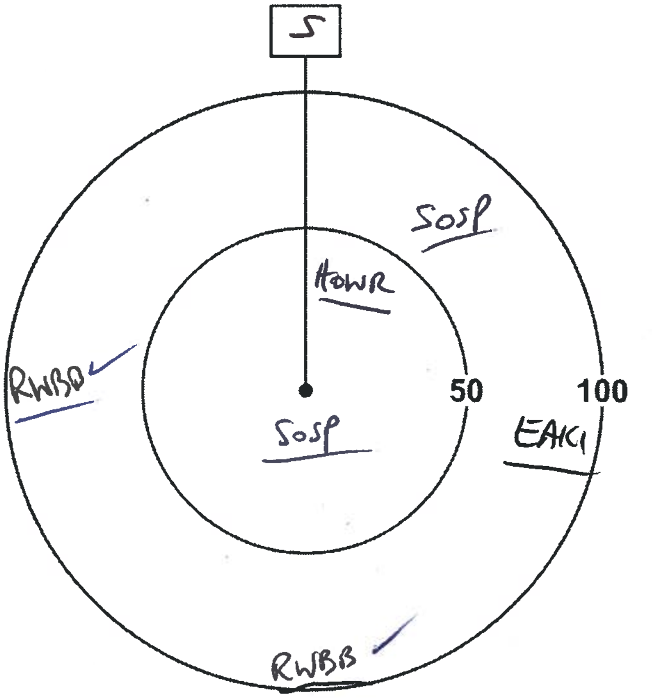
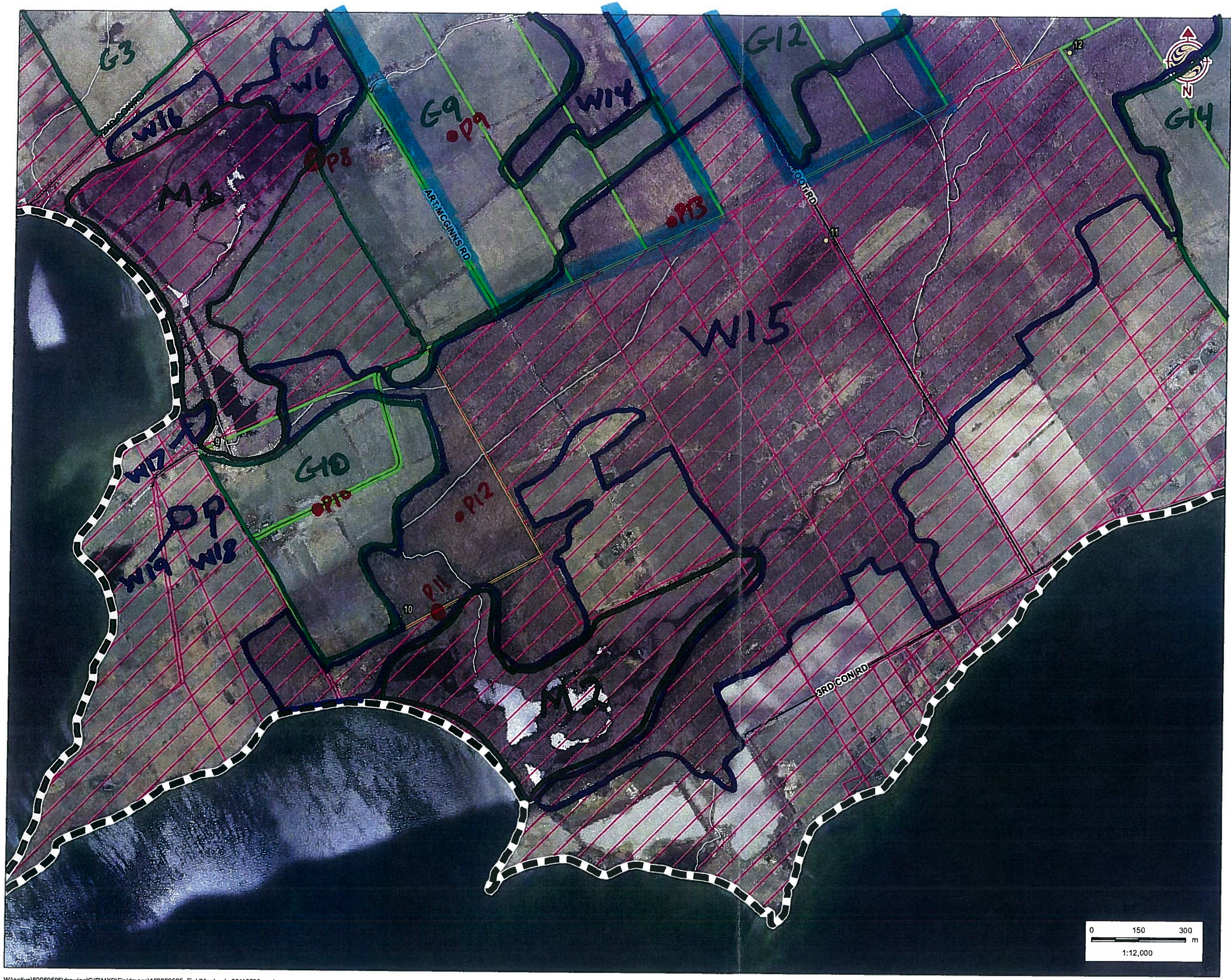


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________ (Field Personnel)
Signature: ______________ (Project Manager)

Page 4 of 4
REV: May, 07 Form 020



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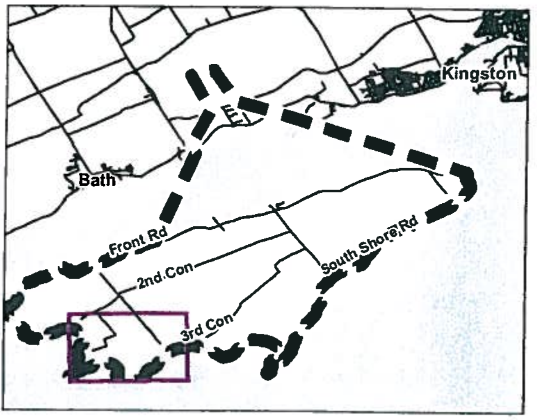
Revised on: 2011-05-27 By: dharvey

## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

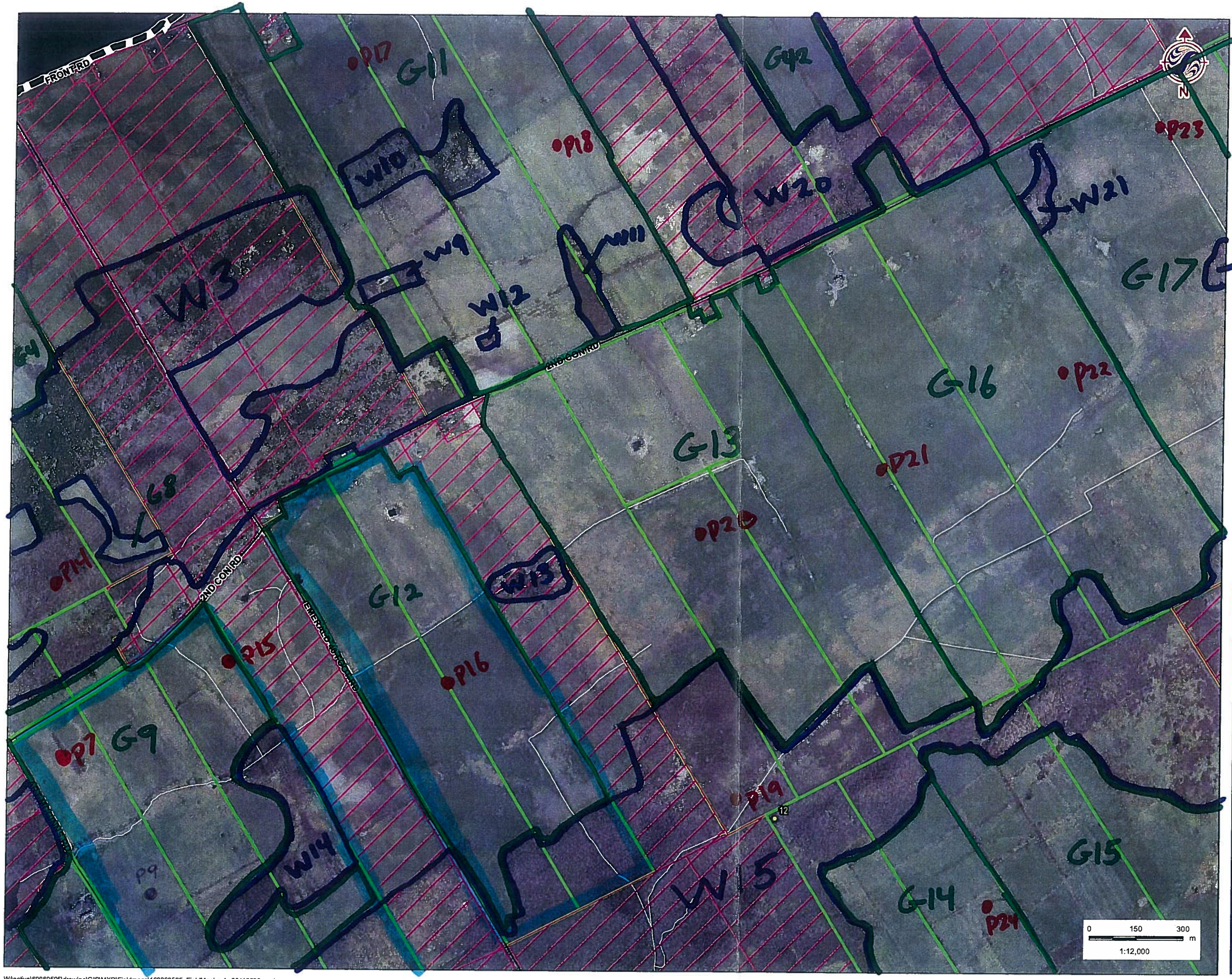
WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 2

Title

**FIELD MAPBOOK**

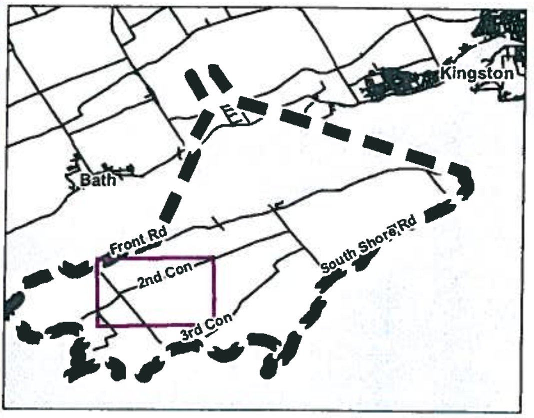


## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

**FIELD MAPBOOK**

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Revised on: 2011-05-27 By: dharvey

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 14/11
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: + | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10 | mod NE 4 | 100 | 0 | substantial rain |

**Feature No::** G9 **Habitat Type:** ____________ **Time Start:** 0516 **Time End:** 0722

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard SH | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern SM | S | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † A | A |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † SM | S | Bobolink † SH | H |
| Virginia Rail | | Ea. Phoebe | | European Starling SH | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † CF | CF |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow N | N | Pine Wa. ‡ | | C Merganser | X |
| Mourn. Dove SM | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W14 **Habitat Type:** ____________ **Time Start:** 0614 **Time End:** 0650

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat Sm | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † SM | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk SH | H | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SM | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling A | A | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe DD | DD | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock H | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch SH | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________ (Field Personnel)

**Signature:** Katie ____________ (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Stantec**

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 14/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>10 | MOD WIND: ++<br>NE 4 | CLOUD:<br>40 | PPT:<br>0 | PPT (in last 24 hrs):<br>substantial rain |

✓ **Feature No::** W15 **Habitat Type:** ______ **Time Start:** 0740 **Time End:** 818

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † SM | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo SM | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay SH | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

Jun 14/11

**Feature No.:** G12 **Habitat Type:** ____ **Time Start:** 0835 **Time End:** 0925

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SH | CF |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ SH | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † CF SM | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. CF | CF |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe SM | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 4

Quality Control: This form is complete ☑ & legible ☑

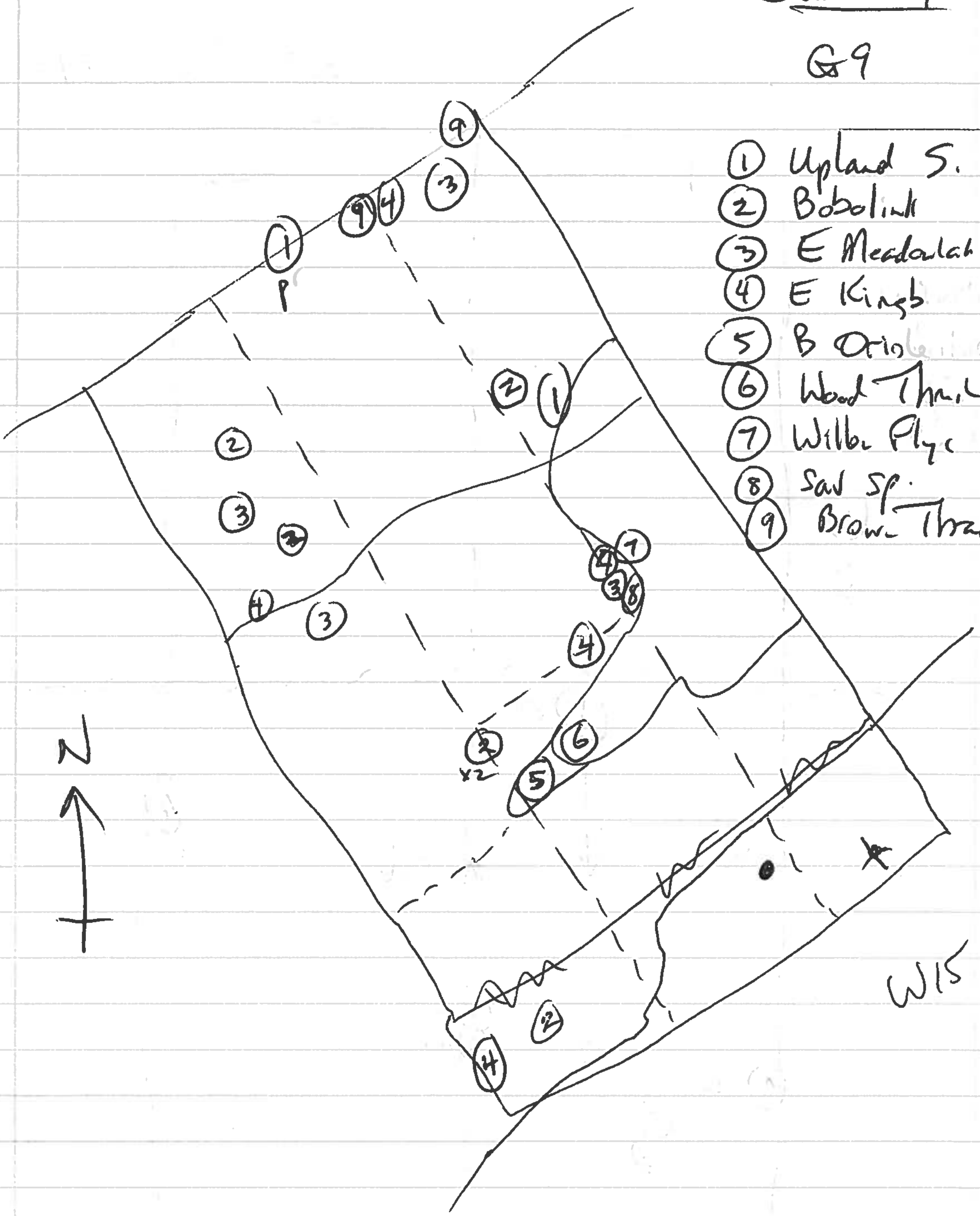
**Signature:** ____ (Field Personnel)

**Signature:** Katie ____ (Project Manager)

June 14/11

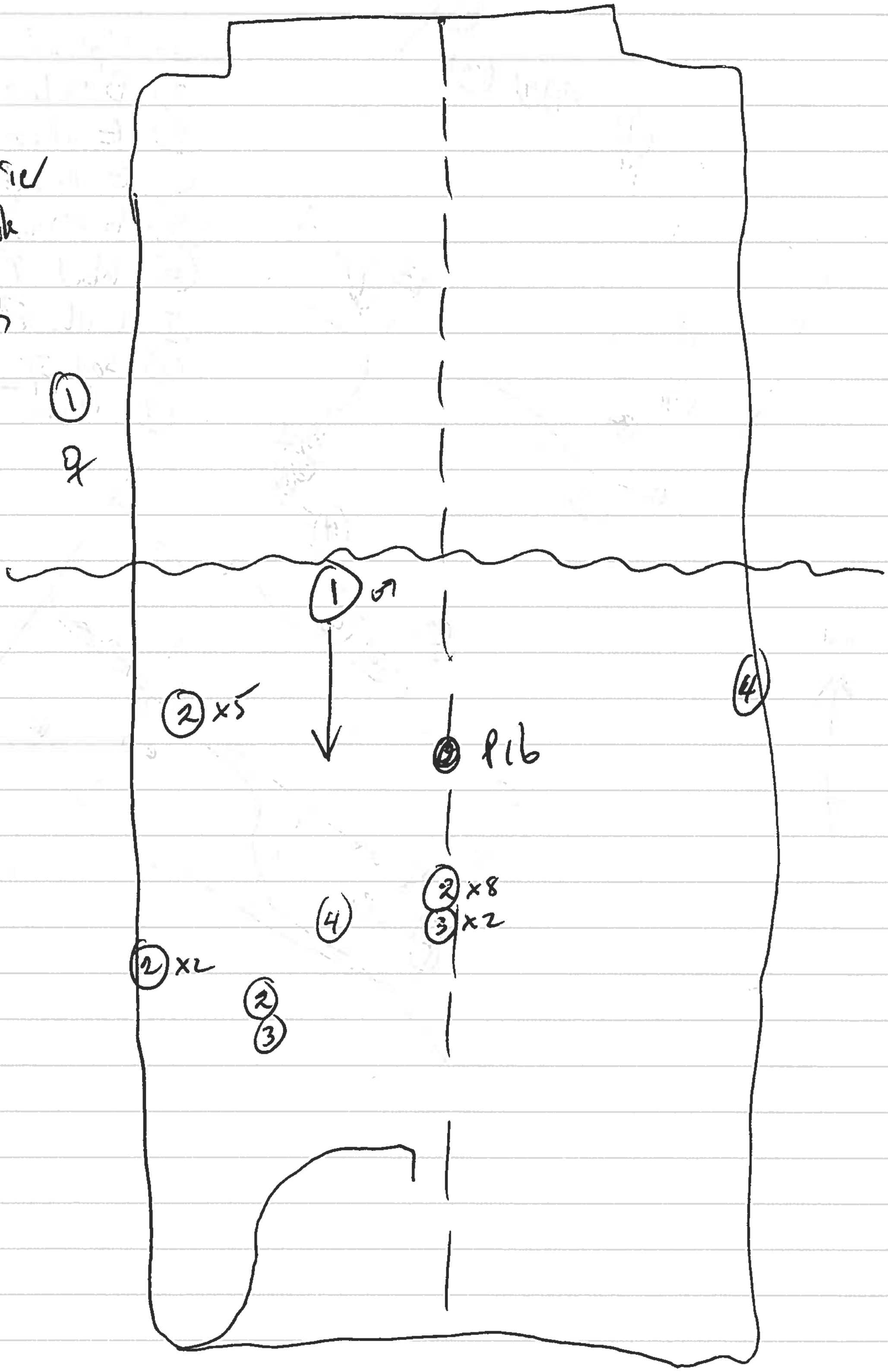
G9

① Upland S.
② Bobolink
③ E Meadowlark
④ E Kingb
⑤ B Oriole
⑥ Wood Thrush
⑦ Willow Flyc
⑧ Sav Sp.
⑨ Brown Thrasher



G12 Jun 14/11

① N Harrier
2 Bobolink
3 Sav Sp
4 E Kingb



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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 14/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 10 | Wind: Mod 4 | Cloud: 100 | PPT: 0 | PPT in last 24 hrs: substantial rain |

**GPS #: T**___

**Station:** P7 /216 G9

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

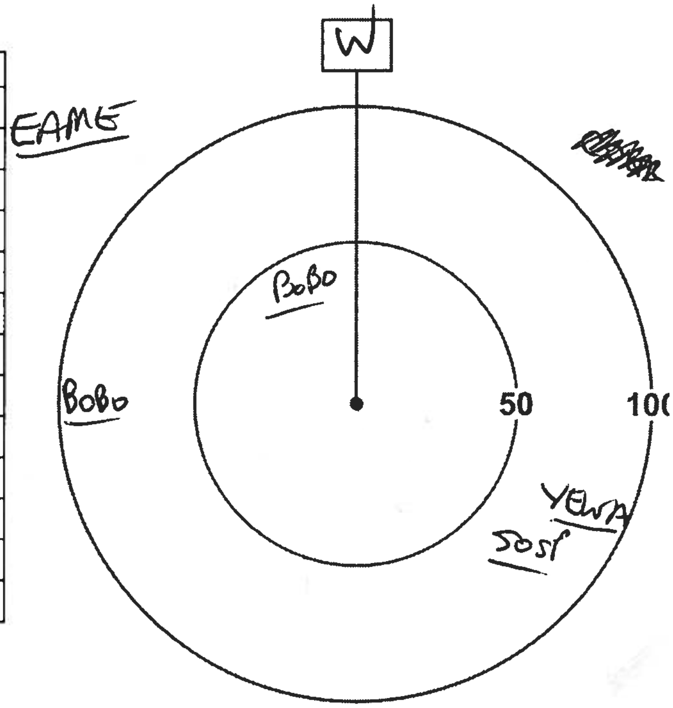
**UTM:** ____________

**Start Time:** 0525

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| MALL | | | | 3 | A |
| BARS | | | | 1 | A |
| YEWA | | 1 | | | O |
| EAME | | | 1 | | A |
| COGR | | | 5 | | A |
| AMGO | | | | 1 | A |
| BHCO | | | 1 | | A |
| SOSP | | 1 | | | A |
| BOBO | 1 | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

✓

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: ____________ (Field Personnel)
Signature: ____________ (Project Manager)

Page 1 of 3

REV: May, 07 Form 020

June 14/11

✓

**Station:** P9 /217 G9

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0553

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | 1 | 1 | | | O |
| COGR | | | | 1 | A |
| BOBO | | 2 | | | A |
| SAVS | 4 | | | | O |
| | | | | | |
| | | | | | |
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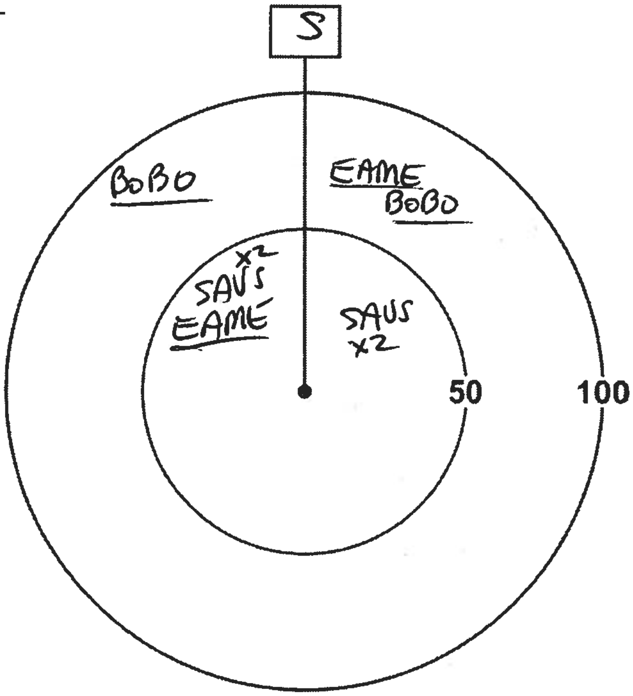

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P15 /1245 G9

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0700

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 3 | | | | A |
| BOBO | 2 | | | | O |
| BARS | | | | 2 | A |
| SAVS | 2 | | | | A |
| MODO | | | 1 | | A |
| SAVS | | 1 | | | O |
| EAME | | | 1 | | O |
| | | | | | |
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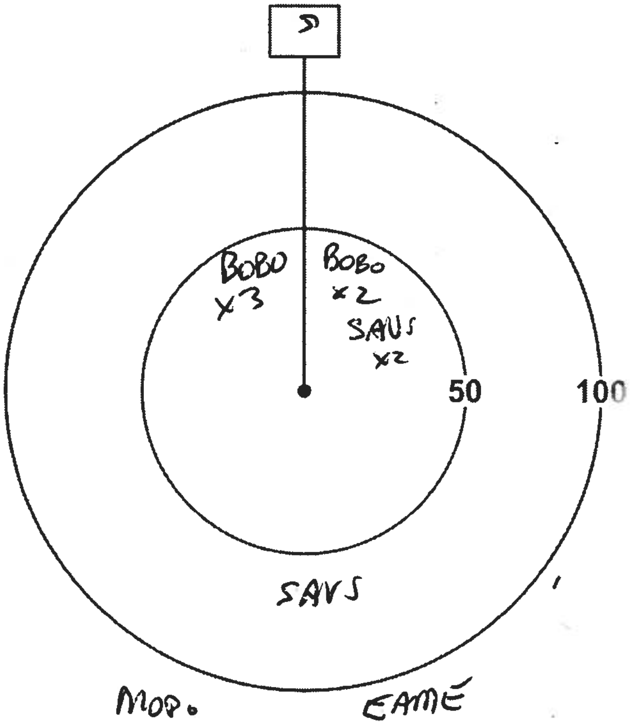

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (__) & legible (__).

Signature: AW (Field Personnel) Signature: ____________ (Project Manager)

Page 2 of 3 REV: May, 07 Form 020

June 14/11

W15

**Station:** P13 /218

**Habitat:** ☐[✓ Forest] ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ______________________

**Start Time:** 0755

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| REVI | | 1 | | | A |
| WOTH | | 1 | | | O |
| AMRO | 2 | | | | O |
| BLJA | | 1 | | | A |
| | | | | | |
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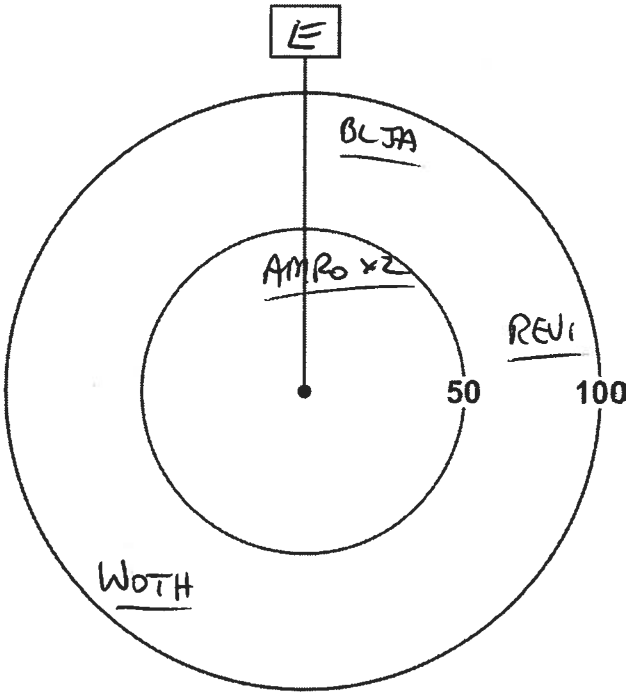

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P16 /219

G12

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ______________________

**Start Time:** 0857

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WISN | | 1 | | | B |
| NOHA | | 1 | | | A |
| SAVS | 3 | 3 | | | O |
| BOBO | 6 | 6 | | | O |
| | | | | | |
| | | | | | |
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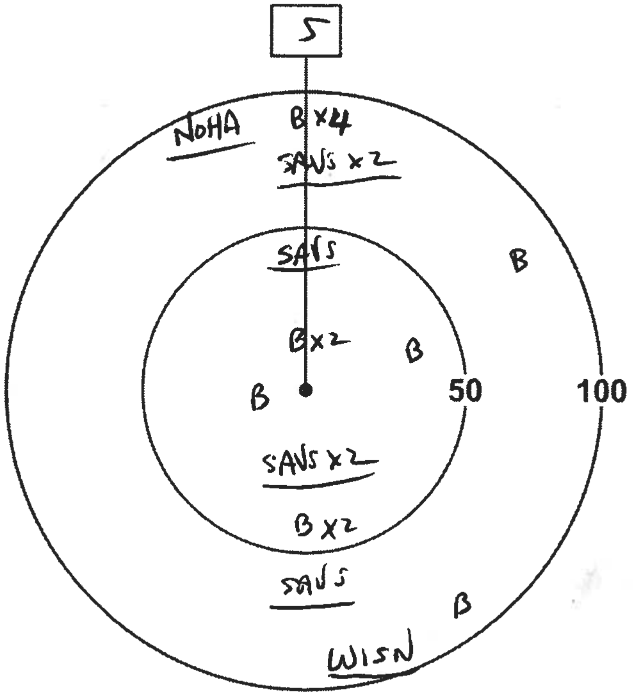


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

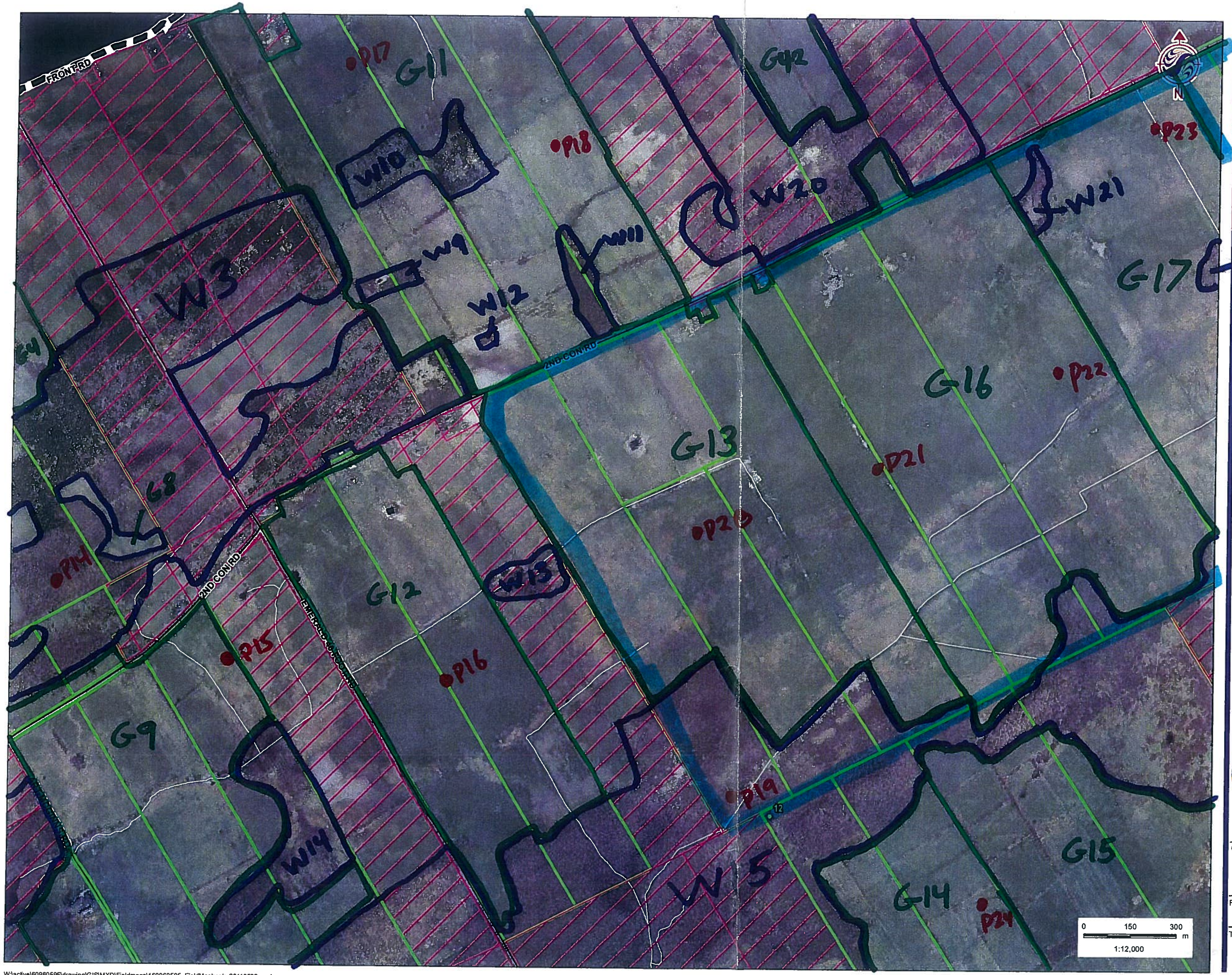
Quality Control: This form is complete (__) & legible (__).

Signature: AW (Field Personnel)

Signature: ______________ (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

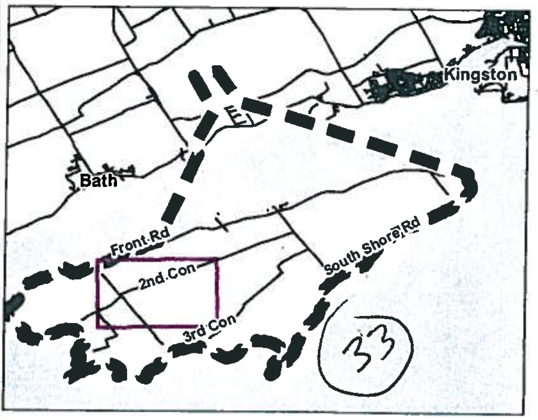


## Legend

- ⌐ Study Area
- — Road
- Watercourse
- ● Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

**FIELD MAPBOOK**

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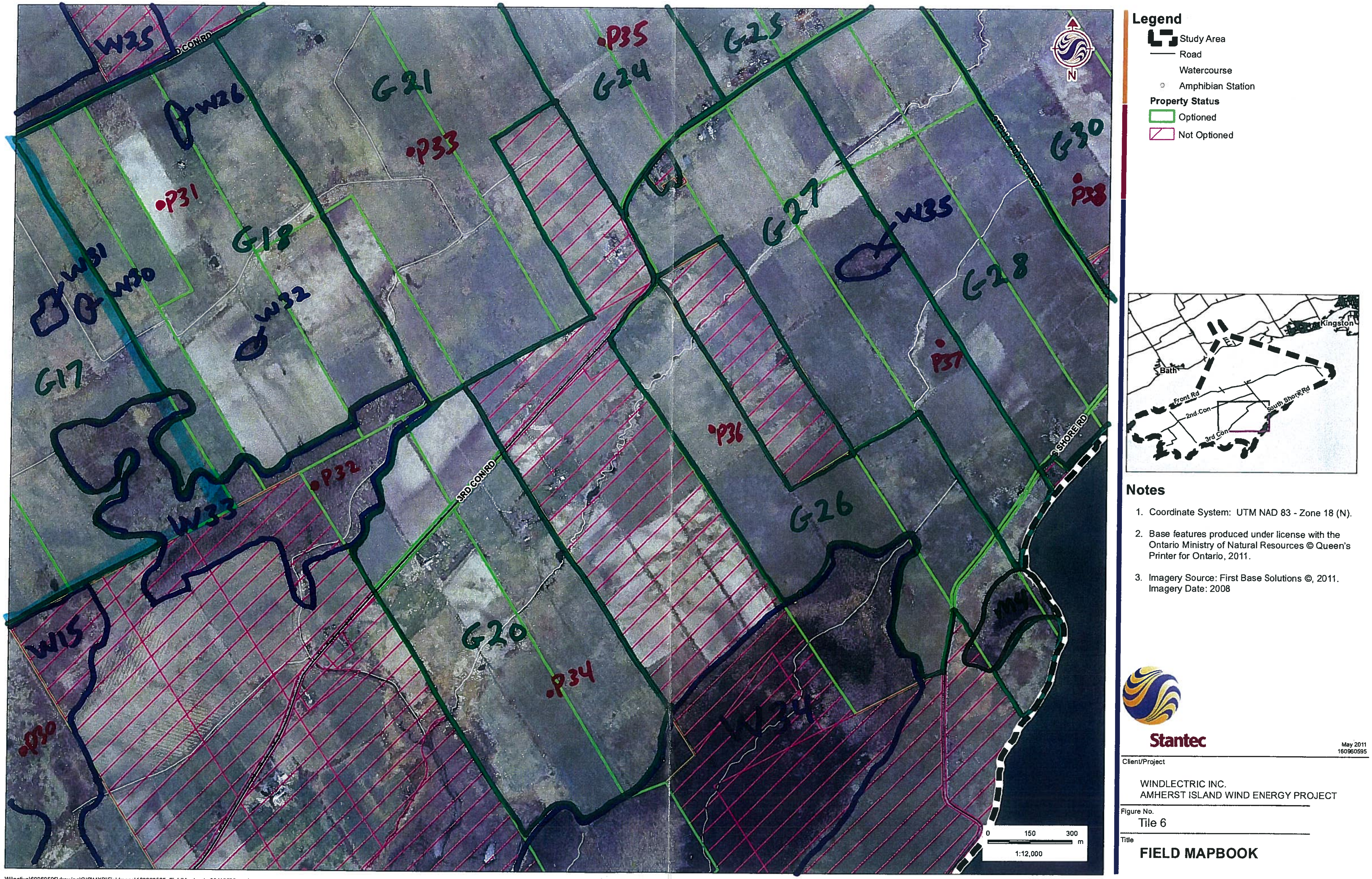
Revised on: 2011-05-27 By: dharvey



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 17/11
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 13 | SSE 2 | 100 | 0 | 0 |

**Feature No::** G13
**Habitat Type:** 
**Time Start:** 0530 0810
**Time End:** 0720 0905

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | X | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † ACF | CF |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ P H | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | P | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | X | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † SH | H | Least Fly. | | Br. Thrasher † | | Bobolink † PA | A |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. A | NY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † SM | S |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | CF | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay SH | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow SH | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:** 
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G16 **Habitat Type:** **Time Start:** 1002 **Time End:** 1035

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † A | A | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:** Katie
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 17 / 11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | SSE 1 | 100 | 0 | 0 |

**Feature No::** W15 **Habitat Type:** ______ **Time Start:** 0710 **Time End:** 0810

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ SM | S | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery P | P | Song Sp. A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † SM | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. SM | S | Gray Catbird SM | S | Rose-br. Grosbeak † H | H |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SM | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † SM | S |
| Am. Woodcock H | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow P | P | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W13 **Habitat Type:** ______ **Time Start:** 0845 **Time End:** 0852

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. SH | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † SM | S |
| * Red-tailed Hawk | A | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Red-tailed Hawk
* nest may not be in this woodlot

Pg. 3 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 17/11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | S ① | 80% | 0 | 0 |

**Feature No::** G17 **Habitat Type:** ______ **Time Start:** 0925 **Time End:** 1002

1035 1058

1120 1207

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | P | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | DD |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | FY |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † H | A | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W31 **Habitat Type:** ____ **Time Start:** 1150 **Time End:** 1157

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SM | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 17/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>23 | WIND:<br>5 ① | CLOUD:<br>90 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No::** W30 **Habitat Type:** ______ **Time Start:** 1132 **Time End:** 1150

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | SM |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | SM |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | SH | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | SM | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | SH | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

**Feature No.:** W33 **Habitat Type:** ______ **Time Start:** 1058 **Time End:** 1120

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. H | H | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | A | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SM | S | Br. Thrasher † | A | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing SH | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † SH | H |
| Am. Woodcock | | Red-eyed Vireo SM | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch SH | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow SH | H | Pine Wa. ‡ | | | |
| Mourn. Dove SH | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 17/11
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | 0 | 100 | 0 | 0 |

**Feature No::** W21 **Habitat Type:** ______ **Time Start:** 1207 **Time End:** 1215

***Record location of all significant species on site map.***

Thrasher pair on road @ W21

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | P | Br. Thrasher † | P | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | SM | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 9

Quality Control: This form is complete ~~☐ & legible ☐.~~

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** GX7 **Habitat Type:** ____ **Time Start:** 0925 **Time End:** 1002

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | DD |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ H | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | |
| Killdeer | | Ea. Kingbird † H | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☐ & legible ☐.

**Signature:** ____________________ (Field Personnel)

**Signature:** ____________________ (Project Manager)

REV: 2011-05-27 / FORM 031

①

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595
Project Name: Amherst
Date Jun 17/11
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 13 | Wind: SSE 2 | Cloud: 100 | PPT: 0 | PPT in last 24 hrs: 0 |

√

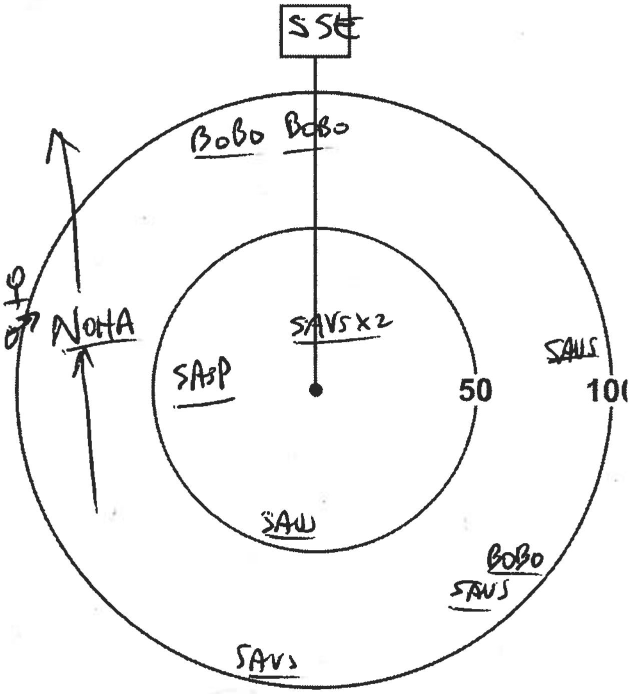
**GPS #: T__**

G16

**Station:** P21 /224
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____
**UTM:** ____
**Start Time:** 0611

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGU | | | | 1 | B |
| EUST | | | | 1 | A |
| NOHA | | 2 | | | A |
| SASP | 4 | 3 | | | O |
| BOBO | | 3 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: AW (Field Personnel)
Signature: ____ (Project Manager)

Page 1 of 3

REV: May, 07 Form 020

②

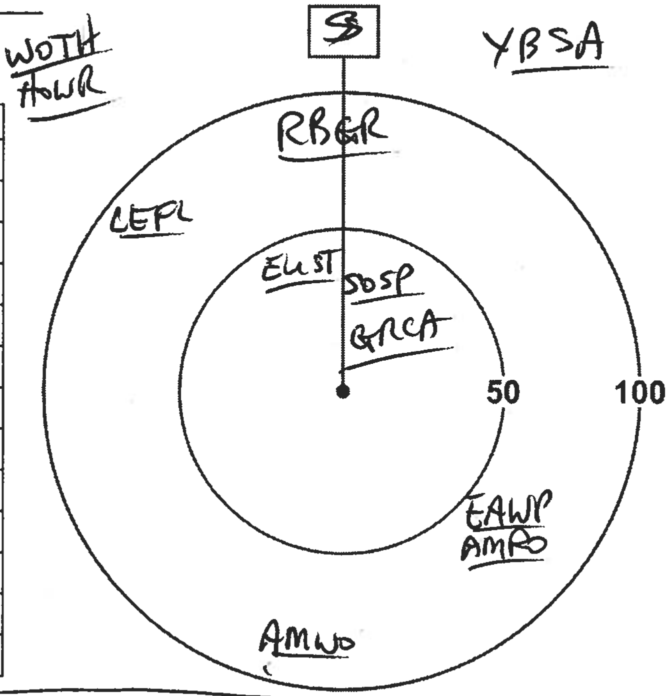
✓ **Station:** P19/222 W15

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0733

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| YBSA | | | 1 | | A |
| WOTH | | | 1 | | O |
| HOWR | | | 1 | | O |
| LEFL | | 1 | | | O |
| RBGR | | 1 | | | A |
| EUST | 1 | | | | A |
| SOSP | 1 | | | | O |
| GRCA | 1 | | | | O |
| EAWP | | 1 | | | A |
| AMRO | | 1 | | | A |
| AMWO | | 1 | | | O |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

✓ **Station:** P20/221 G13

Moderately grazed mostly grass, some chewed down short

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0826

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SAVS | 1 | | | | O |
| BARS | | | | 1 | A |
| SOSP | | | 1 | | O |
| AMRO | | | 1 | | O |
| EAME | | | | 2 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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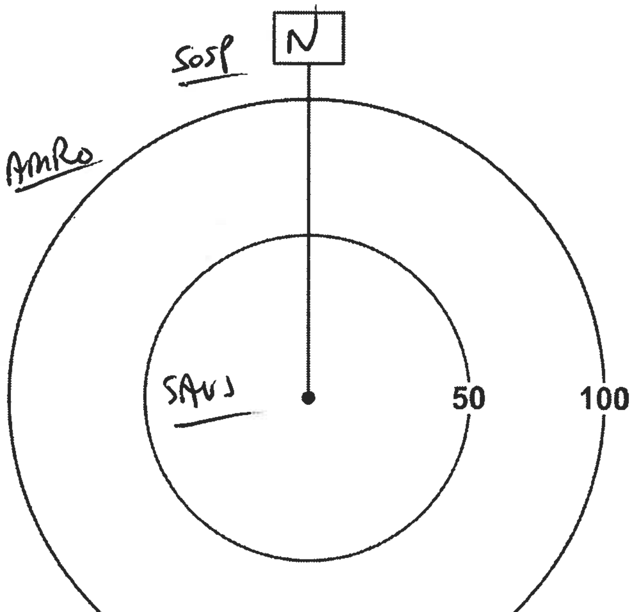
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓)

Signature: AW (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of 3

③

✓

**Station:** P23 / 226 (G17)

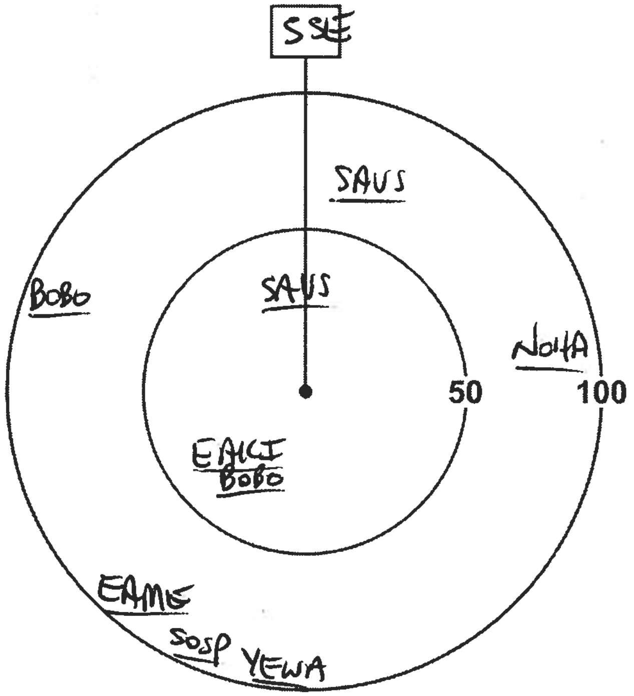
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** 0935

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | | 1 | | | O |
| EAKI | 1 | | | | O |
| SAVS | 1 | 1 | | | O |
| BoBo | | | | 1 | A |
| YEWA | | 1 | | | O |
| NoHA | | 1 | | | O |
| BoBo | 1 | 1 | | | O |
| SoSP | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P22/ 223 (G16)

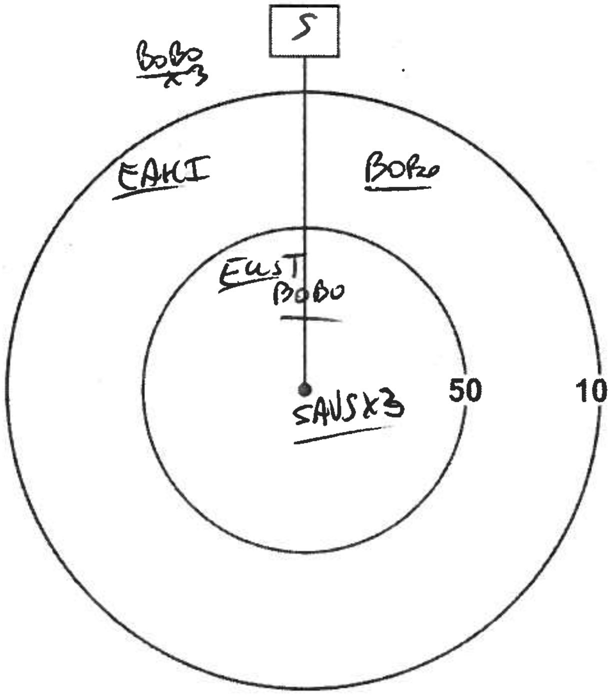
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** 1010

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BoBo | 1 | 1 | 3 | | O |
| EUST | 2 | | | | O |
| SAVS | 3 | | | | O |
| EAKI | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

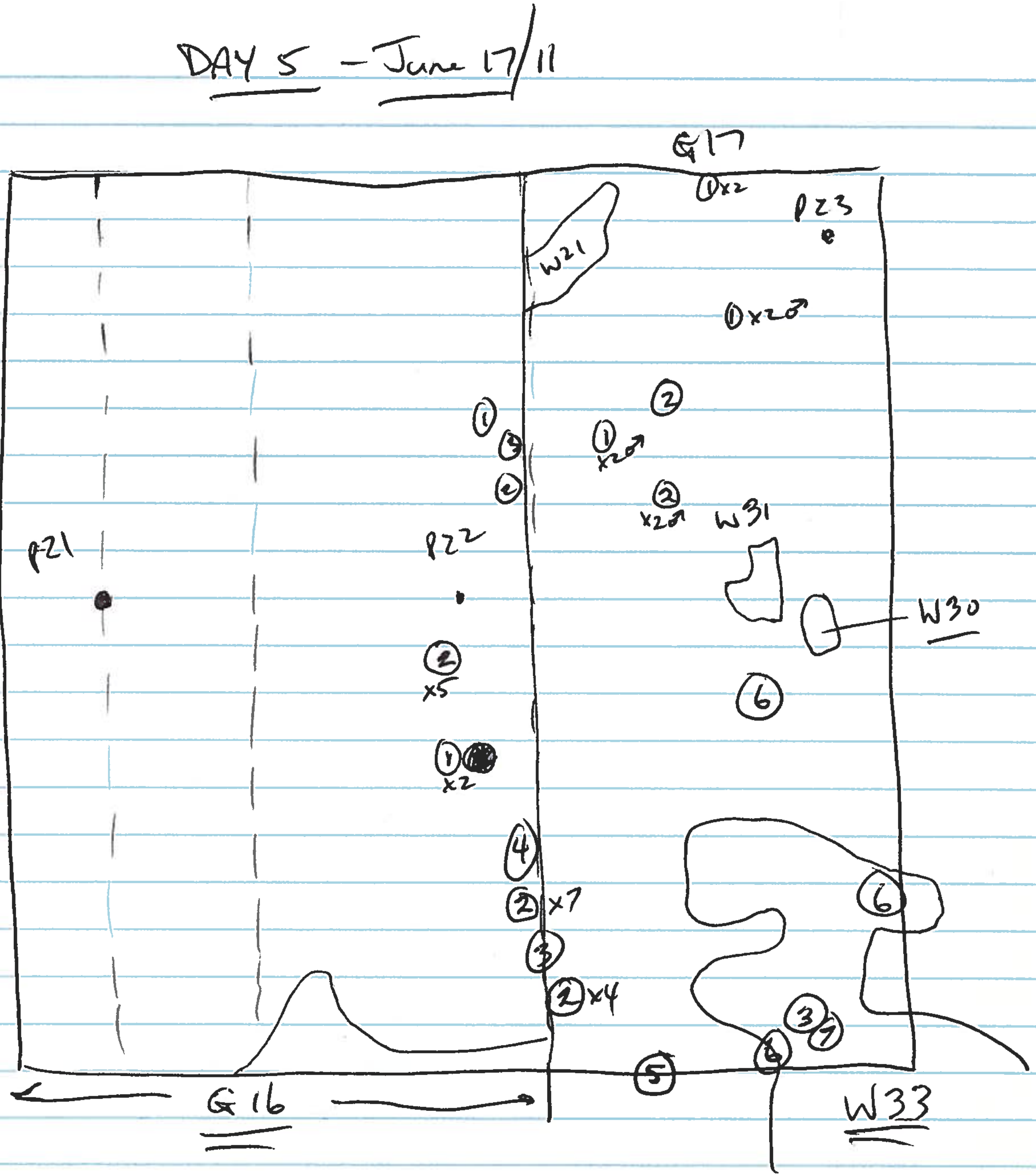


Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)    Signature: ____________ (Project Manager)

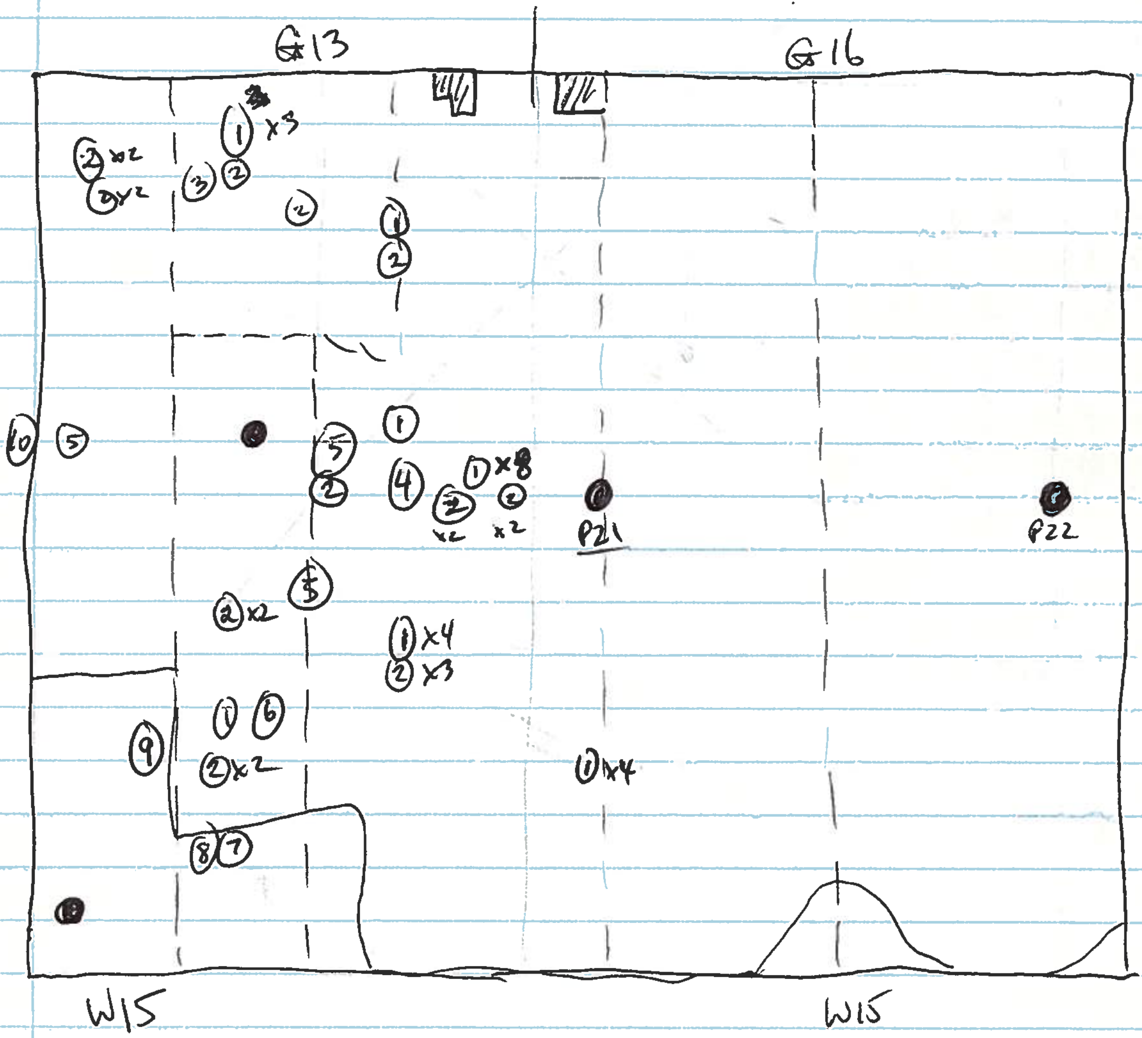
Page 3 of 3    REV: May, 07    Form 020

# DAY 5 - June 17/11



① Savannah Sp
② Bobolink
③ E Kingbird
④ N Harrier
⑤ B Oriole
⑥ Willow Flyc.
⑦ Brown Thrasher

DAY 5 – June 17/11



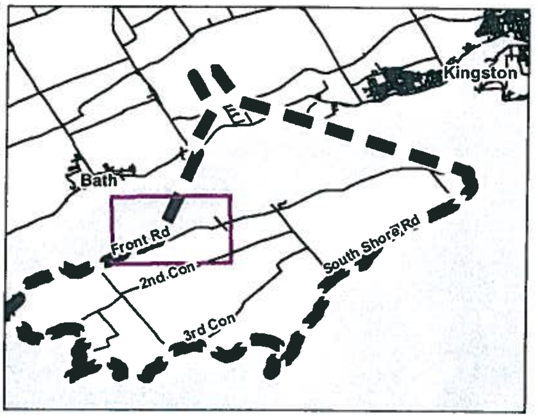
① Bobolink
② Sav Sparrow
③ E Meadowl.
④ N Harrier ♀
⑤ E Kingbird
⑥ Am Kestrel
⑦ Yb Sapsucker (tapping)
⑧ B Oriol
⑨ R br Grosbeak
⑩ Willow Flyc

## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 4

Title

**FIELD MAPBOOK**

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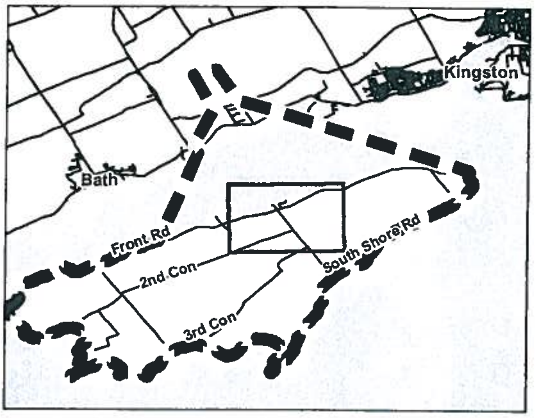
Revised on: 2011-05-27 By: dharvey

## Legend

- ▨ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 5

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 18/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 13 | WIND: 0 | CLOUD: 30 light fog | PPT: 0 | PPT (in last 24 hrs): 0 |

→ at start

**Feature No::** G23 **Habitat Type:** ____ **Time Start:** 0518 **Time End:** 0612

***Record location of all significant species on site map.***

* well off to E, maybe 1 km.

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard SH | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| * Am. Bittern | SM | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † SH | H | Bobolink † | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † SM | S |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | SH | Pine Wa. ‡ | | | |
| Mourn. Dove SM | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 8

Quality Control: This form is complete ☑ ~~& legible ☑.~~

**Signature:** AW
(Field Personnel)

**Signature:** Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W24 **Habitat Type:** ____________ **Time Start:** 0612 **Time End:** 0637

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † SH | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling SH | H | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing SH | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle SH | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. P | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. SH | S | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

[illegible] tips

Pg. 2 of 8

**Signature:** AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Kathi
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 18/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>18 | WIND:<br>0 | CLOUD:<br>0 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No::** W29 **Habitat Type:** ________ **Time Start:** 0712 **Time End:** 0724

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † SM | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin P | P | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling P | P | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | A | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 8

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

**Feature No.:** W28 **Habitat Type:** **Time Start:** 0737 **Time End:** 0750

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin A | NE | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay P | P | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow P | P | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 8

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________ (Field Personnel)

**Signature:** Katie ______________________ (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 18/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: 0 | CLOUD: 10 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G22 **Habitat Type:** ________ **Time Start:** 0750 **Time End:** 0920

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | S[illegible] |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † SM | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † SH P | P |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. P | P |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † SM | S | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † SH | H | Blue-wing. Wa. † | | Co. Grackle SH | S |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | FY |
| Upla. Sandpiper ‡ | X | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | S[illegible] |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | A | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W27 **Habitat Type:** ____________ **Time Start:** 0827 **Time End:** 0848

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ |  |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat SM | S |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren SM | S | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. SM | S |
| N. Harrier †‡ |  | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † |  | Am. Robin |  | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. SM | S | Gray Catbird SM | S | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk |  | Willow Fly. † |  | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. |  | Br. Thrasher † |  | Bobolink † |  |
| Virginia Rail |  | Ea. Phoebe |  | European Starling |  | Red-winged Bl. |  |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † |  | Blue-wing. Wa. † |  | Co. Grackle |  |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. SM | S |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo |  | Yellow Wa. |  | Baltimore Oriole † SH SM | S |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species ... |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

~~E Tailed Blue 502~~

Pg. 6 of 8

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________ (Field Personnel)

**Signature:** ____________ (Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 18/11
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: NE ① | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W25 **Habitat Type:** ____________ **Time Start:** 1008 **Time End:** 1035

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † SM | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle A | A |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 8

Quality Control: This form is complete ☑ & legible ☑

**Signature:** ____________________
(Field Personnel)

**Signature:** ____________________
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G19 **Habitat Type:** ____________ **Time Start:** 0942 **Time End:** 1015

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin Ci | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | A | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 8

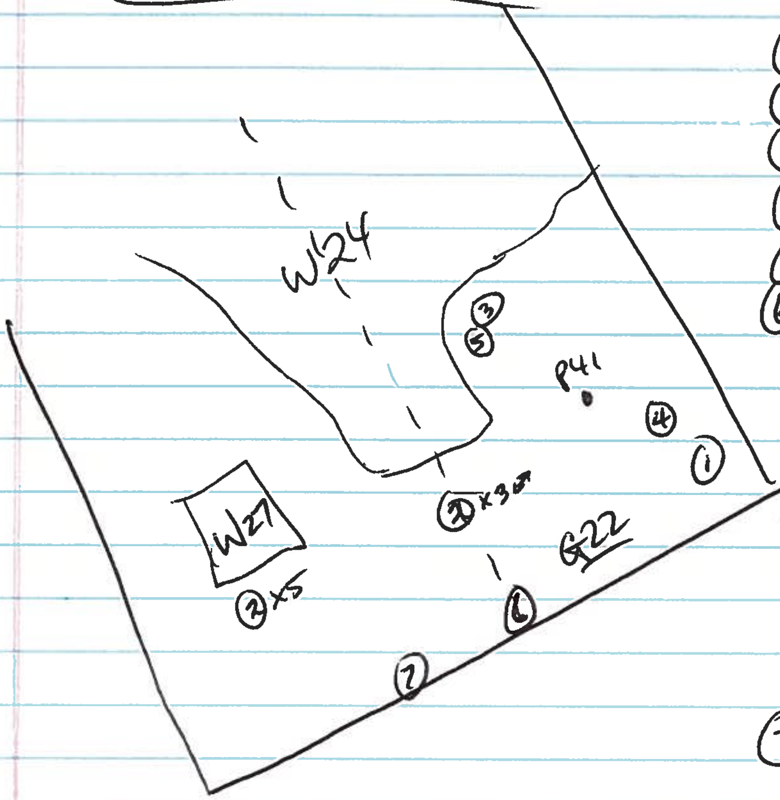
Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________ (Field Personnel)

**Signature:** ____________ (Project Manager)

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

# G22 — June 18/11 — Day 6

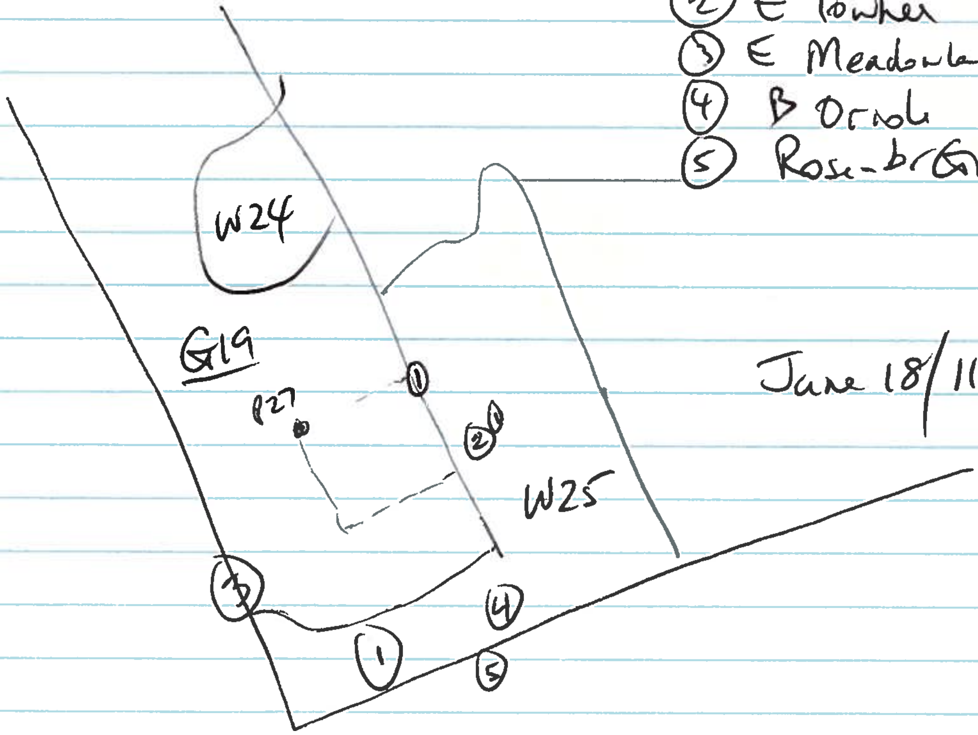


① Grasshoppe Sparrow P
② Bobolink
③ Field Sp ♂
④ Willow Flyc ♂
⑤ Br Thrasher ♂
⑥ Pewe (treed hedgerow) ♂

W24 0827-0825 (Send)

EUST NY
RBRGR ♂
TV SHP

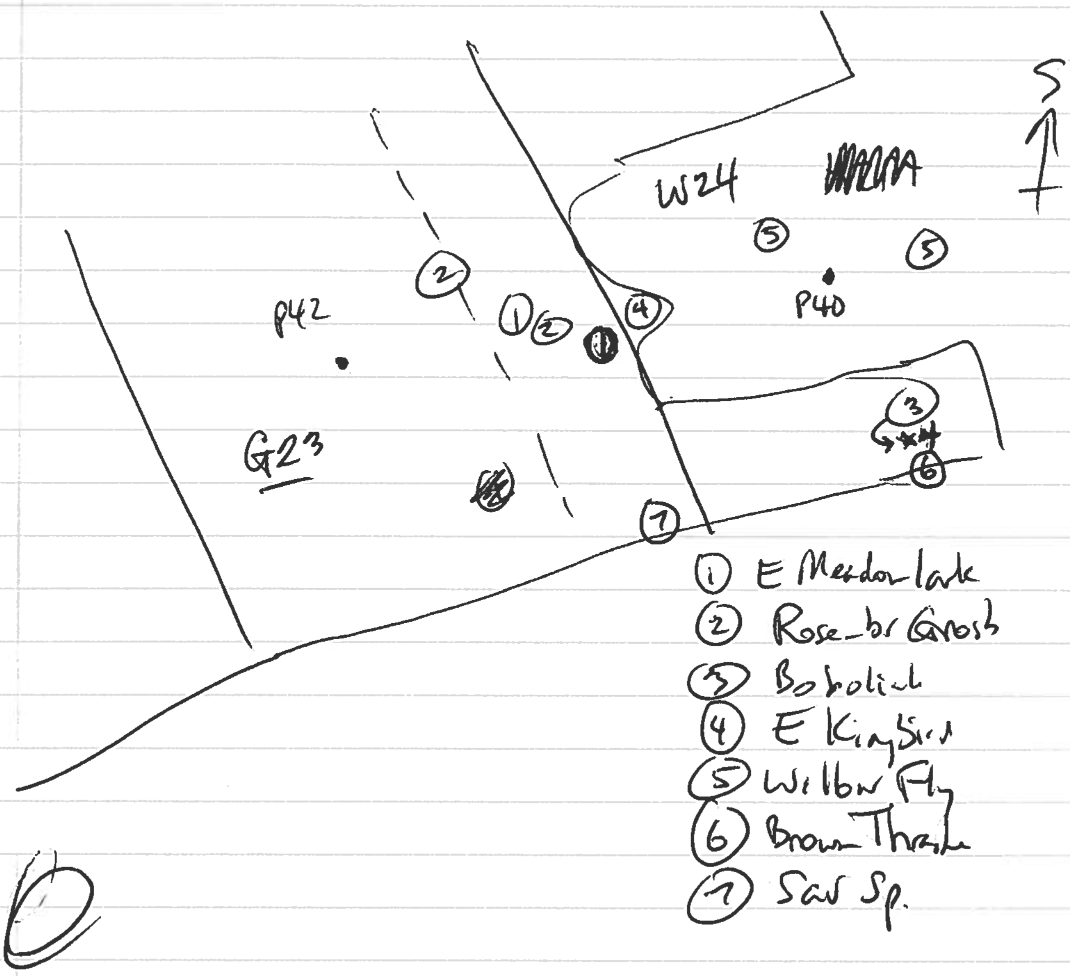
⑦ Sav Sparrow



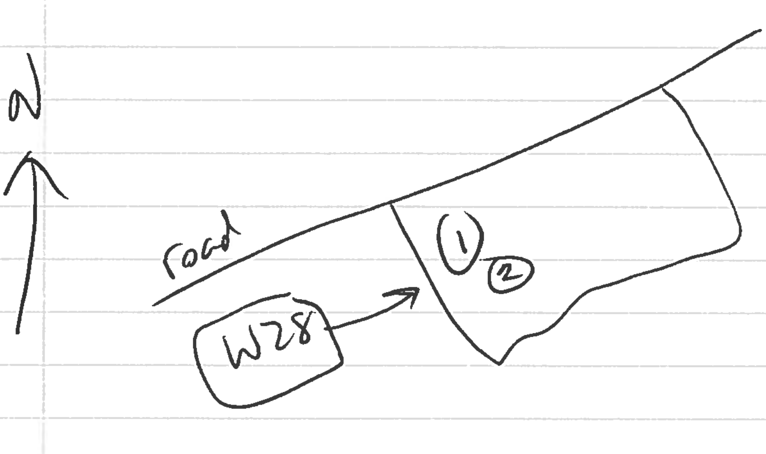
① Willow Flycatch ♂
② E Towhee
③ E Meadowla
④ B Oriole
⑤ Rose-br Grosb.

June 18/11

June 18/11 - Day 6



① E Meadowlark
② Rose-br Grosb
③ Bobolink
④ E Kingbird
⑤ Willow Fly
⑥ Brown Thrasher
⑦ Sav Sp.



① Baltimore Oriole
② Pewee

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 18/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 13 | Wind: 0 | Cloud: 30 | PPT: 0 | PPT in last 24 hrs: 0 |

(light fog)

GPS #: T___

✓

Station: P42 / 229 G23

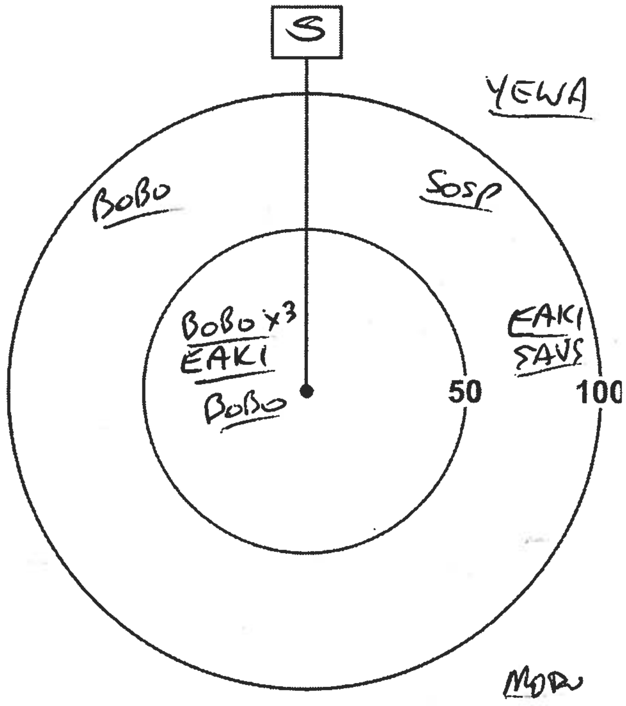
Habitat: ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ___

UTM: ___

Start Time: 0530

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| CoGR | | | | 1 | A |
| SAVS | | 1 | | | O |
| BoBo | 3 | | | | A |
| RBGU | | | | 1 | B |
| YEWA | | | 1 | | O |
| SOSP | | 1 | | | O |
| EAKI | 1 | 1 | | | O |
| BoBo | 1 | 1 | | | O |
| MoDo | | | 1 | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: (Project Manager)

Page 1 of 3

REV: May, 07 Form 020

✓ **Station:** P40 / 231 (W24)

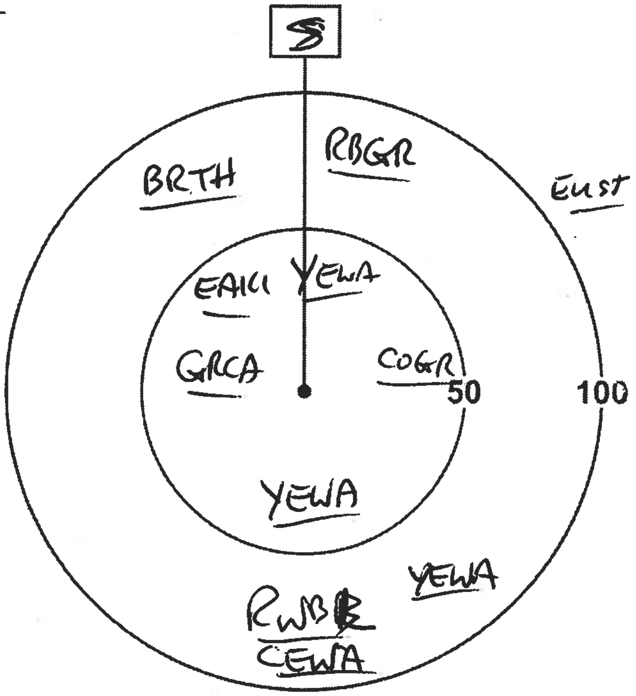
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0616

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BRTH | | 1 | | | O |
| GRCA | 1 | | | | O |
| RBGR | | 1 | | | O |
| YEWA | 2 | 1 | | | O |
| RWBL | | 1 | | | O |
| EUST | | | 1 | | A |
| Wax CEWA | | 1 | | | O |
| COGR | 1 | | | | A |
| EAKI | 1 | | | | O |
| PUMA | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓ **Station:** P41 / 228 (G22)

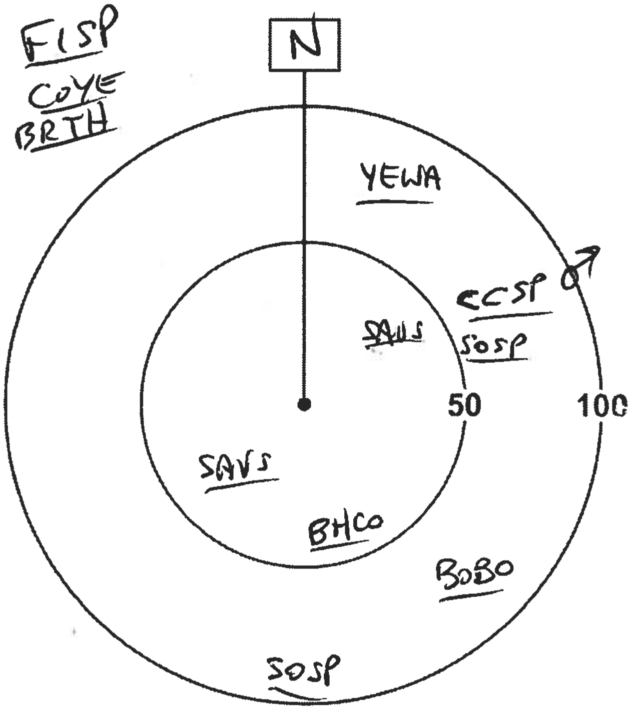
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0808

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| CCSP | | 1 | | | O |
| SAVS | 2 | | | | O |
| BHCO | 1 | | | | O |
| TRES | | | | 1 | A |
| COGR | | | | 3 | A |
| EUST | | | | 1 | A |
| FISP | | | 1 | ~~1~~ | O |
| COYE | | | 1 | | O |
| BRTH | | | 1 | | O |
| YEWA | | 1 | | | O |
| SOSP | | 2 | | | O |
| BOBO | | 1 | | | O |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (__).

Signature: AW (Field Personnel)     Signature: ____________ (Project Manager)

Page 2 of 3     REV: May, 07     Form 020

✓

WRZ G22

Mostly tall rank grass, some clover

**Station:** P39/297

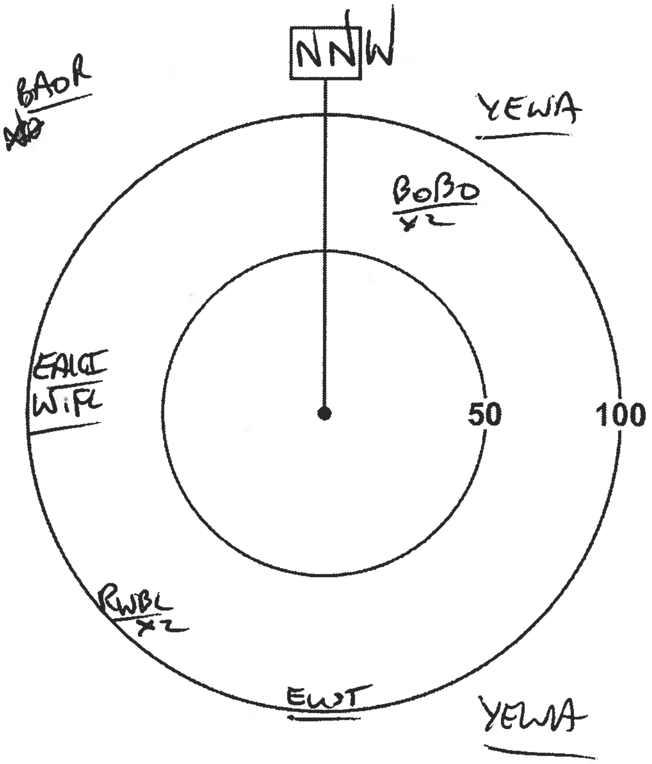
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 0857

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | 2 | | | O |
| BOBO | | 2 | | | A |
| BOBO | | | | 1 | A |
| YEWA | | | 2 | | O |
| BAOR | | | 1 | | O |
| EAKI | | 1 | | | A |
| WIFL | | 1 | | | A |
| EUST | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P27/230 G19

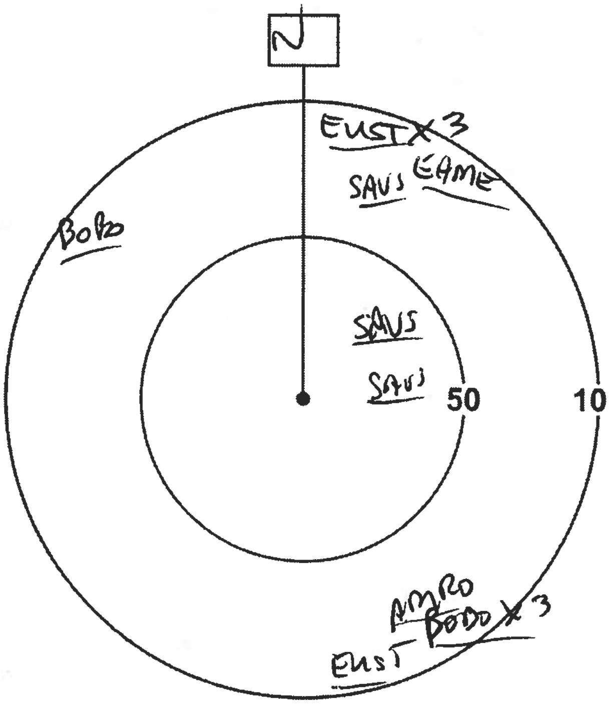
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 0955

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SAVS | 2 | 1 | | | O |
| TRES | | | | 1 | A |
| EAME | | 1 | | | A |
| BOBO | | 4 | | | A |
| AMRO | | 1 | | | O |
| EUST | | 4 | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel) Signature: (Project Manager)

Page 3 of 3 REV: May, 07 Form 020

## Legend

- ▭ Study Area
- — Road
- Watercourse
- ● Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

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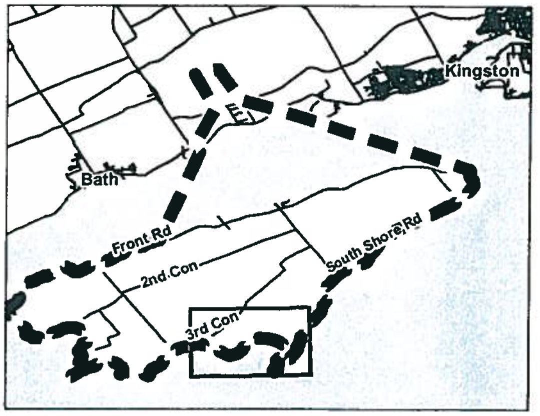
Revised on: 2011-05-27 By: dharvey

## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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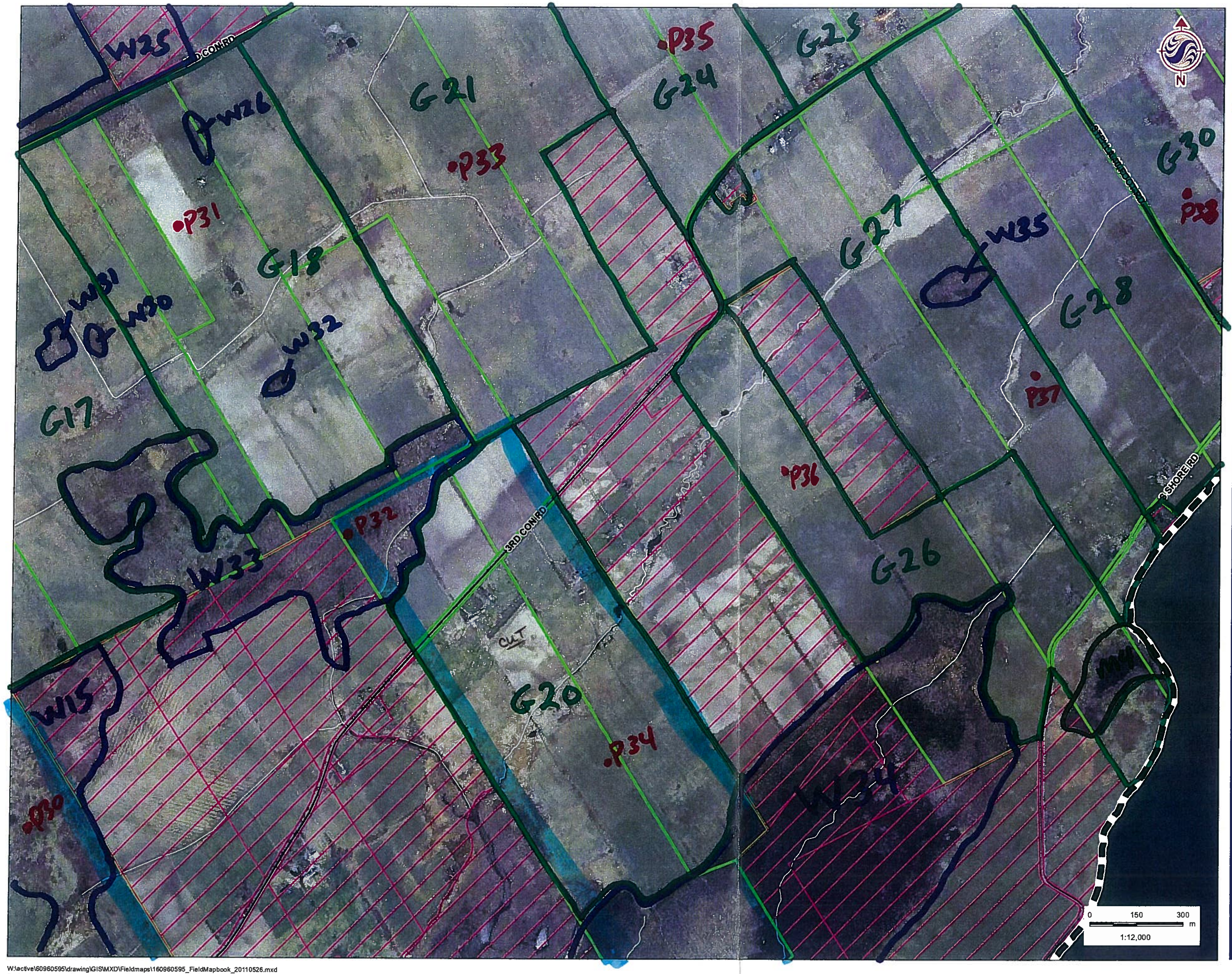
Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 7

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd

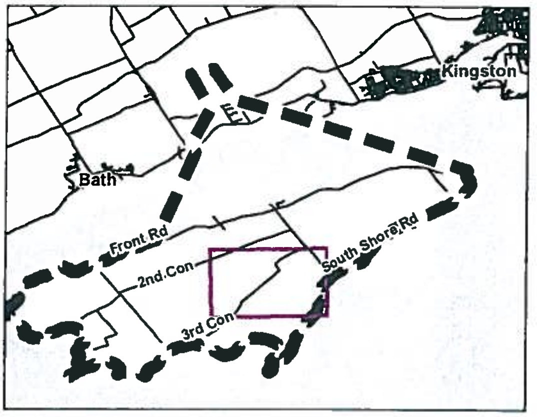


## Legend

▭ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvev

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 21, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 11 | WIND: NE ① | CLOUD: 10 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** M3 **Habitat Type:** ______ **Time Start:** 0540 1012 **Time End:** 0615 1032

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| ♀ Mallard | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ ~~[illegible]~~ | Ⓟ ~~[illegible]~~ | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern SM | S | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle SH | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | P | Baltimore Oriole † SH | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow P | P | Pine Wa. ‡ | | | |
| Mourn. Dove | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G14 **Habitat Type:** ____________ **Time Start:** 0615 **Time End:** 0655

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. P | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 21, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 11 | WIND: 0 | CLOUD: 10 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W36 **Habitat Type:** ________ **Time Start:** 0615 **Time End:** 0622

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat Sm | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird Sm | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. Sm | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle sH | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo Sm | S | Yellow Wa. Sm | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove Sm | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: ________ (Field Personnel)

Signature: ________ (Project Manager)

**Feature No.:** G15 **Habitat Type:** **Time Start:** 0655 **Time End:** 0725

0800 0835

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † S4 | H |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † CF | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 9

Quality Control: This form is complete ☑ & legible ☑

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: Jun 21, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | NE ① | 10 | 0 | 0 |

**Feature No::** W37 **Habitat Type:** ___________ **Time Start:** 0655 **Time End:** 0703

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. P | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W15 **Habitat Type:** ________ **Time Start:** 0725 **Time End:** 0758

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat A | A |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal S | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † SH P | P | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † SHP | P | Blue-wing. Wa. † | | Co. Grackle P | P |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SP | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 21, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | E ① | 10 | 0 | 0 |

**Feature No::** G20 **Habitat Type:** ______ **Time Start:** 0858<br>0932<br>1052 **Time End:** 0905<br>1030<br>1132

Time Start: 0858 / 0932 / 1052
Time End: 0905 / 1030 / 1132

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow H | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † SM | S |
| Killdeer A | A | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. | | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow SH | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W33 **Habitat Type:** ____________ **Time Start:** 0905 **Time End:** 0932

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. P | P | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | SM |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird A | A | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † A | A | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling A | A | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. SM | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † A | A |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove H | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Signature: AN
(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒.

Signature: Kathi
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 21/11
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | E ① | 10 | 0 | 0 |

**Feature No::** W34 **Habitat Type:** ________ **Time Start:** 1030 **Time End:** 1052

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. H | H | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SM | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † FY | FY |
| Am. Woodcock DD | DD | Red-eyed Vireo SM | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

DAY 7

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

✓

Project Number 160960595
Project Name: Amherst
Date June 21, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 11 | Wind: NE ① | Cloud: 10 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #:** T___

**Station:** P28 / 237 Ⓜ3

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0540

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SWSP | 1 | 1 | | | O |
| YEWA | 3 | | | | O |
| RWBL | 3 | 2 | | | O |
| WIFL | | 1 | | | O |
| MoDo | | 1 | | | O |
| | | | | | |
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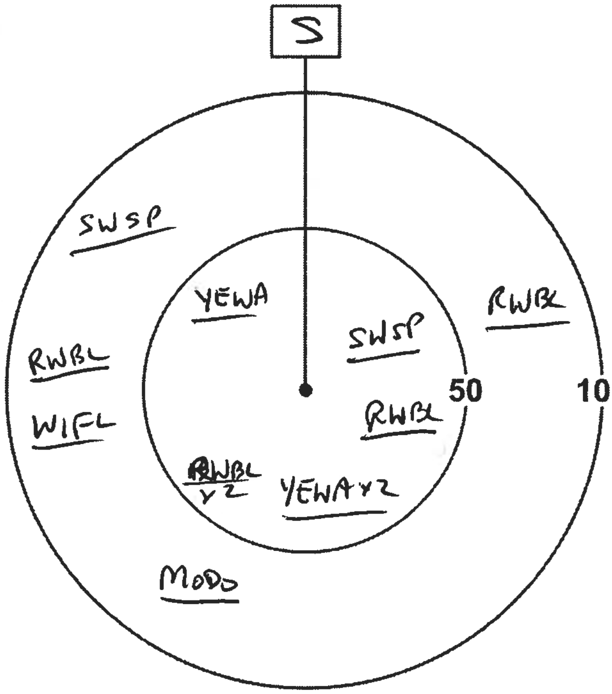

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: AW (Field Personnel)
Signature: (Project Manager)

Page 1 of 5

REV: May, 07 Form 020

Day 7
June 21, 2011

(G14) (RB57)

✓

**Station:** 24 / 242
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0642

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EUST | | | | 1 | A |
| BoBo | 6 | 1 | | | A |
| RWBL | 2 | | | | O |
| AMGO | 1 | | | | O |
| YEWA | 2 | | | | O |
| COYE | 1 | | | | O |
| | | | | | |
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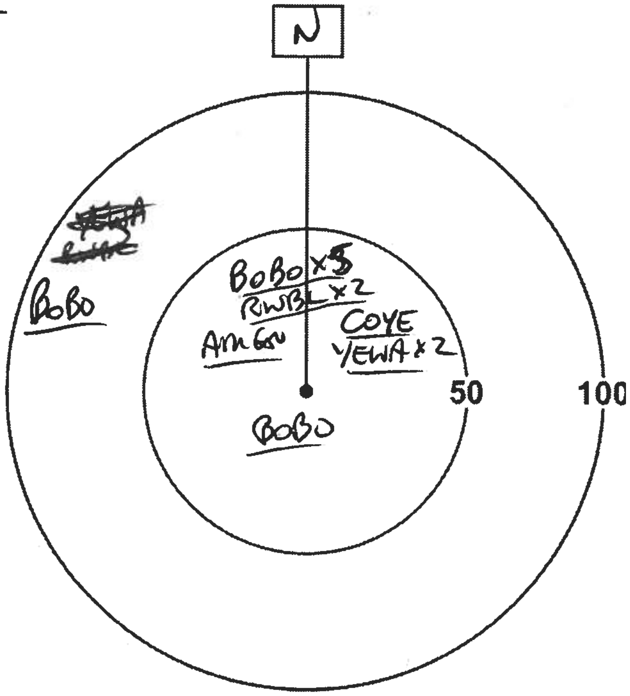
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P30 / 244 (W15)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0735

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BoBo | 1 | 2 | | | O |
| YEWA | 1 | 2 | | | O |
| WIFL | 1 | 1 | | | O |
| AMGO | 1 | | | | O |
| NoCA | | 1 | | | O |
| RWBL | 1 | 4 | | | O |
| SOSP | 1 | | | | O |
| GRCA | 1 | | | | O |
| | | | | | |
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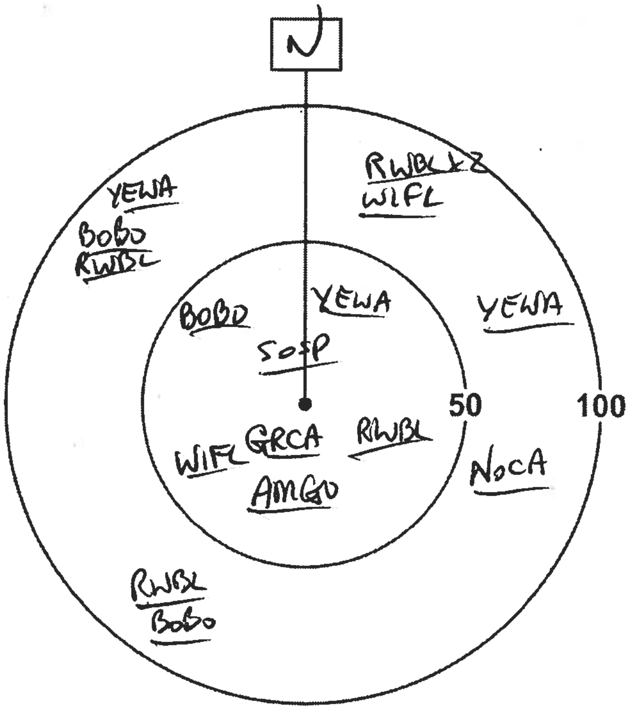
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: ____________ AW (Field Personnel)
Signature: ____________ (Project Manager)

Page 2 of 5
REV: May, 07 Form 020

DAY 7 – June 21, 2011

✓

**Station:** P29 / 240 G15

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0820

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SoSP | | 1 | | | O |
| RWBL | | 1 | | | O |
| BoBo | 2 | 3 | | | A |
| CEWA | | 2 | | ~~2~~ | A |
| BARS | | | | 1 | A |
| AMGO | | | | 1 | A |
| SAVS | 2 | | | | O |
| | | | | | |
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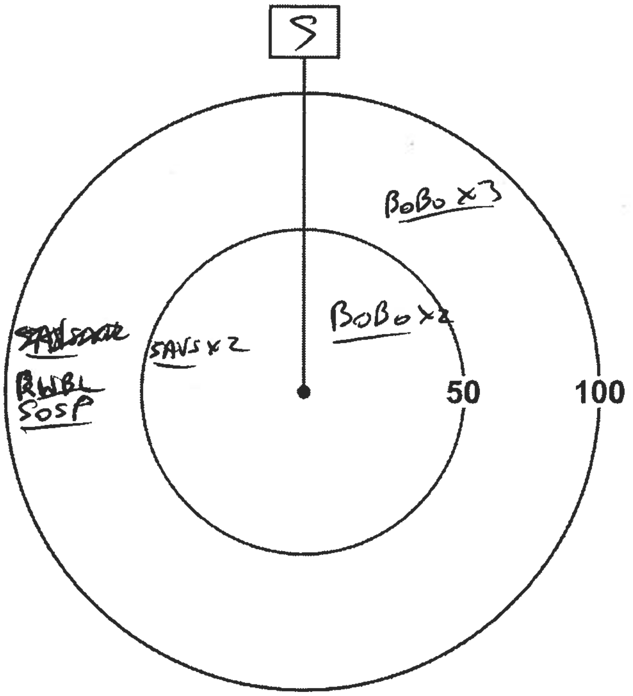
WAX

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P32/236 W33

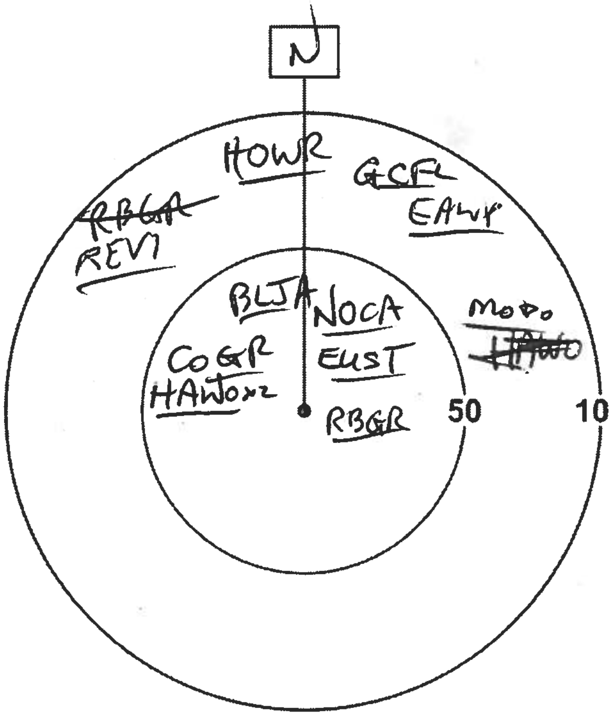
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0913

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| HAWO | 2 | | | | A |
| REVI | | 1 | | | A |
| EAWP | | 1 | | | A |
| MODO | | 1 | | | A |
| RBGR | 1 | | | | A |
| HOWR | | 1 | | | O |
| EUST | 1 | | | | A |
| NOCA | 1 | | | | O |
| GCFL | | 1 | | | A |
| BLJA | 1 | | | | A |
| COGR | 1 | | | | A |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel) Signature: ____________ (Project Manager)

Page 3 of 5 REV: May, 07 Form 020

DAY 7 – June 21, 2011

[illegible] M3

✓

**Station:** P62 / 233

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 1012

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TREJ | 2 | | | | A |
| BAOR | | | | 1 | A |
| WIFL | 1 | | | | O |
| SWSP | | 2 | | | O |
| RWBL | 2 | 4 | | | O |
| SOSP | 1 | | | | O |
| COYE | 1 | | | | O |
| ♀ MALL | | 1 | | | O |
| COGR | [illegible] | 1 | | | A |
| BARS | | | | 5 | A |
| | | | | | |
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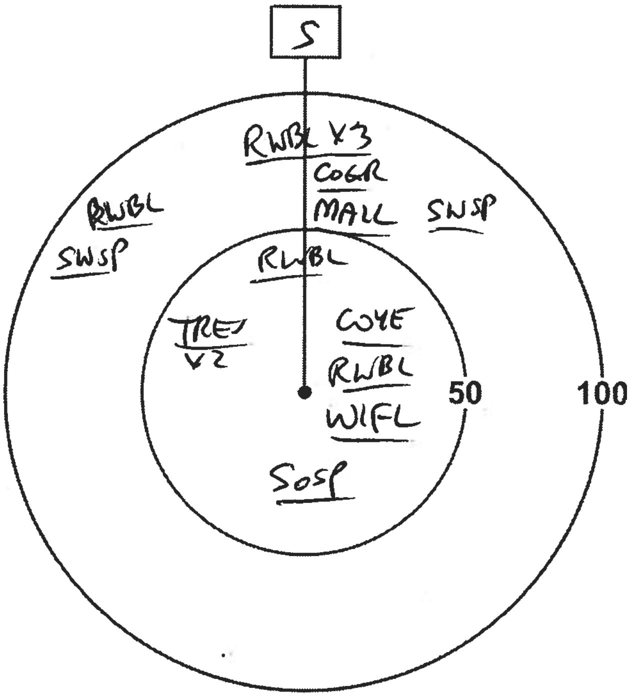

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

W34

✓

**Station:** P63 / 234

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 1035

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGR | | 1 | | | A |
| EAWP | | 1 | | | A |
| WAVI | | 1 | | | A |
| HOWR | | 1 | | | O |
| TREJ | | 1 | | | A |
| YEWA | | 1 | | | O |
| AMRO | 1 | | | | O |
| REVI | 1 | | | | A |
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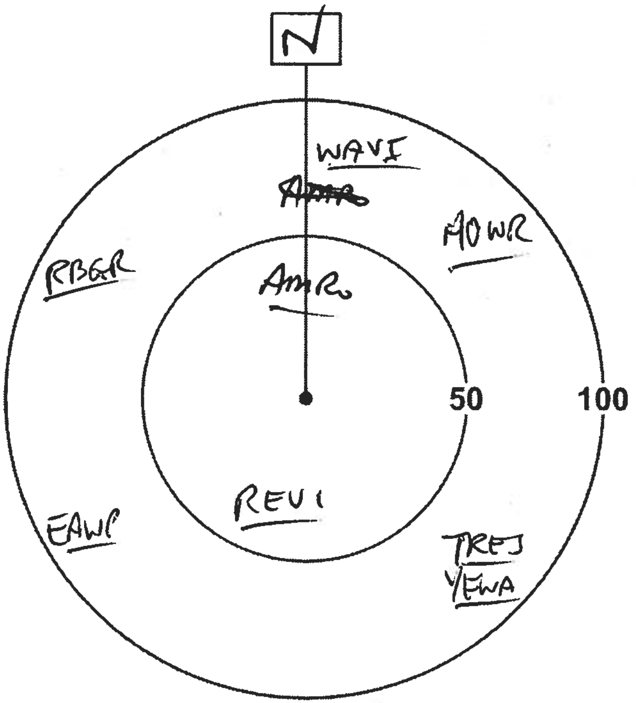

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: ____________ (Project Manager)

Page 4 of 5

REV: May, 07 Form 020

DAY 7 – June 21, 2011

**Station:** P34 / 235 (G2)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________
**UTM:** ______________________________
**Start Time:** 1059

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAKI | | 1 | | | O |
| Bobo | 2 | 1 | | | A |
| SAVS | 1 | 1 | | | O |
| [illegible] | | | | | |
| YEWA | | 1 | | | O |
| | | | | | |
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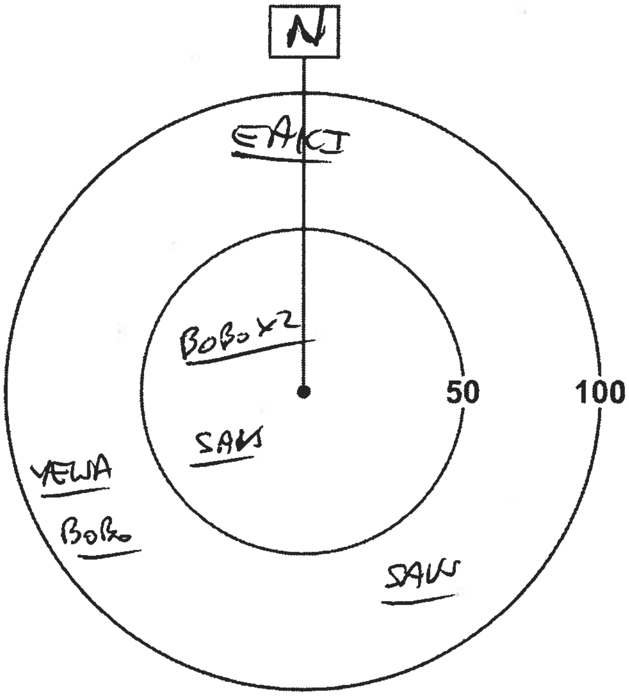
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________
**UTM:** ______________________________
**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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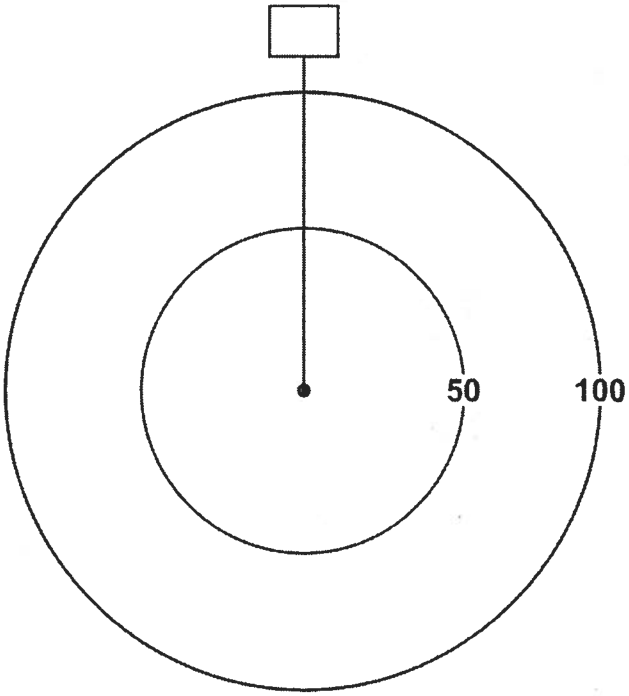
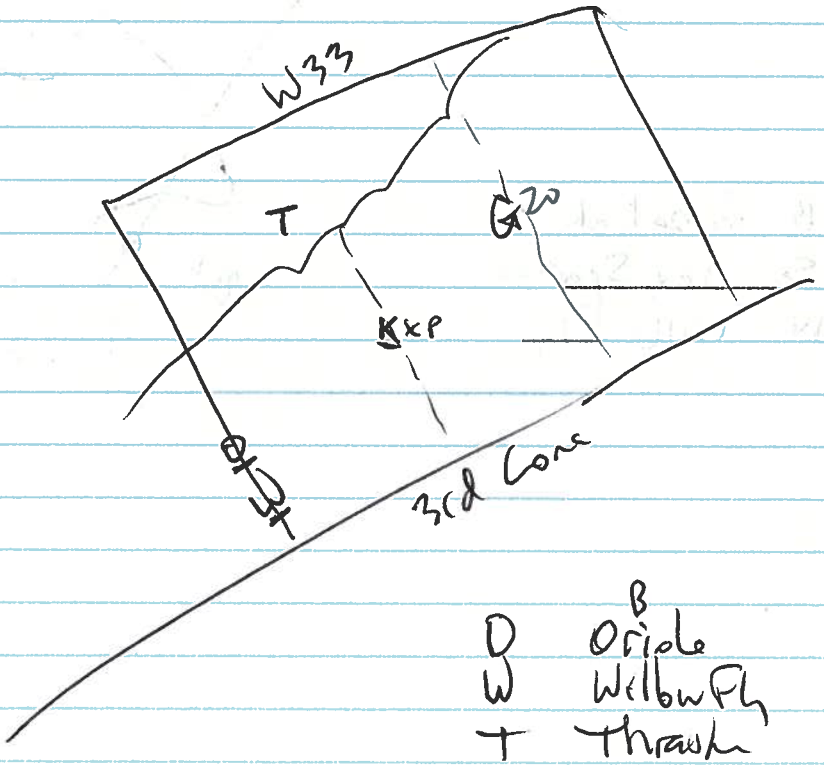
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



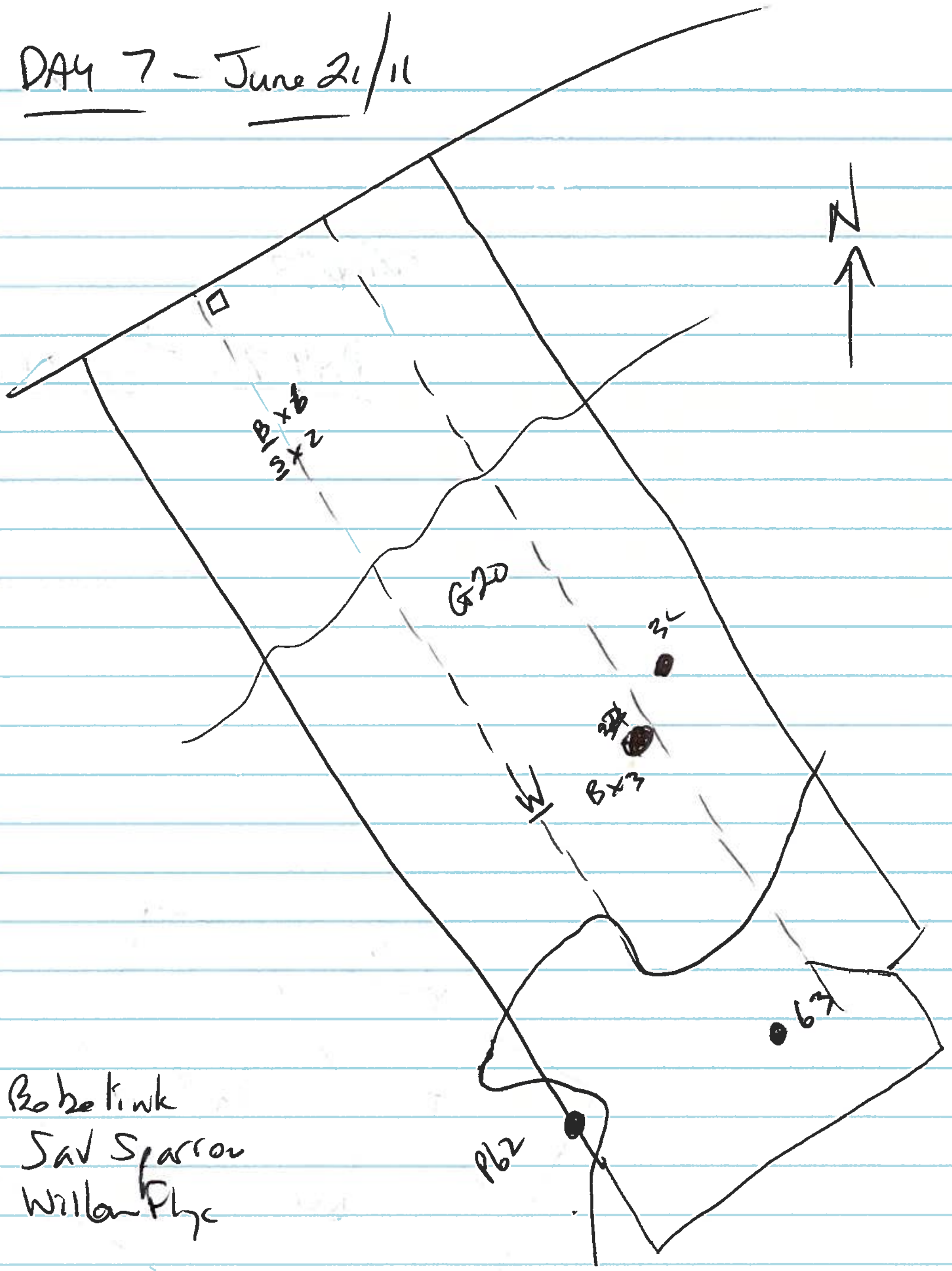
Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________________ Signature: ______________________
(Field Personnel) (Project Manager)
Page 5 of 5 REV: May, 07 Form 020

DAY 7 - June 21, 2011

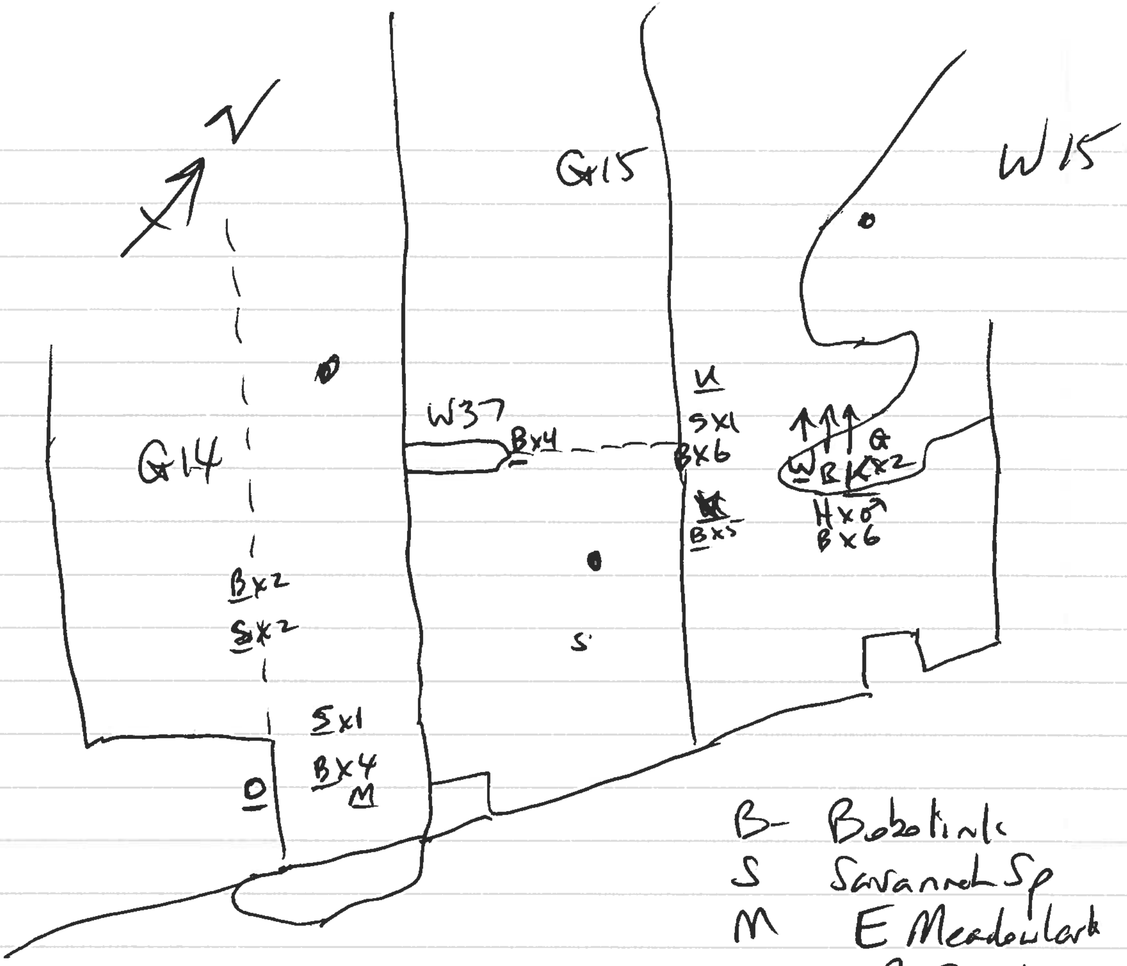


| | |
|---|---|
| O | B Oriole |
| W | Willow Fly |
| T | Thrasher |
| K | E Kingbird |

DAY 7 – June 21/11



| | |
|---|---|
| B | Bobolink |
| S | Sav Sparrow |
| W | Willow Flyc |



| | |
|---|---|
| B- | Bobolink |
| S | Savannah Sp |
| M | E Meadowlark |
| O | - B Oriole |
| U | Upland S |
| W | Willow Flyc |
| R | Rose-br Grosb |
| K | E Kingbird |
| H | N Harrier |
| G | Grasshopper Sp |

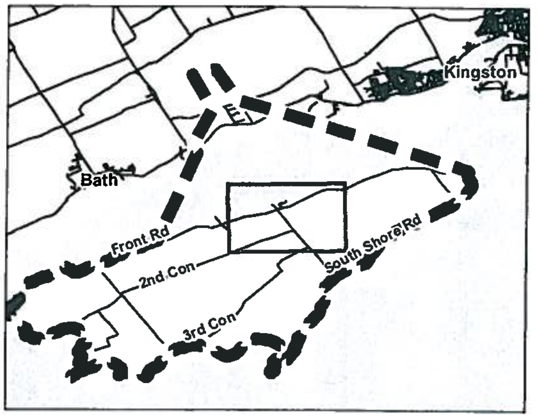
DAY 7 - June 21, 2011

## Legend

Study Area
Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

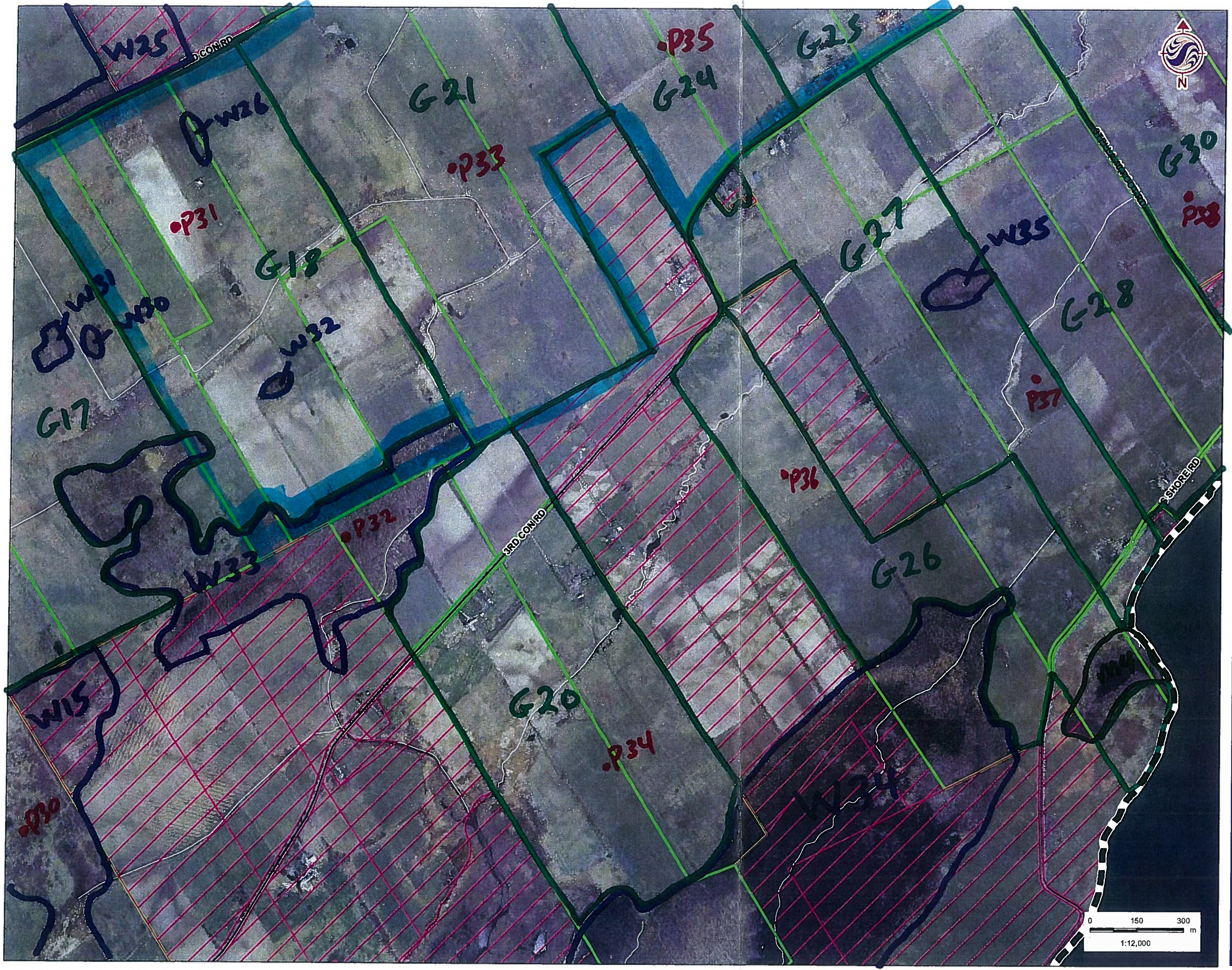
Figure No.

Tile 5

Title

## FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

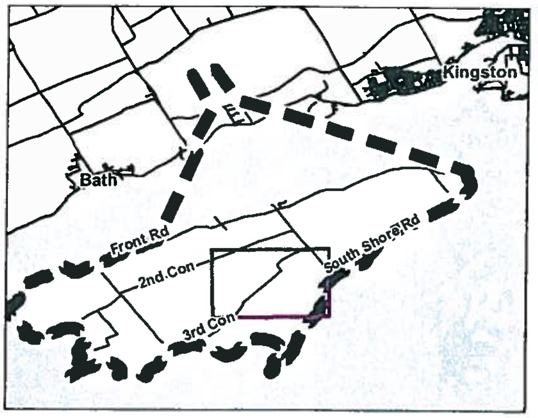


## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 19/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>10 | WIND:<br>0 | CLOUD:<br>10 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No::** G18

**Habitat Type:** ______

**Time Start:** 0519<br>0705

**Time End:** 0613<br>0830

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant SM | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ A | A | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † SM | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ SH | H | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 6

Quality Control: This form is complete ☑ ~~& legible ☐~~

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

**Feature No.:** W32 **Habitat Type:** ________ **Time Start:** 0745 **Time End:** 0805

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. P | P |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk P | A | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | NY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo SM | AFY | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | [illegible] | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch [illegible] | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Red-tailed Hawk nest ~~[illegible]~~ in this tiny
Woodlot – lots of tall oaks + White Pine
(2 adults + 1 ~~[illegible] of unknown age present~~)
juvenile
} very aggitated

Pg. 2 of 6

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 19, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): 15 | WIND: E ① | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W33 **Habitat Type:** ______ **Time Start:** 0718 **Time End:** 0740

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery SH | S | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. SM | S | Gray Catbird SH | A | Rose-br. Grosbeak † SM | S |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle SH | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo SM | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 6

Quality Control: This form is complete ☐ ~~& legible ☐.~~

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G21 **Habitat Type:** ______ **Time Start:** 0613 **Time End:** 0705

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| ♀ N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe SM | S | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow [illegible] FY | [illegible] | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove SM | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 6

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 19/11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 17 | NE ① | 30 | 0 | 0 |

**Feature No::** G24 **Habitat Type:** ______ **Time Start:** 0850 **Time End:** 0948

***Record location of all significant species on site map.***

- ** Endangered, Threatened or Special Concern
- † Partners In Flight
- ‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer A | A | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark P | P | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove P | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 6

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G25 **Habitat Type:** ____________ **Time Start:** 0948 **Time End:** 1030

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | NY |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | A |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling SH | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † P H | P |
| Killdeer | | Ea. Kingbird † SH P | P | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

- lightly grazed pasture
- N4Y in clump of grasses, clover, vetch - ad flushed } SAVS nest
- young large but no feathers

same Pennent x3

Pg. 6 of 6

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 19/11

Field Personnel: Alan Wermington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 10 | Wind: 0 | Cloud: 10 | PPT: 0 | PPT in last 24 hrs: 0 |

✓

GPS #: T___

Q18
W32
W33

Station: P31 / 254

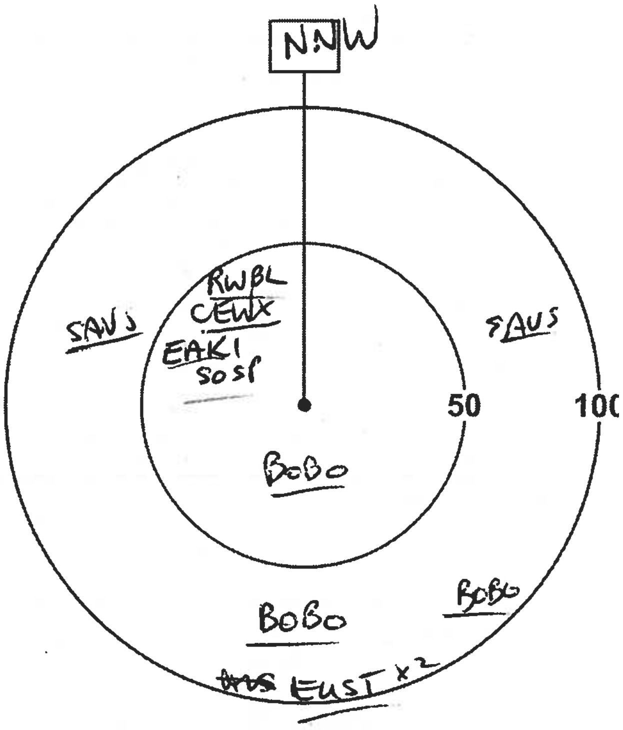
Habitat: ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

UTM:

Start Time: 0538

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| CEWX (Waxw) | 1 | | | | A |
| EAKI | 1 | | | | O |
| EUST | | 2 | | 2 | A |
| SOSP | 1 | | | | O |
| BOBO | 1 | | | | A |
| SAVS | | 2 | | | O |
| BOBO | | 2 | | | O |
| RWBL | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (__✓) ~~& legible~~ (__).

Signature: AW (Field Personnel)

Signature: (Project Manager)

Page 1 of 3

REV: May, 07 Form 020

✓

**Station:** P33 /255 (G21)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ______

**UTM:** ______

**Start Time:** 0631

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 2 | A |
| TRES | | | | 1 | A |
| SAVS | 1 | 3 | | | O |
| EAKI | 1 | | | | O |
| BOBO | | 1 | | | O |
| | | | | | |
| | | | | | |
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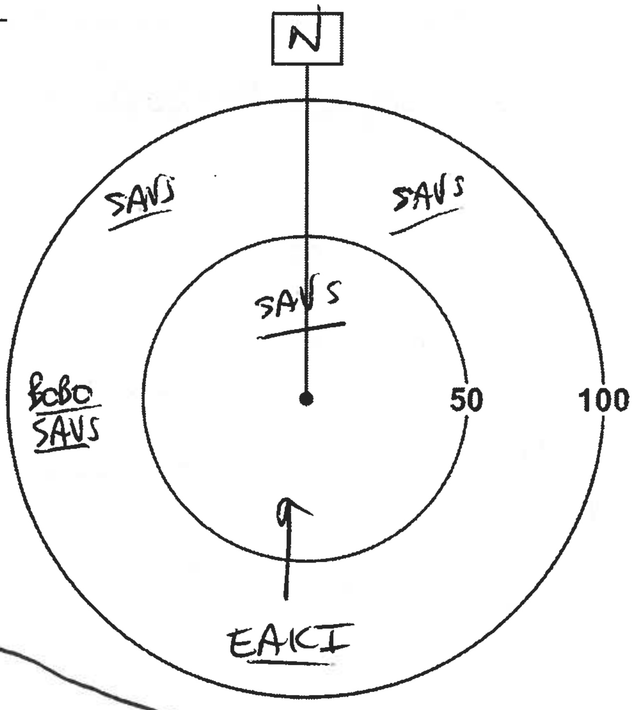

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

E side of field plowed under — 100% dry dirt

✓

**Station:** P43 / 250 (G24)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ______

**UTM:** ______

**Start Time:** 0908

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BHCO | | | | 2 | A |
| BOBO | 1 | 2 | | | O |
| MODO | | 2 | | | O |
| EAKT | | | 1 | | O |
| RWBL | | | | 1 | A |
| | | | | | |
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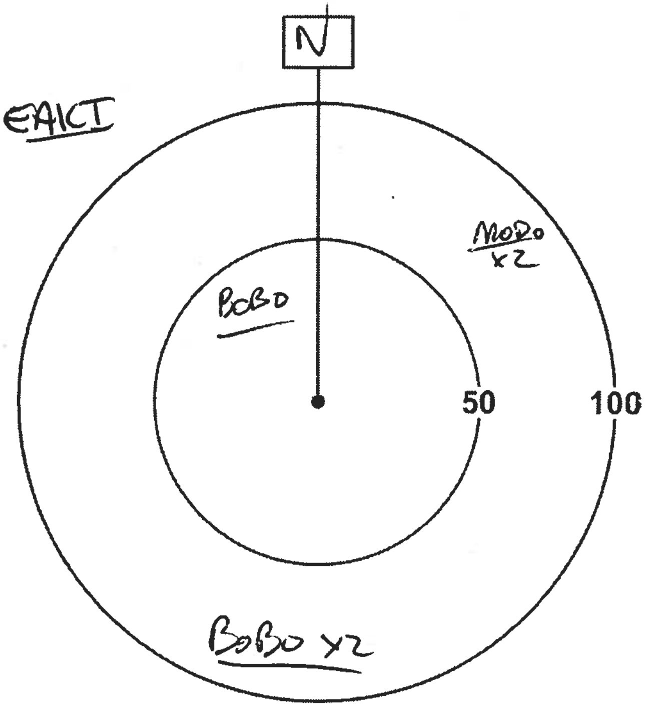

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: ______ (Field Personnel) Signature: ______ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

✓

**Station:** P35 / 251 G24

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0927

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | | | |
| BoBo | | | | | |
| EUST | 1 | | | | O |
| BOBO | | | | 3 | A |
| | | | | | |
| | | | | | |
| | | | | | |
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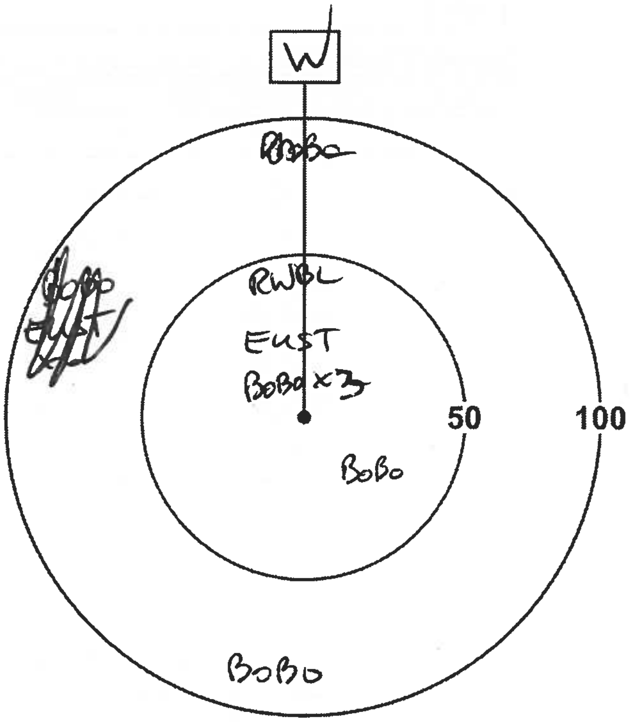


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

✓

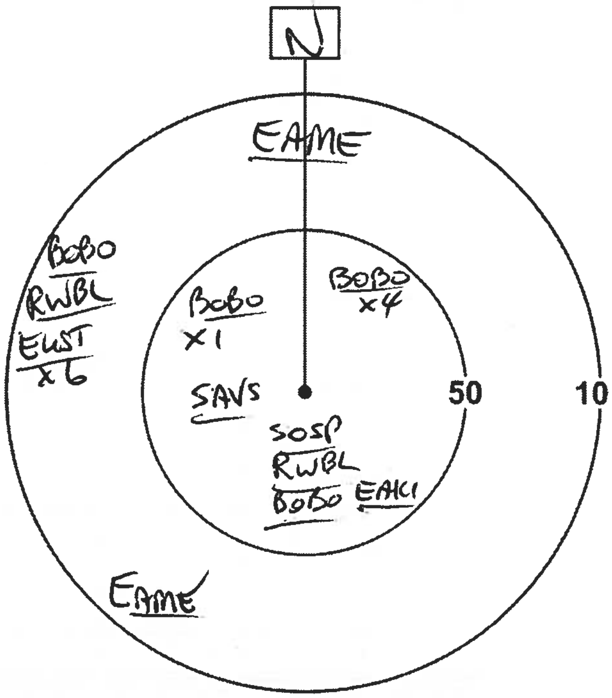
**Station:** P44 / 248 G25

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 1005

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | | 2 | | | O |
| BOBO | 6 | 1 | | | A |
| EAKI | 1 | | | | O |
| SAVS | 1 | | | | O |
| RWBL | 1 | 1 | | | A |
| SOSP | 1 | | | | O |
| EUST | | | | 6 | A |
| COGR | | | | 3 | A |
| EUST | | 6 | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

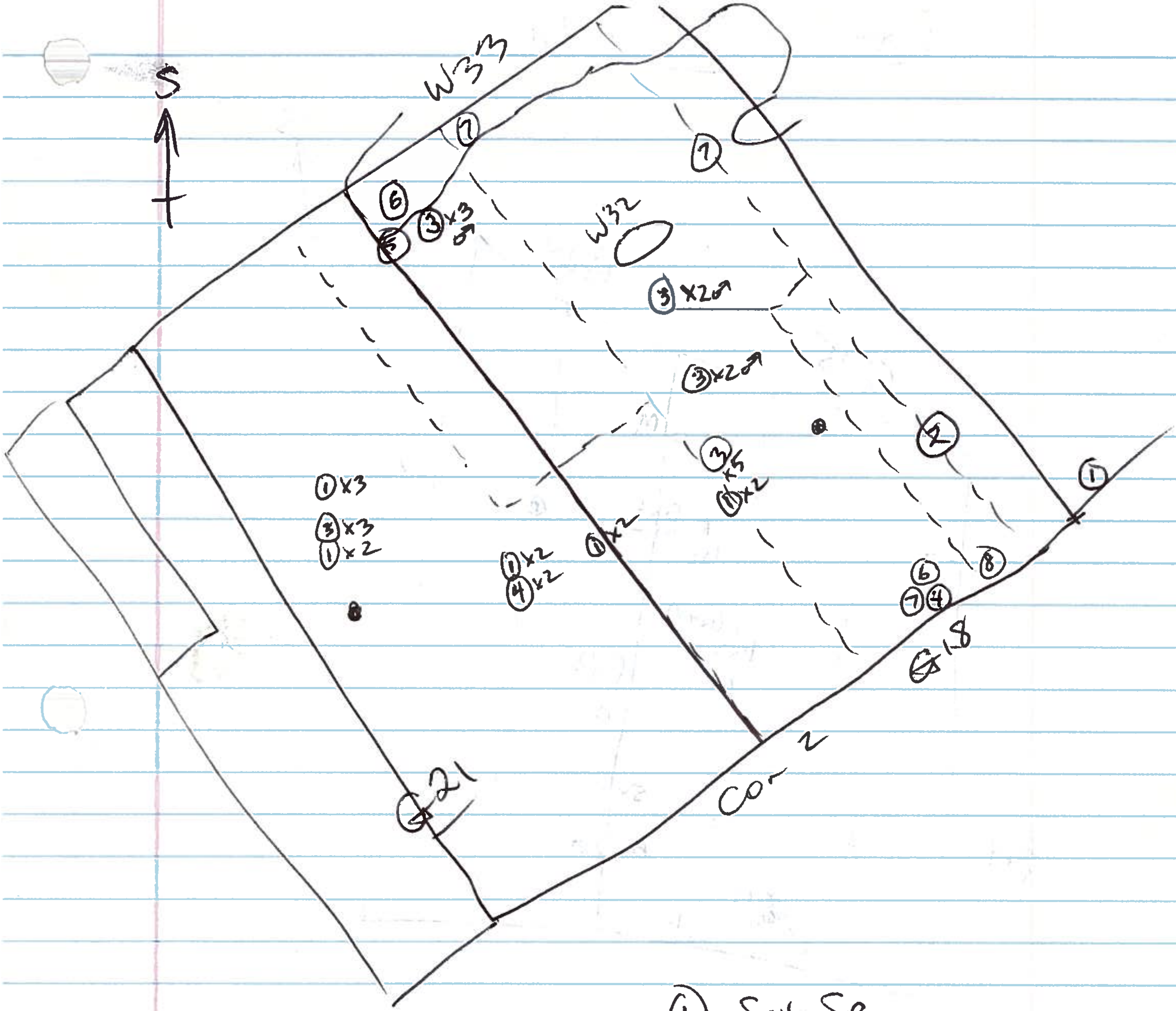


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (__) & legible (✓).
Signature: ____________ (Field Personnel)
Signature: ____________ (Project Manager)

Page 3 of 3

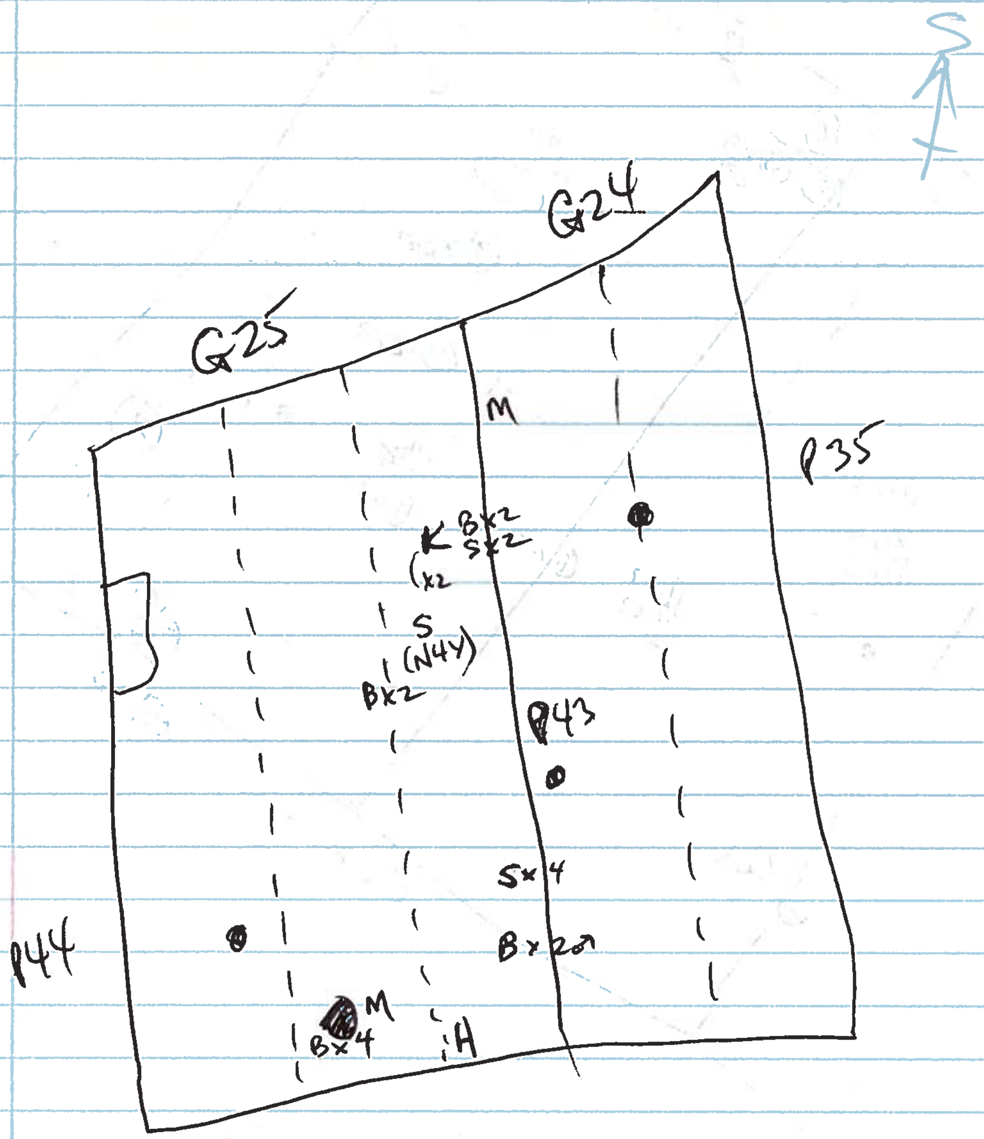
REV: May, 07 Form 020



① Sav. Sp
② N Harrier ♂
③ Bobolink
④ E Kingbird
⑤ Willow Flyc
⑥ Rose-br Grosbeak
⑦ B Oriole
⑧ Upland Sandp

DAY 8 – June 19/11

# DAY 8 - June 19/11



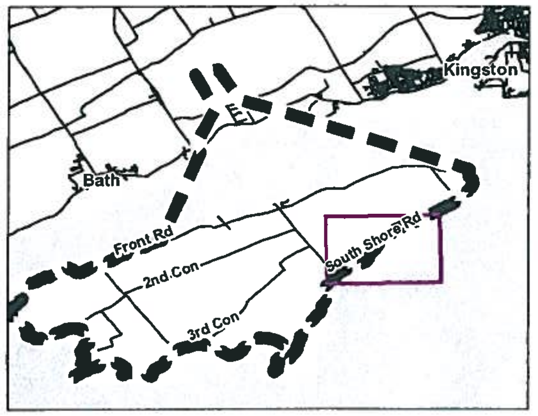
H - Harrier
B - Bobolink
S - Savannah Sp
M - Meadowlark
K - Kingbird

## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 8

Title

**FIELD MAPBOOK**

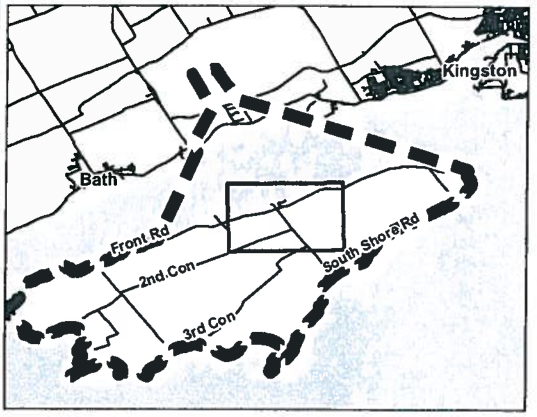
:tive\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd

**Legend**

- ▚ Study Area
- — Road
- Watercourse
- ● Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 5

Title

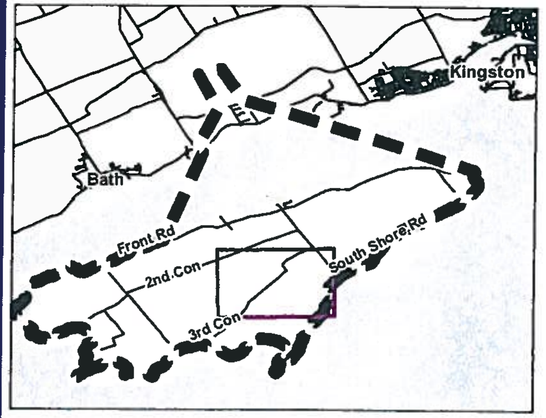
FIELD MAPBOOK

## Legend

- ▚ Study Area
- — Road
- Watercourse
- ● Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 20/11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10 | E ① | 40 | 0 | |

**Feature No::** G26 **Habitat Type:** ______ **Time Start:** 0520 0645 **Time End:** 0615 0700

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † SM | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow H | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 10

Quality Control: This form is complete ~~☐ & legible ☐~~

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W34 **Habitat Type:** **Time Start:** 0615 **Time End:** 0648

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant SM | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch SM | S | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | FY | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | A | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | N | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin A | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk H | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. H | H | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | N | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. SM | S |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe SM | S | Warbling Vireo SM | S | Yellow Wa. | | Baltimore Oriole † SM | S |
| Am. Woodcock | P | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Red-headed Woodpecker — E most section of flooded swamp, the area with extensive dead trees

Pg. 2 of 10

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 20, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 0 | 30 | 0 | 0 |

**Feature No::** M4 **Habitat Type:** ______ **Time Start:** 0700 **Time End:** 0743

***Record location of all significant species on site map.*** * Mallard – ♀ w/ flightless brood

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

Least Bittern – flushed + flew a short distance.

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | X | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| * Mallard | FY | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ H | H | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren 4+ ♂ | S | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | CF |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| 2pr. Wilson's Snipe SM | P | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | Hooded Merg. | X |
| Mourn. Dove | | No. R. W. Swal. | X | Cerulean Wa** †‡ | | Common Moorhen | SM |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.* Red-br Merganser X

N Shoveler H (1♀)

page 3 of 10

Quality Control: This form is complete ☐ ~~& legible ☐.~~

Signature: AW (Field Personnel)

Signature: (Project Manager)

Mute Swan P

[illegible]

**Feature No.:** G28 **Habitat Type:** **Time Start:** 0750 **Time End:** 0823

0823

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | NY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † A | A |
| Killdeer A | A | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove Sm | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 10

Quality Control: This form is complete ☐ & legible ☐.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 26/11
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | SE ① | 35 | 0 | 0 |

**Feature No::** G27 **Habitat Type:** ____ **Time Start:** 0823 **Time End:** [illegible] 0920

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow H | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. SM | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † SM | S |
| Killdeer DD A | DD | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | SM | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow N | N |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 10

Quality Control: This form is complete ☐ & legible ☐.

**Signature:** AW
(Field Personnel)

**Signature:** ____
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W35 **Habitat Type:** **Time Start:** 0840 **Time End:** 0852

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † SM | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † SM | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SH | | Am. Robin | NU | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SH | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | FY |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | | Yellow Wa. SM | | Baltimore Oriole † SH | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow CF | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

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Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Kathy S
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: Jun 20/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: SE ① | CLOUD: 35 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G30 **Habitat Type:** ________ **Time Start:** 0945 **Time End:** 1038

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † Sn | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

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Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ________ (Field Personnel)

**Signature:** ________ (Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W40 **Habitat Type:** ______ **Time Start:** 1017 **Time End:** 1031

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling A | A | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. SM | S | Baltimore Oriole † A | A |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove SM | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

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Quality Control: This form is complete ☑ & legible ☑

**Signature:** ______ (Field Personnel)

**Signature:** ______ (Project Manager)

**Stantec**
**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 20, 2011
Field Personnel: Alan Wormington

**Weather Conditions:** TEMP (°C): 22 | WIND: SW (1) | CLOUD: 10 | PPT: 0 | PPT (in last 24 hrs): 0

**Feature No::** W38 **Habitat Type:** ______ **Time Start:** 1045 **Time End:** 1202

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo SM | S | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ SM | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † SM | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture P | P | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † SM | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † Sm | S | Am. Robin | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird Sm | S | Rose-br. Grosbeak † Sm | S |
| Red-tailed Hawk H | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. | | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo SM | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 10

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

App Brown

REV: 2011-05-27 / FORM 031

**Feature No.:** W42 **Habitat Type:** **Time Start:** 0950 **Time End:** 0958

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ SM | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo SM | S | Yellow Wa. SM | A | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 10 of 10

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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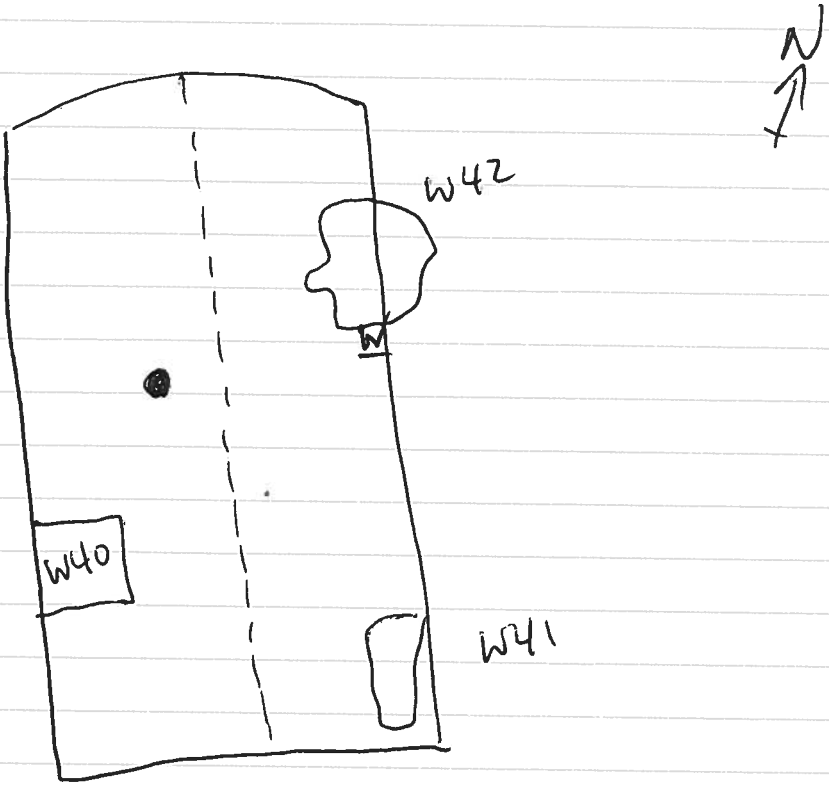
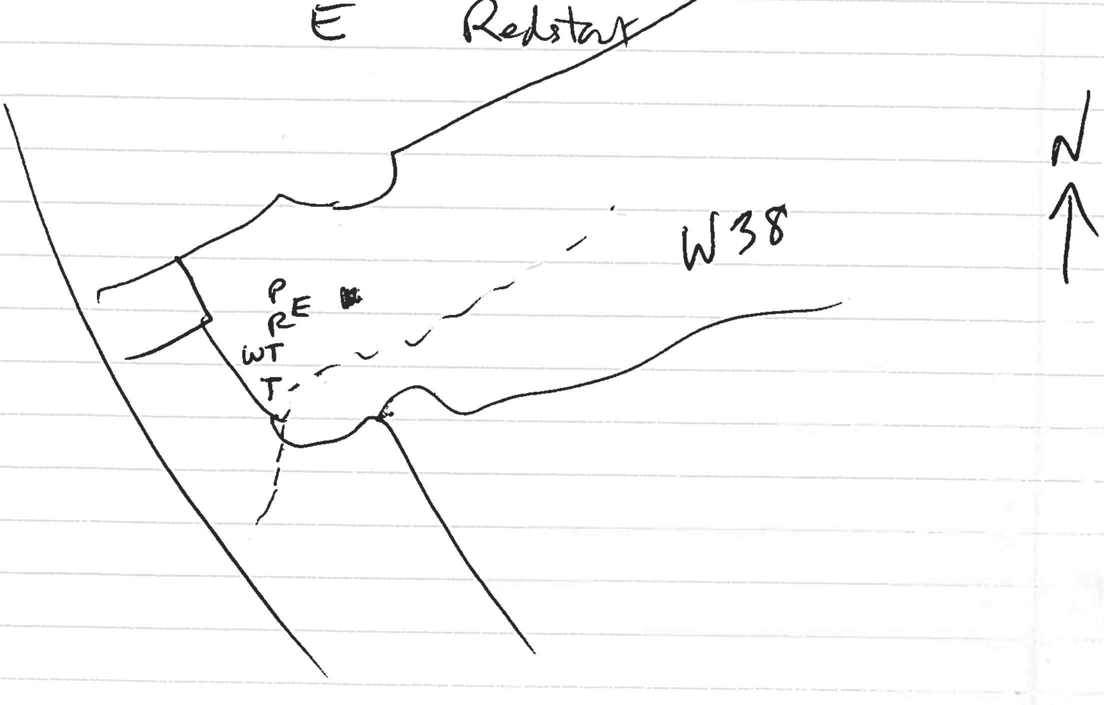
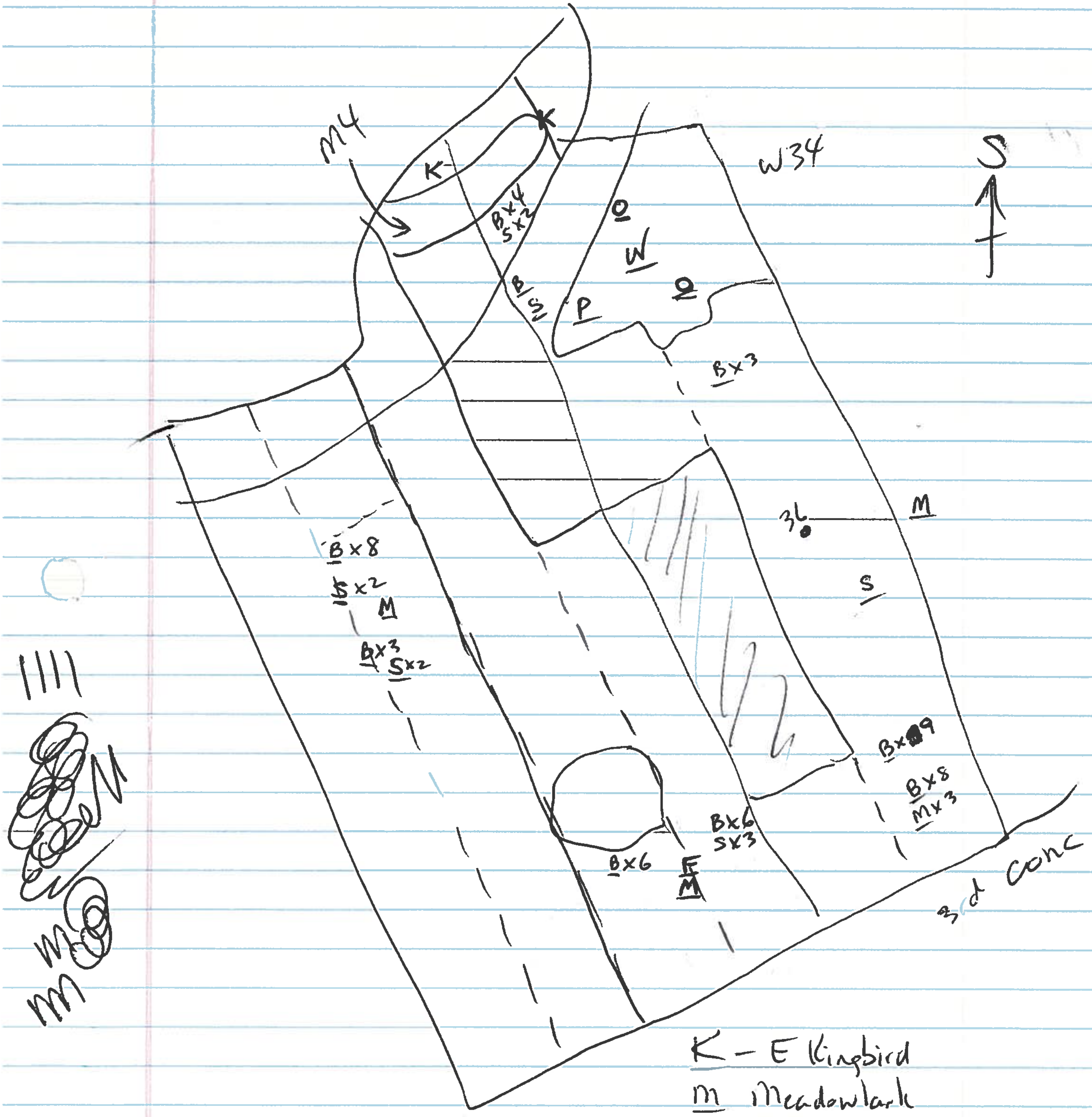
# DAY 9 — June 20/11



P - Pewee
✱ W - Willow Fly
T - Towhee
WT Wood Thrush
R - Rose-br Grosb
E Redstart



Day 9 - June 20, 2011



F - Willow Flycatcher

K – E Kingbird
M Meadowlark
B Bobo
S Sav Sparrow
O B Oriole
W Red-headed Woodp
P – Pewee

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: June 20/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 10 | Wind: E ① | Cloud: 40 | PPT: 0 | PPT in last 24 hrs: 0 |

✓ **GPS #: T___** G26

**Station:** P36 /261

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0545

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BoBo | 3 | 2 | | | O |
| RWBL | 1 | 2 | | | O |
| ✓ RWBL | | | | 1 | A |
| BAOR | 1 | | | | A |
| BoBO | | | | 1 | A |
| RBGU | | | | 1 | C |
| CoGR | | | | 1 | A |
| | | | | | |
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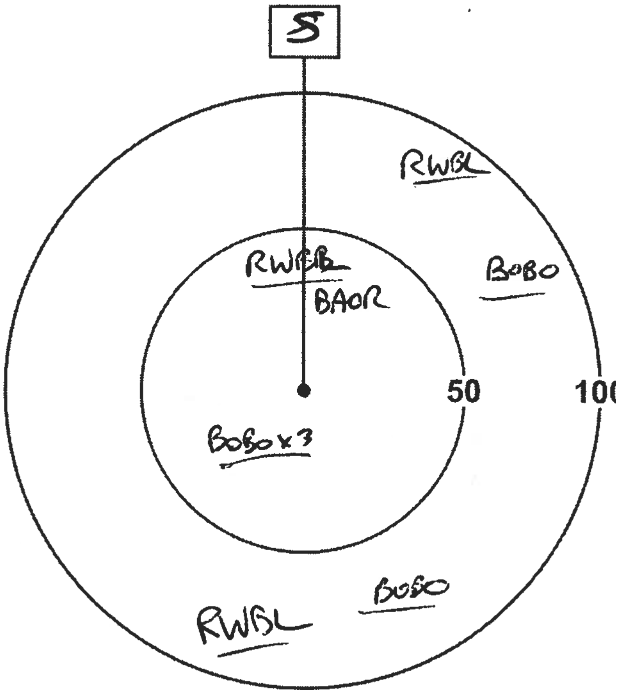
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: ____________ (Project Manager)

Page 1 of 3

REV: May, 07 Form 020

**Station:** P37 / 259 G27
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____
**UTM:** ____
**Start Time:** 0826

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 5 | 1 | | | A |
| TRES | | | | 1 | A |
| MODO | | | | 1 | A |
| WISN | 1 | | | | A |
| BARS | | | | 2 | A |
| SAVS | 1 | 1 | | | O |
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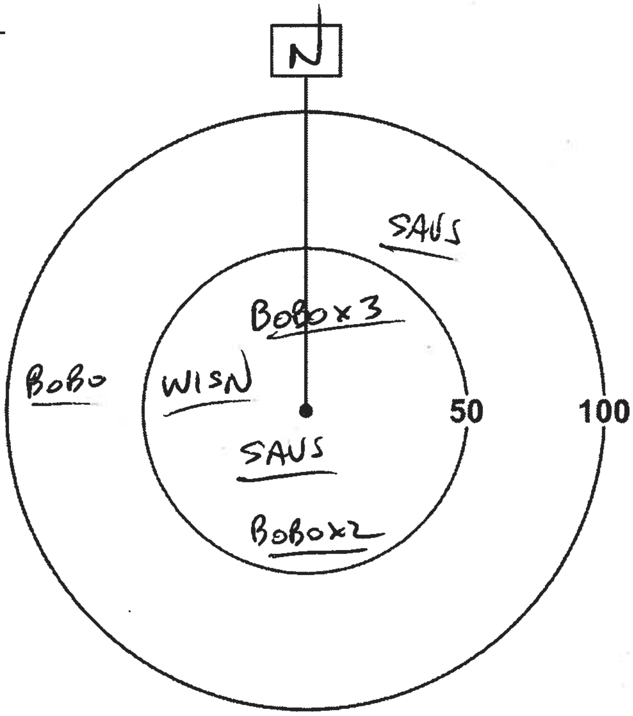

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P38 / 257 G30
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____
**UTM:** ____
**Start Time:** 1002

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SOSP | 1 | | | | O |
| BOBO | 1 | 5 | | | A |
| RWBL | | 1 | | | O |
| RWBL | | | | 1 | A |
| AMGO | | | | 1 | A |
| BARS | | | | 1 | A |
| | | | | | |
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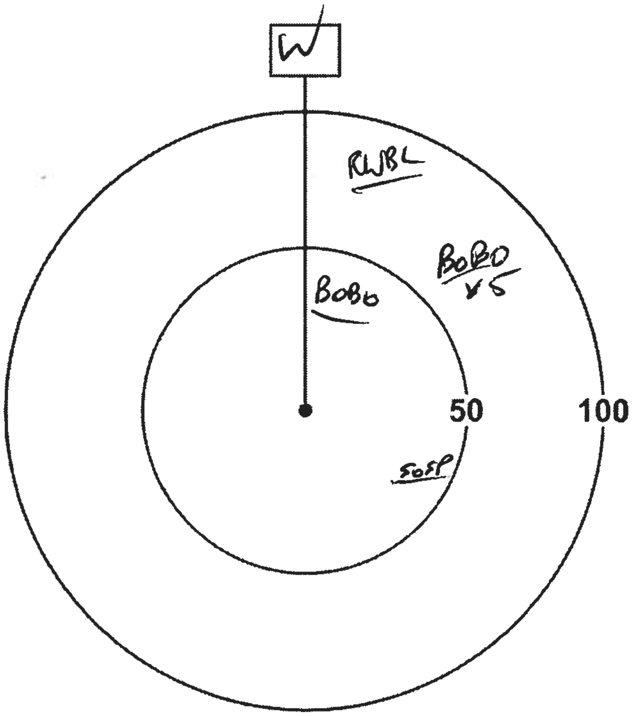

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (_Y_) & legible (_Y_).
Signature: ____ (Field Personnel)
Signature: ____ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

W38

**Station:** P47/263

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

**Start Time:** 1130

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SWSP | 2 | 1 | | | O |
| RBGR | 1 | | | | A |
| AMRO | 1 | 1 | | | O |
| SOSP | | 1 | | | O |
| | | | | | |
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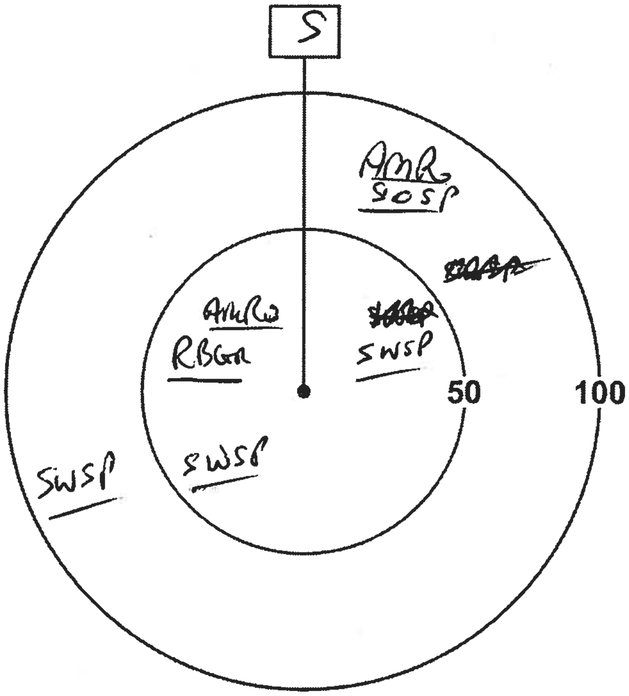
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

**Start Time:** ________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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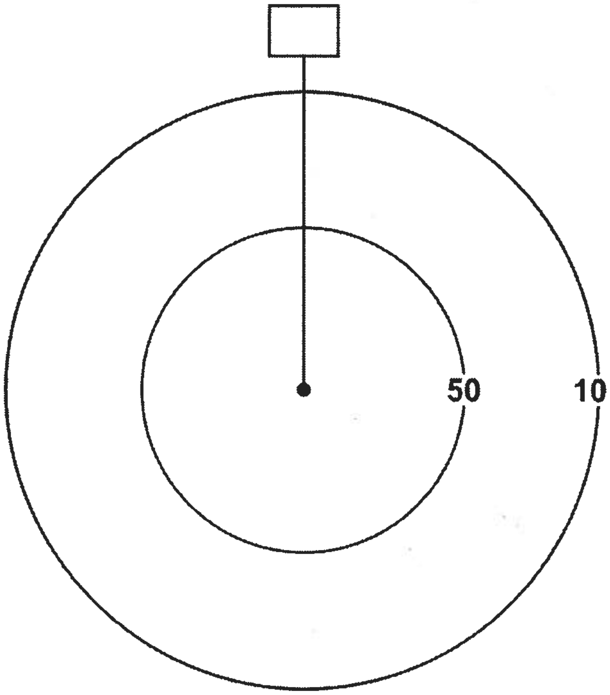
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (__✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: Katie (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

DAY 9

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
✓ Date: June 22, 2010 (correct)
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | E (2) | 100 | 0 | trace |

**Feature No::** W41 **Habitat Type:** ______ **Time Start:** 0543 **Time End:** 0600

***Record location of all significant species on site map.*** Willow Flyc. 2♂ (both S end)

| ** | Endangered, Threatened or Special Concern |
|---|---|
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SM | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SM | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo SM | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

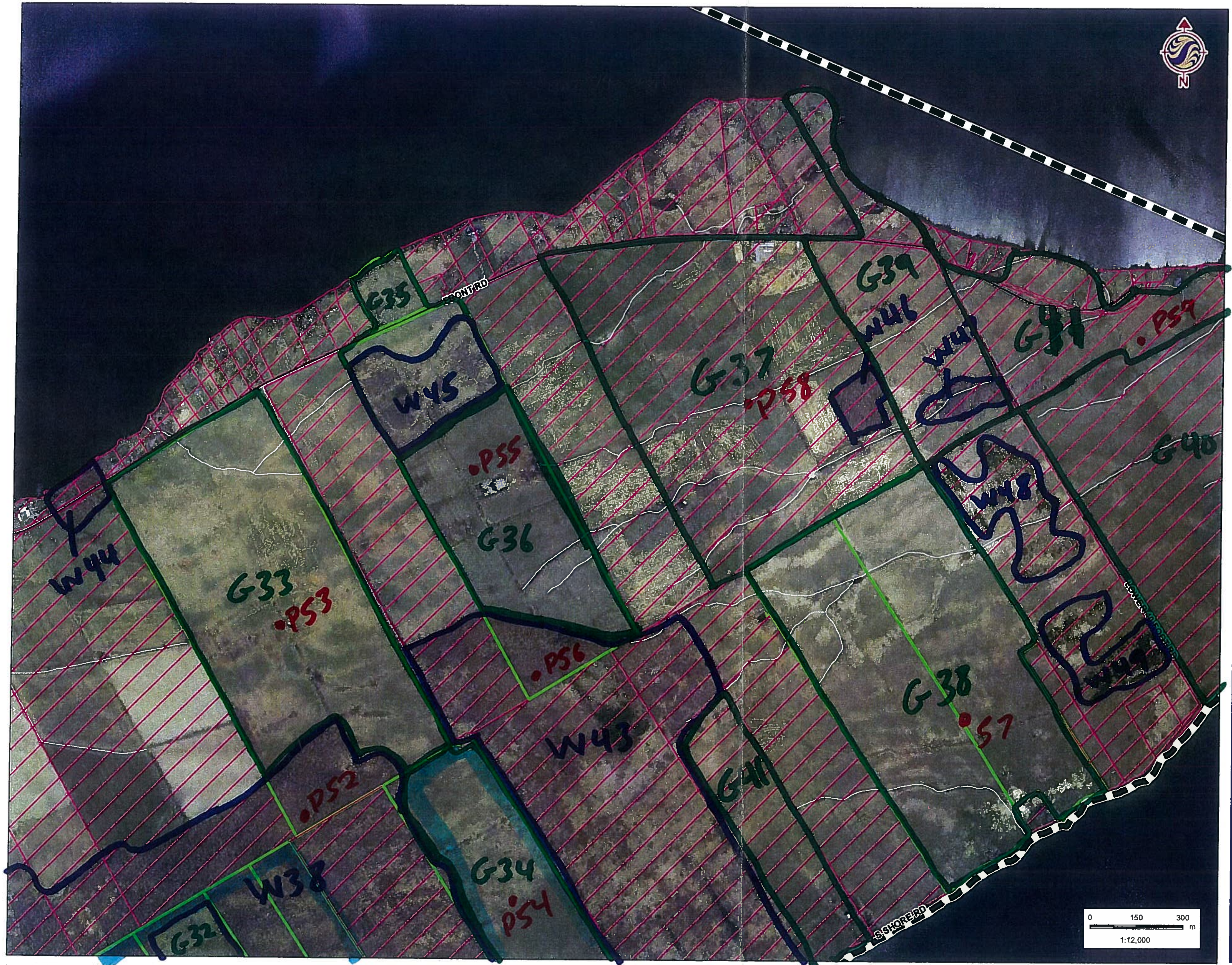
** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☐.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

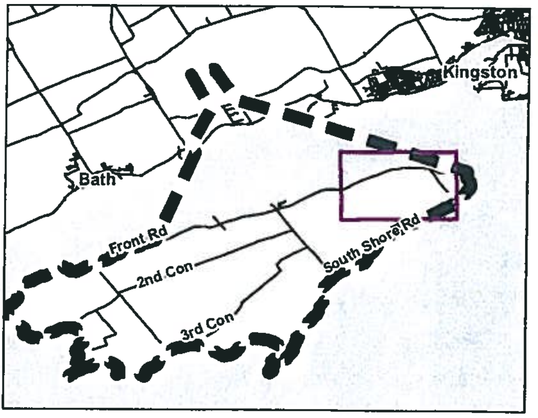


## Legend

- ▭ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 9

Title
## FIELD MAPBOOK

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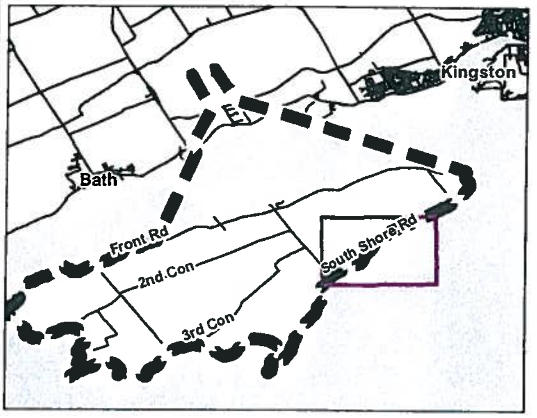
Revised on: 2011.05.27 By:

## Legend

▙ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 8

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By:

DAY 10

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey
# Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 22, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | E ② | 100 | light | trace |

**Feature No::** G31 **Habitat Type:** ______ **Time Start:** 0600 **Time End:** 0714

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose Pond | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow H | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat SM | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | A |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SM | S | Br. Thrasher † | | Bobolink † | A |
| Virginia Rail | | Ea. Phoebe | | European Starling FY | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † SM | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SM | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑

Signature: ________________
(Field Personnel)

Signature: ________________
(Project Manager)

REV: 2011-05-27 / FORM 031

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✓ June 24, 2011 (correct) DAY 10

**Feature No.:** G34 **Habitat Type:** ____ **Time Start:** 0937 **Time End:** 1020

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | H | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † P | P | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | X | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑

**Signature:** ______________________
(Field Personnel)

**Signature:** ______________________
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 23, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
|  | 22 | S ② | 100 | Trace | lots! |

**Feature No::** G32
**Habitat Type:** ________
**Time Start:** 0903 / 1005
**Time End:** 0935 / 1035

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow H | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † H | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. SH | H |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk SH | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H | H |
| Killdeer DD | DD | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W38 **Habitat Type:** ______ **Time Start:** 0935 **Time End:** 1013

***Record location of all significant species on site map.***

June 23 2011

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. H | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † S | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | FY |
| Am. Woodcock H | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | FY | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

NEyed Brown

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 24, 2011 (corrected date)
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | 5 ② | 80 | 0 | lots |

**Feature No::** W38 **Habitat Type:** ______ **Time Start:** 0958 **Time End:** 1012

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

~~Summer Azure~~ [illegible]
~~Gt Spangled~~ [illegible]

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | DD |
| 8 N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † S | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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June 24, 2011 (correct date)

**Feature No.:** W43 **Habitat Type:** ______ **Time Start:** 0925 **Time End:** 0937

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant H | H | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | A |
| ♀ N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SM | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow P | P | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

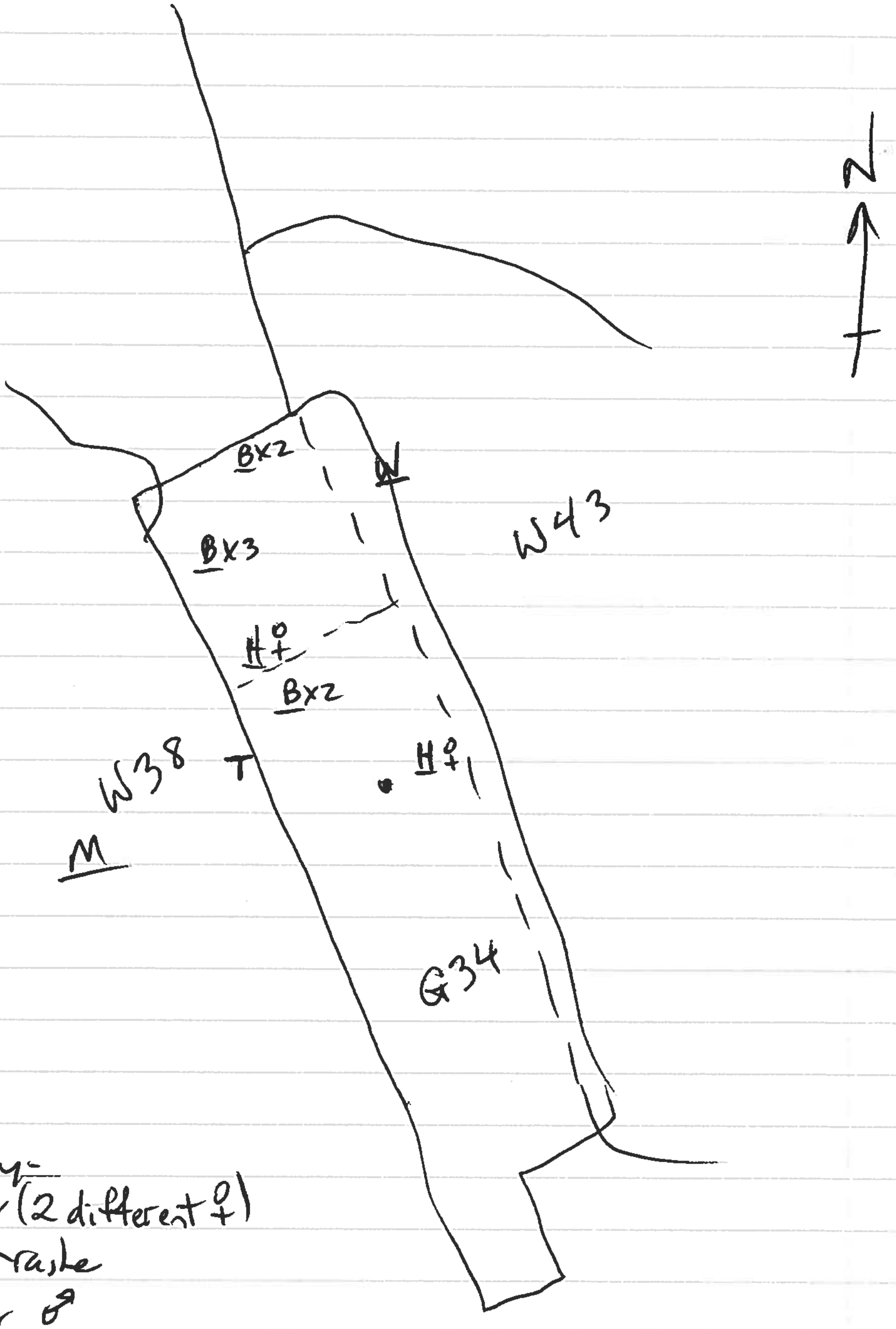
Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________ (Field Personnel)

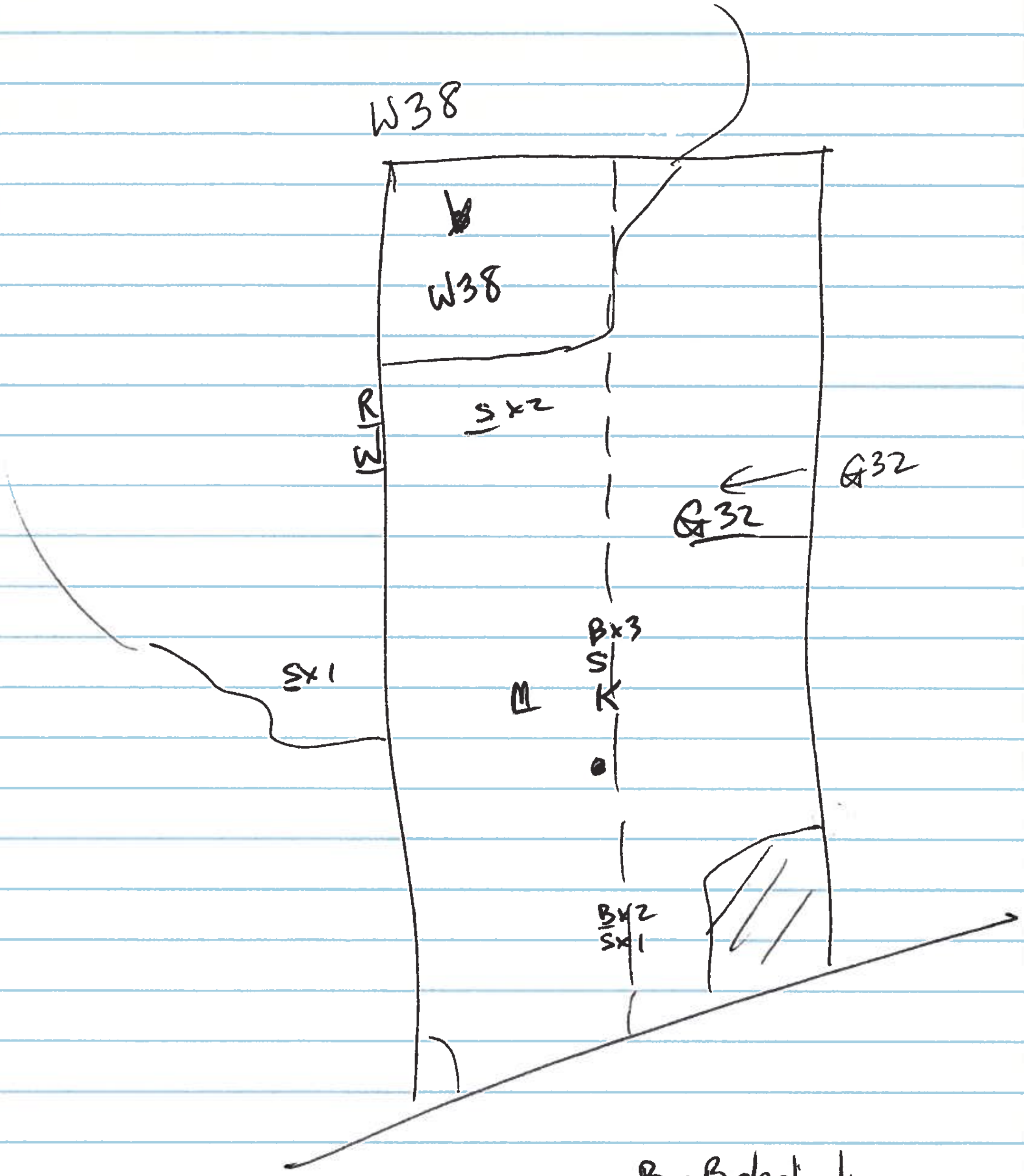
**Signature:** ______________________ (Project Manager)

REV: 2011-05-27 / FORM 031

DAY 10 - June 24, 2011



| | |
|---|---|
| W - | Willow Fly- |
| H | N Harrier (2 different ♀) |
| T | Brown Thrashe |
| M | N Harrier ♂ |
| B | Bobolink |



B – Bobolink
S Sav Sparrow
K E Kingbird
R Rose-br Grosbeak
W Willow Flyc
M – E Meadowlark

DAY 10 – June 23, 2011

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 16096595

Project Name: Amherst

Date June 22, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | Temp: 18 | Wind: E (2) | Cloud: 100 | PPT: light | PPT in last 24 hrs: |
|---|---|---|---|---|---|

✓

GPS #: T___

**Station:** P48/269 G31

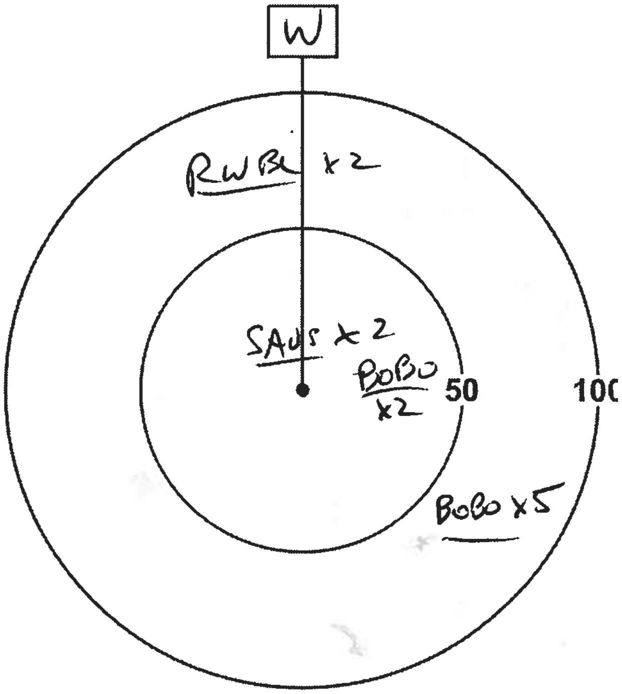
**Habitat:** Forest ☐Swamp Marsh Hay Pasture Crop ____________

**UTM:** ____________

**Start Time:** 0609

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 2 | A |
| RWBL | | 2 | | | O |
| SAVS | 2 | | | | O |
| BOBO | 2 | 5 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: Katie (Project Manager)

Page _____ of ______

REV: May, 07 Form 020

DAY 10

**Station:** P49 / 271 (G31)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
✓ **Start Time:** 0645

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EUST | | | | 2 | A |
| WAXW CEWA | | | | 2 | A |
| BOBO | 2 | 3 | | | A |
| SAVS | 1 | 1 | | | O |
| YEWA | | 1 | | | O |
| RWBL | | 1 | | | O |
| EAKI | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
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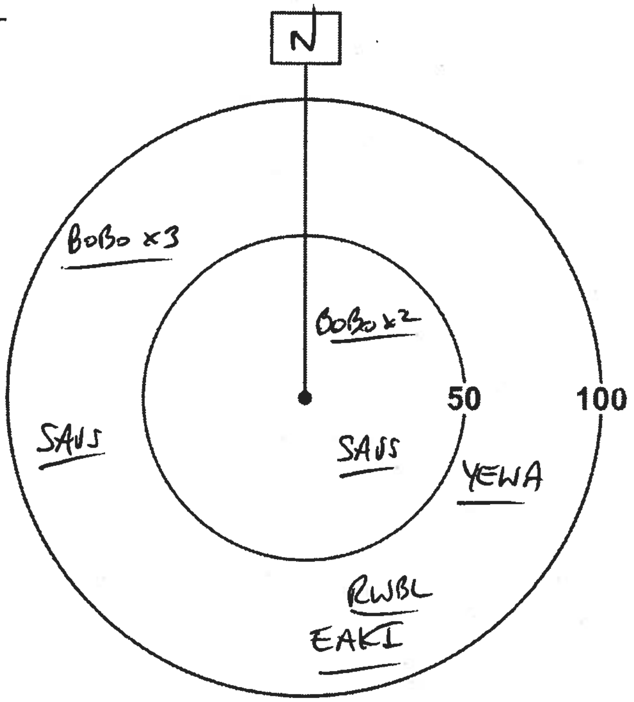
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep

✓ **Station:** P51 / 273 (G32) → June 23, 2011 ✓
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0915

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EUST | | | | 3 | A |
| BOBO | 4 | 2 | | | O |
| RWBL | | 2 | | | O |
| SAVS | | 3 | | | O |
| RWBL | | | | 1 | A |
| TRES | | | | 1 | A |
| BOBO | | | | 1 | A |
| MODO | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |
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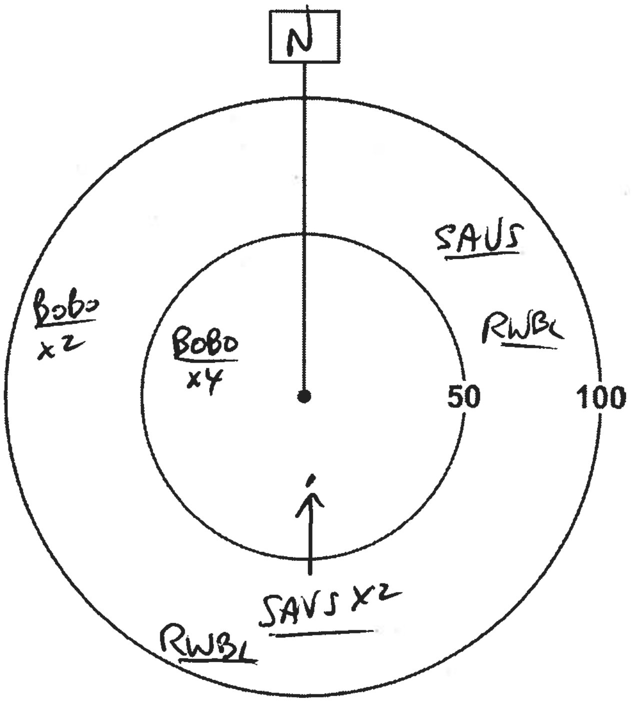
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓)
Signature: ____________ (Field Personnel)
Signature: ____________ (Project Manager)
Page _____ of ______
REV: May, 07 Form 020

DAY 10

✓ **Station:** P50 / 275 W38 → June 23, 2011 (correct date)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________________

**UTM:** ________________________________________

**Start Time:** 0947

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| HOWR | 2 | 1 | | | O |
| BAOR | 1 | 1 | | | O |
| EAWP | | 1 | | | A |
| AMRO | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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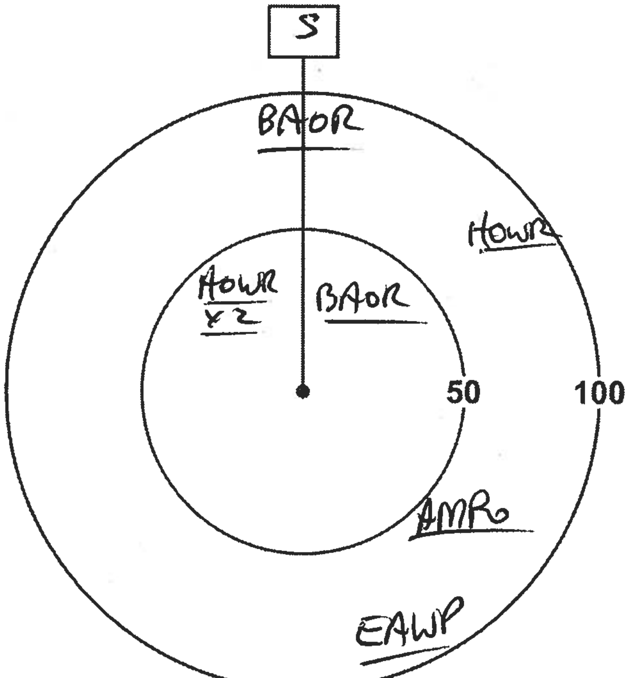
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓ **Station:** P54 /267 G34 W43 (edge) → June 24, 2011 (correct)

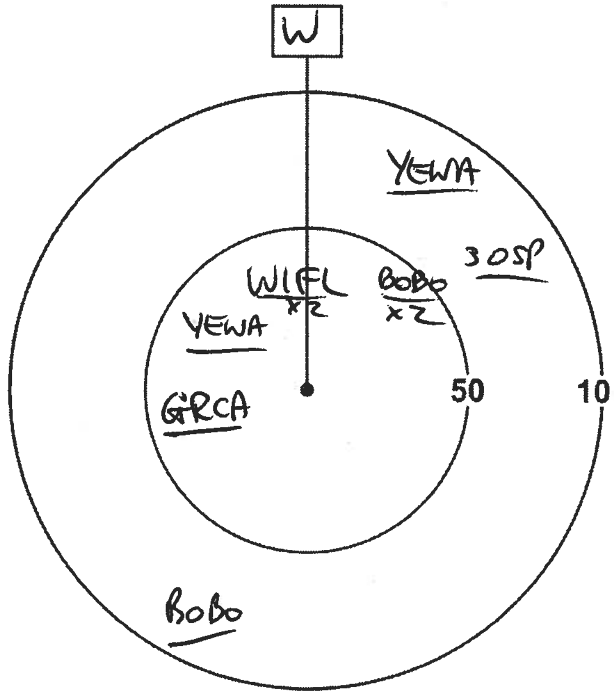
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________________

**UTM:** ________________________________________

**Start Time:** 0941

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WIFL | 2 | | | | O |
| GRCA | 1 | | | | O |
| YEWA | 1 | 1 | | | O |
| BOBO | 2 | 1 | | | O |
| Wax CEWA | | | | 1 | A |
| BAOR | | | | 1 | A |
| SOSP | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page _____ of ______

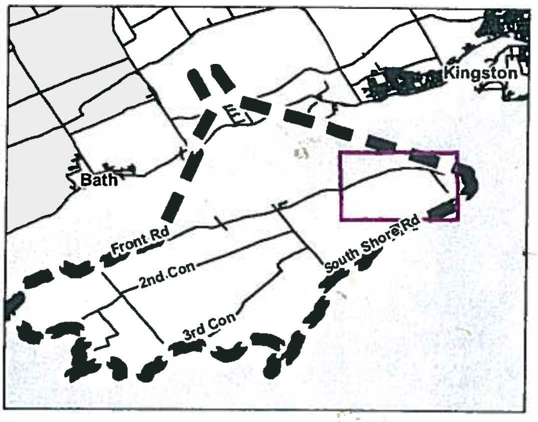
REV: May, 07 Form 020

## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

# FIELD MAPBOOK

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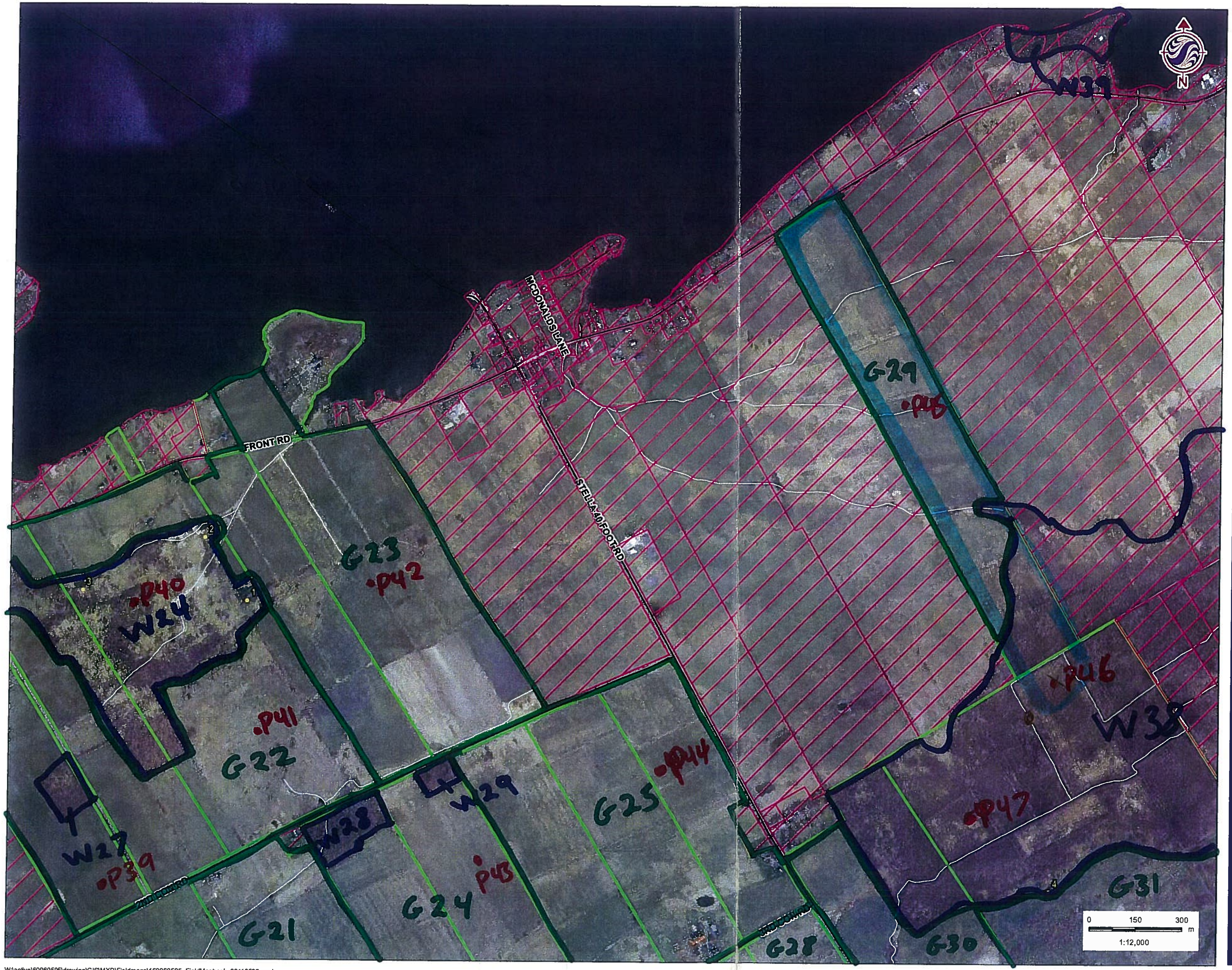
Revised on: 2011-05-27 By: dharvey

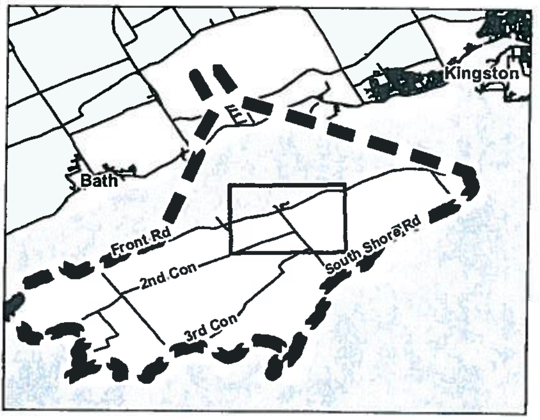


## Legend

▛▜ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 5

Title

# FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-07 By:

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 25, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 16 | WIND: W (2) | CLOUD: 90 | PPT: 0 | PPT (in last 24 hrs): light |

**Feature No::** G29 **Habitat Type:** ______ **Time Start:** 0536 / 0703 **Time End:** 0632 / 0745

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † P | P |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H P | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk P | P | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † P | N | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 7

Quality Control: This form is complete ☐ ~~& legible ☐.~~

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W38 **Habitat Type:** **Time Start:** 0632<br>0842 **Time End:** 0703<br>0908

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | A |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † SN | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † S | S | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † S | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal H | H |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † H P | P |
| Red-tailed Hawk P A | A | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † SM | S |
| Am. Woodcock H | H | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 7

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 25, 2011
Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 20 | W ① | 100 | trace | — |

**Feature No::** G33 **Habitat Type:** ________ **Time Start:** 0810 / 0908 **Time End:** 0842 / 0915

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ H | H | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S ~~A~~ | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | X | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

3 Pg ~~8~~ of 7

Quality Control: This form is complete ☑ ~~& legible~~ ☑~~.~~

**Signature:** Ar
(Field Personnel)

**Signature:** Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W43 **Habitat Type:** ______ **Time Start:** 0915 **Time End:** 0950

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl H | H | Bl-capped Chickadee P | P | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † S | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture H | H | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A S | A |
| N. Harrier †‡ | | No. Flicker † 2M A | A | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | H | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock H | H | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay A | A | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ~~5~~ 4 of 7

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 25, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | W ① | 100 | trace | light |

**Feature No::** G36 **Habitat Type:** ____________ **Time Start:** 0950<br>1047 **Time End:** 1029<br>1100

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † SM | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| 8 N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk P | P | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H | H |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe S | S | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 7

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Katie
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W45 **Habitat Type:** ____________ **Time Start:** 1029 **Time End:** 1040

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. SM | S |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 7

**Signature:** AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Katrin G
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 25, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 23 | WIND: SW ② | CLOUD: 100 | PPT: 0 | PPT (in last 24 hrs): trace |

**Feature No::** Q35 **Habitat Type:** ______ **Time Start:** 1035 **Time End:** 1047

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. H P | P |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † S | S |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. [illegible] | CF | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | X |
| Common Tern | | Purple Mart. | X | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | N | Pine Wa. ‡ | | | |
| Mourn. Dove | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 7

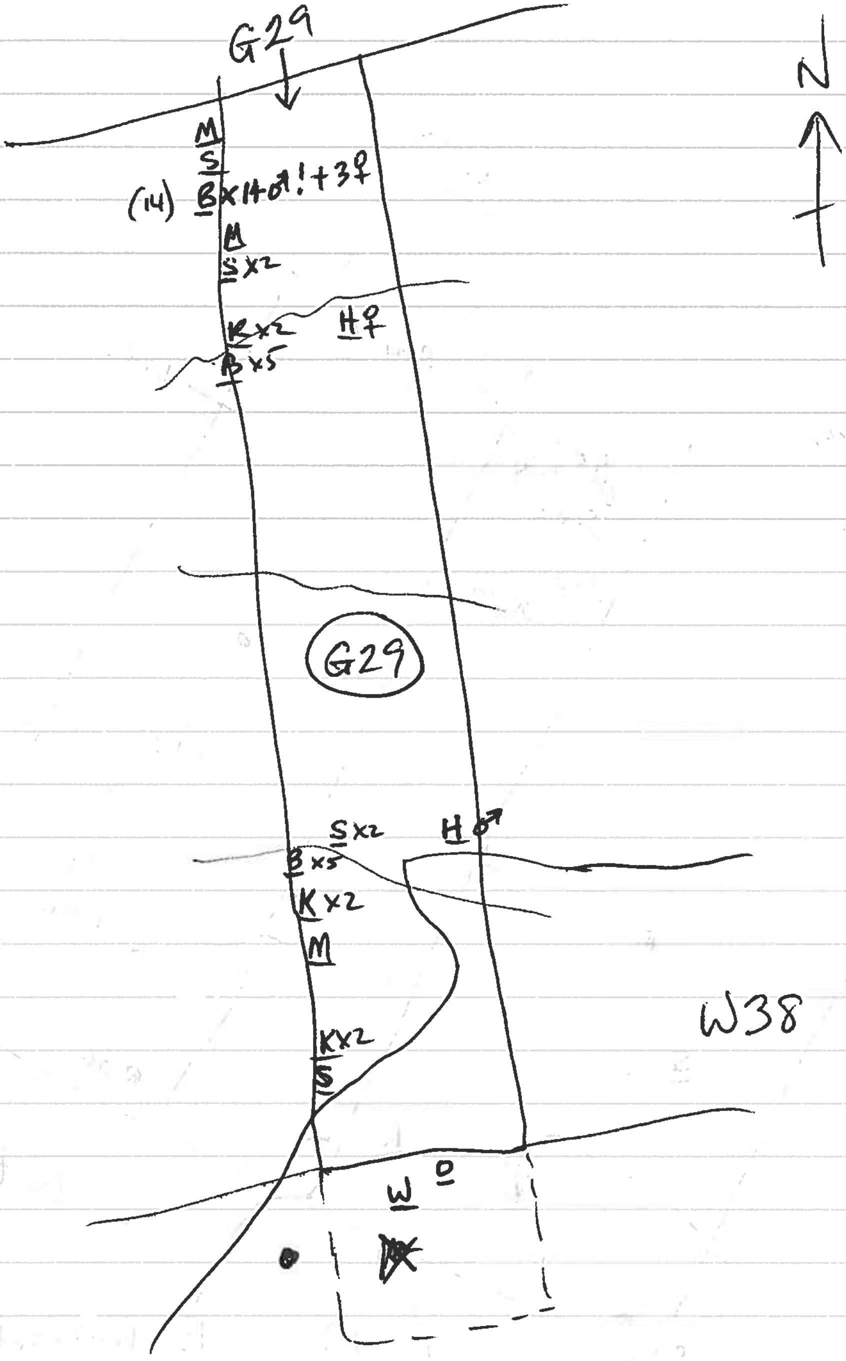
Quality Control: This form is complete ☑ ~~& legible~~ ☐.

Signature: AW
(Field Personnel)

Signature: Katie
(Project Manager)

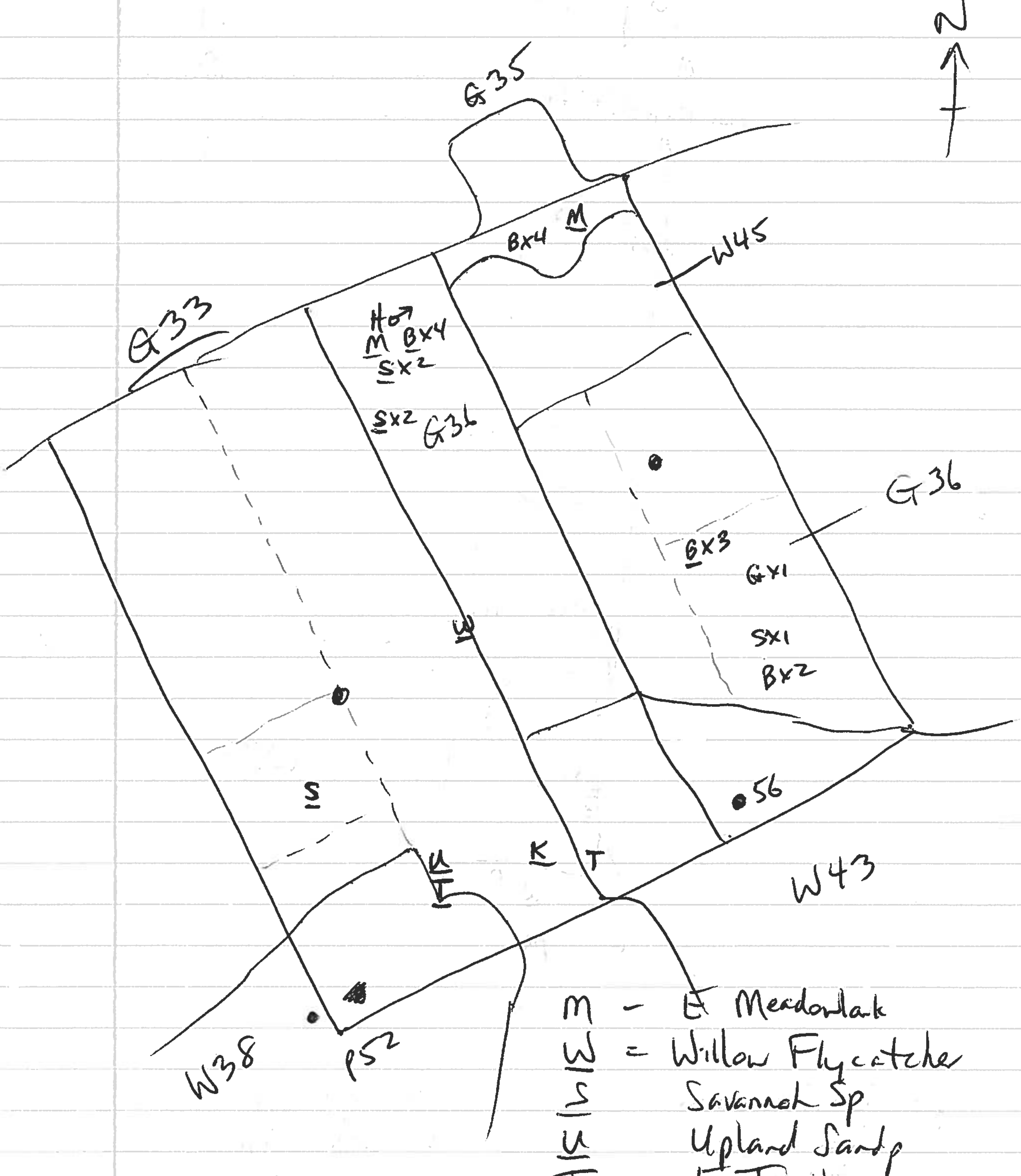
REV: 2011-05-27 / FORM 031

# DAY 11 – June 25, 2011



| | |
|---|---|
| M – | E Meadowlark |
| S | Sav Sparrow |
| B | Bobolink |
| H | N Harrier |
| K | E Kingbird |
| O | B. Oriole |
| W | Wood Thrush |

# DAY 11 — June 25, 2011



M - E Meadowlark
W = Willow Flycatcher
S Savannah Sp
U Upland Sandp
T E Towhee
K E Kingbird
B Bobolink
G Grasshoppe Sp.

H Northe Harrier

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 25, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 16 | Wind: W ① | Cloud: 80 | PPT: 0 | PPT in last 24 hrs: light |

**GPS #: T___**

G29

✓ **Station:** P45 / 278

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop __________

**UTM:** __________

**Start Time:** 0558

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAKI | | | | 1 | A |
| BoBo | 6 | 4 | | | O |
| SAVS | | 2 | | | O |
| GRSP | | 2 | | | O |
| EAME | | 1 | | | A |
| | | | | | |
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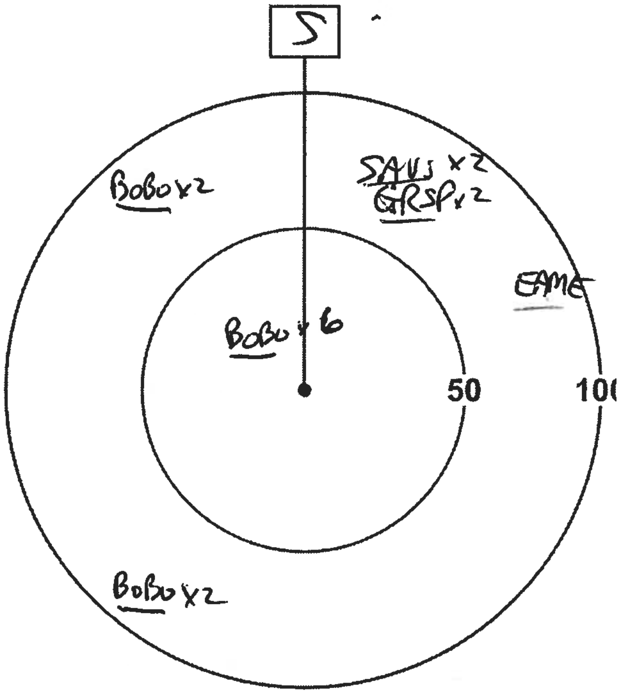

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

C

AW

Quality Control: This form is complete ( ✓ ) & legible ( ✓ )

Signature: ____________________
(Field Personnel)

Signature: ____________________
(Project Manager)

Page 1 of 4

REV: May, 07 Form 020

✓

**Station:** P46 / 279 W38

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____

**UTM:** ____

**Start Time:** 0647

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SOSP | 1 | | | | O |
| SWSP | | 2 | | | O |
| COYE | 1 | | | | O |
| GRCA | 1 | | | | O |
| RBGR | 1 | | | | O |
| NOCA | 1 | | | | O |
| HOWR | | 1 | | | O |
| | | | | | |
| | | | | | |
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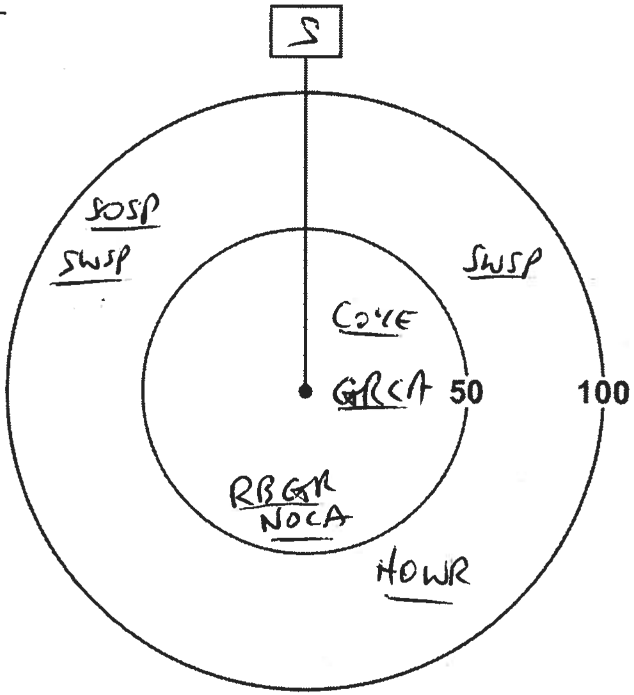

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the ~~height of~~ blade sweep

✓

**Station:** P53 / 281 G33

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☒Pasture ☐Crop ____

**UTM:** ____

**Start Time:** 0818

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| Rough- RWSW | | | | 1 | A |
| EAKI | 1 | | | | O |
| SAVS | 2 | | | | O |
| SOSP | 1 | | | | O |
| RWBL | 1 | | | | O |
| YEWA | 1 | | | | O |
| | | | | | |
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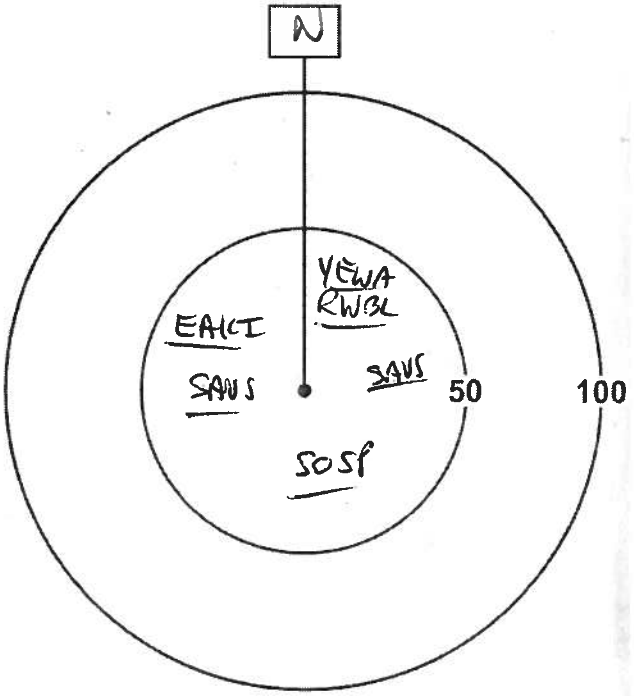

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____ (Field Personnel)

Signature: ____ (Project Manager)

Page 2 of 4

REV: May, 07 Form 020

✓

**Station:** P52/ 282 W38

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ________________________________

**Start Time:** 0848

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGR | 2 | | | | A |
| REVI | | 1 | | | A |
| AMRO | | 1 | | | O |
| NOFL | | 1 | | | A |
| HOWR | | 1 | | | O |
| EAWP | | 1 | | | A |
| | | | | | |
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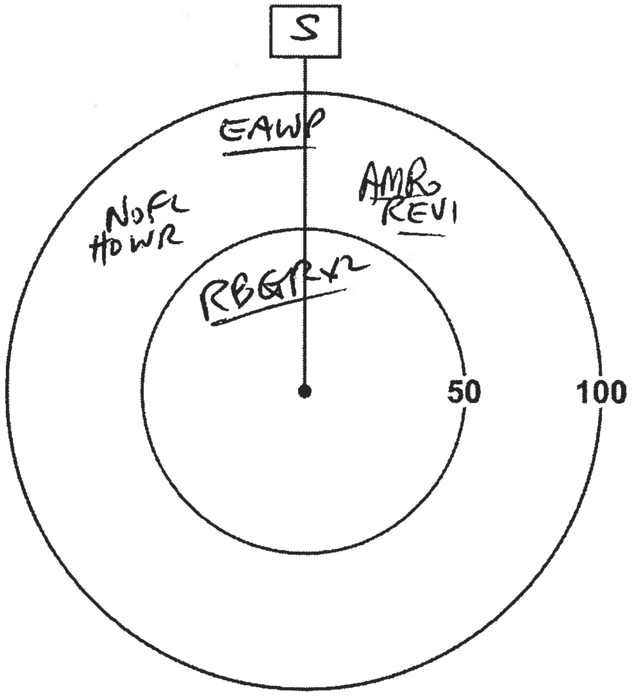
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

✓

**Station:** P56 /283 W43

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ________________________________

**Start Time:** 0928

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| REVI | 1 | | | | A |
| SOSP | 1 | | | | O |
| AMRO | | 1 | | | O |
| BLJA | | 1 | | | A |
| HOWR | 1 | | | | O |
| | | | | | |
| | | | | | |
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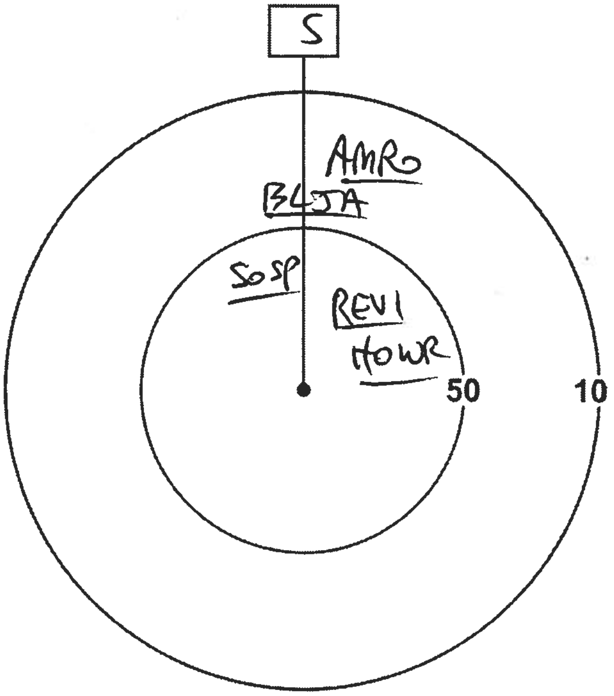

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete ( ✓ ) & legible ( ✓ )

Signature: ____________________ Signature: ____________________
(Field Personnel) (Project Manager)

Page 3 of 4

REV: May, 07 Form 020

✓

**Station:** P55/285 G36

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** 1018

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 5 | A |
| SAVS | 1 | | | | O |
| BOBO | 6 | 3 | | | A |
| EAKI | 1 | | | | O |
| SOSP | 2 | | | | O |
| RWBL | 4 | 1 | | | O |
| YEWA | | 1 | | | O |
| | | | | | |
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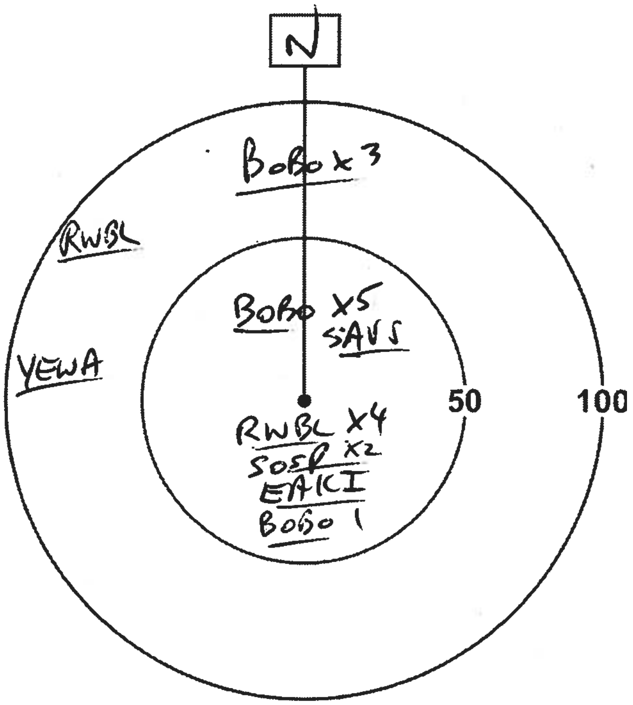
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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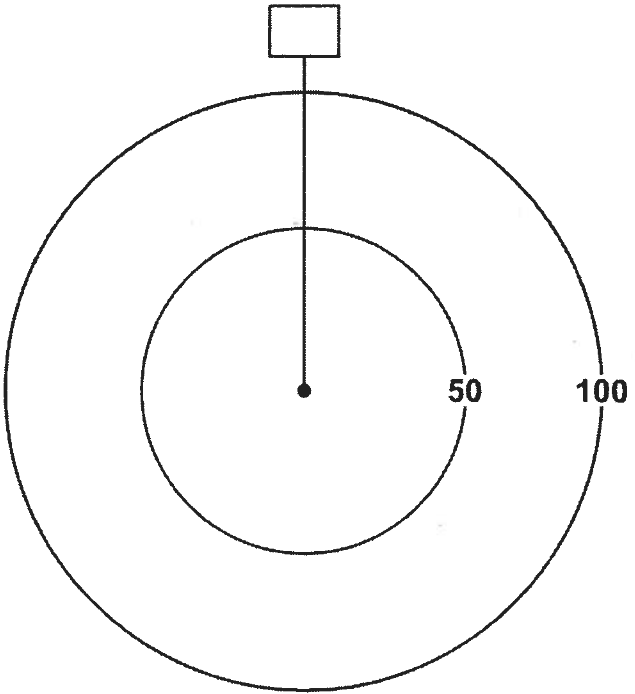
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: ____________ (Project Manager)

Page 4 of 4

REV: May, 07 Form 020

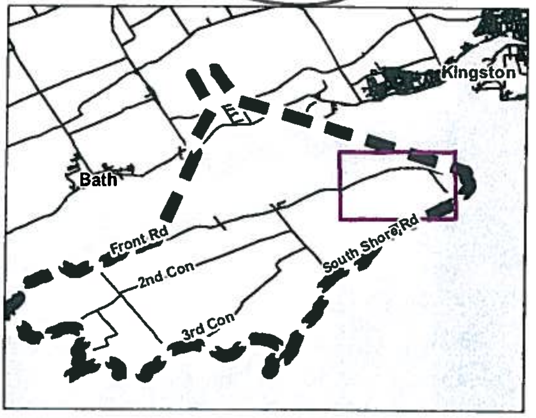
## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned

G-38
OK ✓



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By:

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 26, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 18 | W ① | 80 | 0 | — |

✓

GPS #: T___

Station: P58 / 287 (G37)

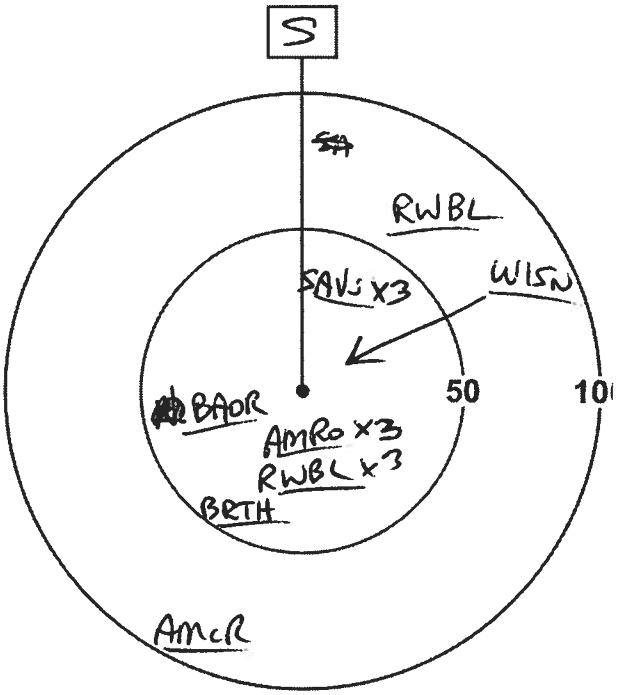
Habitat: ☐Forest ☐Swamp Marsh ☐Hay ☐Pasture ☐Crop

UTM:

Start Time: 0618

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WISN | 1 | | | | B |
| BARS | | | | 5 | A |
| KILL | | | | 4 | A |
| SAVS | 3 | | | | O |
| AMRO | 3 | | | | A |
| RWBL | 3 | 1 | | | A |
| BRTH | 1 | | | | A |
| AMCR | | 1 | | | A |
| BAOR | 1 | | | | A |
| UPSA | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW
(Field Personnel)

Signature: Katrina
(Project Manager)

Page 1 of 2

REV: May, 07 Form 020

✓

**Station:** P57 /288 G38

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________________________

**Start Time:** 0807

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SAVS | 2 | 2 | | | O |
| BoBo | | 2 | 2 | | O |
| RWBL | | | | 1 | A |
| WISN | | | 1 | | B |
| EUST | | | | 2 | A |
| EAKI | 1 | | | | O |
| AMGO | | | | 1 | A |
| | | | | | |
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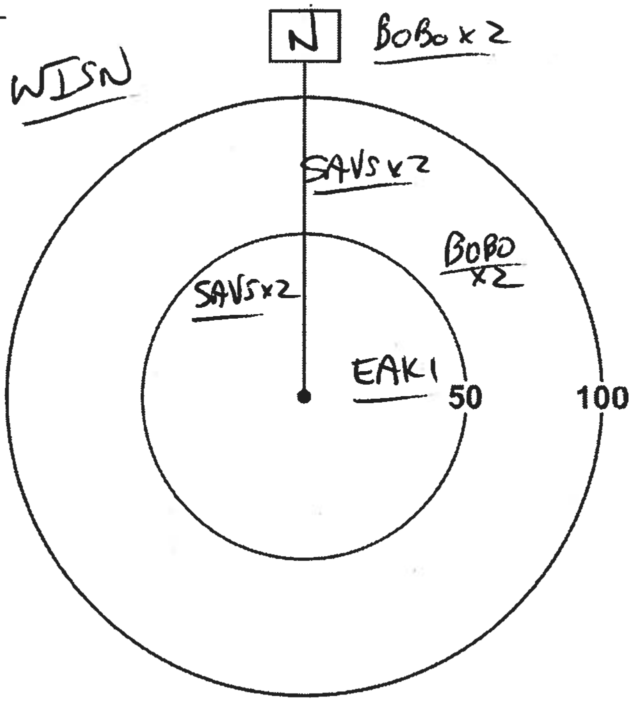

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________________________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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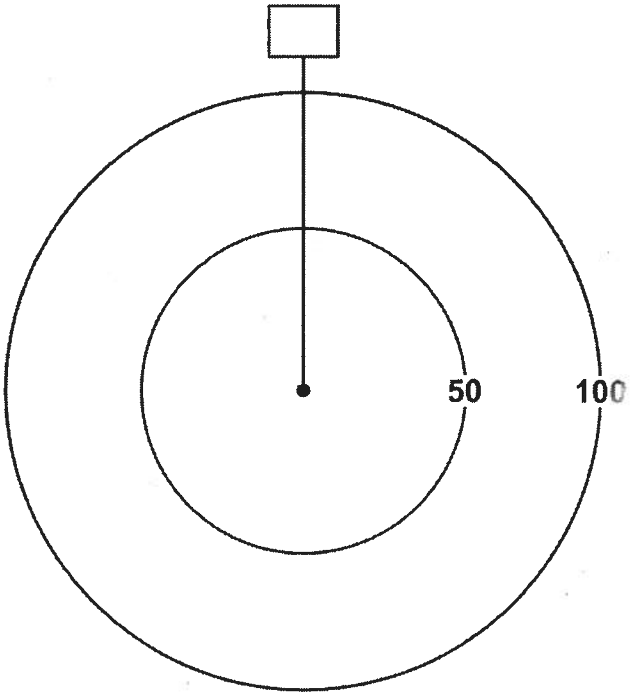


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

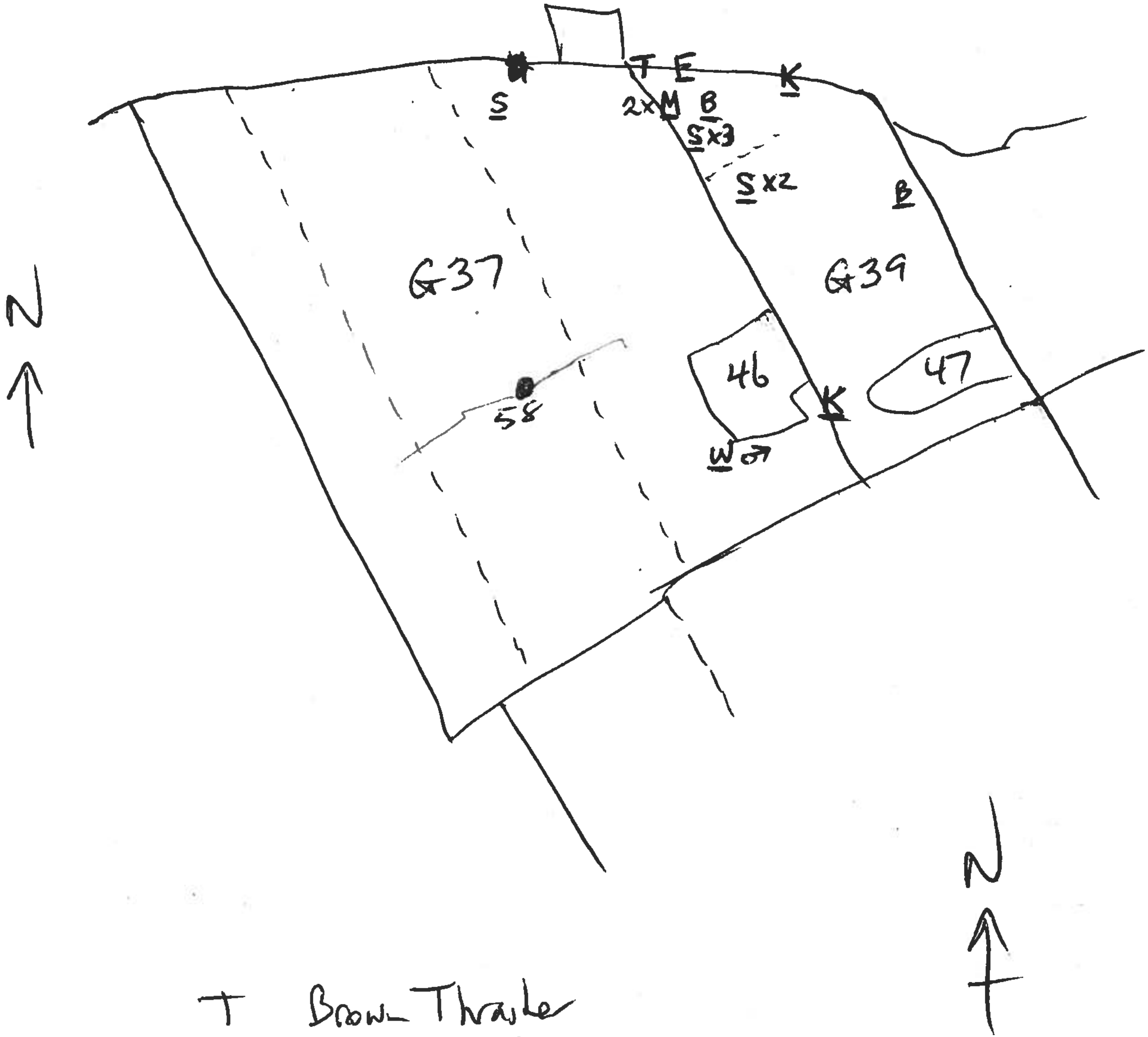
Signature: ____________________ (Field Personnel)

Signature: ____________________ (Project Manager)

Page 2 of 2

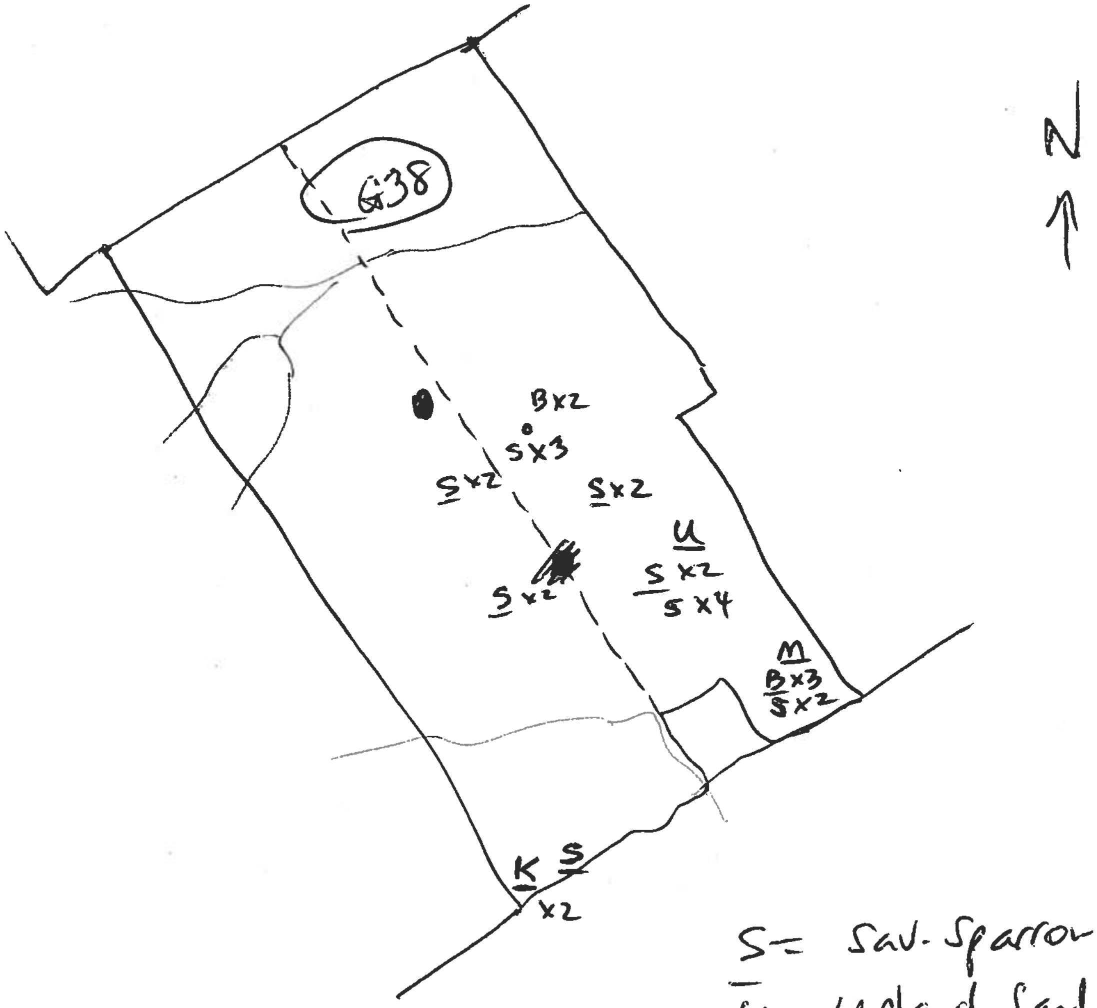
REV: May, 07 Form 020

June 26, 2011 - DAY 12



| | |
|---|---|
| T | Brown Thrasher |
| S | Savannah Sparrow |
| W | Mourning Warbler |
| K | E Kingbird |
| B | Bobolink |
| M | E Meadowlark |
| F | Willow Flycatcher |

June 26, 2011 – Day 12



S = Sav. Sparrow
U Upland Sand
B Bobolink
M E Meadowlark
K E Kingbird

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 26, 2011
Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | W ① | 80 | 0 | — |

**Feature No::** G37 **Habitat Type:** ____________ **Time Start:** 0558 0650 **Time End:** 0635 0715

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | N | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ S | S |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. S | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H S | S | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | N | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer A | A | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe S | S | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † SM | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow N | N |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove H | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 5

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature: Katrina
(Project Manager)

**Feature No.:** W46 **Habitat Type:** ____________ **Time Start:** 0635 **Time End:** 0646

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird A | A | Rose-br. Grosbeak † | |
| Red-tailed Hawk A | A | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling A | A | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. S | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 5

**Signature:** ____________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** ____________
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 26, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | WIND: W ① | CLOUD: 80 | PPT: 0 | PPT (in last 24 hrs): — |

**Feature No::** G39 **Habitat Type:** ____________ **Time Start:** 0650 / 0720 **Time End:** 0703 / 0726

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H S | S | Bobolink † S | S |
| Virginia Rail | | Ea. Phoebe | | European Starling H | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H | P |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe S | S | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 5

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W47 **Habitat Type:** ____ **Time Start:** 0726 **Time End:** 0736

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | A | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S H | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. H | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 5

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 26, 2011

Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 18 | W 1 | 90 | 0 | trace |

**Feature No::** G38 **Habitat Type:** ____________ **Time Start:** 0750 **Time End:** 0842

***Record location of all significant species on site map.*** Common Loon on lake, close to shore

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant SM | S | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin A | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | A |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe SM | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | N |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | H | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 5

Quality Control: This form is complete ☑ & legible ☑.

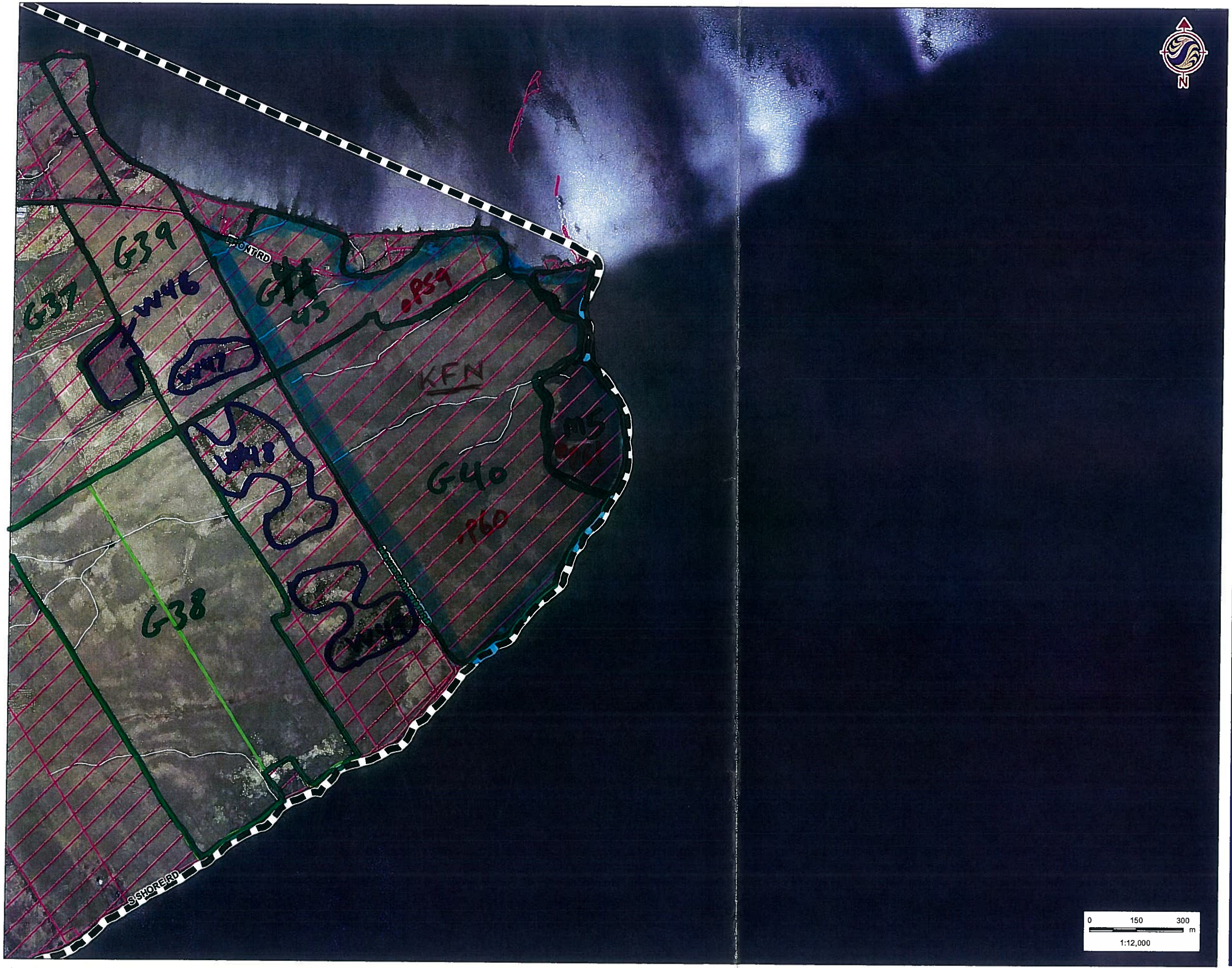
Signature:

(Field Personnel)

Signature:

(Project Manager)

REV: 2011-05-27 / FORM 031

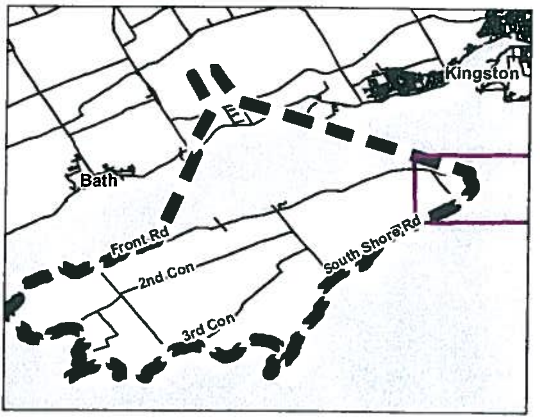


## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 10

Title

**FIELD MAPBOOK**

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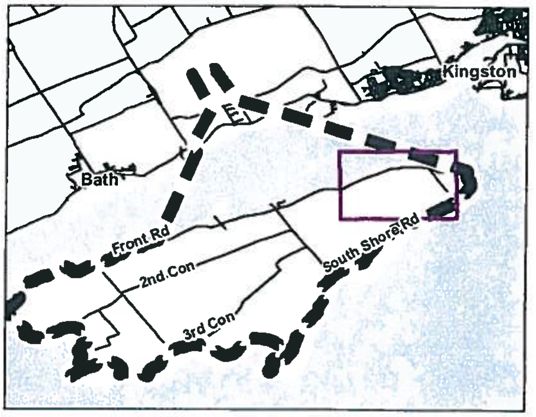
Revised on: 2011-05-27 By:

## Legend

▙ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

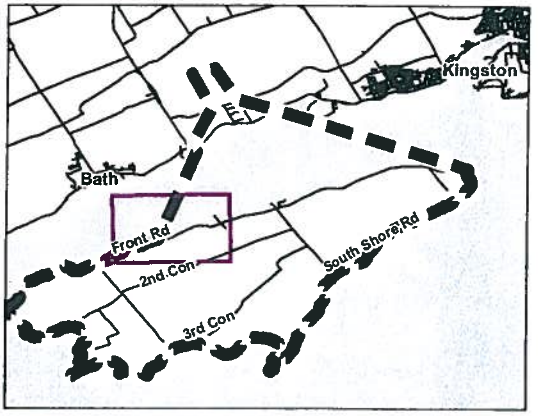
W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

## Legend

▭ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 4

Title
# FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 24, 2011
Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | S [✓ 2] | 100 | 0 | lots! |

**Feature No::** W44 **Habitat Type:** ____________ **Time Start:** 0525 **Time End:** 0535

NW of P53/281

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ S | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee S | S | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † SM | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. SM | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo 3♂ [illegible] | S | Yellow Wa. S | S | Baltimore Oriole † A | A |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 6

Quality Control: This form is complete ☑ ~~& legible ☐.~~

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W23 **Habitat Type:** ______ **Time Start:** 0548 **Time End:** 0558

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. H SM | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

E Meadowlark opposite side of road (South)

Pg. 2 of 6

Quality Control: This form is complete ☒ ~~& legible~~ ☐

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 24, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | S (2) | 100 | 0 | lots! |

**Feature No::** W22 **Habitat Type:** ________ **Time Start:** 0602 **Time End:** 0625

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

* N = N section
★ S = S section (towhee west side of road)

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl * | FY | Bl-capped Chickadee H | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat 3 | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † ★ | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S A | A | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. S | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † * S | S |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 6

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

**Feature No.:** G41 **Habitat Type:** ____________ **Time Start:** 0640 **Time End:** 0730

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SM | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| ♀ N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H A | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † SM | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ SM | S | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe SM | S | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow [illegible] | A [illegible] | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

~~different milkweed? stems darker purple~~
~~veins " "~~

Pg. 4 of 6

**Signature:** ____________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katrine ____________ (Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey
# Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 24, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | S ② | 90 | 0 | lots! |

**Feature No::** G40 **Habitat Type:** ______ **Time Start:** 0737 **Time End:** 0815

0850 0908

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | X | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † A | A |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | NY | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ P | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk A | A | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | NY | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | FY | Pine Wa. ‡ | | W Phalarope H | DD |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 6

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______ (Field Personnel)

**Signature:** ______ (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** M5 **Habitat Type:** **Time Start:** 0812 **Time End:** 0850

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard H | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern 2 | P | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron 1 | X | Red-headed Wo** † | | Marsh Wren 2 30 | S | Field Sp. † | |
| Gr. Egret 2 | X | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron 1 | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | DD | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper PA | A | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe 8+ | P | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | X | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | X | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | X | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | Am Wigeon | X |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | W Phalarope 12+ | DD |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

| | |
|---|---|
| Gadwall | P |
| Am Wigeon | X |
| Bl-cr Night-Heron | X |
| Caspian Tern | X |
| GW Teal | H |
| White-rumped Sandp | X |
| L. Yellowlegs | X |
| N. Pintail | X |

Too chaotic to conduct a proper point count.

Pg. 6 of 6

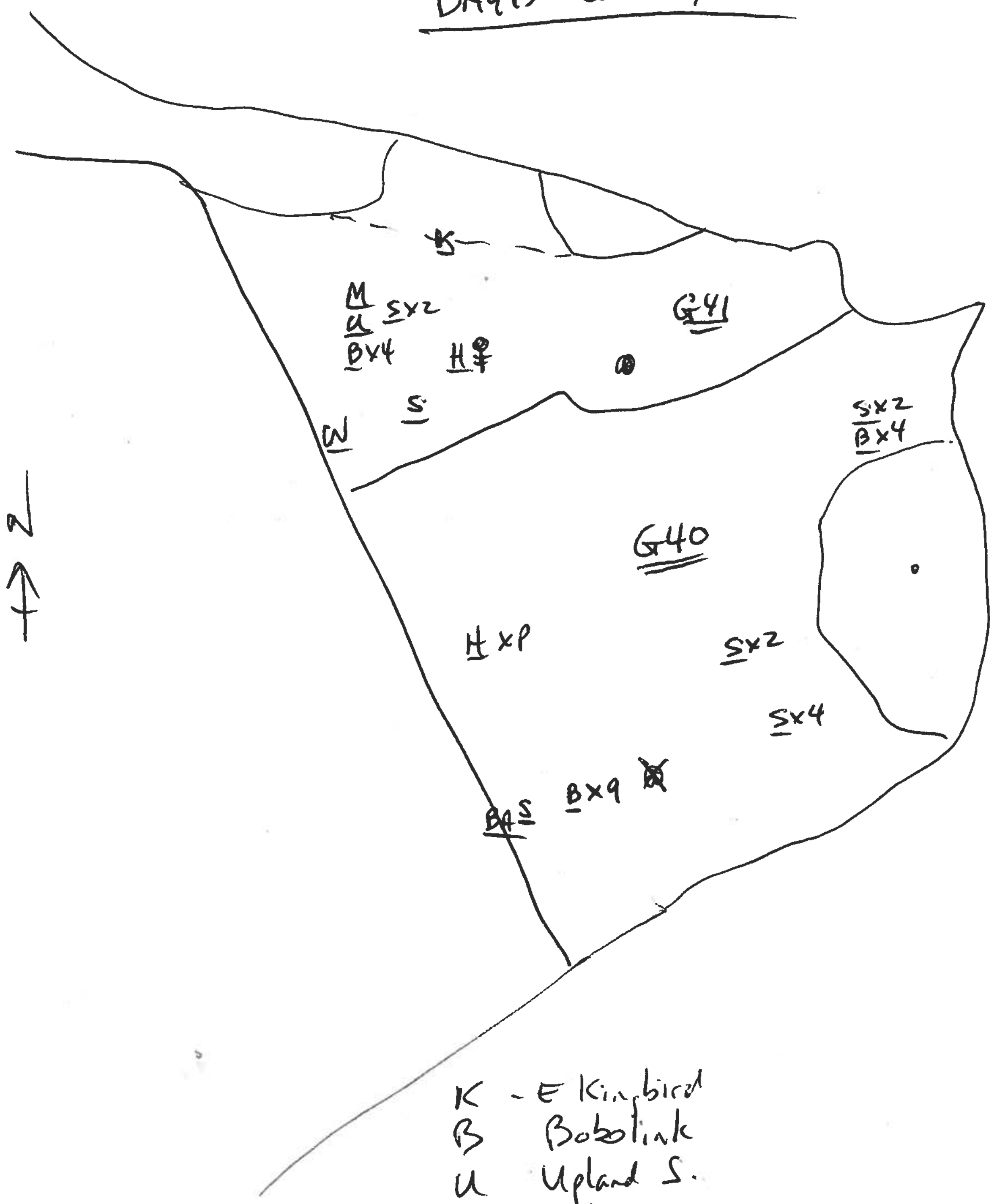
Quality Control: This form is complete ☑ ~~&~~ legible ☑.

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-27 / FORM 031

# DAY 13 – June 24, 2011



| | |
|---|---|
| K | - E Kingbird |
| B | Bobolink |
| U | Upland S. |
| W | WillowFly |
| M | E Meadowlark |
| S | Savannah Sp |
| H | Harrier ♀ |
| BA | Bank Swallow |

# Appendix F: Least Bittern Survey Data Sheet

## Canadian Wildlife Service ~ Least Bittern Call Response Survey Field Data Sheet

Site ______ Station # ______ Site visit # ______
Date ______ Start time ______ End time ______
Wind - Beaufort ______ Cloud cover (%) ______ Temperature ______
Wind - Direction ______ Precipitation ______ Speaker direction ______
Observer 1) ______ Lat. ______
(see bottom r.h. corner) 2) ______ Long. ______
Ambient noise level (see back of sheet for codes) ______

Water depth (cm) ______ Length of stake above water (cm) ______
Live veg. ht. (cm) (2 m radius) spp1 ______ spp2 ______ spp3 ______
Dead veg. ht. (cm) (2 m radius) spp1 ______ spp2 ______ spp3 ______
Dom. vegetation (5m radius) ______
Float. vegetation (5m radius) present ☐ spp. and % ______
Sub. vegetation (5m radius) present ☐ spp. ______

NOTE: record AMBI, KIRA, LEBI, PBGR, SORA, VIRA and YERA in table

| Direction of bird[1] | Species | Sex | Det. before 1st min[2] | Passive[2] | | | | | Call[2] | | | | | Passive[2] | | | Det. after 13 min[2] | Call Type(s) (see back) | Distance (m) (0-10, 10-25, 25-50, 50-100, >100) | Detected at a previous station | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 min | 2 min | 3 min | 4 min | 5 min | 1 min | 2 min | 3 min | 4 min | 5 min | 1 min | 2 min | 3 min | | | | | |
| | | | | 1 min | 2 min | 3 min | 4 min | 5 min | 6 min | 7 min | 8 min | 9 min | 10 min | 11 min | 12 min | 13 min | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

[1] Use arrow to mark direction of bird

[2] Mark 1 for heard, s for seen and 1s for heard/seen

* Record number of LEBI detected outside of survey period between previous, current or next station ______ (NOTE: count only new birds not recorded during station surveys)

☐ **Other species not recorded**

**Other sp. within 100 m**

☐ ABDU ______
☐ AMCO ______
☐ AMCR ______
☐ AMGO ______
☐ BBCU ______
☐ BCNH ______

☐ BLTE ______
☐ BWTE ______
☐ CAGO ______
☐ COGR ______
☐ COMO ______
☐ CORA ______

☐ COYE ______
☐ EAKI ______
☐ GADW ______
☐ GTBH ______
☐ MALL ______
☐ MAWR ______

☐ NSHO ______
☐ RWBL ______
☐ SACR ______
☐ SEWR ______
☐ SWSP ______
☐ TRES ______

☐ WISN ______
☐ YHBL ______
☐ Other ______

Miscellaneous notes:

Contact info of primary observer:

**List species detected beyond 100 m** ______

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 24, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 22 | Wind: S (2) | Cloud: 90 | PPT: 0 | PPT in last 24 hrs: lots! |

**GPS #:** T___

**Station:** P59 / 291 (G41)

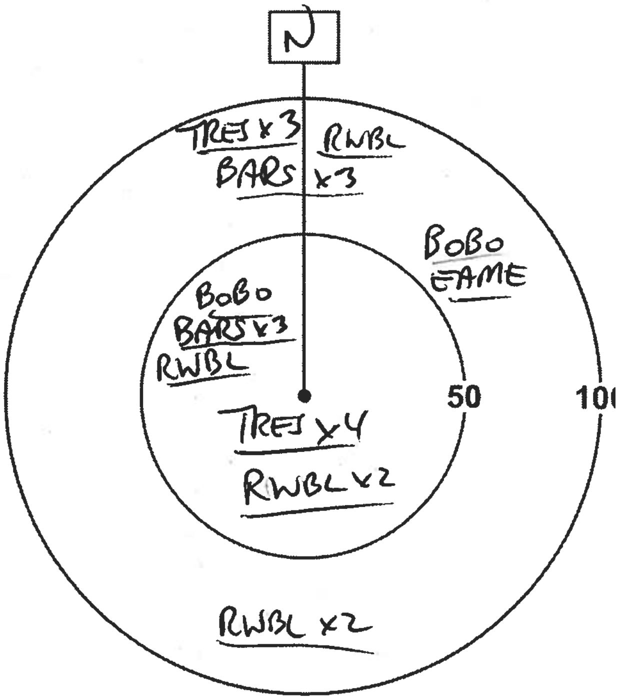
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

✓ **Start Time:** 0703

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 3 | A |
| TRES | 4 | 3 | | | A |
| EAKI | | | | 1 | A |
| EUST | | | | 1 | A |
| BARS | 3 | ~~2~~ | | | O |
| BARS | | 3 | | | A |
| RWBL | 3 | 3 | | | O |
| BOBO | 1 | 1 | | | O |
| EAME | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW
(Field Personnel)

Signature: ____________
(Project Manager)

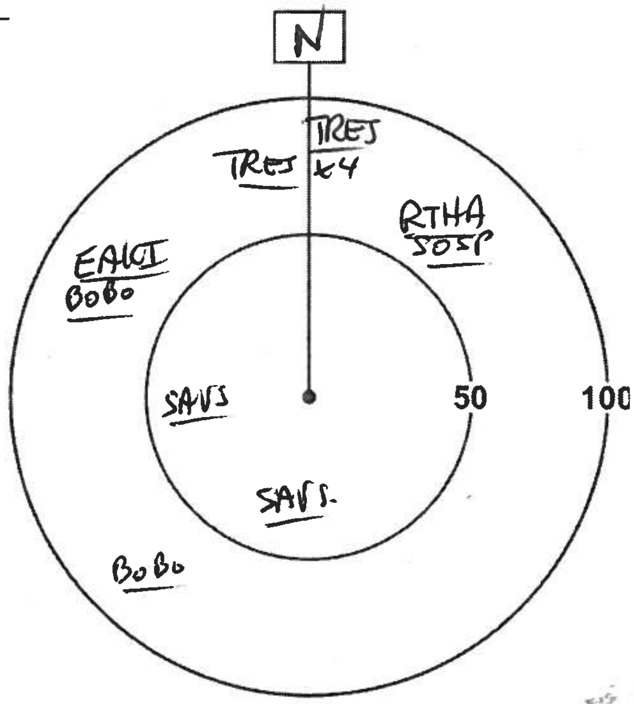
Page 1 of 2

REV: May, 07 Form 020

✓ **Station:** P60 / 294 G40
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0750

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | 1 | | | O |
| TRES | | 4 | | | A |
| TRES | | | | 1 | A |
| PUMA | | | | 4 | A |
| WIPH | | | | 1 | A |
| DCCO | | | | 5 | B |
| NOHA | | | | 1 | A |
| EAKI | | 1 | | | O |
| BOBO | | 2 | | | O |
| SAVS | 2 | | | | O |
| SOSP | | 1 | | | O |
| RTHA | | 1 | | | A |
| | | | | | |

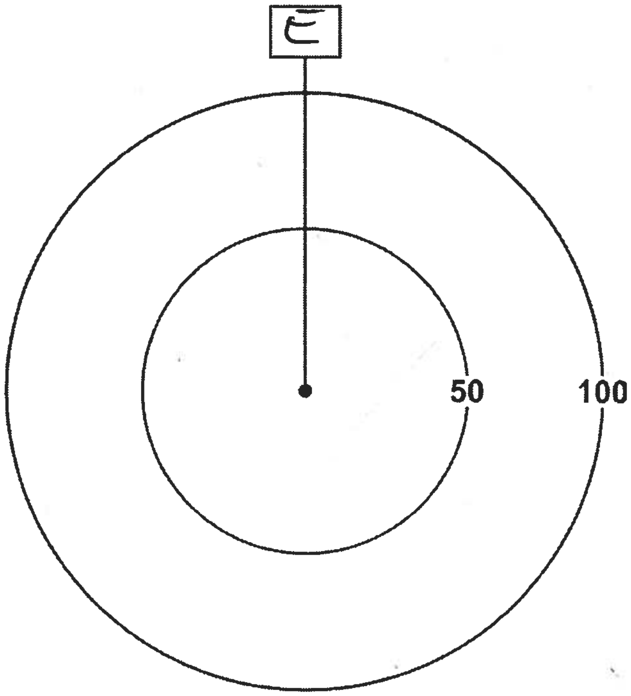
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P61 / 302 M5
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0815

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMWI | | 8 | | | O |
| ✓ CATE | | 3 | | | O |
| HERG | | 18 | | | O |
| RBGU | | 6 | | | O |
| MALL | | 18 | | | O |
| GADW | | 5 | | | O |
| EUST | | 30 | | | O |
| WIPH | 6 | [illegible] | | | O |
| NOPI | | 1 | | | O |
| KILL | 6 | [illegible] | | | O |
| SPSA | 2 | | | | O |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: AW
(Field Personnel)
Signature:
(Project Manager)
Page 2 of 2
REV: May, 07 Form 020

## Legend

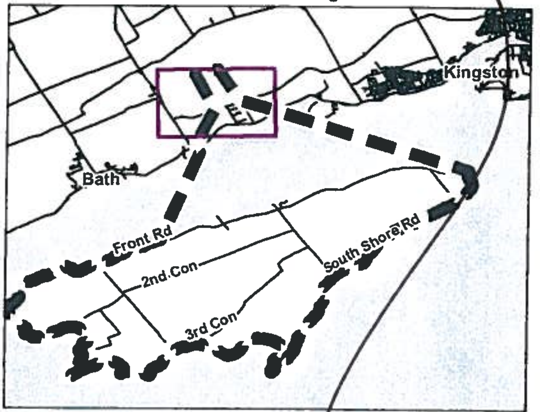
- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned

2 territories

T = Brown Thrasher
H – N Harrier
M = E Meadowlark
K = E Kingbird
C = BB Cuckoo (2 sites)
W = Willow Flycatcher



total of 3
different territories

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 11

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 27, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 0 | 0 (some ground fog) | 0 | ~~0~~ trace |

**Feature No::** M4 **Habitat Type:** ______ **Time Start:** 0540 **Time End:** 0620

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | X | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | FY | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | S | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | Common Moorhen | P |
| Mourn. Dove | | No. R. W. Swal. | X | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
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Tel: (519) 836-6050
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# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 27, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | 0 | 0 | 0 | trace |

**Feature No::** G1
**Habitat Type:** ______
**Time Start:** 0805 0822
**Time End:** 0814 0913

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † H | H | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | S |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | CF | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † CF | N | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † A | A | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. S P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe SM | S | Warbling Vireo | | Yellow Wa. H P | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☒ & legible ☒.

**Signature:** AW
(Field Personnel)

**Signature:** Katrina
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** G2 **Habitat Type:** ____________ **Time Start:** 0755 **Time End:** 0803

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. SM | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | X | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † ✱ | H | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

✱ E Kingbird – 1 on S side of road

Pg. ___ of ___

**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
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**Stantec**

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 27, 2011
Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 18 | 0 | 0 0830 | → 0 → | 0913 trace |

0811 → 0822

**Feature No::** W2 **Habitat Type:** ______ **Time Start:** 0735 ~~Time End:~~ → 0755

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

BB Cuckoo – W section, N side of road (one)
E Kingbird – " " , " " " " (~~one~~ 2)

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † H | H | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | P | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † S | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal H | H |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SCF | CF | Rose-br. Grosbeak † | |
| Red-tailed Hawk H | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † A | A | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. H | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † S | S |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | P | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove H | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W1 **Habitat Type:** ____________ **Time Start:** 0805 **Time End:** 0811

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. S | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. H P | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch S | S |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑

**Signature:** ______________________ (Field Personnel)

**Signature:** ______________________ (Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: June 27, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 0 | 0 (some ground fog) | 0 | trace |

GPS #: T

✓

Station: 62/298

Feature:

UTM:

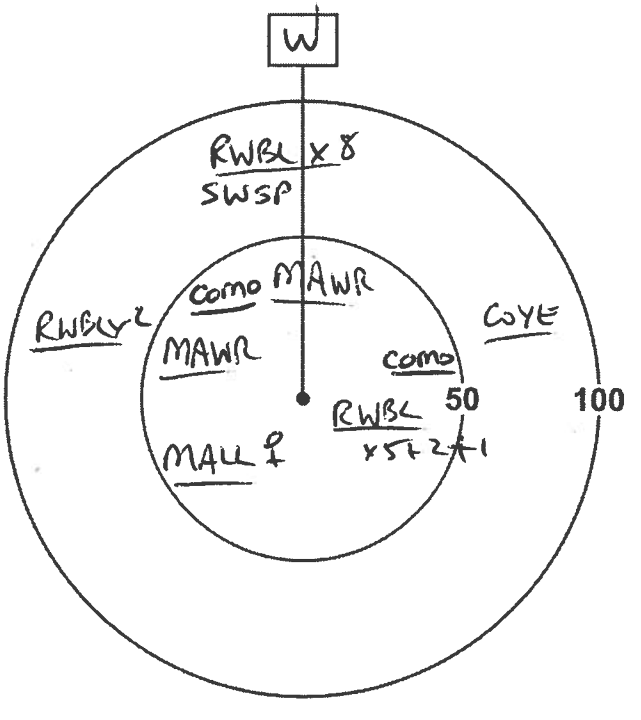
Start Time: 0547

End Time: 0610

Habitat: ☐Forest / ☐Swamp / ☐Marsh / ☐Hay / ☐Pasture / ☐Crop

| Species | <50m | 50-100m | >100m | Flyovers | Height* |
|---|---|---|---|---|---|
| MALL | | | | 1 | A |
| EUST | | | | 1 | A |
| ~~COMO x2~~ | | | | | ~~O~~ |
| NRWS | | | | 1 | A |
| RWBL | 8 | 10 | | | O |
| MALL | 1 | | | | O |
| MAWR | 2 | | | | O |
| COYE | | 1 | | | O |
| | | | | | |
| * COMO | 2 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |

* *Height of blade sweep varies from project to project; check with project manager.*
**O**-On ground; **A**-Below height of blade sweep; **B**-At height of blade sweep;
**C**-Above height of blade sweep; **D**-Well above height of blade sweep



Birds on lake were ignored (cormorants etc.)

– one Snapping Turtle laying eggs on beach

* Common Moorhen – 1st one responded to V. Rail + Sora calls, 2nd one to COMO calls (likely a pair)

Page ___ of ___

Signature: AW

(Field Personnel)

Quality Control: This form is complete ☐ ~~& legible~~ ~~☐~~.

Signature:

(Project Manager)

REV: 2011-05-04 / FORM 020

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 27, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | Temp: 18 | Wind: 0 | Cloud: 0 | PPT: 0 | PPT in last 24 hrs: trace |
|---|---|---|---|---|---|

GPS #: T___

✓ **Station:** P2 / 299 W2

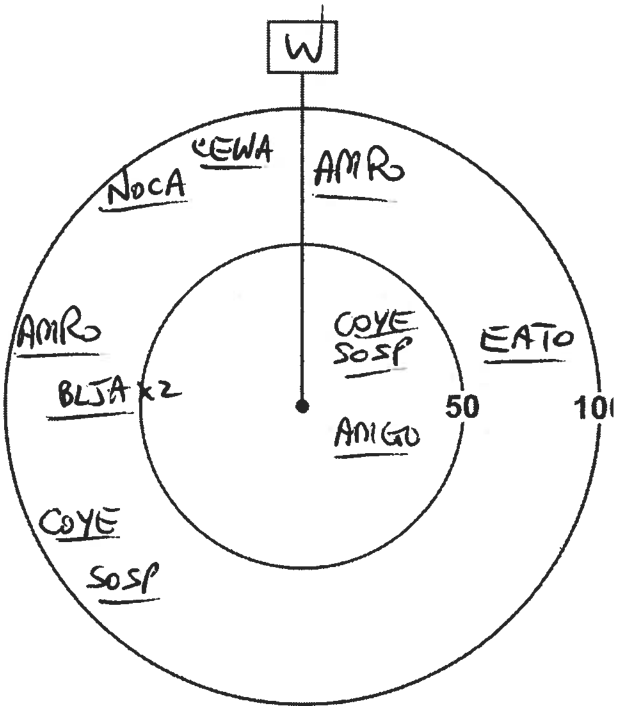
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0737

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | | 1 | A |
| AMRO | | 2 | | | O |
| NOCA | | 1 | | | O |
| COYE | 1 | 1 | | | O |
| SOSP | 1 | 1 | | | O |
| AMGO | 1 | | | | O |
| Waxw CEWA | | 1 | | | A |
| BLJA | | 2 | | | O |
| EATO | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW
(Field Personnel)

Signature: ____________
(Project Manager)

Page _____ of _______

REV: May, 07 Form 020

G1 W2

**Station:** PI / 301

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

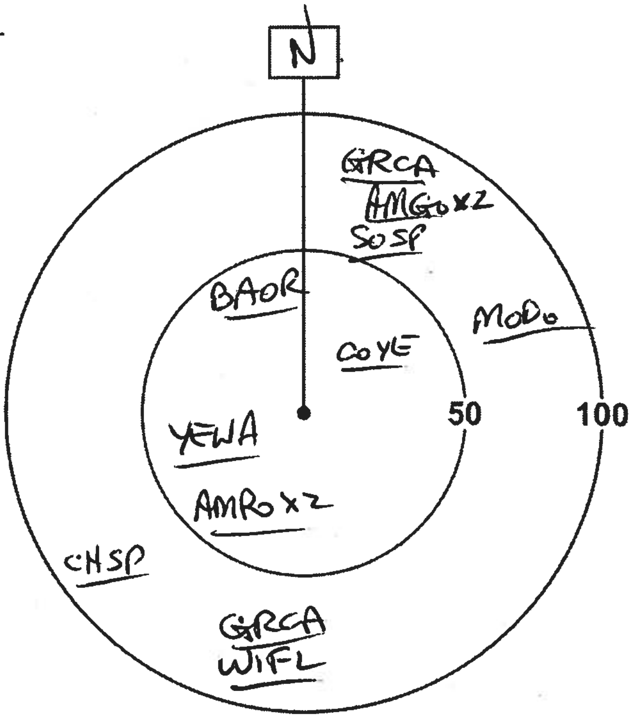
**UTM:** ____________

**Start Time:** 0850

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COYE | 1 | | | | O |
| AMGO | | 2 | | | O |
| YEWA | 1 | | | | O |
| CHSP | | 1 | | | O |
| BARS | | | | 4 | A |
| MODO | | 1 | | | O |
| WIFL | | 1 | | | O |
| BAOR | 1 | | | | A |
| AMRO | 2 | | | | O |
| GRCA | [illegible] | 2 | | | O |
| SOSP | | 1 | | | O |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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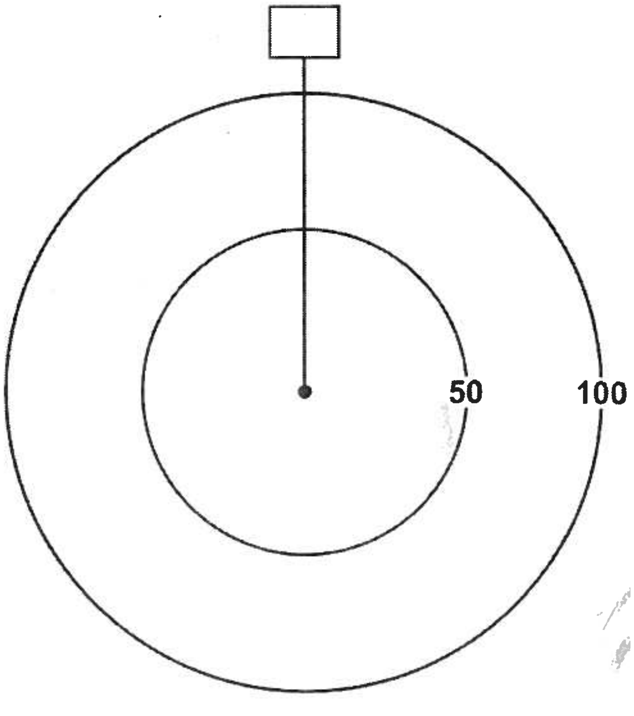
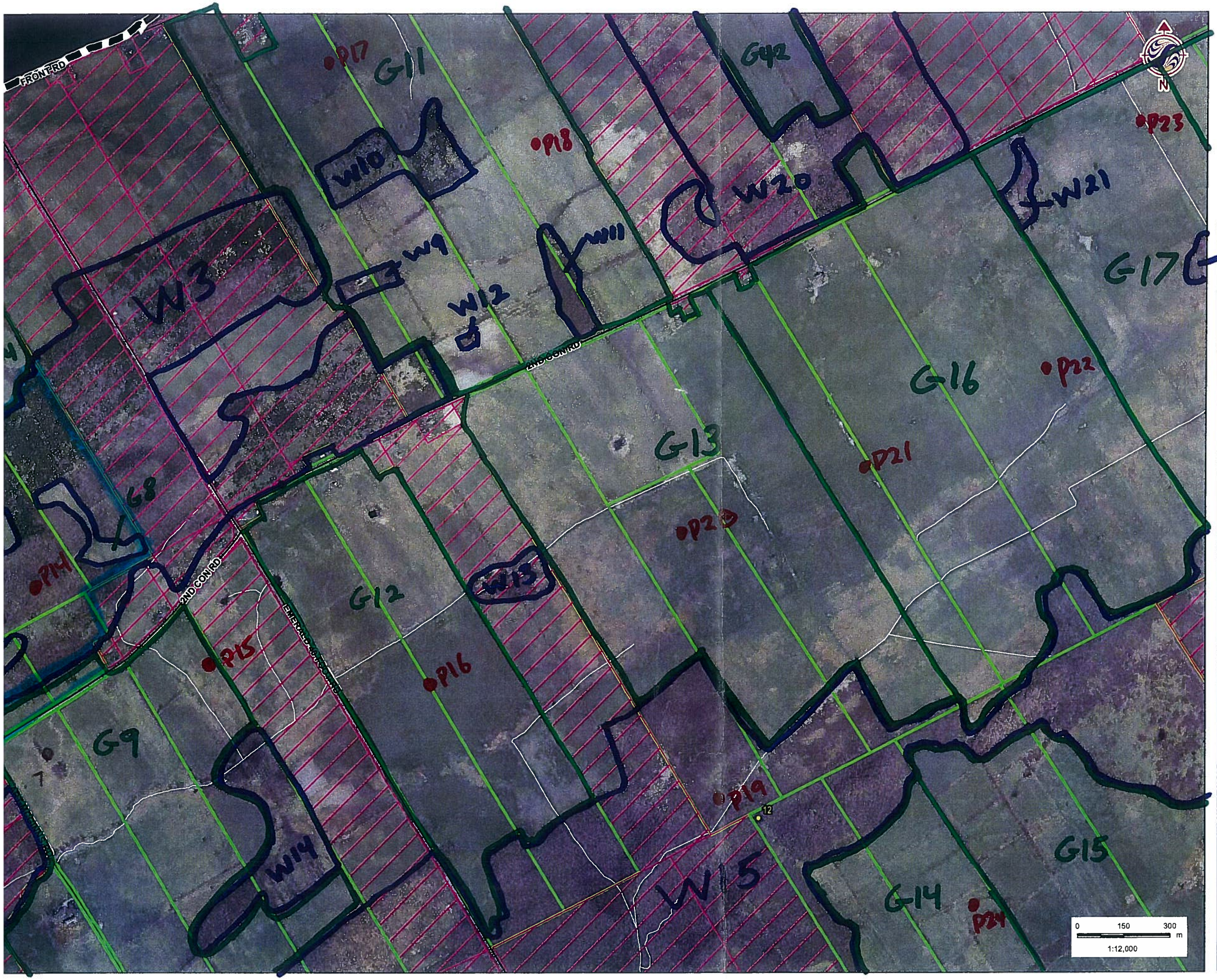
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: AW (Field Personnel)    Signature: ____________ (Project Manager)

Page _____ of _____    REV: May, 07    Form 020

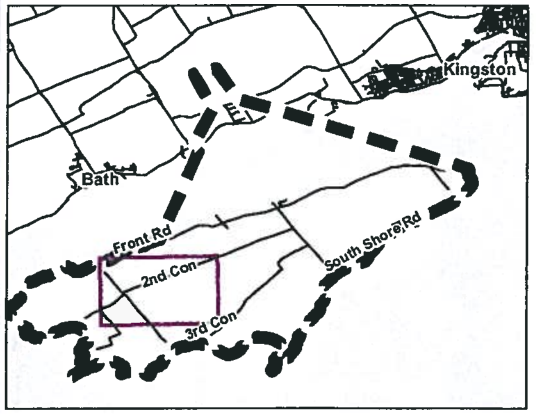


## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

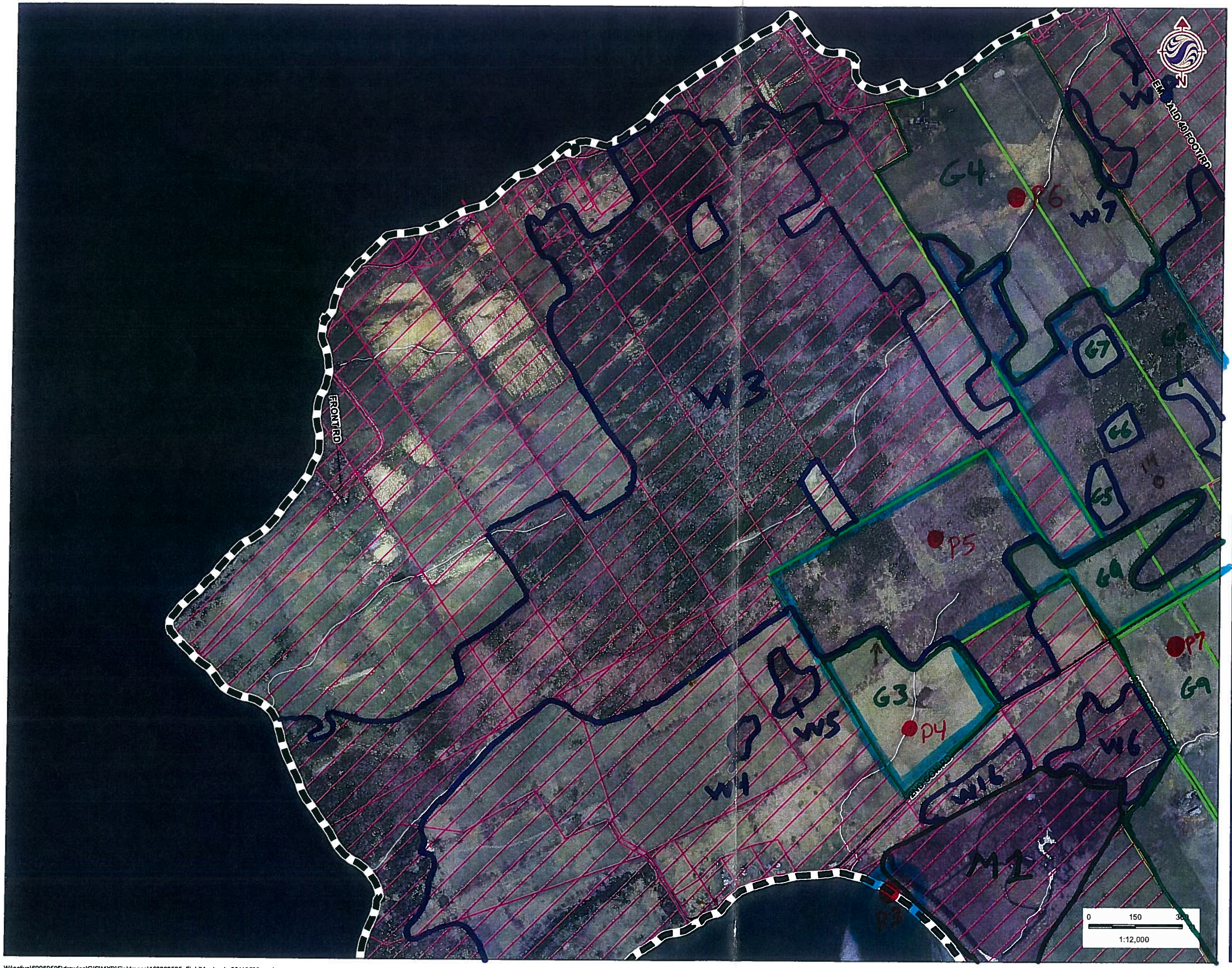
Figure No.

Tile 3

Title

**FIELD MAPBOOK**

live\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd

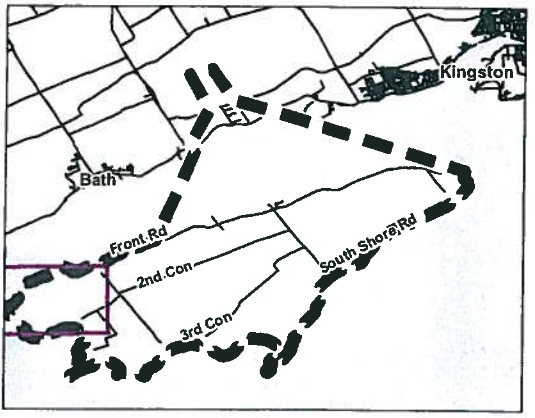


## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

# DAY 1

| | | | |
|---|---|---|---|
| P3 | | M1 | |
| P4 | 160 | G3 | |
| P5 | 162 | W3 | |
| | | G9 | |
| P14 | 172 | W3 | |
| | | G8 | |
| | | G7 | |
| | | G6 | |
| | | G5 | |
| | | W6 | (roadside) |

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 30, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | NW ① | 16 | 0 | trace overnight |

**Feature No::** M1 **Habitat Type:** ______ **Time Start:** 0520 **Time End:** 0615

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. P | P |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe S | S | Warbling Vireo S | S | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW (Field Personnel)

Signature: Katrin (Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** G3 **Habitat Type:** ____________ **Time Start:** 0623 **Time End:** 0650

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | X | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † S | S | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. CF A | CF |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | FY |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe P | P | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch H | H |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW (Field Personnel)

Signature: Katrina (Project Manager)

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 30, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | NW (1) | 10 | 0 | trace overnight |

**Feature No::** W3 **Habitat Type:** ________ **Time Start:** 0647 ~~**Time End:**~~ → 0735

0750 → 0905

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | T |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee HP | P | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † M H | T |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | CF |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron H | H | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † S | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin H FY | FY | No. Cardinal S | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. P H | P | Cedar Waxwing P | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | CF |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow H | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 9

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature: ____________________ (Field Personnel)

Signature: ____________________ (Project Manager)

**Feature No.:** G9 **Habitat Type:** **Time Start:** 0725 **Time End:** 0750

0903 0915

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † S | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † S | CF |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron ~~H~~ | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ H | H | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow ~~H~~ | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Upland – Overhead, nesting somewhere in G9?
Sandpiper

Fragrant Sumac

Pg. 4 of 5

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 30, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 0 | 20 | 0 | trace overnight |

**Feature No::** Q8 **Habitat Type:** ______ **Time Start:** 0805 **Time End:** 0817

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

[illegible]
[illegible]

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † S | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe S | S | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______ (Field Personnel)

Signature: Kathrine ______ (Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G7 **Habitat Type:** ______ **Time Start:** 0827 **Time End:** 0837

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 9

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Katrine S
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 30, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>22 | WIND:<br>W ① | CLOUD:<br>20 | PPT:<br>0 | PPT (in last 24 hrs):<br>light overnight |

**Feature No::** G6 **Habitat Type:** ________ **Time Start:** 0843 **Time End:** 0850

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † S | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | FY |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | H |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G5 **Habitat Type:** **Time Start:** 0852 **Time End:** 0858

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat P S A | A |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † P H | P |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. P S A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katrina
(Project Manager)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 30, 2011
Field Personnel: Alan Warmington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: W ① | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): light overnight |

**Feature No::** W6 **Habitat Type:** ______ **Time Start:** 0922 **Time End:** 0932

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______ (Field Personnel)

Signature: Kathin (Project Manager)

REV: 2011-05-27 / FORM 031

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595
Project Name: Amherst
Date Jun 30, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 16 | Wind: NW ~~[illegible]~~ ① | Cloud: 10 | PPT: 0 | PPT in last 24 hrs: ~~#~~ light overnight |

✓

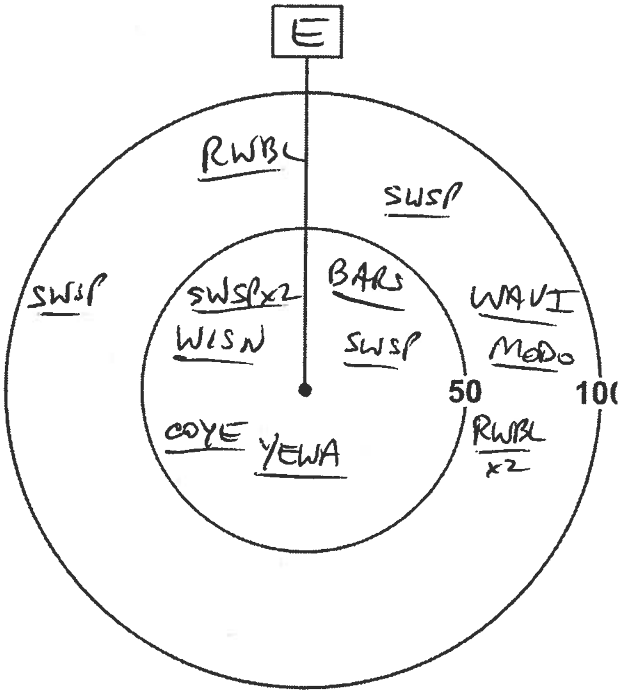
**GPS #: T___**

M1

**Station:** P3
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop
**UTM:**
**Start Time:** 0535

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 1 | A |
| BARS | 2 | | | | O |
| RWBL | | 3 | | | O |
| WAVI | | 1 | | | A |
| MODO | | 1 | | | A |
| SWSP | 3 | 2 | | | O |
| COYE | 1 | | | | O |
| YEWA | 1 | | | | O |
| WISN | 1 | | | | B |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: AW
(Field Personnel)
Signature:
(Project Manager)
Page 1 of 3
REV: May, 07 Form 020

**Station:** P4 / 160 G3

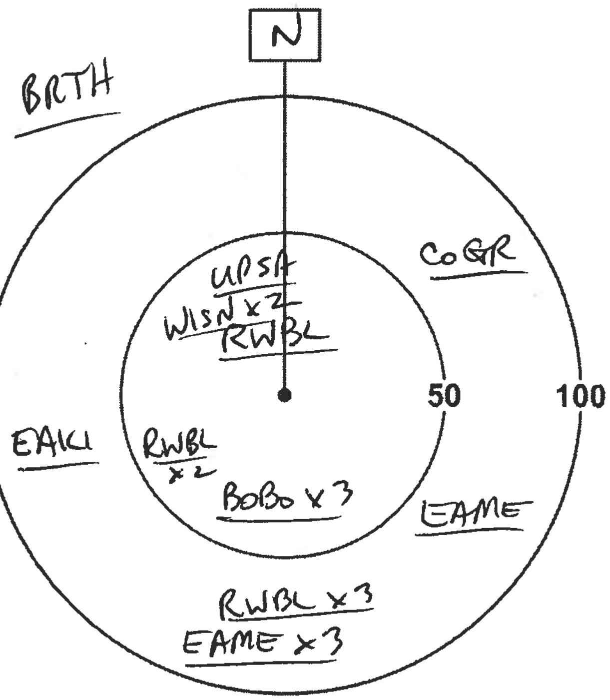
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0628

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | | 4 | A |
| UPSA | 1 | | | | O |
| WISN | 2 | | | | A |
| EAME | | 4 | | | O |
| EAKI | | 1 | | | O |
| RWBL | 3 | 3 | | | O |
| BOBO | 3 | | | | O |
| COGR | | 1 | | | O |
| EUST | | | | 9 | A |
| BRTH | | | 1 | | O |
| | | | | | |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P5 / 162 W3

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0703

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| GCFL | 1 | 1 | | | A |
| COYE | | 1 | | | O |
| EATO | | 1 | | | A |
| FISP | 2 | | | | O |
| SOSP | | 1 | | | O |
| RBGR | 1 | | | | A |
| | | | | | |
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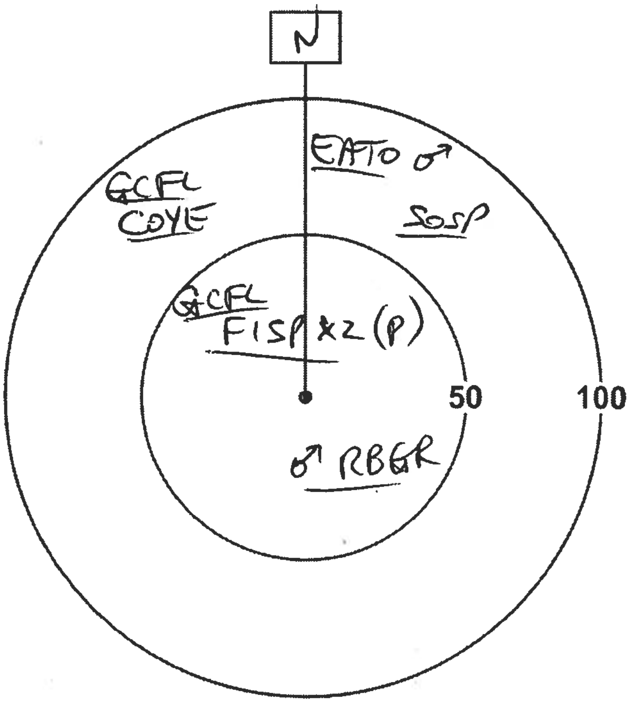

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel) Signature: ____________ (Project Manager)

Page 2 of 3 REV: May, 07 Form 020

June 30/11

**Station:** P14 / 122 W3

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

✓

**Start Time:** 0753

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| OVEN | 1 | | | | A |
| REVI | | 1 | | | A |
| GRCA | | 1 | | | ~~A~~O |
| COGR | 1 | | | | A |
| BLJA | 1 | | | | A |
| WOTH | | 1 | | | A |
| | | | | | |
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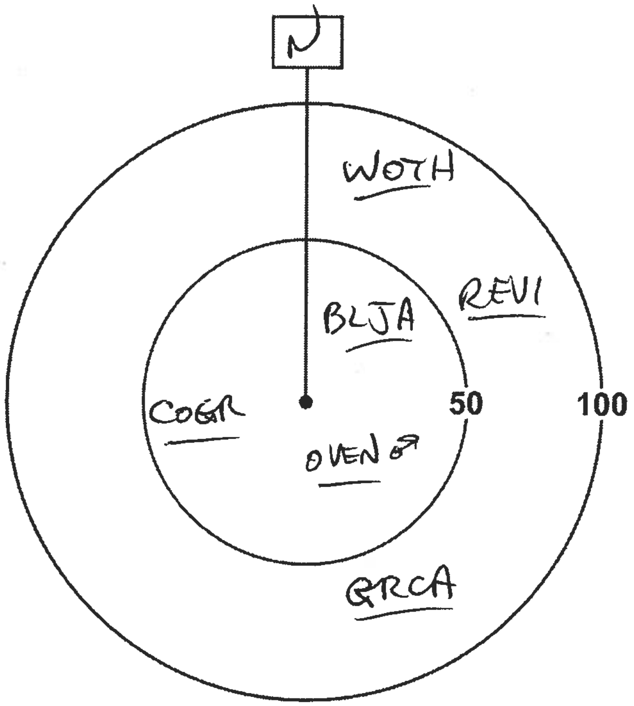

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** ______

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
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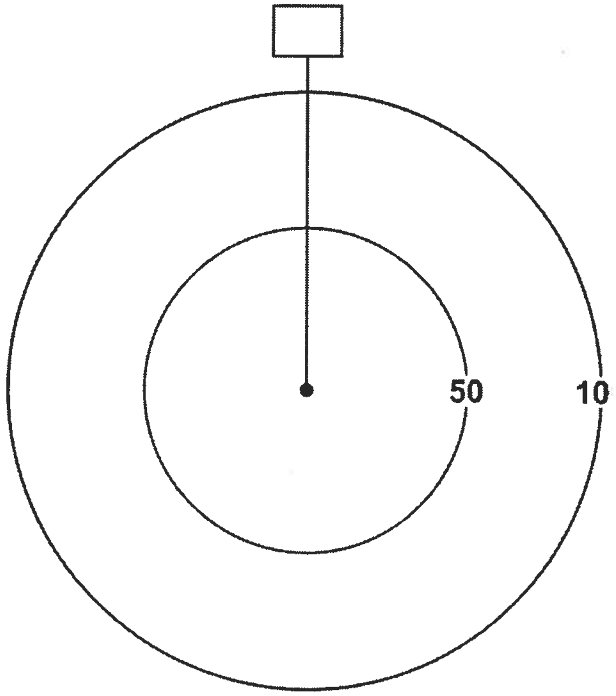
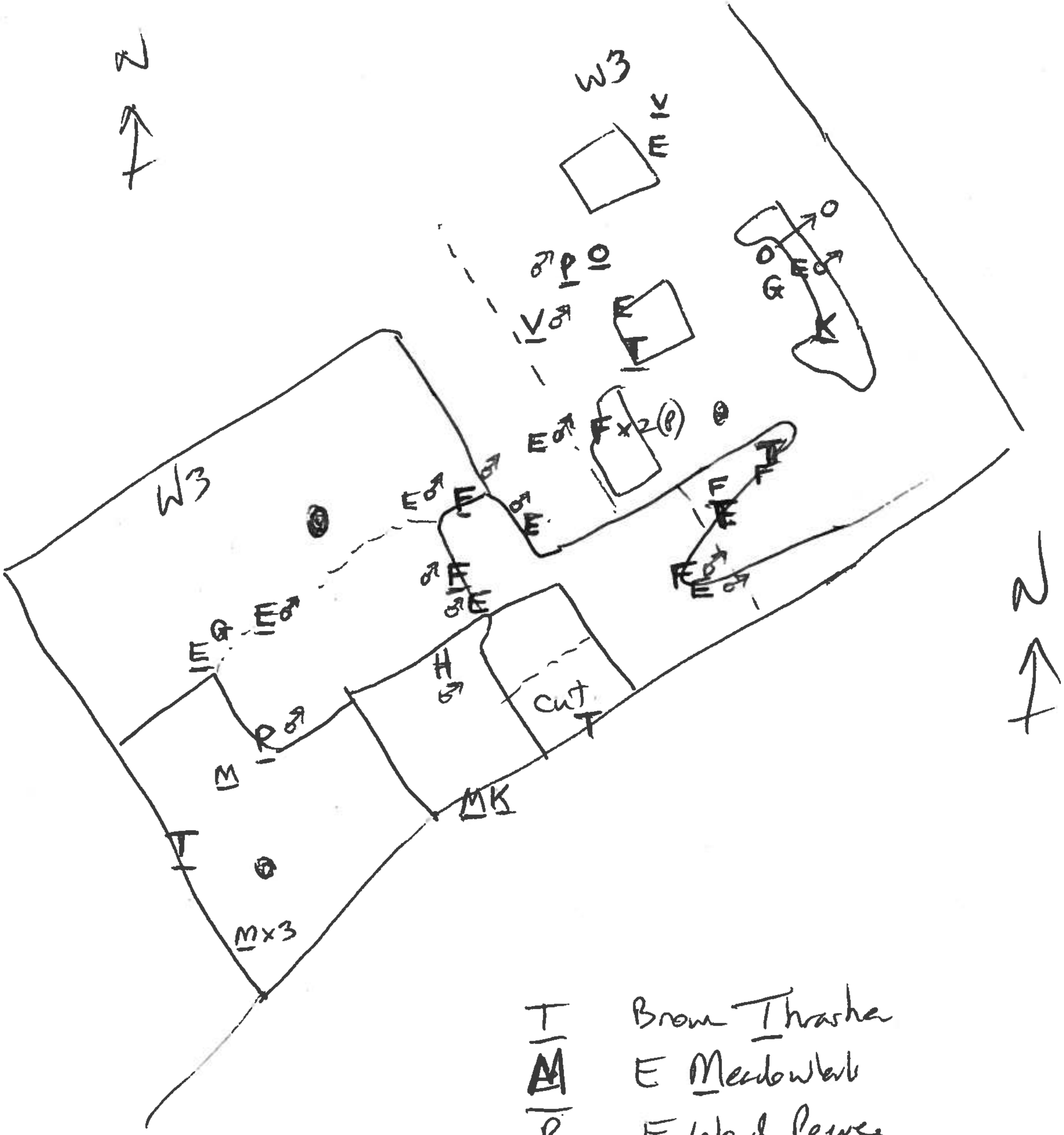


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

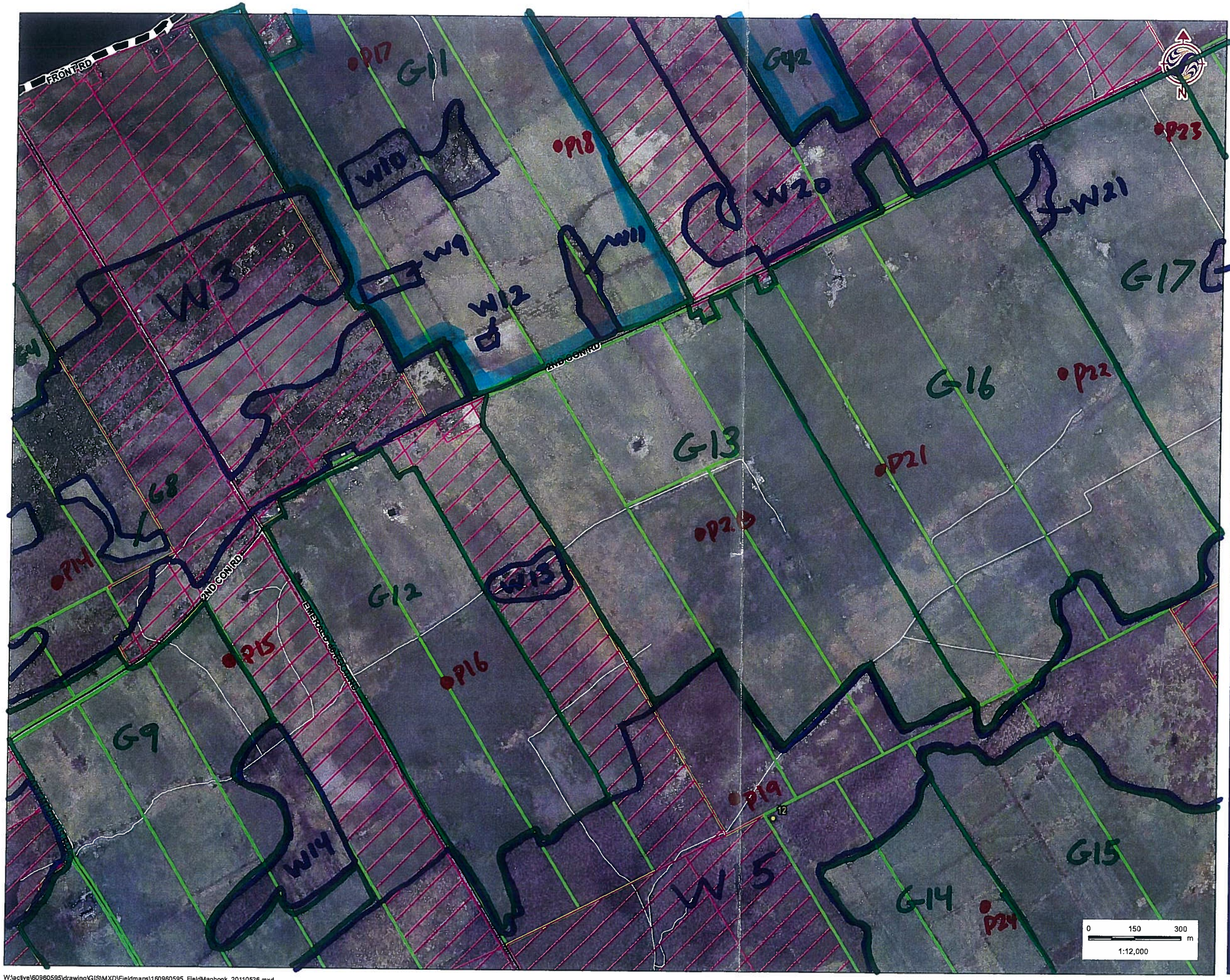
Quality Control: This form is complete (✓) & legible (✓).
Signature: AW (Field Personnel)
Signature: ____________ (Project Manager)
Page 3 of 3
REV: May, 07 Form 020



| | |
|---|---|
| T | Brown Thrasher |
| M | E Meadowlark |
| P | E Wood Pewee |
| E | E Towhee |
| G | Rose-br. Grosbeak |
| F | Field Sparrow |
| K | E Kingbird |
| O | B Oriole |
| V | Ovenbird |
| H | N Harrier |

DAY 1

June 30, 2011

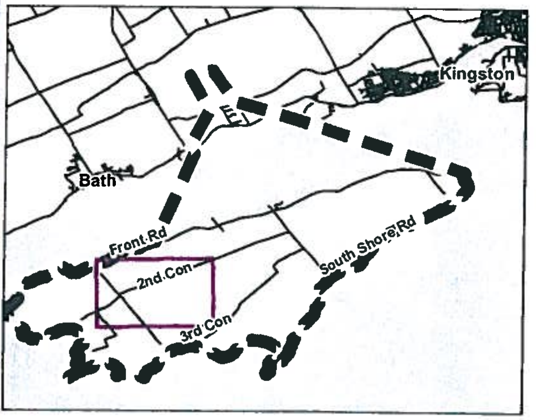


## Legend

- ▙ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

0 150 300 m
1:12,000

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 3

Title
FIELD MAPBOOK

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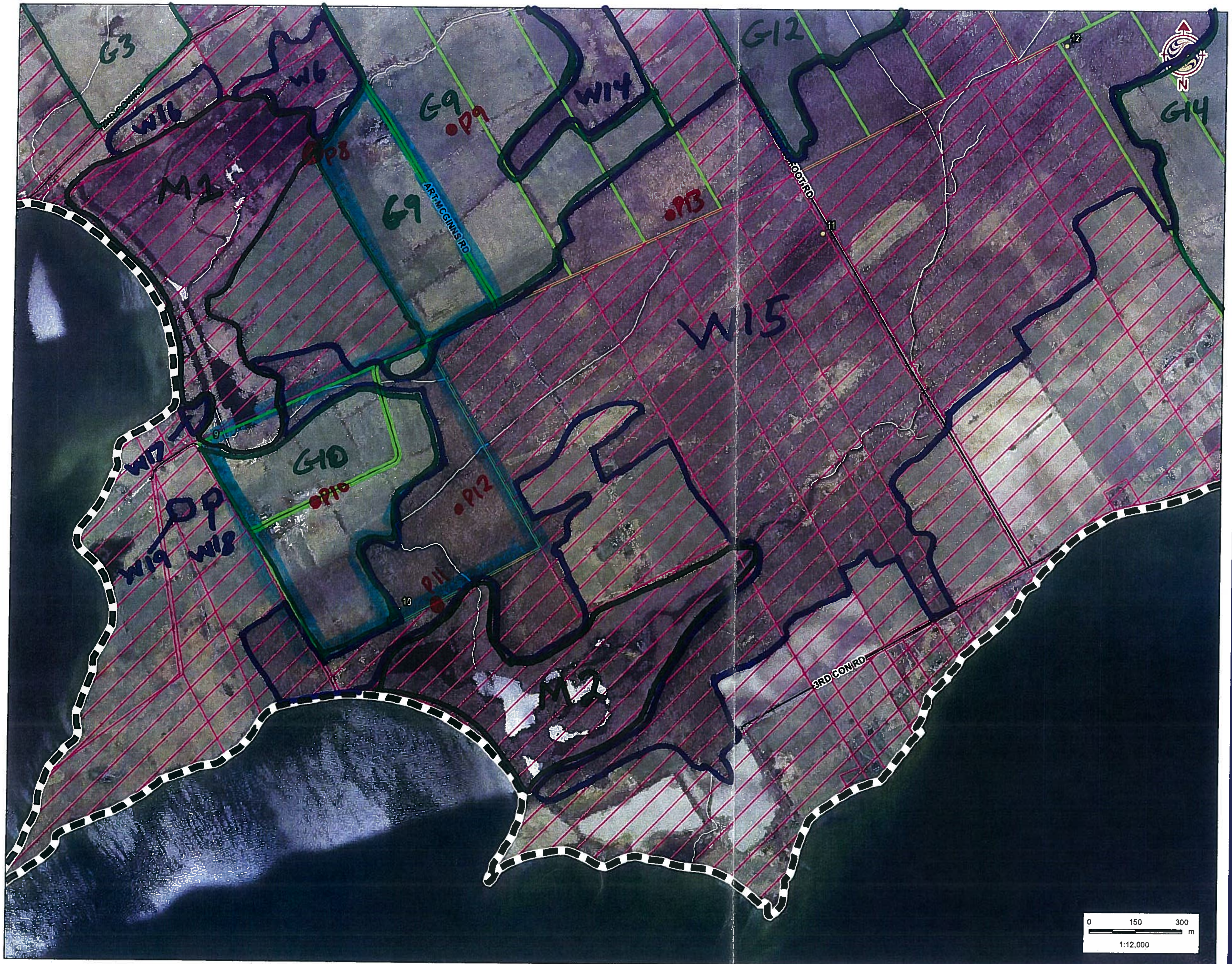
Revised on: 2011-05-27 By: dharvey

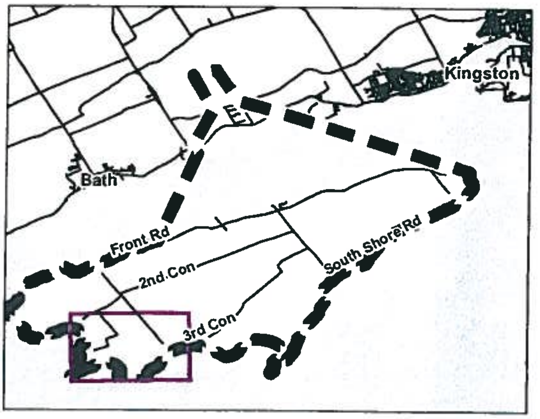


## Legend

Study Area
Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 2

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

# Day 2

|  | Order | Point | GPS | Habitat |
|---|---|---|---|---|
| ✓ | 1 |  |  | G10 |
| ✓ | 2 | P10 | 171 |  |
| ✓ | 3 |  |  | W15 |
| ✓ | 4 | P11 | 358503<br>4885561 | W15 / M2 |
| ✓ | 5 | P12 | 358599<br>4885899 | W15 |
|  | 6 |  |  | G9 |
|  | 7 | P8 | 170 | G9, M1, W6 |
|  |  |  |  | W6 |

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 2, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | SE (1) | 0 | 0 | 0 |

**Feature No::** G10 **Habitat Type:** ________ **Time Start:** 0610 0744 **Time End:** 0642 0755

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow H | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † H | H |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. 1 | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | FY | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. S | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † S | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove H | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 6

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katrine
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W15 **Habitat Type:** **Time Start:** 0630 **Time End:** 0744

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † SM | S | Hermit Thrush ‡ | | Swamp Sp. A | A |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † S | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S A | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † H S | S |
| Red-tailed Hawk A | A | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. S | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | FY |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. A S | A | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H P | P | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 6

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 2, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | SE (1) | 0 | 0 | 0 |

**Feature No::** M2 **Habitat Type:** ______ **Time Start:** 0642 **Time End:** 0712

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. H | H | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren S | S | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe S | S | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 6

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature: AW
(Field Personnel)

Signature: Katrina
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G9 **Habitat Type:** ____________ **Time Start:** 0820 **Time End:** 0922

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | N | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| n Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S H | S |
| l lture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| ✱ Os | X | Hairy Wo. | | Veery | | Song Sp. | |
| N. Ha †‡ | | No. Flicker † SM | S | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-s | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Wood-Pewee † | | Am. Robin P | P | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-taile | | Willow ly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. K | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virgi | | oebe | | European Starling H | CF | Red-winged Bl. | |
| Sora | | sted Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † | |
| Killdeer | | Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandp | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandp | | Blue aded Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | W Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcoc | | ye Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Jay | | Magnolia Wa. ‡ | | House Finch | X |
| Herri | | Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian | | n | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern | | Ho Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove H | H | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

✱ Osprey – Came in from east, landed for a bit, and then continued SW. Almost looked like it was migrating, but a bit early since migrants normally don't start until about July 20.

Pg. 4 of 6

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature: ____________
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 2, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | S ① | 10 | 0 | 0 |

**Feature No::** M1 **Habitat Type:** ______ **Time Start:** 0845 **Time End:** 0915

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron H | H | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. S | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 6

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W6 **Habitat Type:** ____ **Time Start:** 0758 / 0924 **Time End:** 0809 / 0930

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee H | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | FY |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron H | T | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S ✗ | S | Am. Robin SP | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | H | Rose-br. Grosbeak † ✗ S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † H | H | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. H | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | A | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | A | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black T | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highes Breeding Ev nce (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

✗ E Wood-Pewee ♂ – along road, N end of woodlot
✗ Rose-br Grosbeak ♂ – " " , " " " "

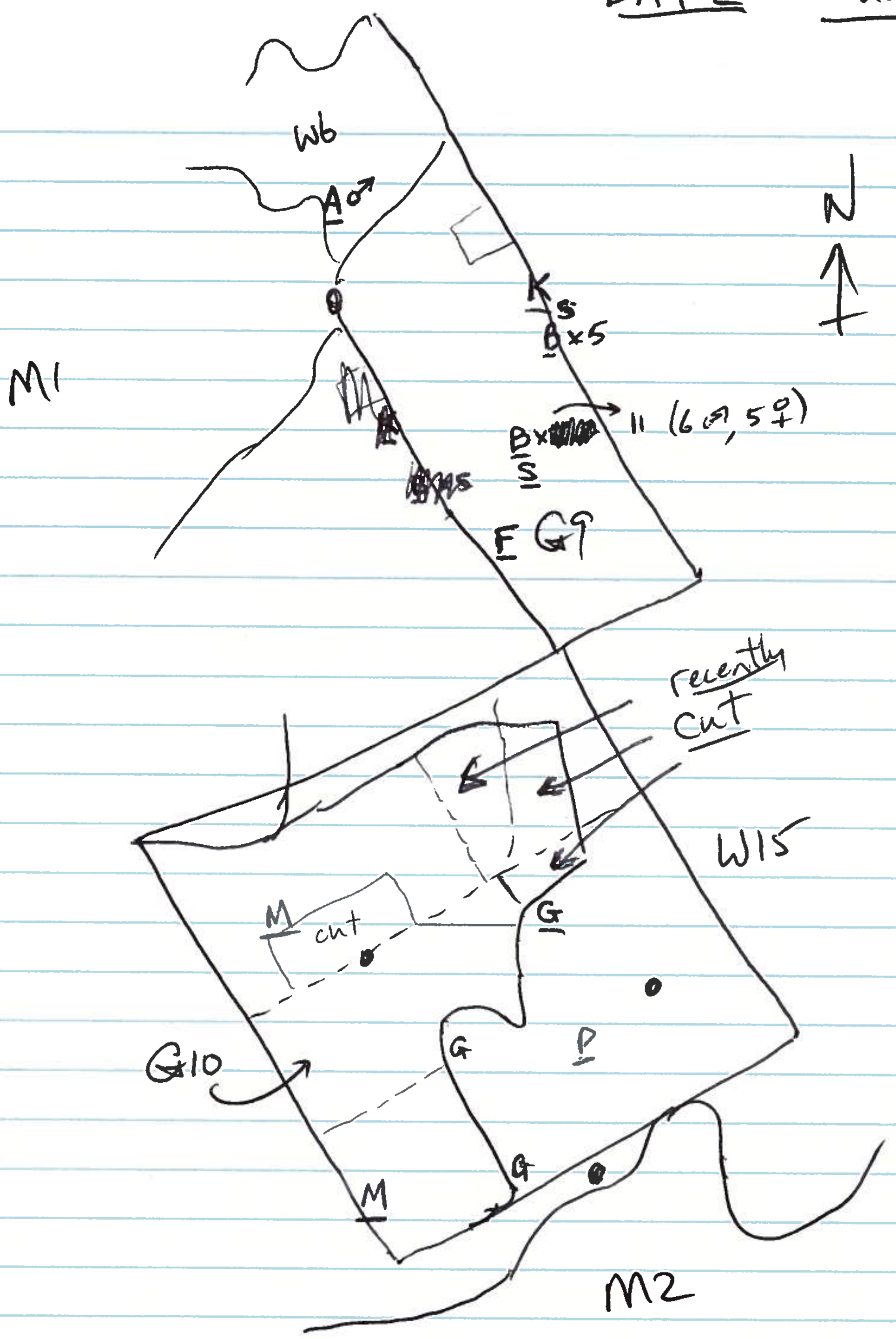
Pg. 6 of 6

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

DAY 2 - July 2, 2011



| | | | |
|---|---|---|---|
| M | E Meadowlark | A | Am Kestrel |
| G | Rose-br Grosbeak | | |
| P | E Wood-Pewee | | |
| K | E Kingbird | | |
| B | Bobolink | | |
| S | Sav. Sparrow | | |
| F | N Flicker | | |

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 2, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 16 | SE ① | 0 | 0 | 0 |

**GPS #:** T___

✓ **Station:** P10 / 171 (G10)

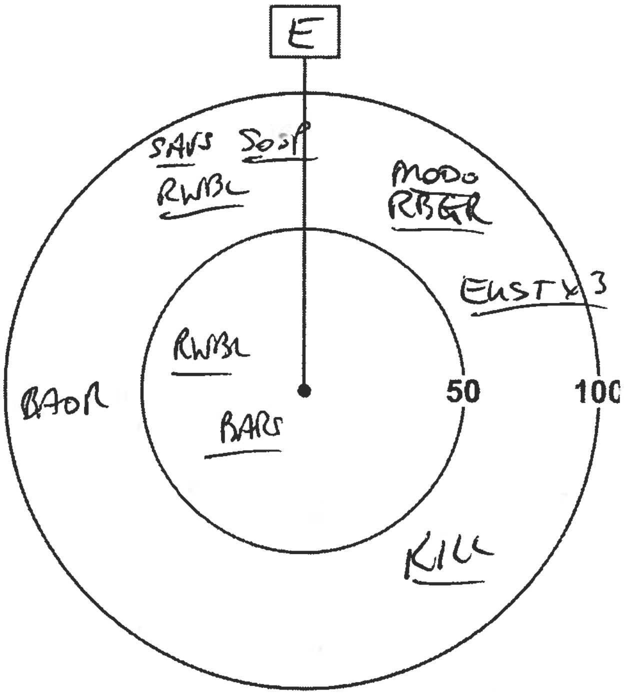
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 0610

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | | | 1 | A |
| EUST | | | | 2 | A |
| EUST | | 3 | | | A |
| SOSP | | 1 | | | O |
| RWBL | 1 | 1 | | | O |
| MODO | | | | | |
| * BARS | 1 | | | | A |
| KILL | | 1 | | | O |
| RWBL | | | | 1 | A |
| RBGR | 1 | | | | A |
| MODO | | 1 | | | A |
| SAVS | | 1 | | | O |
| BAOR | | 1 | | | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



* Barn Swallow - still sitting on the same wire at 0750!

Quality Control: This form is complete (__) & legible (__).

Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 1 of 3

REV: May, 07 Form 020

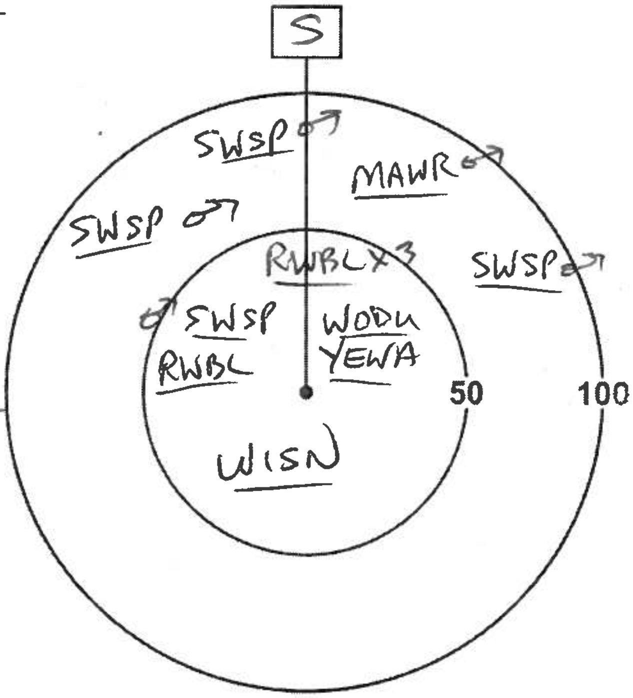
**Station:** P11 / 358503 / 4885561 (W15) (M2)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 0648

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| SWSP | 1 | 3 | | | O |
| MAWR | | 1 | | | O |
| RWBL | 4 | | | | O |
| WODU | 1 | | | | O |
| YEWA | 1 | | | | O |
| | | | | | |
| | | | | | |
| WISN | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P12 / 358599 / 4885899 (W15)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 0727

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| REVI | | 1 | | | A |
| WOTH | | 1 | | | O |
| COGR | 3 | | | | O |
| BLJA | 2 | | | | A |
| AMRO | 1 | | | | A |
| NOFL | | 1 | | | A |
| | | | | | |
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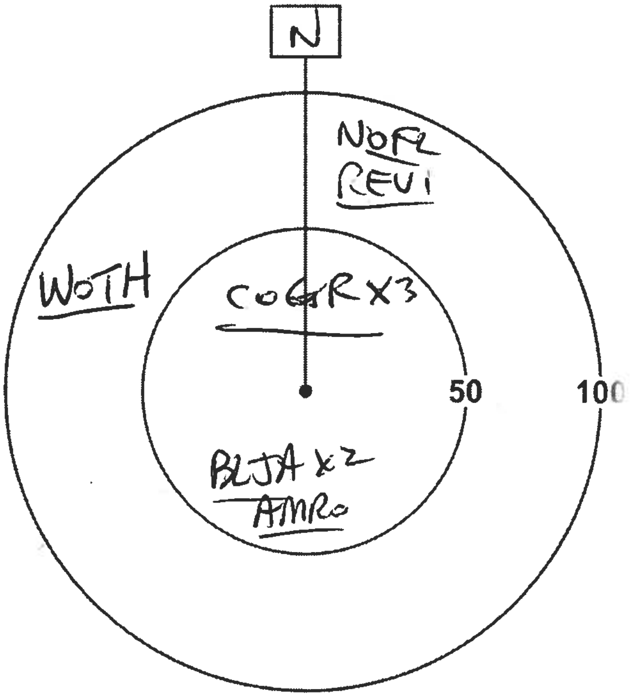

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

July 2/11

**Station:** P8/170 (G9)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ______________________

**Start Time:** 0853

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| GRHE | | | | 1 | B |
| SWSP | 1 | 2 | | | O |
| RWBL | 5 | | | | O |
| HOFI | | | | 1 | A |
| →SW! TREJ | | | | 1 | A |
| RWBL | | | | 1 | A |
| AMRO | 1 | | | | O |
| COYE | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
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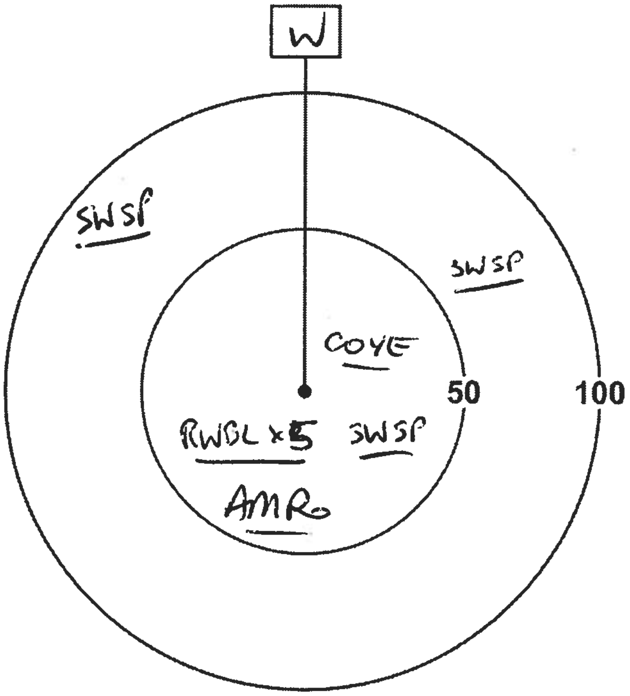
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ______________________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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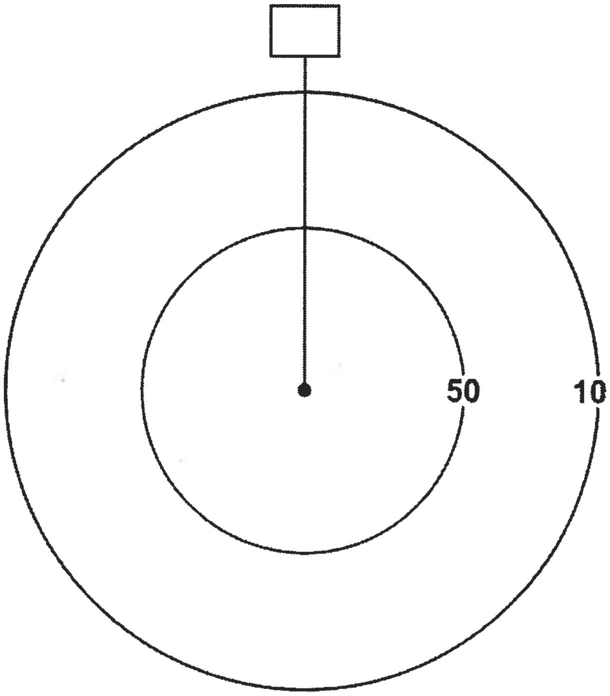
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



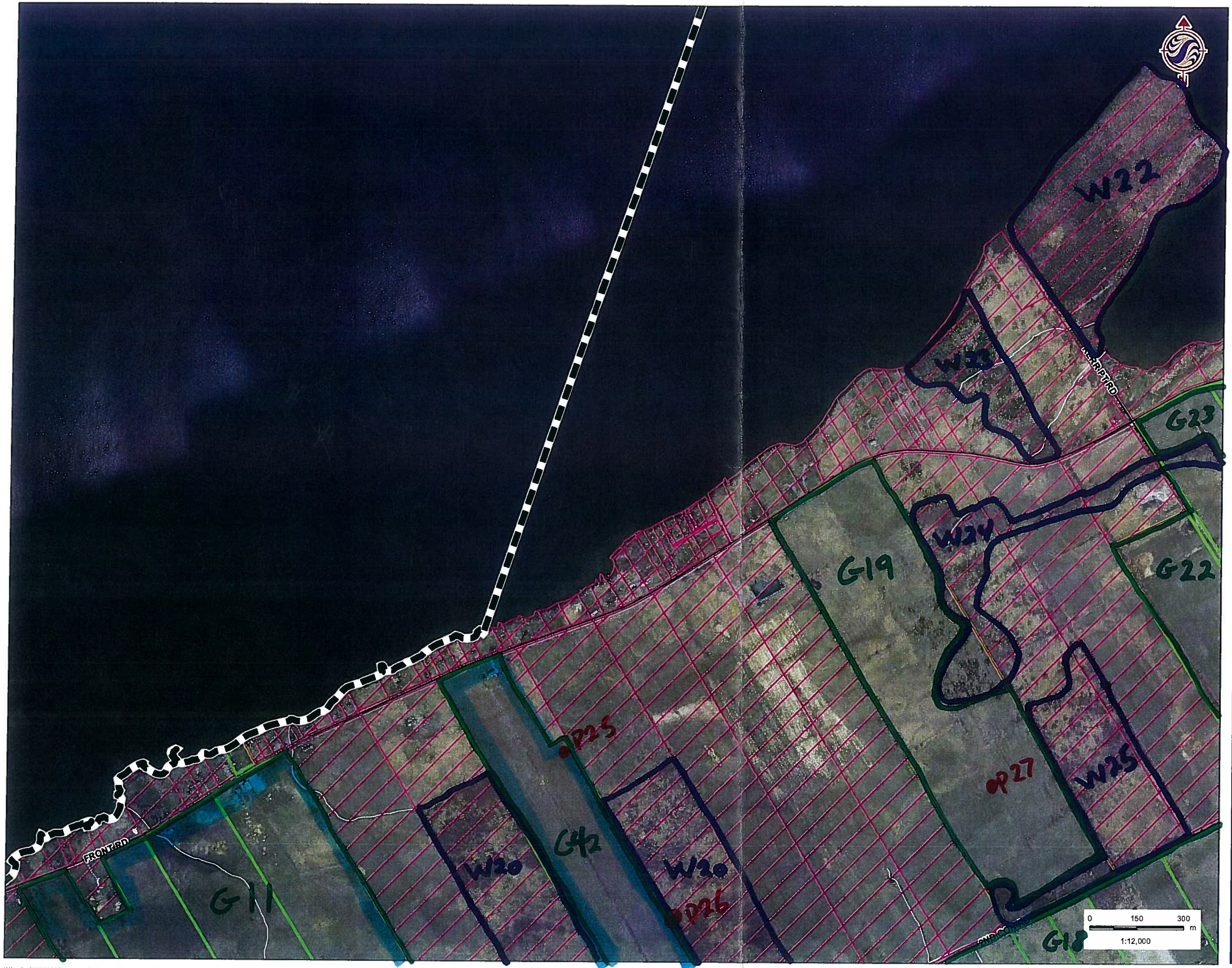
Quality Control: This form is complete (__) & legible (—).

Signature: ____________ AW (Field Personnel)

Signature: ____________ (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

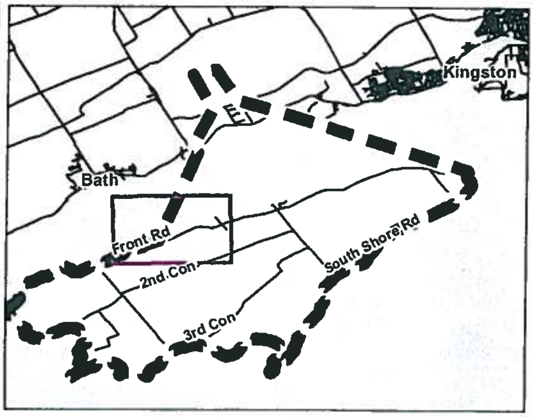


## Legend

▙ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 4

Title

# FIELD MAPBOOK

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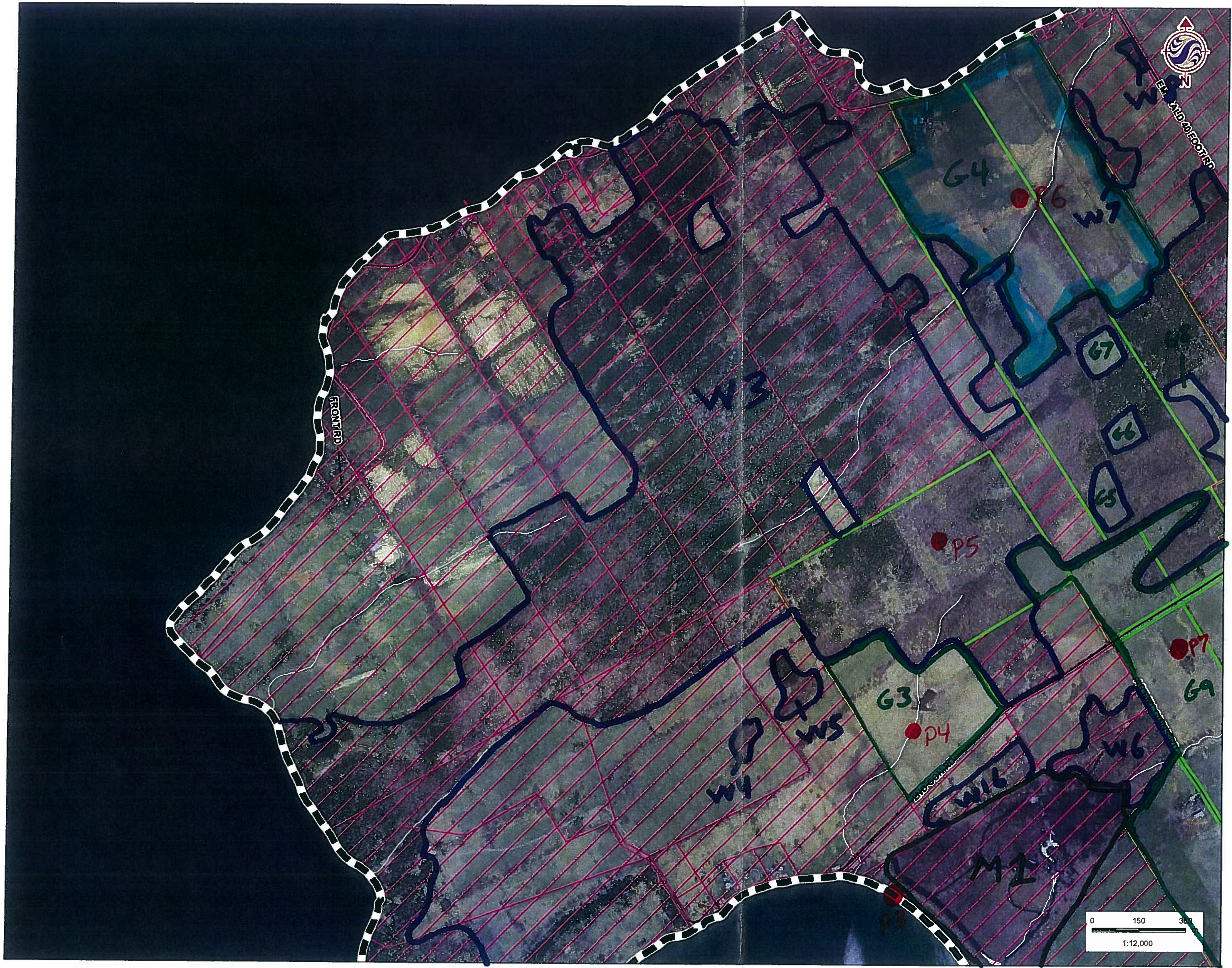
Revised on: 2011-05-27 By: dharvey

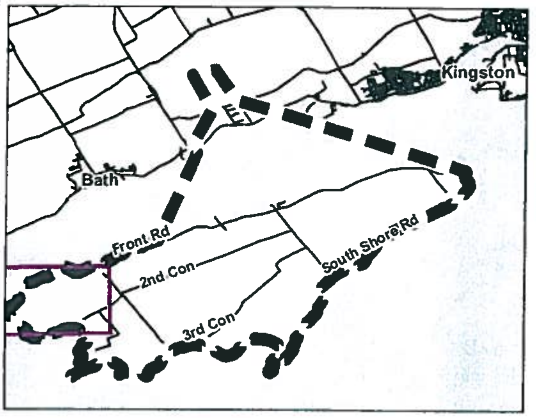


## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 1

Title

**FIELD MAPBOOK**

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Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: Jun 28, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | WIND: S ② | CLOUD: 100 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G42 **Habitat Type:** ______ **Time Start:** 0615 **Time End:** 0725

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ @ B height | X | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. P | P |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | S |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H | H |
| Killdeer H | H | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

REV: 2011-05-27 / FORM 031

**Feature No.:** W20 **Habitat Type:** **Time Start:** 0638 **Time End:** 0701

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. P S | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

~~Blue-eyed Grayling~~

1729

Pg. 2 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katrina
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 28, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: Ⓢ ② | CLOUD: 100 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G4 **Habitat Type:** ______ **Time Start:** 0735 **Time End:** 0815

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. S A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H S | S |
| Killdeer A | FY | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe SM | S | Warbling Vireo S | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W7 **Habitat Type:** ______ **Time Start:** 0759 **Time End:** 0812

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † S | S | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † A | A | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| * Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe A | A | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

* Upland Sandpiper - very aggitated; hatched young might actually be hiding in woods.

Pg. 4 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: ______
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 28, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | S ② | 100 | 0 | 0 |

**Feature No::** W8 **Habitat Type:** ________ **Time Start:** 0819 **Time End:** 0826

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee H | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. S | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W11 **Habitat Type:** ______ **Time Start:** 0840 **Time End:** 0855

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † H | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | FY | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

ⓝ

Pg. 6 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

REV: 2011-05-27 / FORM 031

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Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 28, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | S ② | 80 | 0 | 0 |

**Feature No::** G11 **Habitat Type:** ______ **Time Start:** 0855 **Time End:** 1045

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. H | H |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | X | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † S | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | X | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin A | A | No. Cardinal S | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk H | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | CF | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † A | A |
| Killdeer A | A | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W10 **Habitat Type:** ______ **Time Start:** 0923 **Time End:** 0940

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. S P | P |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † S | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † H | H |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal S | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H | H |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: June 28, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>23 | WIND:<br>S ② | CLOUD:<br>75 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No::** W9 **Habitat Type:** ______ **Time Start:** 1013 **Time End:** 1030

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren SP | P | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. SP | CF | Baltimore Oriole † S | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

DAY 3 [illegible]

| | | | |
|---|---|---|---|
| 1 | P25 | 196 | G42 |
| 2 | P26 | 202 | G42, W20 |
| 5 | P17 | 198 | G11<br>W10<br>W9<br>W11 |
| 4 | P18 | 199 | G11 |
| 3 | P6 | 201 | G4, W7<br>W8 |

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 28, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>20 | Wind:<br>S ② | Cloud:<br>100 | PPT:<br>0 | PPT in last 24 hrs:<br>0 |

**GPS #:** T___

**Station:** P25/196 G42

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

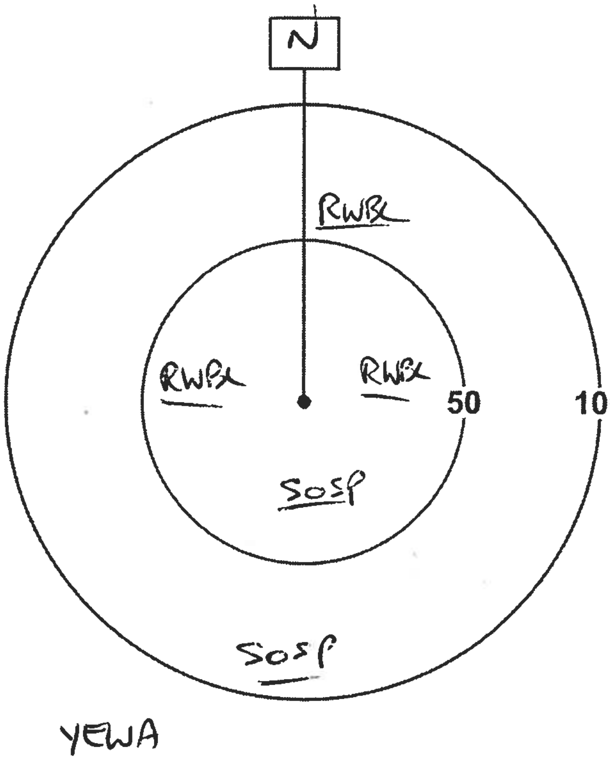
**UTM:** ____________

**Start Time:** 0625

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| YEWA | | | 1 | | O |
| AMGO | | | | 2 | A |
| RWBL | 2 | 1 | | | O |
| SOSP | 1 | 1 | | | O |
| RBGU | | | | 1 | B |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



chest-high grass + herbs

Quality Control: This form is complete ( ✓ ) & legible ( ✓ ).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

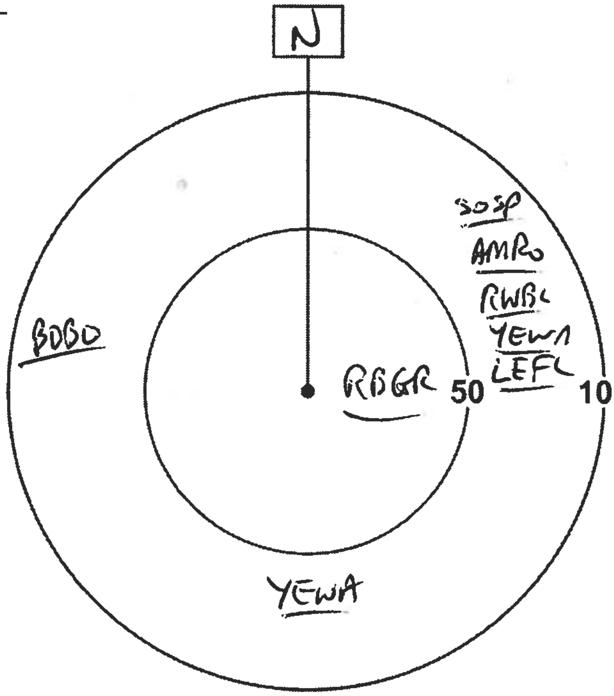
Page 1 of 3

REV: May, 07 Form 020

**Station:** P26 /202 (G42)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0651

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| Sosp | | 1 | | | O |
| AMRo | | 1 | | | O |
| RWBL | | 1 | | | O |
| YEWA | | 2 | | | O |
| LEFL | | 1 | | | O |
| RBGR | 1 | | | | A |
| BoBo | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

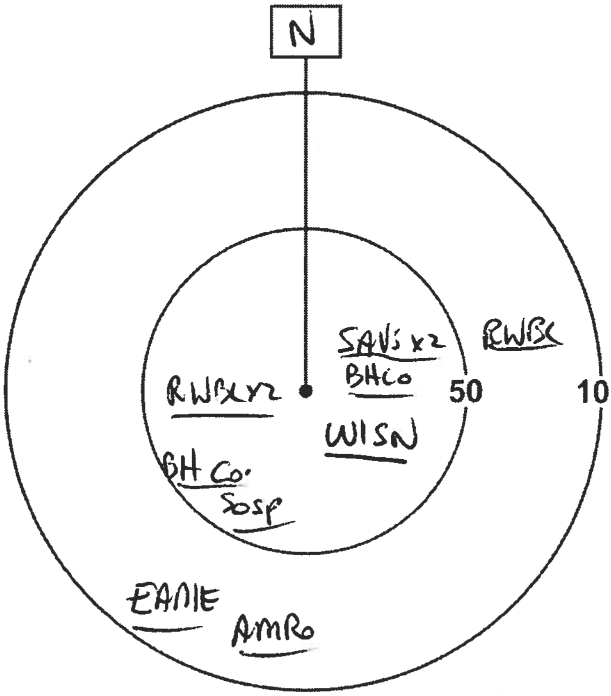


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P6/201 (G4)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0743

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 3 | A |
| WISN | 1 | | | | B |
| RWBL | 2 | 1 | | | O |
| SAVS | 2 | | | | O |
| BHCo | 2 | | | | O |
| EAME | | 1 | | | A ~~O~~ |
| AMRO | | 1 | | | A ~~O~~ |
| SoSP | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: AW (Field Personnel)
Signature: ____________ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

**Station:** P18 / 199 G11

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________________________

**Start Time:** 0904

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NOFL | | | | 1 | A |
| KILL | | 1 | | | A |
| SOSP | | 1 | | | O |
| NOCA | | 1 | | | O |
| BOBO | | 1 | | | O |
| GRSP | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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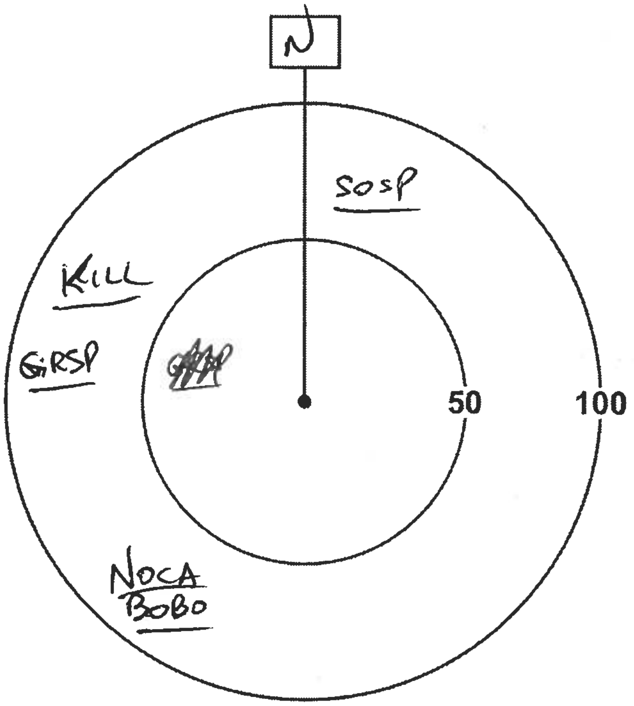
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P17 / 198 G11

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________________________

**Start Time:** 0950

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EAME | 2 | | | | O |
| SAVS | 1 | 2 | | | O |
| EUST | | 1 | | | O |
| EAKI | | 1 | | | O |
| TRES | | | | 3 | A |
| | | | | | |
| | | | | | |
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**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
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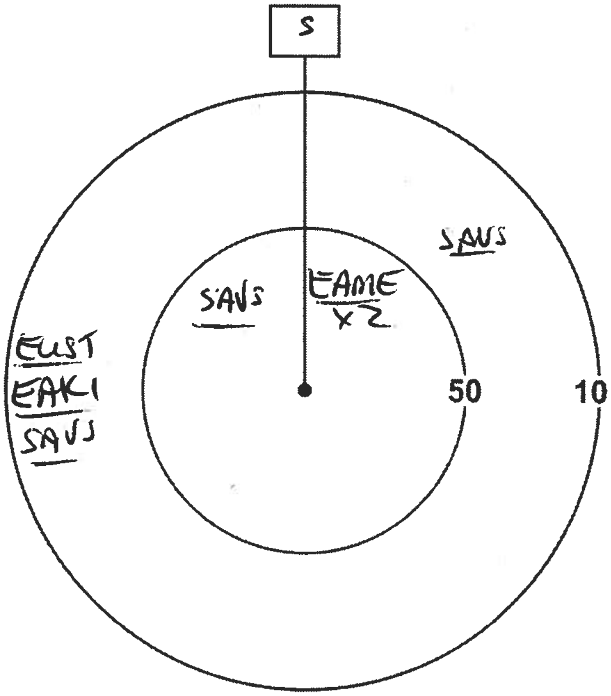


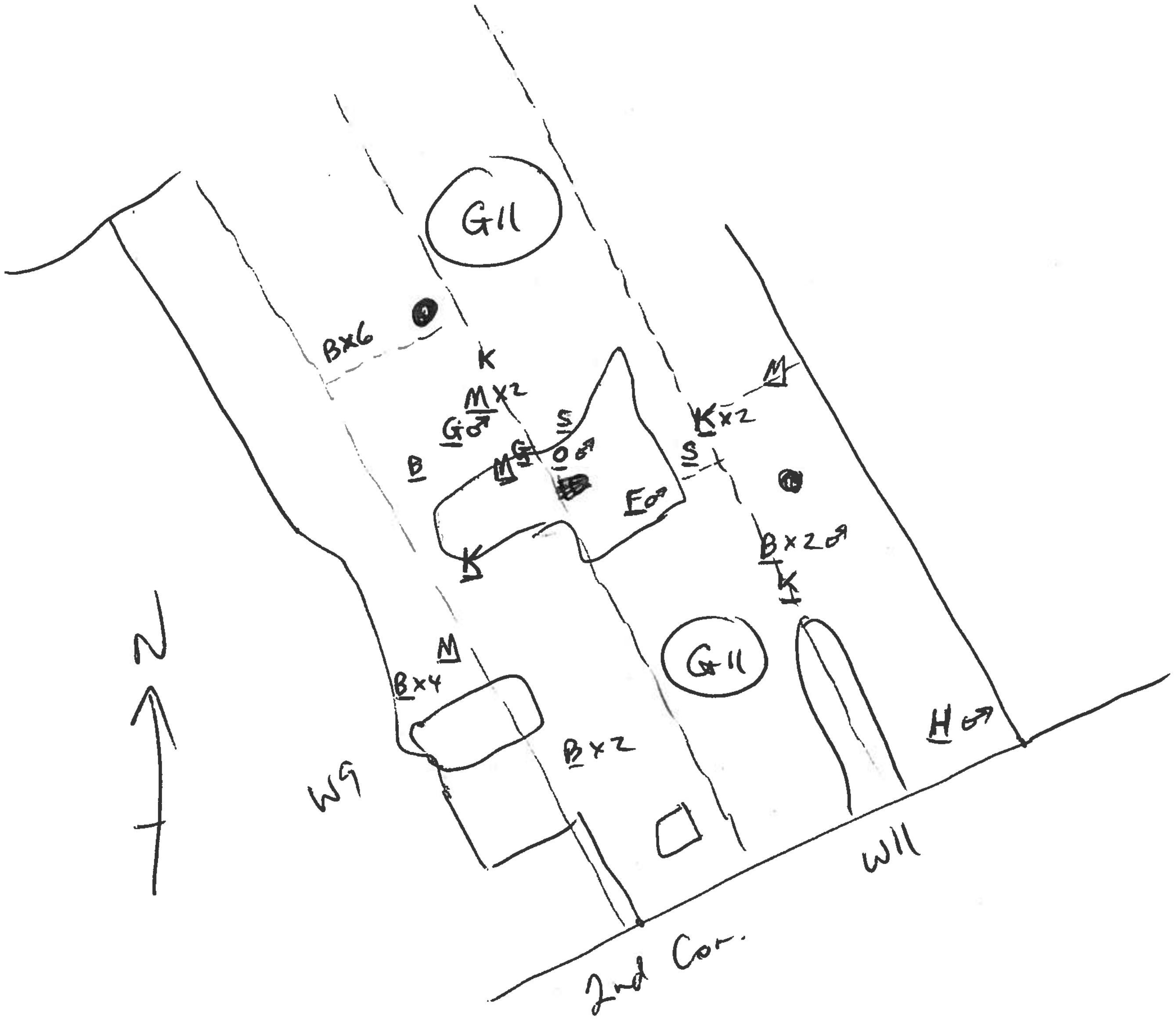
Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________ AW (Field Personnel)
Signature: ______________ (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

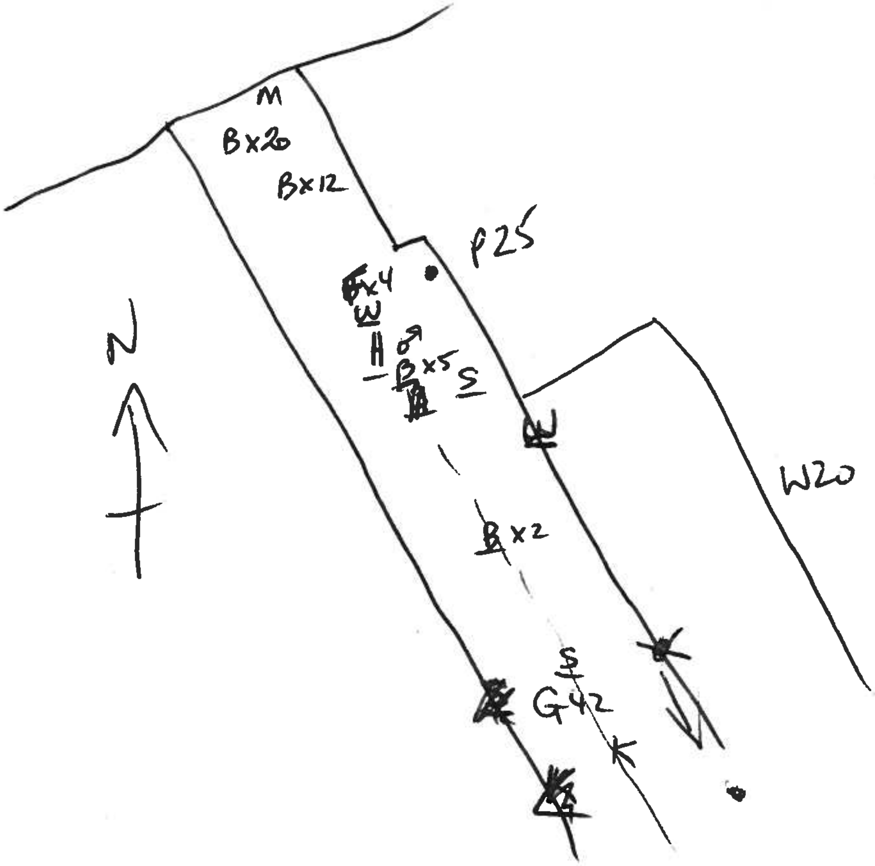
June 28, 2011

DAY 3



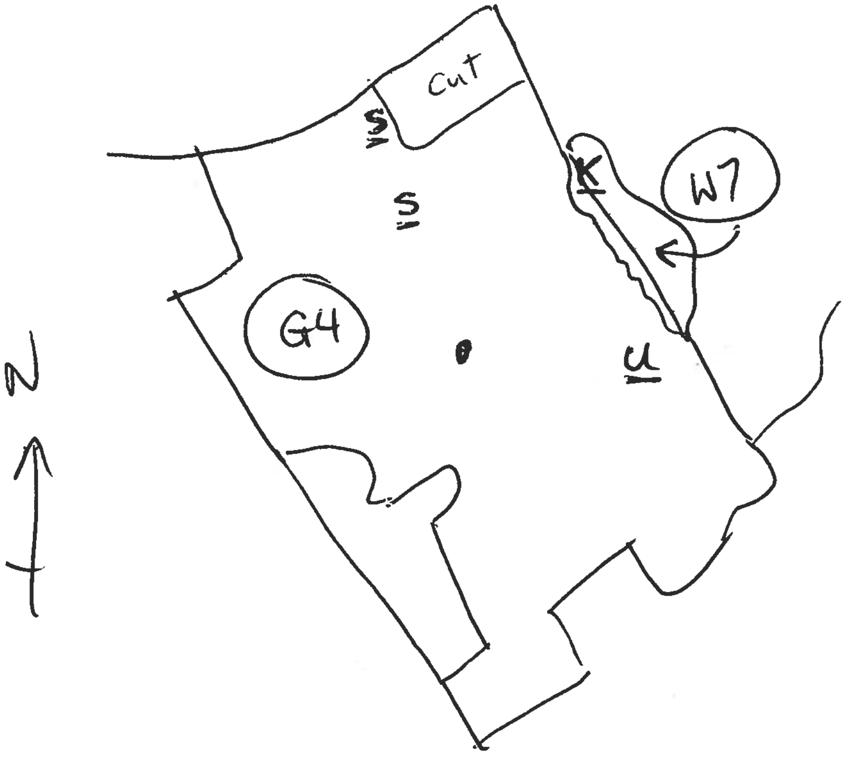
| | | |
|---|---|---|
| H | – | N. Harrier |
| B | | Bobolink |
| M | | E Meadowlark |
| F | | Field Sparrow |
| S | | Savannah Sparrow |
| O | | B Oriole |
| G | | Grasshopper Sp. |
| K | | E Kingbird |

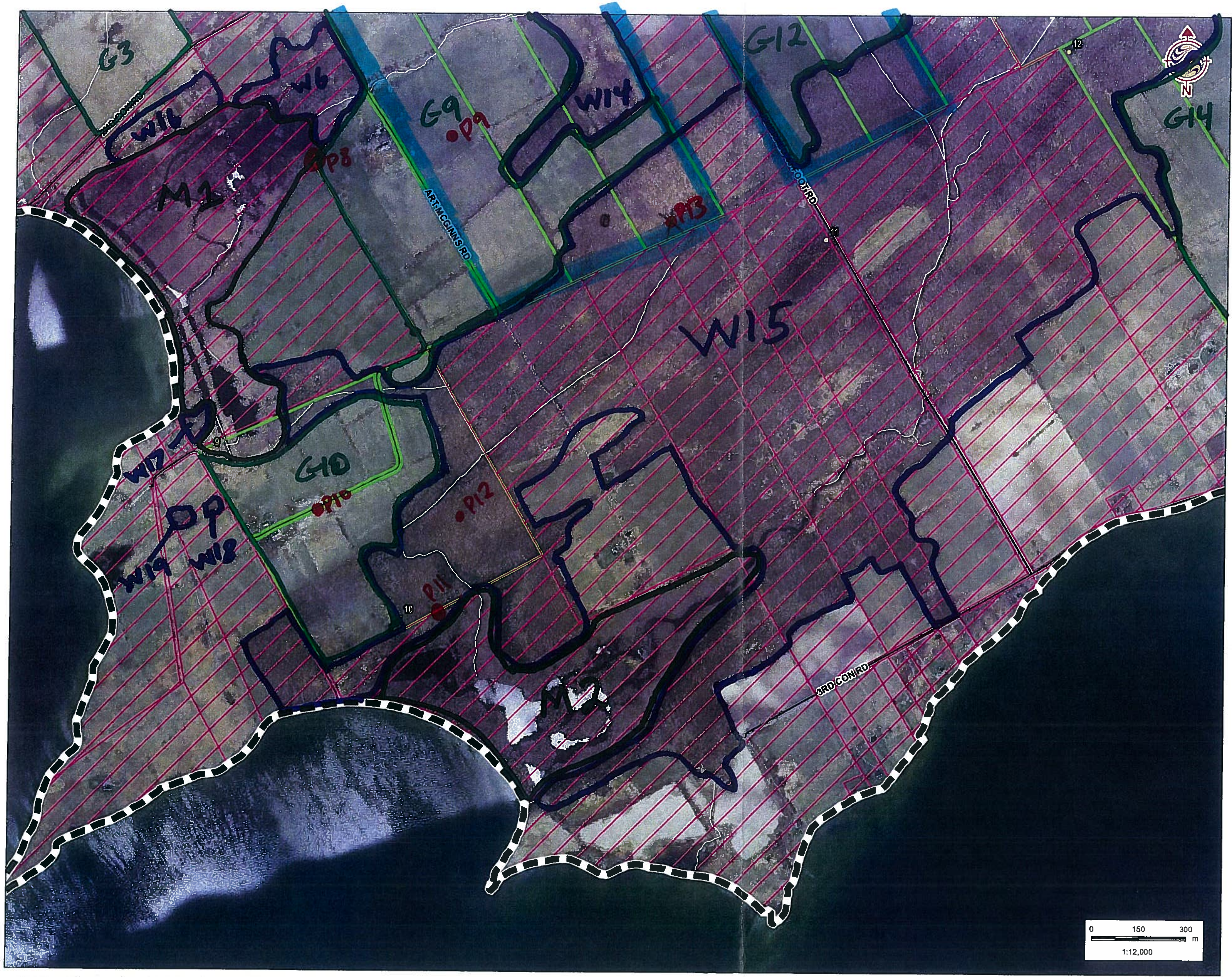
June 28, 2011 – DAY 3



| | |
|---|---|
| B | Bobolink |
| M | E Meadowlark |
| W | Willow Flycatch |
| S | Sav Sparrow |
| K | E Kingbird |
| H | N Harrier |
| F | Bullfrog (dugout) |
| U | Upland Sandp |

DAY 3 – June 28/11



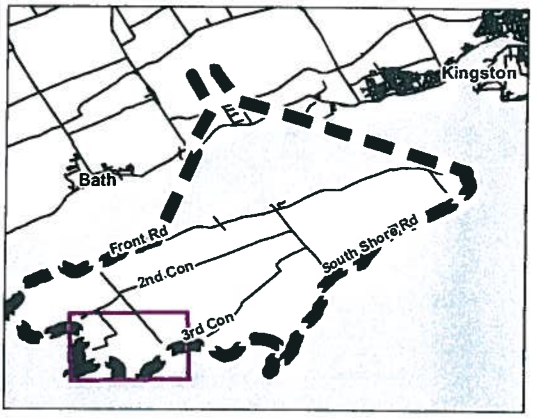


## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

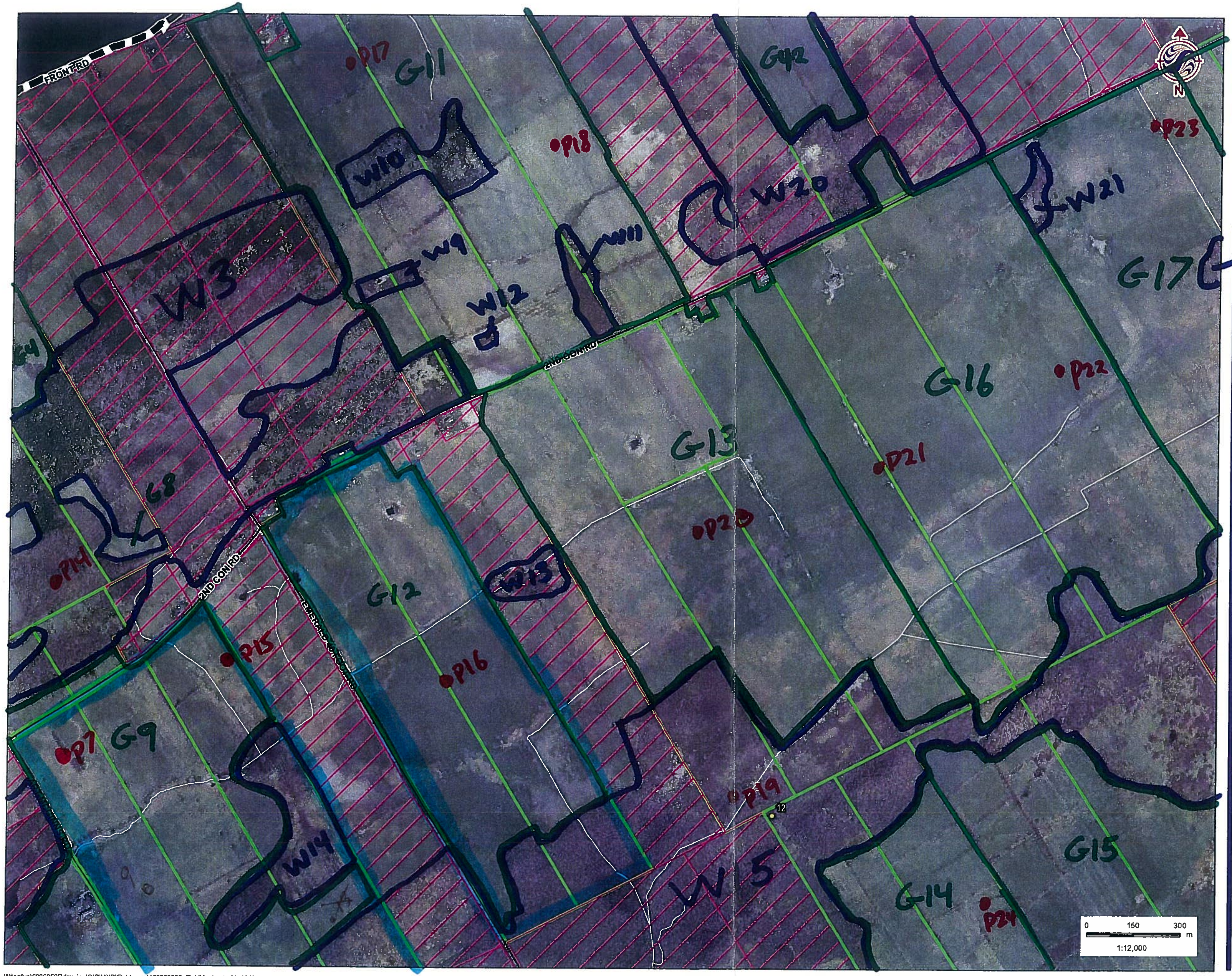
Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 2

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

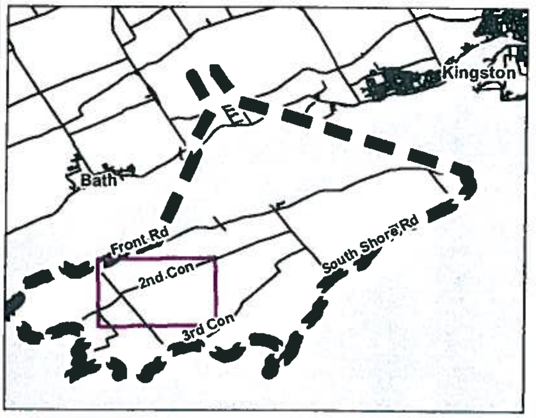


## Legend

🀫 Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date June 29, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 17 | Wind: W 2+ | Cloud: 50 | PPT: 0 | PPT in last 24 hrs: trace |

GPS #: T___

✓

**Station:** P7/216 (G9)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

**Start Time:** 0552

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| YEWA | 2 | | | | O |
| BoBo | 4 | | | | O |
| BAOR | | 1 | | | A |
| GRCA | 2 | | | | O |
| COGR | | | | 1 | A |
| SoSP | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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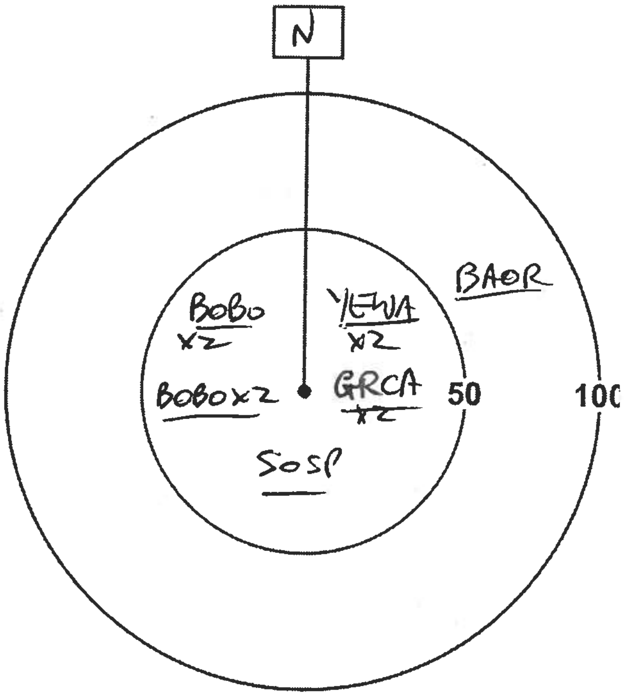
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (AW)

Signature: AW
(Field Personnel)

Signature: Katrina
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

✓

**Station:** P9/217 (G9)

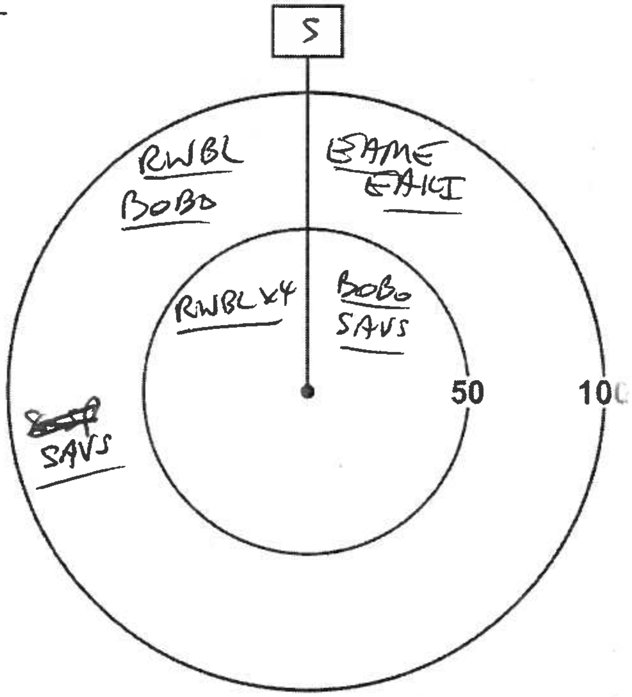
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0618

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | | 1 | A |
| RWBL | 4 | 1 | | | O |
| EAME | 1 | | | | A |
| EAKI | 1 | | | | O |
| ~~[illegible]~~ | | | | | |
| SAVS | 1 | 1 | | | O |
| BOBO | 1 | 1 | | | O |
| COGR | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P13/218 (W15)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0650

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | 5 | | | A |
| AMRO | 1 | | | | A |
| REVI | | 1 | | | A |
| RBGR | 1 | | | | A |
| BLJA | 1 | | | | A |
| | | | | | |
| | | | | | |
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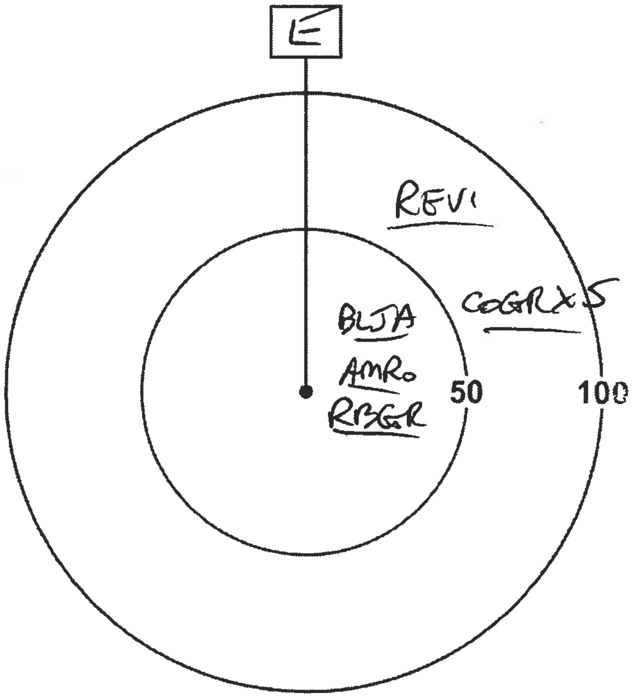
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

✓

**Station:** P15 /215 G9

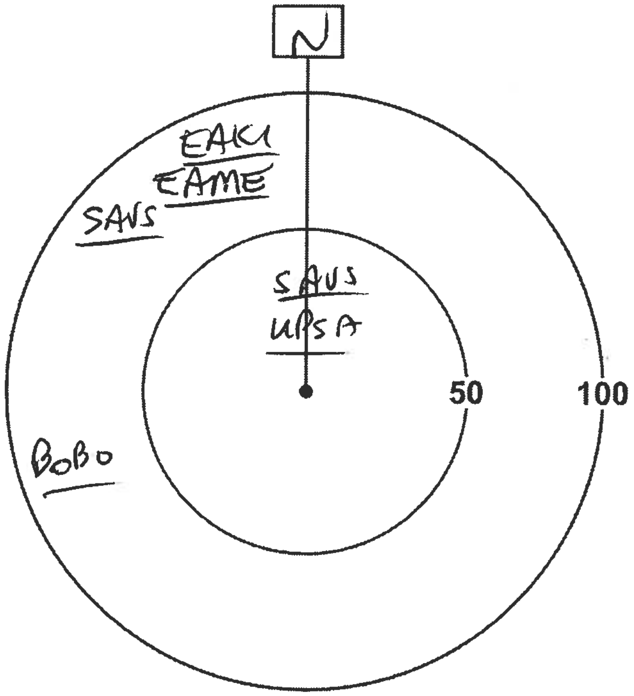
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0752

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 2 | A |
| RWBL | | | | 1 | A |
| BoBo | | | | 1 | A |
| BoBo | | 1 | | | O |
| EAKI | | 1 | | | O |
| EAME | | 1 | | | O |
| AMRO | | | | 2 | A |
| GRHE | | | | 1 | B |
| SAVS | 1 | 1 | | | O |
| UPSA | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P16 /219 G12

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0848

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMCR | 2 | | | | O |
| EAKI | 1 | | | | O |
| SAVS | 2 | 3 | | | O |
| BoBo | 1 | 1 | | | O |
| TRES | | | | 3 | A |
| | | | | | |
| | | | | | |
| | | | | | |
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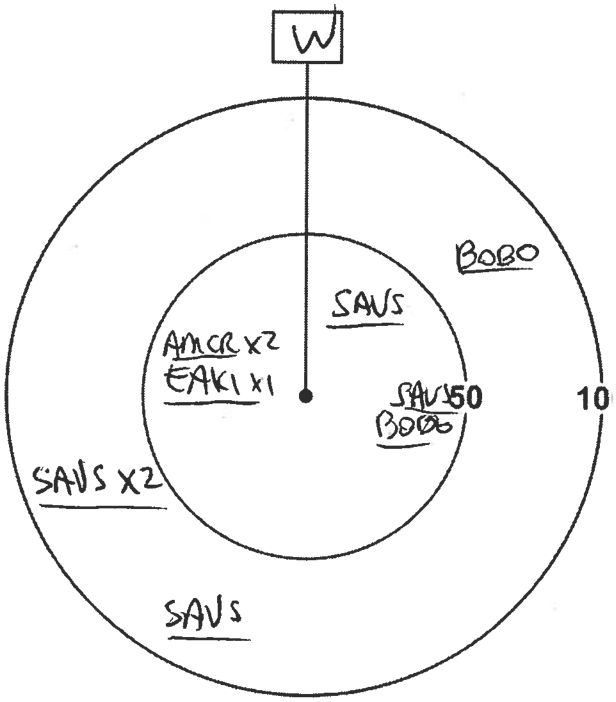
| | | | | | |
| | | | | | |

Grass now cut on west side of fence line (West of Point Count)

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: ____________ AW
(Field Personnel)

Signature: ____________
(Project Manager)

Page 3 of 3

REV: May, 07 Form 020

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 29, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 17 | W 2+ | 50 | 0 | trace |

**Feature No::** G9 **Habitat Type:** ____________ **Time Start:** 0542 0742 **Time End:** 0642 0815

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard H | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren A | A | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S P | P |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird P | P | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. FY | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S P | P |
| Killdeer | | Ea. Kingbird † H A | A | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. A | A | Baltimore Oriole † | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature: Katrin
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W15 **Habitat Type:** ______ **Time Start:** 0642 **Time End:** 0707

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk H | H | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | FY |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 4

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:** Kathrine
(Project Manager)

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: June 29, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | WIND: W ② | CLOUD: 50 | PPT: 0 | PPT (in last 24 hrs): trace |

**Feature No::** W14 **Habitat Type:** ______ **Time Start:** 0718 **Time End:** 0742

***Record location of all significant species on site map.***

Two-spotted Skipper ♀ (ex fresh)

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren H | H | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. CF | CF |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 4

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature: Kathrine St. Jean
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** G12 **Habitat Type:** ______ **Time Start:** 0825 **Time End:** 0913

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 4

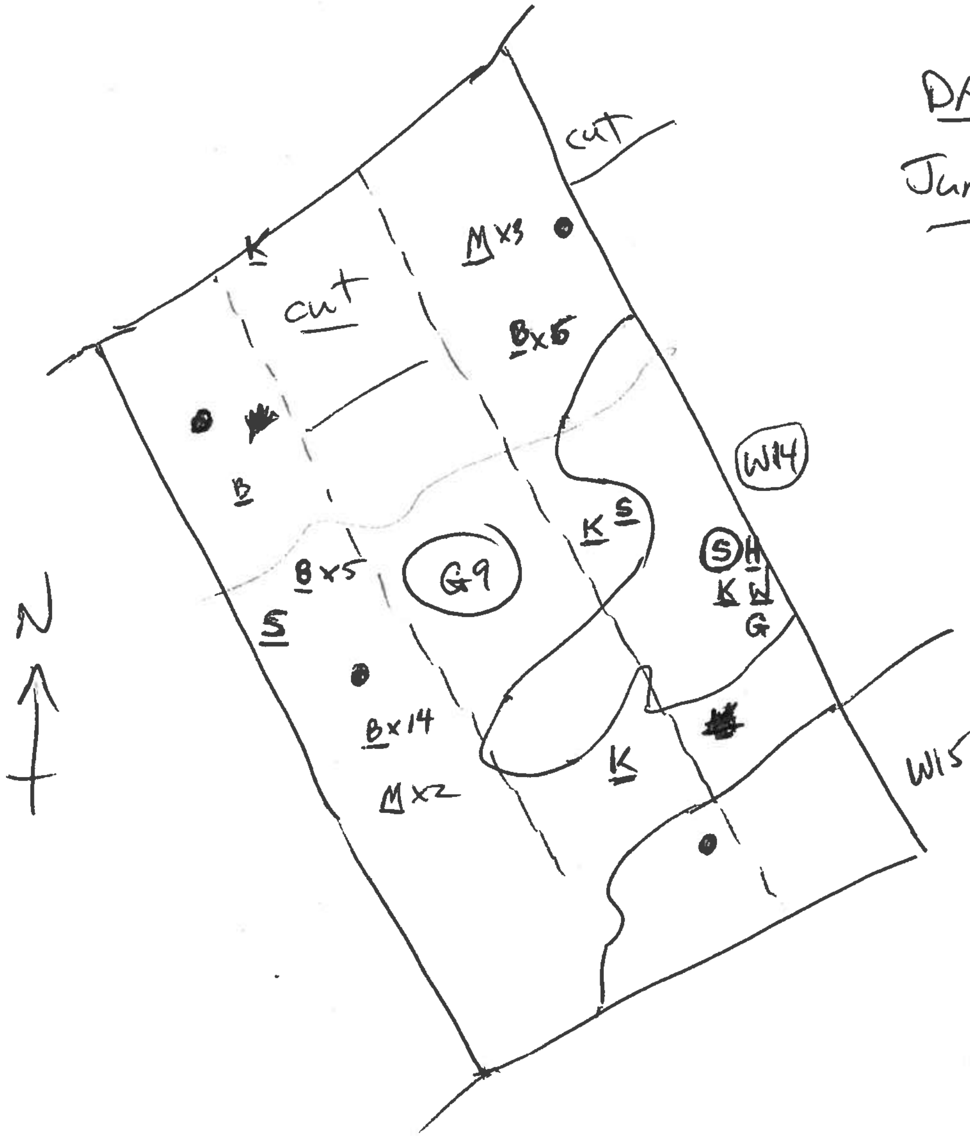
Quality Control: This form is complete ☑ & legible ☑.

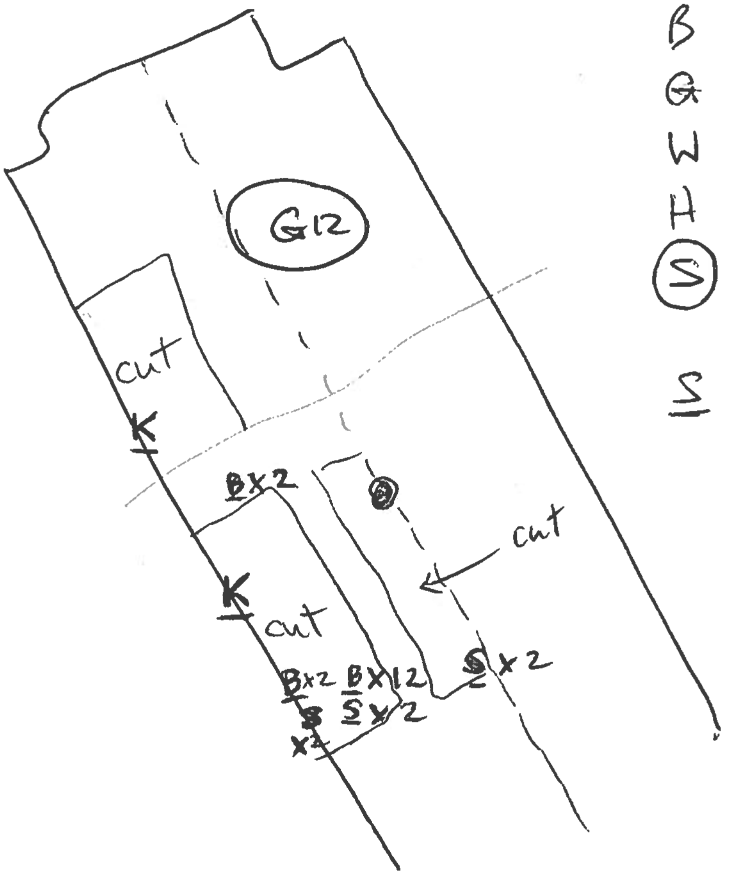
**Signature:** AW
(Field Personnel)

**Signature:** Kathrin St. [illegible]
(Project Manager)

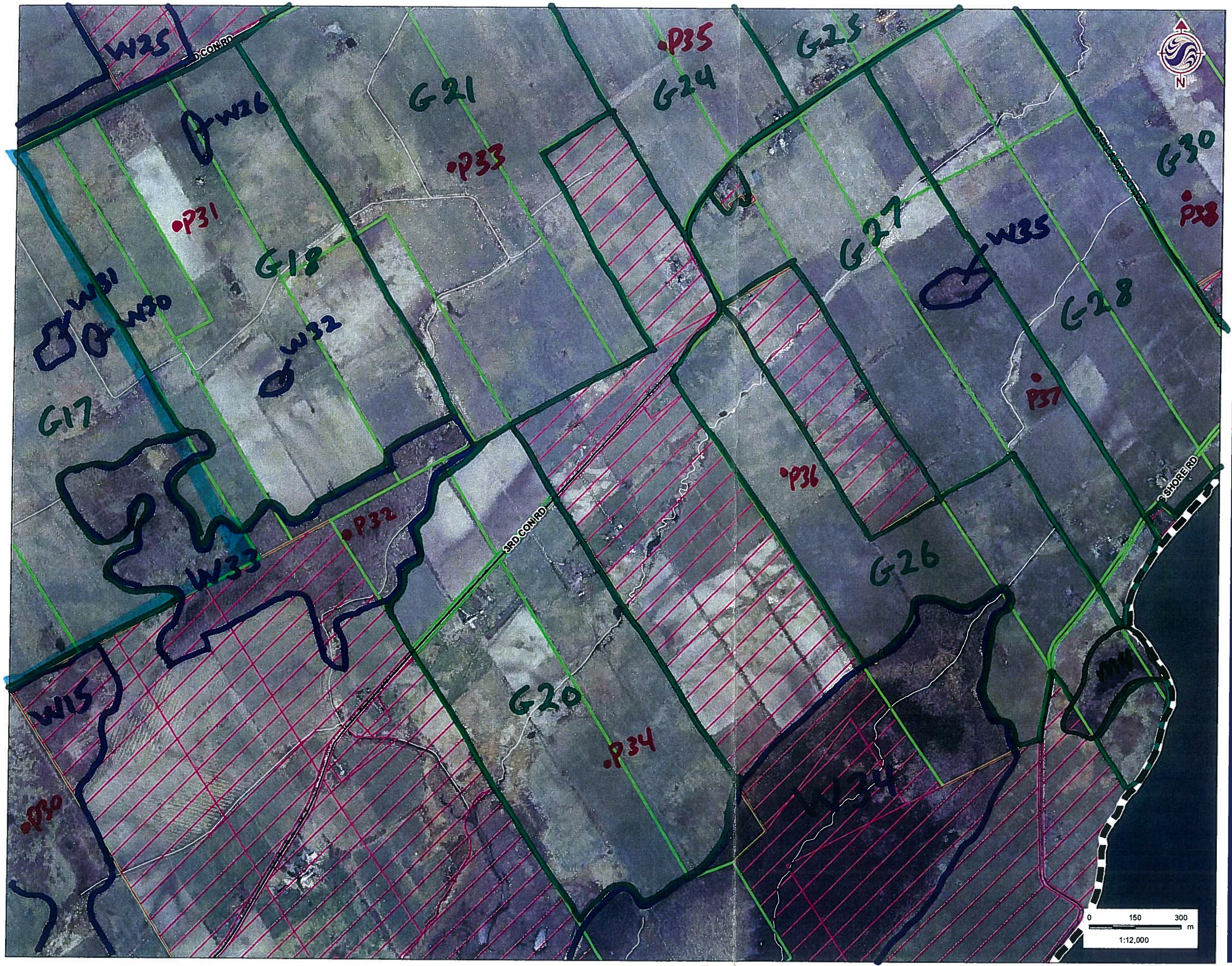
DAY 4

June 29, 2011





K - E Kingbird
B Bobolink
G Rose-b! Grosbeak
W Willow Flyc.
H N. Harrier
Ⓢ Two-spotted Skipper (wet sedge meadow)
S savannah Sparrow

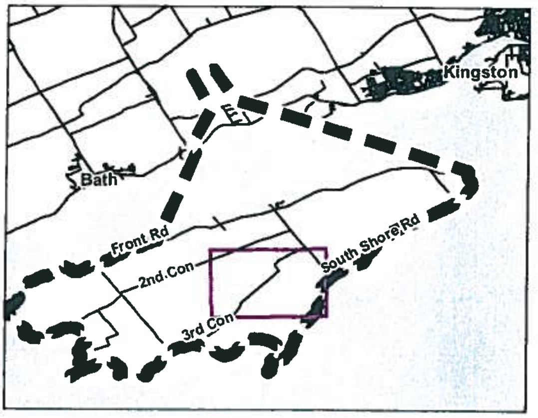


## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
FIELD MAPBOOK

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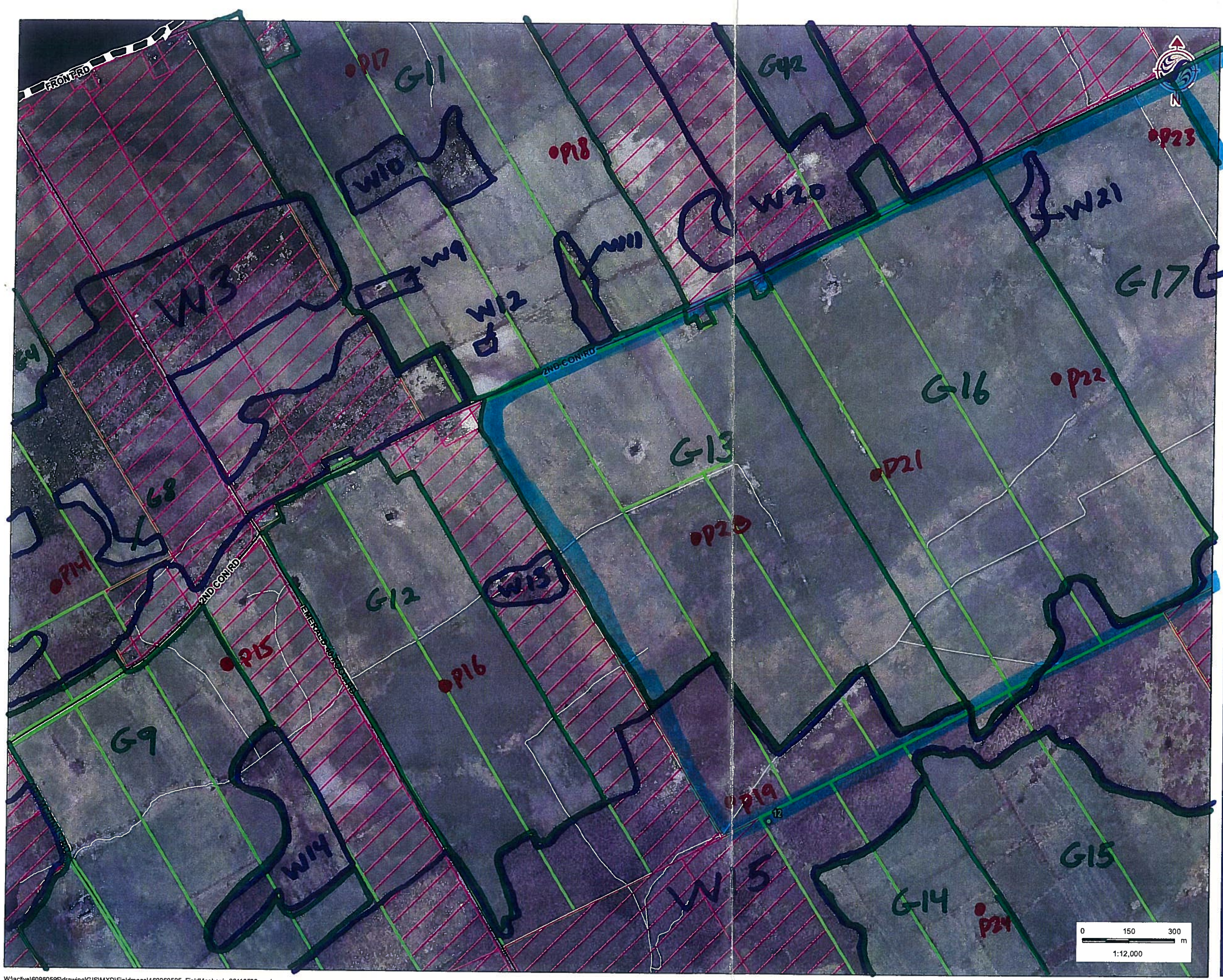
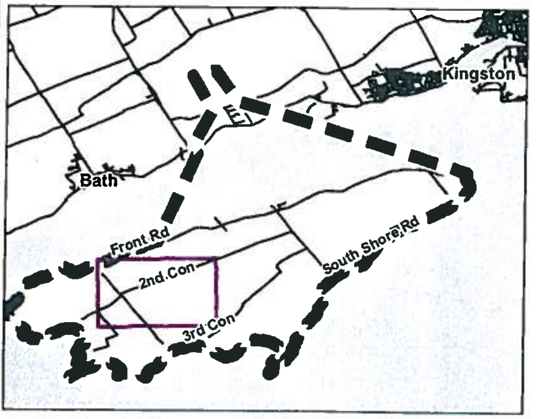


## Legend

▚ Study Area
— Road
Watercourse
● Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

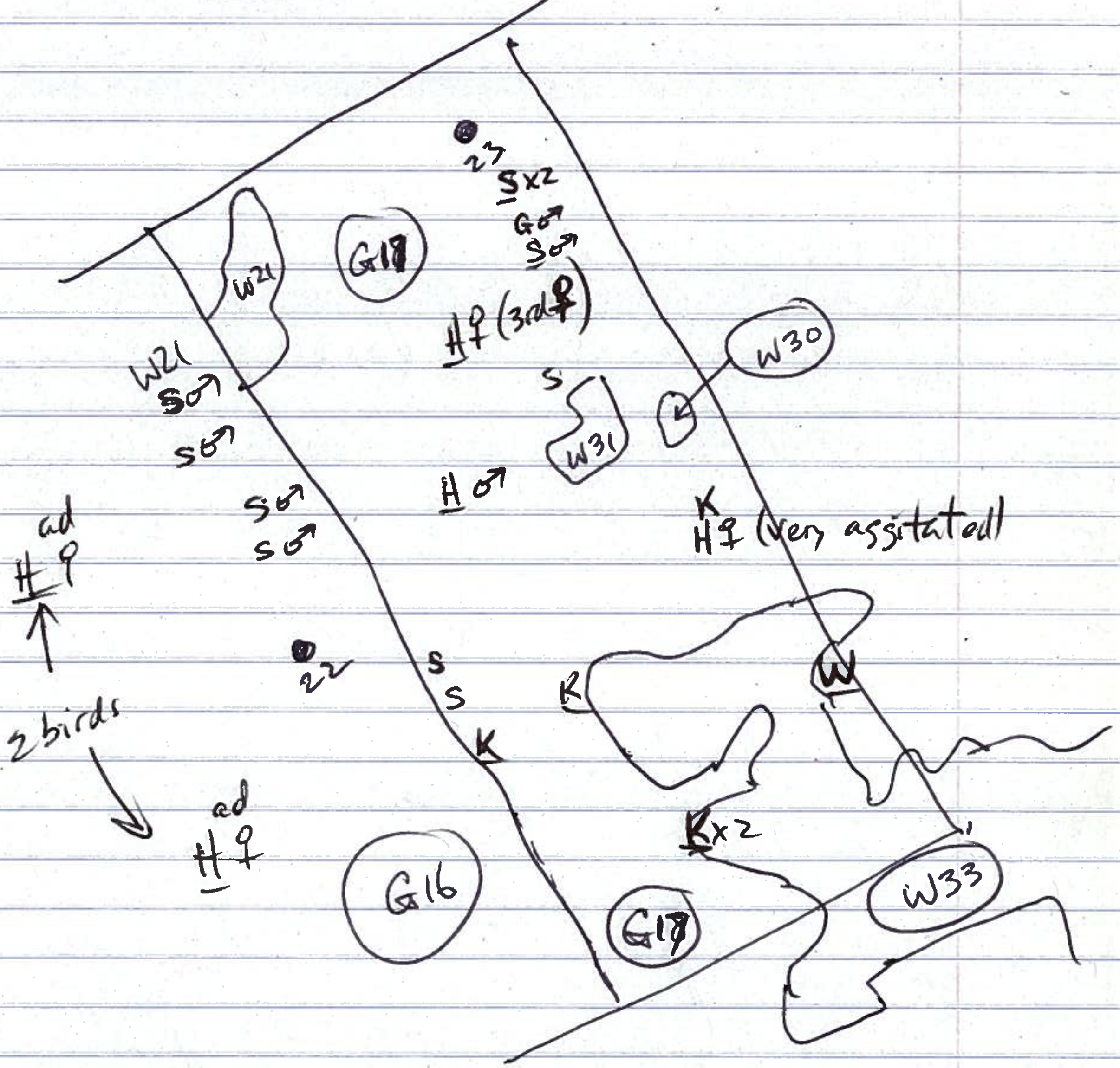
# FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

# DAY 5 – July 3/11

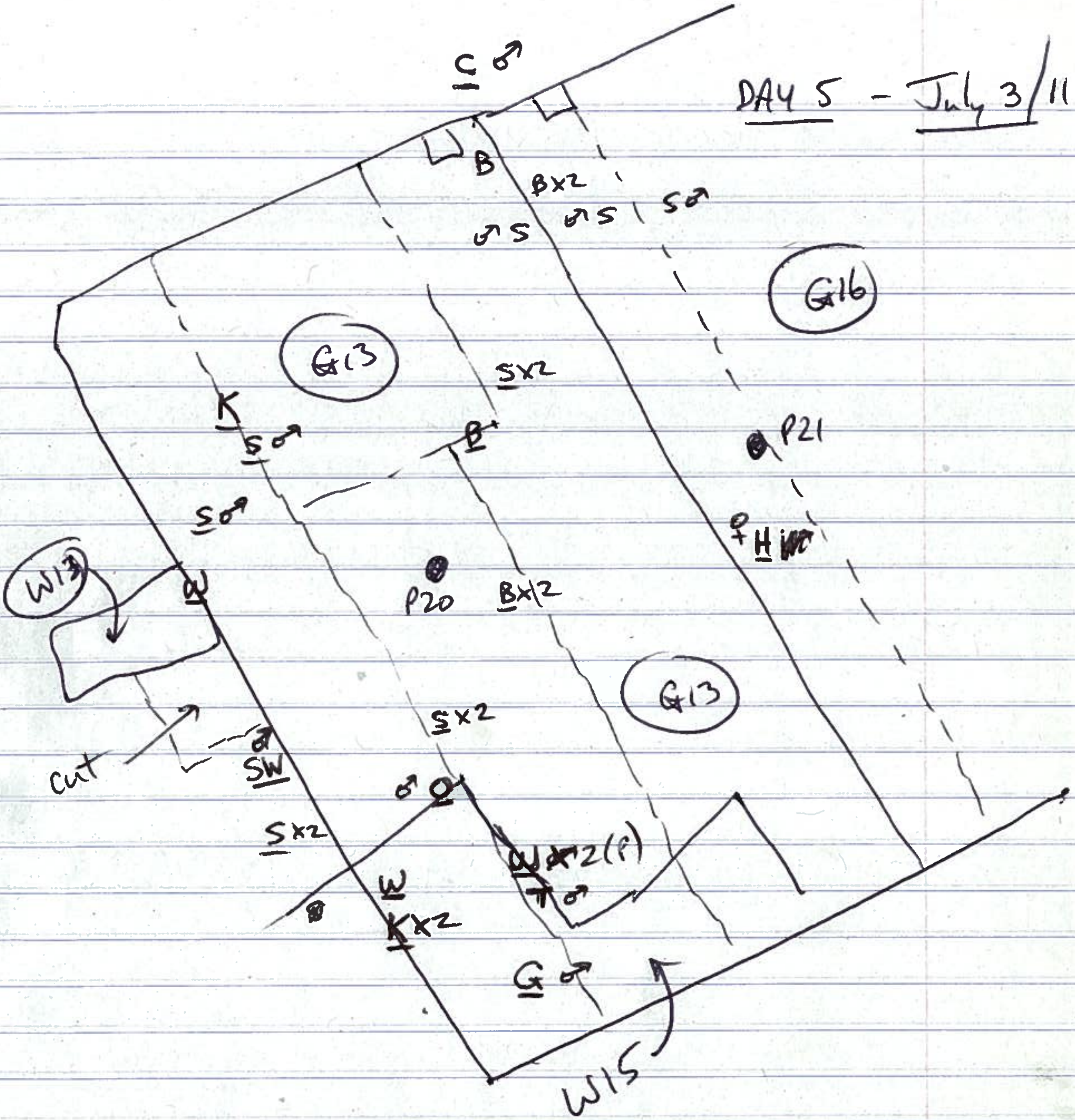
|  | Count | Way ~~Habitat~~ | Habitat |
|---|---|---|---|
| 1 |  |  | G13 |
| 2 |  |  | G16 |
| 3 | P21 | 224 | G13 |
| 4 |  |  | W15 |
| 5 | P19 | 222 |  |
| 6 | P20 | 221 | G13 |
| 7 |  |  | W13 |
| 8 |  |  | G17 |
| 9 | P23 | 226 | G17 |
| 10 |  |  | W31 |
| 11 |  |  | W30 |
| 12 |  |  | W33 |
| 13 | P22 | 223 | G16 |
| 14 |  |  | W21 |

DAY 5 – July 3/11



| | |
|---|---|
| S | Sav Sparrow |
| H | N Harrier |
| K | E Kingbird |
| W | Willow Flycatcher |
| G | Grasshopper Sparrow |

DAY 5 - July 3/11



| | |
|---|---|
| C - | Black-b. Cuckoo (in W20) |
| H | N Harrier |
| S | Sav Sparrow |
| B | Bobolink |
| O | B Oriole |
| W | Willow Flycatcher |
| T | E Towhee |
| G | Rose-br Grosbeak |
| K | E Kingbird |
| SW | Sedge Wren (head-high rank grass) |

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 3, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 0 | 85 | 0 | lots of rain 0330 to 0430 am |

**Feature No::** G13 **Habitat Type:** ______ **Time Start:** 0643 **Time End:** 0735

0820 ⟶ 0905

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | X | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren S | S | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P H | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | X |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW (Field Personnel)

Signature: Katherine [illegible] (Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W15 **Habitat Type:** ______ **Time Start:** 0713 **Time End:** 0820

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | FY | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat A | A |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † H | H |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ S | S | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. H | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery S | S | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. H | H |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | X | Willow Fly. † S | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | FY |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † H S | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 3, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): 22 | WIND: W (1) | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): lots during 0330 to 0430 |

**Feature No::** G17 **Habitat Type:** Wandering Glades **Time Start:** 1002 **Time End:** 1140

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | | Downy Wo. P | P | Ea. Bluebird | | Grasshopper Sp. † S | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ HP | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † HA | A | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove H | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 5

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katrina St James
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G16 **Habitat Type:** ______ **Time Start:** 0610 **Time End:** 0642

0934→1002

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | X | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | CF |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ P H | P | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H | H |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | A |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 9

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 3, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 23 | WIND: W ① | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): lots of rain 0330 to 0430 |

**Feature No::** W33 **Habitat Type:** ________ **Time Start:** 1022 **Time End:** 1037

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk A | A | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling P | P | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † HP | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow P | P | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katrina St Jones
(Project Manager)

**Feature No.:** W30 **Habitat Type:** ______ **Time Start:** 1050 **Time End:** 1056

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. P | P | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. A | A | Baltimore Oriole † | |
| Am. Woodcock H | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 9

**Signature:** AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katrine
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 3, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 25 | WIND: W ① | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): lots of rain 0330 to 0430 |

**Feature No::** W31 **Habitat Type:** ______ **Time Start:** 1056 **Time End:** 1105

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

**Feature No.:** W21 **Habitat Type:** ______ **Time Start:** 0918 **Time End:** 0934

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A S | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † H | H | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. P S | P | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling A | A | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | FY |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 3, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | W ① | 50 | 0 | lots of rain 0330 to 0430 a.m. |

**Feature No::** W13 **Habitat Type:** **Time Start:** 0830 **Time End:** 0840

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk A | A | Willow Fly. † S | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. P | P | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 9

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 3, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 22 | Wind: 0 | Cloud: 100 | PPT: 0 | PPT in last 24 hrs: lots of rain 0330 to 0430 am |

✓

GPS #: T___

* Station: P21 / 224 G13

Habitat: ☐Forest ☐Swamp Marsh ☐Hay ☐Pasture ☐Crop

UTM:

Start Time: 0628

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 2 | A |
| BARS | | | | 4 ~~2~~ ~~3~~ | A |
| BoBo | | 1 | | | O |
| SAVS | 1 | 2 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
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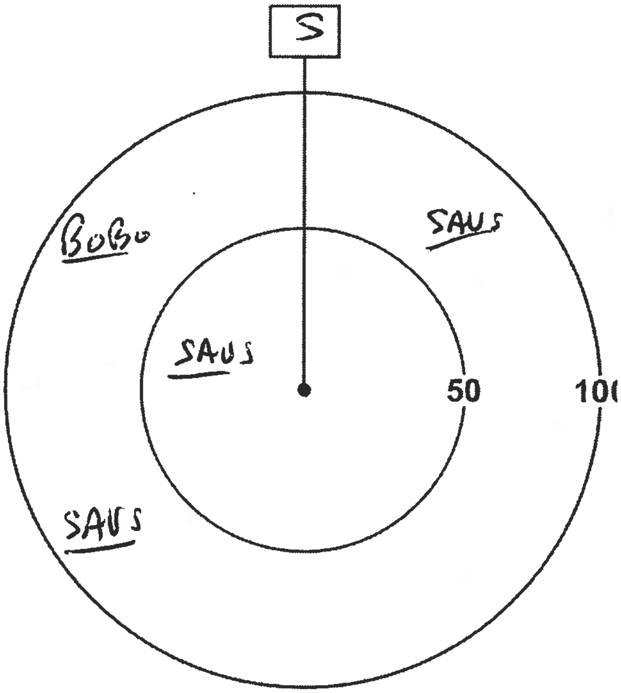
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



* Had to shift 400 m N due to massive concentration of cows at normal site (Did not want to create a stampede).

Quality Control: This form is complete (✓) & legible (✓).

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

**Station:** P19/ 222 W15

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0750

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| YBSA | | 1 | | | A |
| VEER | 1 | | | | O |
| HOWR | | 1 | | | O |
| SOSP | 1 | | | | O |
| AMRO | 1 | | | | A |
| COGR | 4 | | | | A |
| RBGR | | 1 | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
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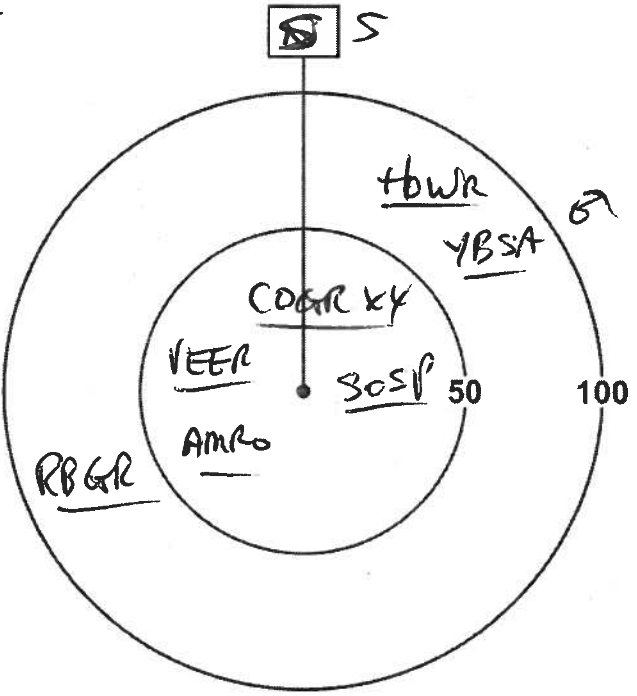

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P20/ 221 G1B

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0655

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | | | 1 | A |
| SOSP | | 1 | | | O |
| SAVS | 2 | 1 | | | O |
| BARS | | | | 4 | A |
| | | | | | |
| | | | | | |
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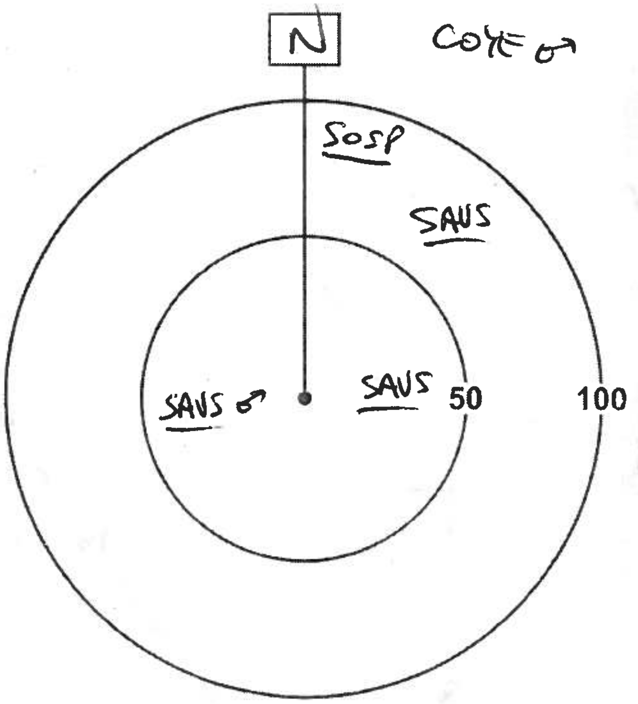

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: ____________ (Field Personnel) Signature: ____________ (Project Manager)

Page 2 of 3 REV: May, 07 Form 020

July 3/11

✓

**Station:** P23 /226 (G17)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 1118

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COYE | | 1 | | | O |
| SOSP | 1 | | | | O |
| YEWA | 1 | | | | O |
| SAVS | 1 | 1 | | | O |
| | | | | | |
| | | | | | |
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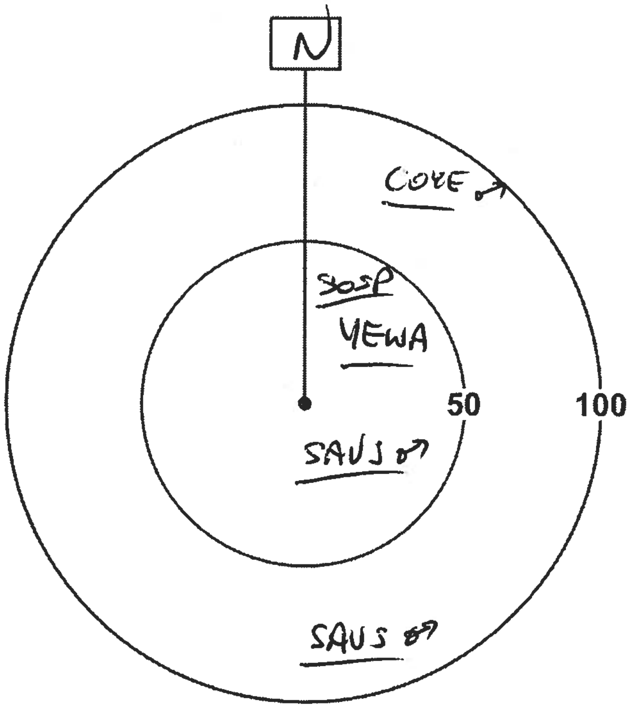
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P22 / 223 (G16)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0943

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMGO | | | | 2 | A |
| SAVS | 2 | 5 | | | O |
| BOBO | | 2 | | | A |
| | | | | | |
| | | | | | |
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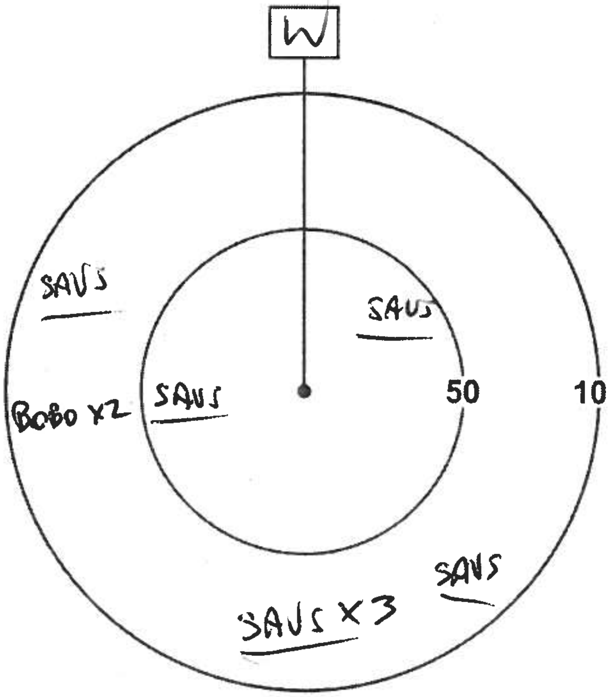
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (__).
Signature: AW (Field Personnel)     Signature: ____________ (Project Manager)

Page 3 of 3     REV: May, 07     Form 020

## Legend

▟ Study Area

— Road

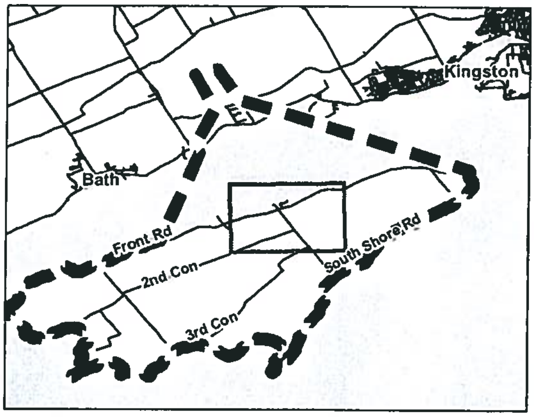
Watercourse

○ Amphibian Station

**Property Status**

🟩 Optioned

▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

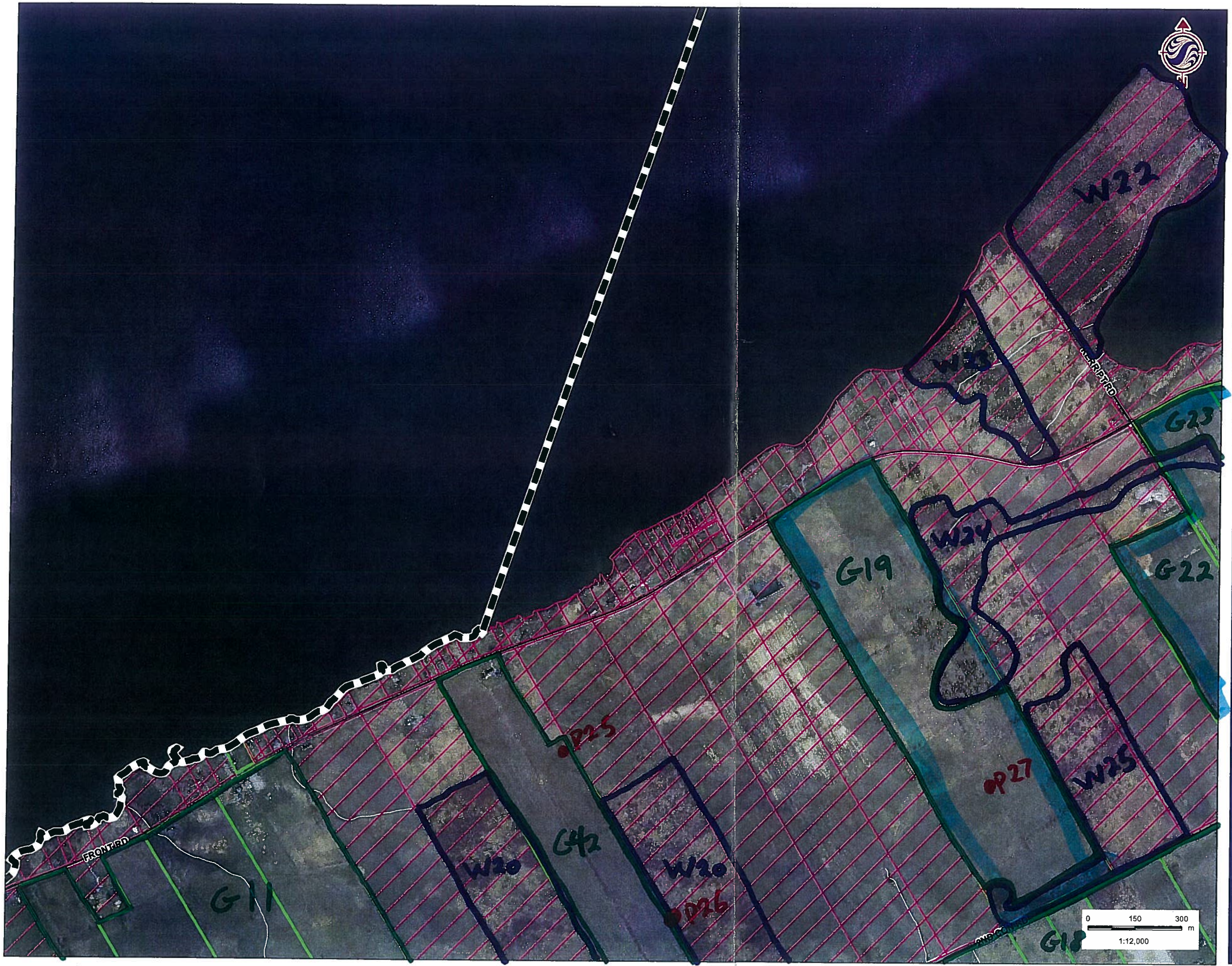
Figure No.

Tile 5

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd

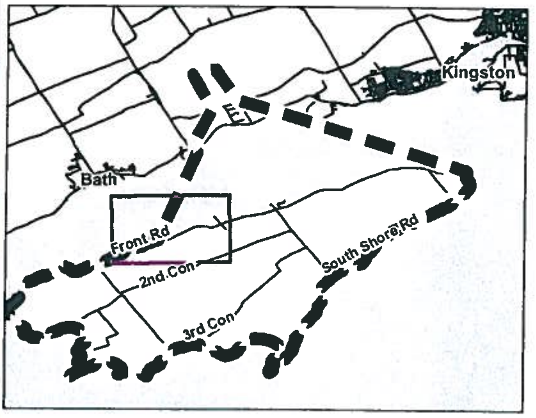


## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 4

Title

# FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

# DAY 6

| | Point | Way | Habitat |
|---|---|---|---|
| ② | P42 | 229 | G23 |
| ⑥ | P40 | 231 | W24 |
| ③ | USE ~~[illegible]~~ N/S SIDE ROAD | | W29 |
| ④ | | | W28 |
| ① | P41 | 228 | G22 |
| → ⑤ | P39 | 297 | W27, G22 |
| | | | W25 |
| ⑦ | P27 | 230 | G19 |

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 4, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | NW ① | 50 | 0 | 0 |

Feature No:: G22
Habitat Type: ____________
Time Start: 0555 ~~Time End:~~ → 0640
0748 → 0838

***Record location of all significant species on site map.*** * Common Loon – 2 adults flying overhead @ "B" height, calling (flying W).

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † H | H | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| * Co. Loon ‡ | X | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † S P | P |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | N | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. H | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | CF |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | X | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 8

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G23 **Habitat Type:** **Time Start:** 0640 0845 **Time End:** 0715 0855

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | CF | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H | H |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. H | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | FY |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 8

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 4, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | W ① | 40 | 0 | |

**Feature No::** W29 **Habitat Type:** ______ **Time Start:** 0715 **Time End:** 0728

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S A | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin A | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † S | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 8

Quality Control: This form is complete ☑ & legible ☑

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W28 **Habitat Type:** ____________ **Time Start:** 0728 **Time End:** 0742

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay P | P | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

~~App Brook~~

Pg. 4 of 8

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katrine St Jones
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 4, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | NW (1) | 50 | 0 | 0 |

**Feature No::** W27 **Habitat Type:** ____ **Time Start:** 0812 **Time End:** 0835

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. A S | A |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | FY | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird P S | P | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † S | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. P S | FY | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katrina St James
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W24 **Habitat Type:** ______ **Time Start:** 0855 **Time End:** 0914

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | X | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. S | S | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin P | P | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † S | T | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling A | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H | H |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle P | P |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow H | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW (Field Personnel)

Signature: Katrina Stevens (Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 4, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | W ① | 20 | 0 | 0 |

**Feature No::** W25 **Habitat Type:** ____________ **Time Start:** 0930 → **Time End:** 0940

1005 → 1025

***Record location of all significant species on site map.***

- ** Endangered, Threatened or Special Concern
- † Partners In Flight
- ‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. A S | A | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow A | FY | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | FY | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G19 **Habitat Type:** ______ **Time Start:** 0940 **Time End:** 10/8

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | X | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-thrdated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | A |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ H | H | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Common Buckeye! 1 ex fr ♂
Gray Comma 1 ex fr ♂ (dark form)

Pg. 8 of 8

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______ (Field Personnel)

Signature: Kathrin ______ (Project Manager)

REV: 2011-05-27 / FORM 031

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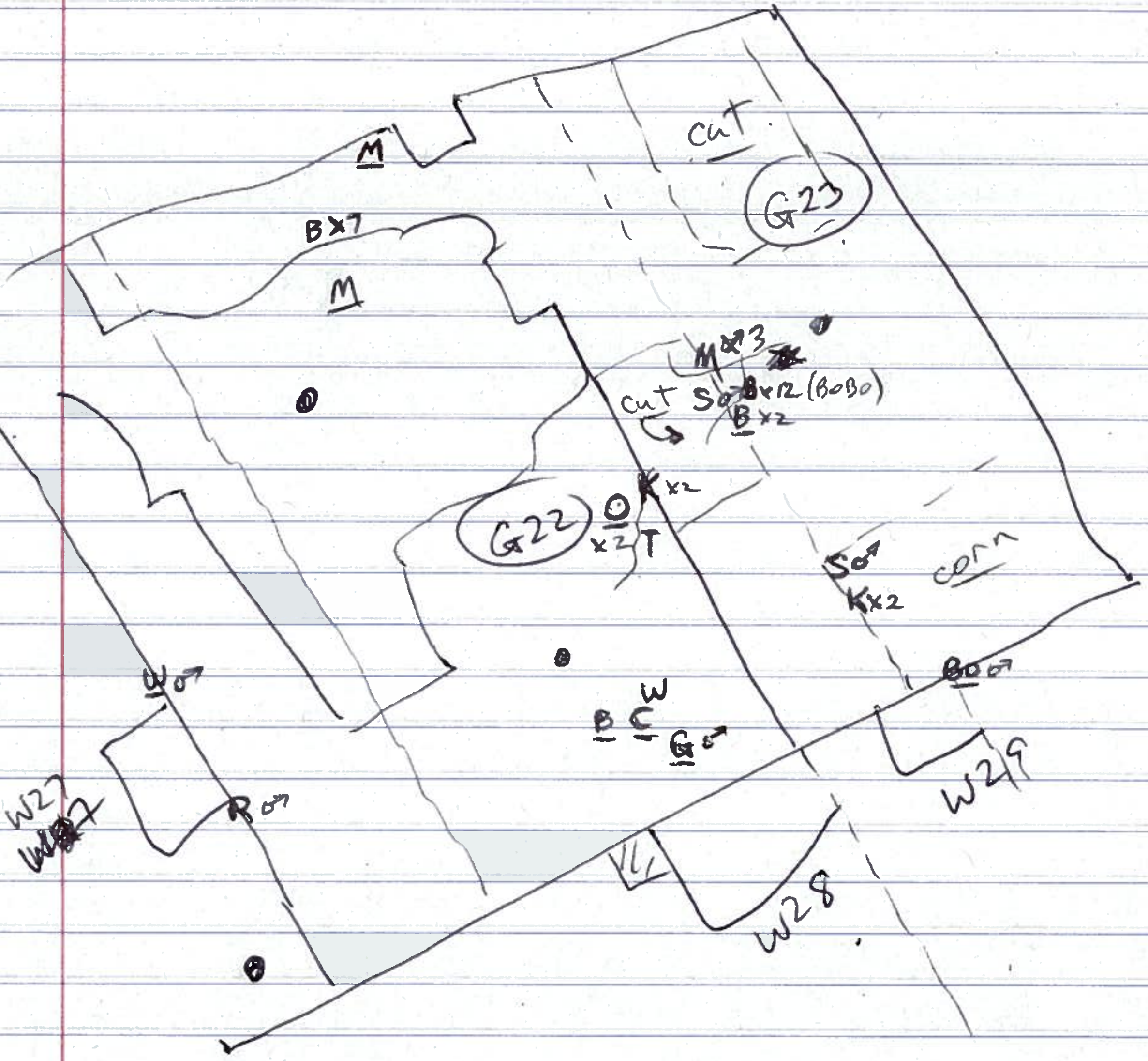
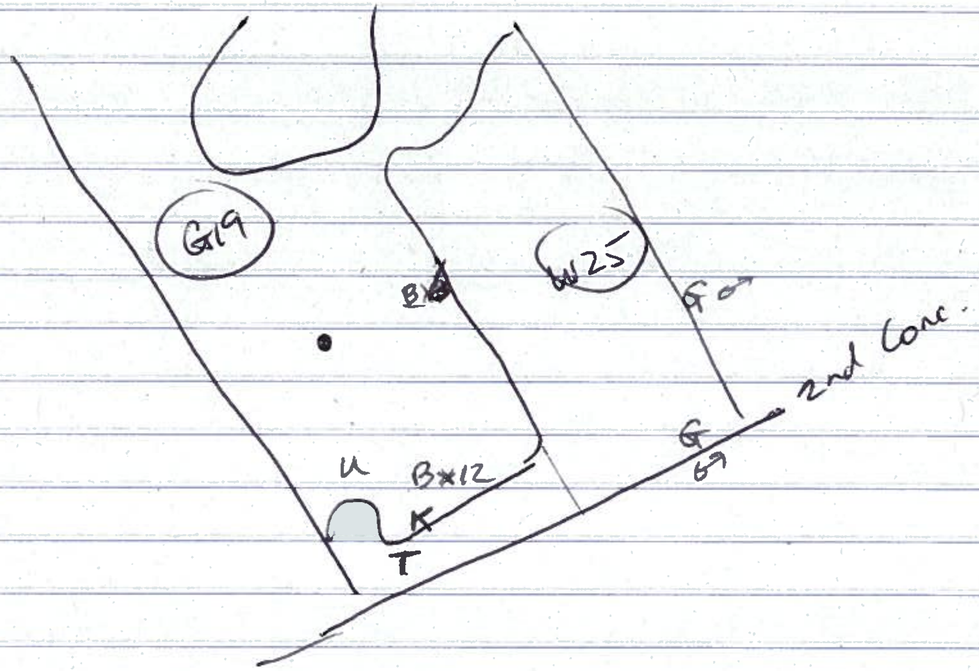
# DAY 6 - July 4, 2011



|  |  |  |  |
|---|---|---|---|
| G | Grasshopper Sparrow | Bo | Baltimore Oriole |
| C | BB Cuckoo | R | Rose-br Grosbeak |
| W | Willow Flyc. |  |  |
| B | Bobolink |  |  |
| O | Orchard Oriole (2 ♀ types = 2 territories?) |  |  |
| T | Brown Thrasher |  |  |
| K | E Kingbird |  |  |
| S | Sav Sparrow |  |  |
| M | E Meadowlark |  |  |

# DAY 6 – July 4, 2011



| | |
|---|---|
| T | Brown Thrasher |
| K | E Kingbird |
| U | Upland Sandp |
| B | Bobolink |
| G | Rose-br Grosbeak |

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 4, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15 | Wind: NW ① | Cloud: 50 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #:** T___

**Station:** P41/228 G22

✓

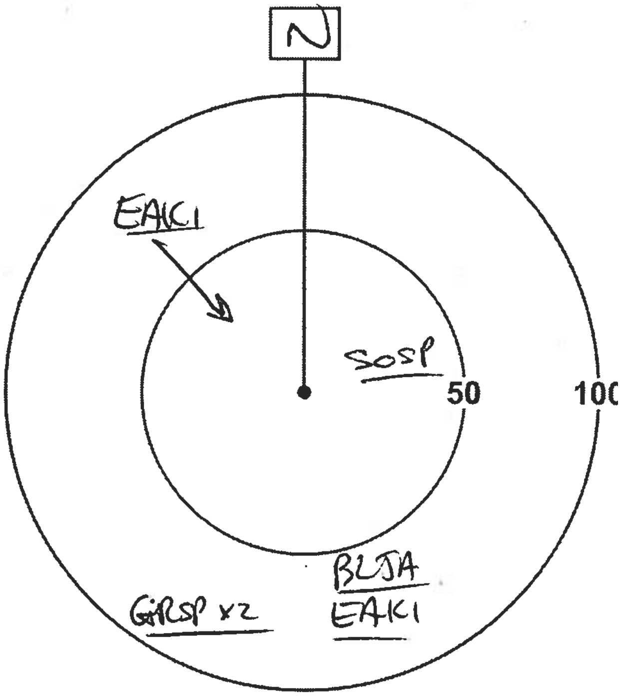
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

**Start Time:** 0615

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | | | 3 | A |
| AMGO | | | | 1 | A |
| EAKI | 1 | 1 | | | O |
| BLJA | | 1 | | | A |
| GRSP | | 2 | | | O |
| SOSP | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: ________ AW
(Field Personnel)

Signature: ________
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

DAY 6 – July 4/11

**Station:** P42/ 229 G23

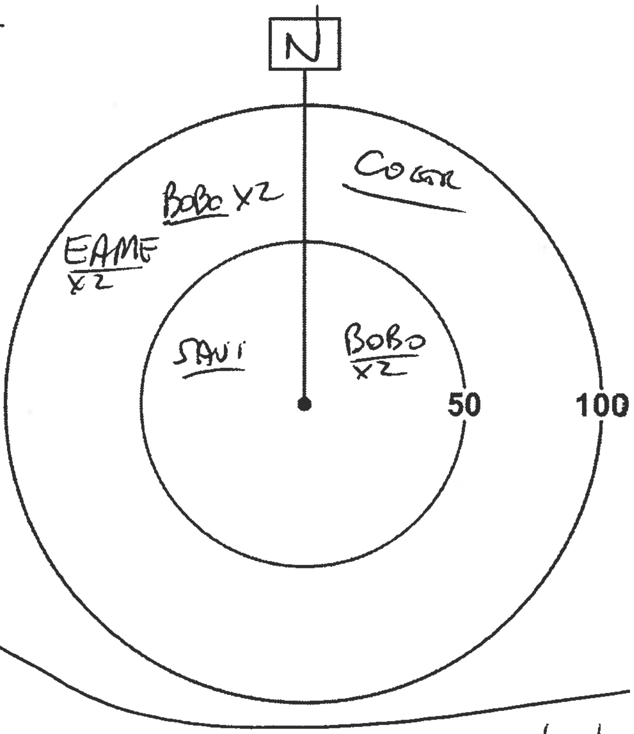
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

✓ **Start Time:** 0653

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BoBo | | | | 2 | A |
| COGR | | 2 | | | A |
| AMGO | | | | 2 | A |
| BOBO | 2 | 2 | | | O |
| EAME | | 2 | | | O |
| SAVS | 1 | | | | O |
| RWBL | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



* N Harrier – pair dive-bombing me (nest very close!) (tall rank grass)

**Station:** P39 /297 [illegible] G22

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

✓ **Start Time:** ~~0656~~ 0756

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| * NOHA | 2 | | | | A |
| RWBL | | 2 | | | O |
| COGR | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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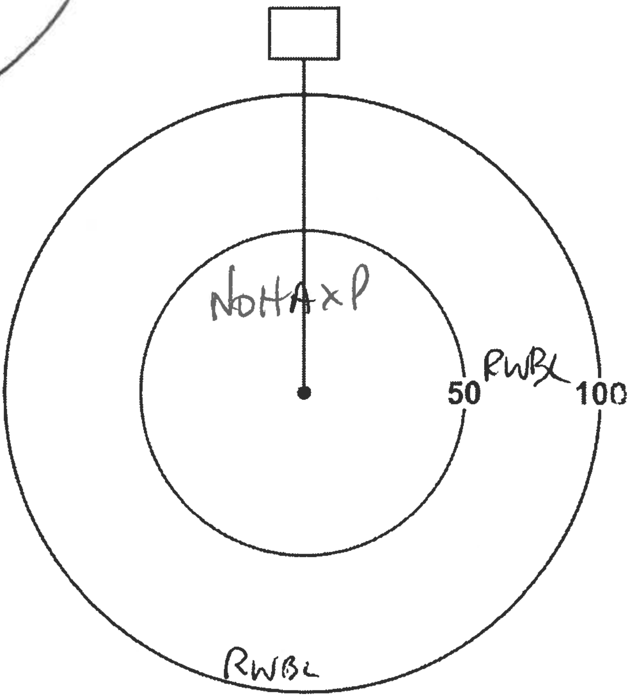
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________ (Field Personnel)

Signature: Katherine Adams (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

DAY 6 - July 4, 2011

✓

**Station:** P40 / 231 W24

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop __________

**UTM:** __________

**Start Time:** 0858

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 1 | A |
| COGR | | | | 2 | A |
| EUST | | | | 6 | A |
| TRES | | | | 2 | A |
| CLSW | | | | 1 | A |
| SOSP | | 1 | | | O |
| YEWA | | 1 | | | O |
| DOWO | | 1 | | | A |
| MODO | | 1 | | | A |
| AMRO | 2 | | | | O |
| GRCA | 2 | | | | O |
| BRTH | 1 | | | | A |
| EAKI | 1 | | | | O |

Chiff

*Height of blade sweep will vary from project to project; Check with Project Manager
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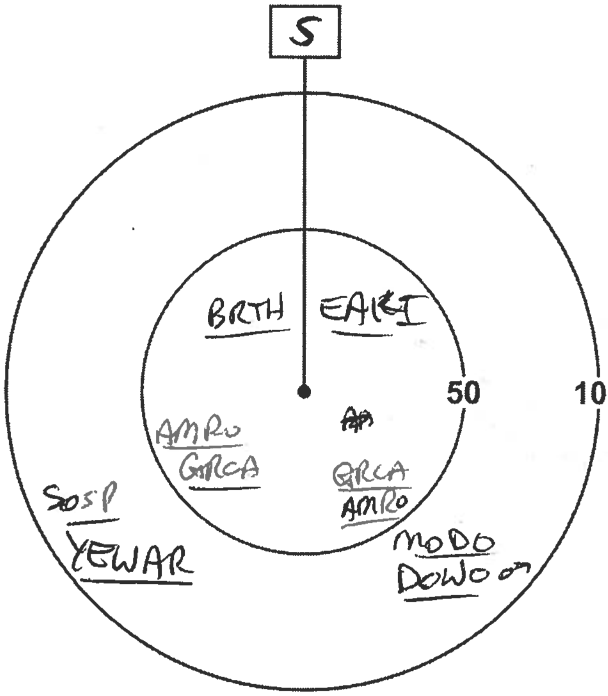
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P27 / 230 G19

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop __________

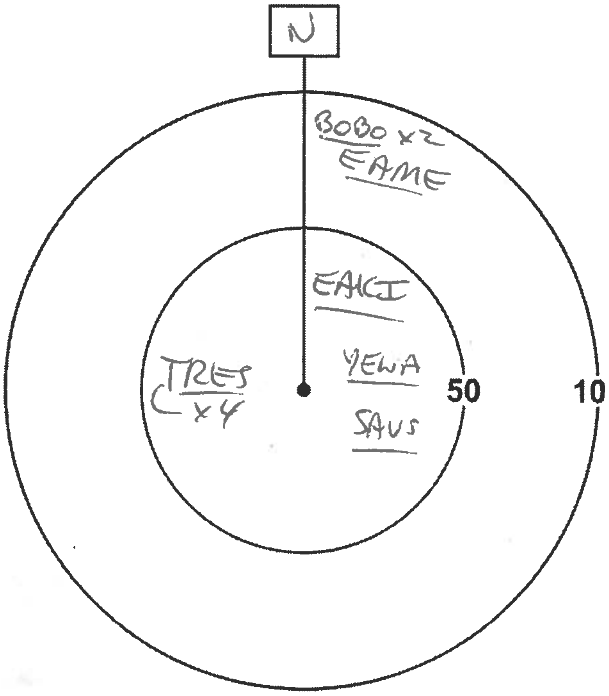
**UTM:** __________

**Start Time:** 0952

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NOHA | | | | 1 | B |
| TRES | 4 | | | | A |
| CLSW | | | | 1 | A |
| BOBO | | 2 | | | O |
| EAME | | 1 | | | A |
| EAKI | 1 | | | | O |
| TRES | 4 | | | | A |
| YEWA | 1 | | | | O |
| SAVS | 1 | | | | O |
| AMGO | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |

Chiff

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete ( ) & legible ( ).

Signature: __________ AW
(Field Personnel)

Signature: __________
(Project Manager)

Page 3 of 3

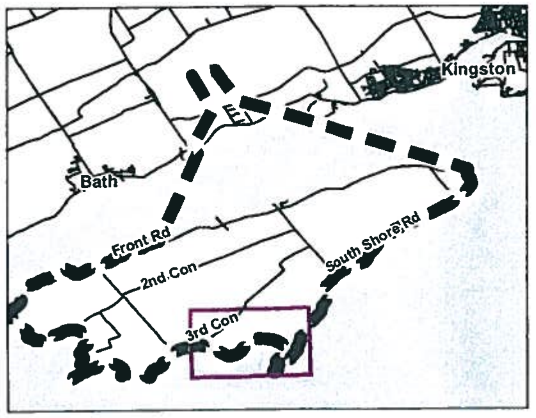
REV: May, 07 Form 020

## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

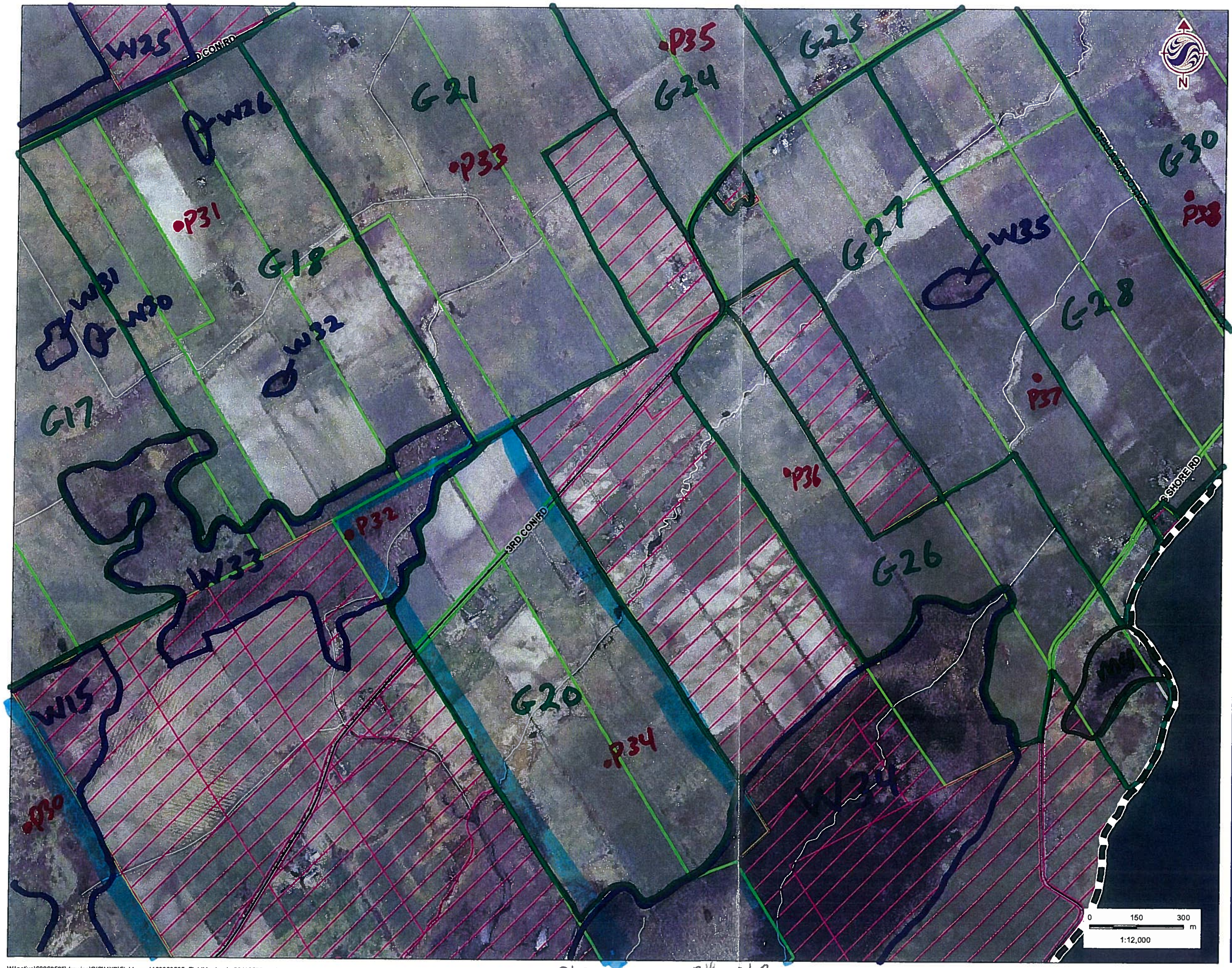
Figure No.

Tile 7

Title

## FIELD MAPBOOK

ctive\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd



## Legend

Study Area

Road

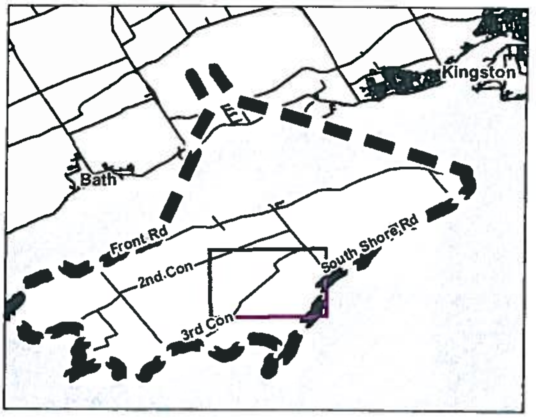
Watercourse

Amphibian Station

**Property Status**

🟩 Optioned

▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

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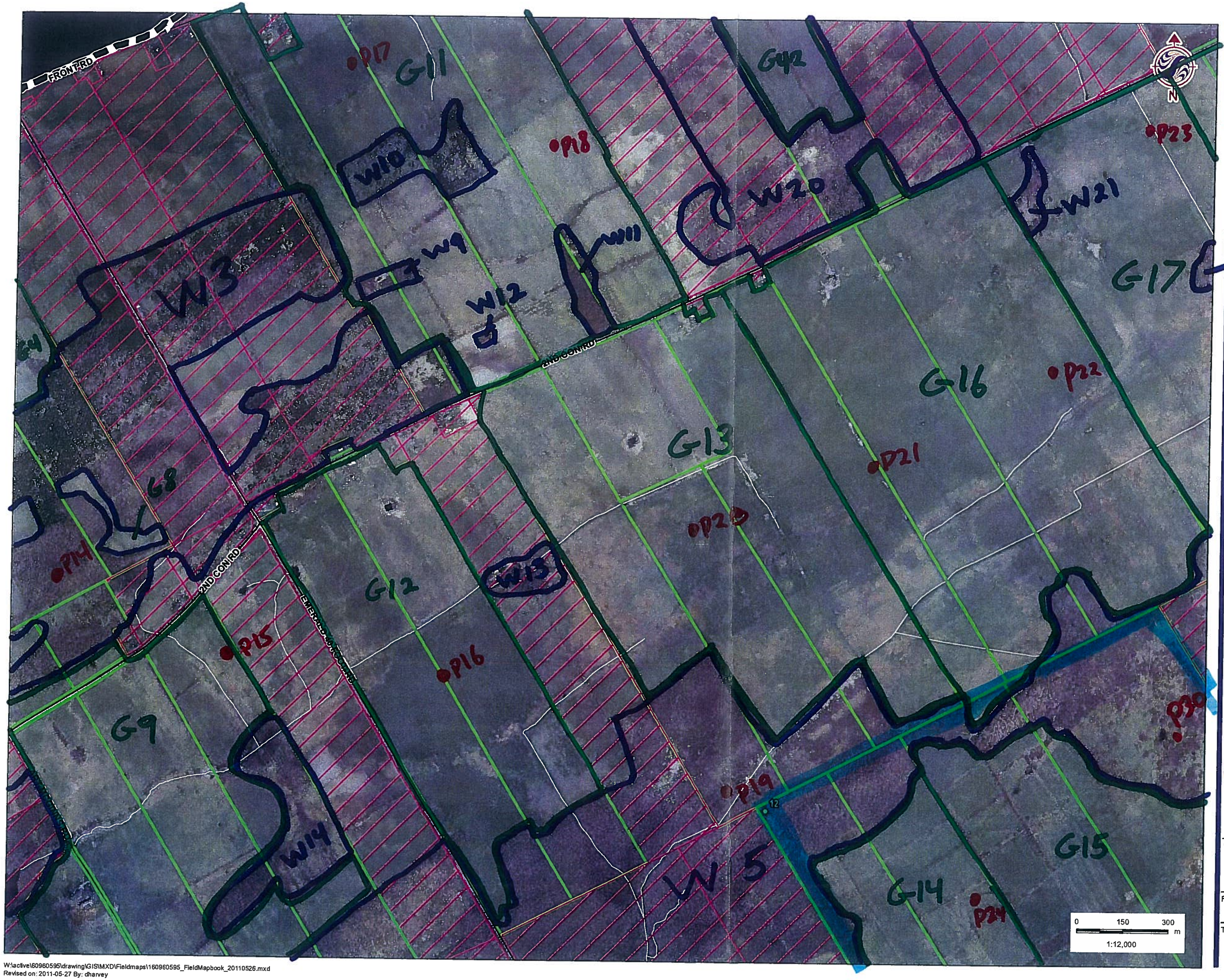


## Legend

▭ Study Area

— Road

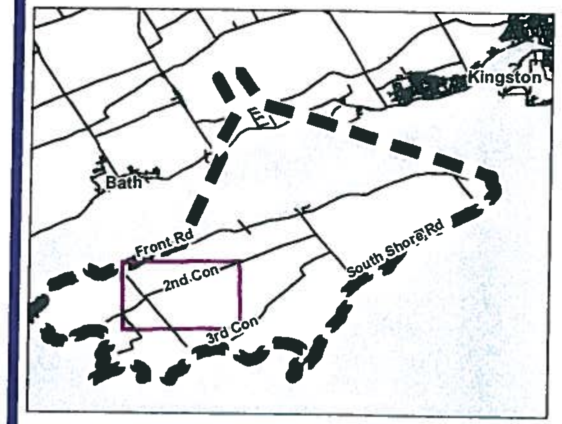
Watercourse

● Amphibian Station

**Property Status**

🟩 Optioned

▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 3

Title

FIELD MAPBOOK

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Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 7, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>15 | WIND:<br>N (1) | CLOUD:<br>0 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No::** M3 **Habitat Type:** ______ **Time Start:** 0555 / 1000 **Time End:** 0625 / 1027

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | H | Gr. Horned Owl | | Bl-capped Chickadee H | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat P | P |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | FY | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | T |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | X |
| Virginia Rail P | A | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. P | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡. | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W36 **Habitat Type:** ____ **Time Start:** 0630 **Time End:** 0640

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S A | A | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | P | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | CF | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. | FY | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 9

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 7, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | N [✓ 1] | 0 | 0 | 0 |

**Feature No::** G14 **Habitat Type:** ______ **Time Start:** 0620 **Time End:** 0715

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | FY |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ A | A | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | H | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A H | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | N | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W37 **Habitat Type:** **Time Start:** 0720 **Time End:** 0725

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 5

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 7, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: N (2) | CLOUD: 10 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W15 **Habitat Type:** ________ **Time Start:** 0735 **Time End:** 0815

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † H P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † S | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow H | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** G15 **Habitat Type:** **Time Start:** 0718 0815 **Time End:** 0740 0848

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | P |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S H | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † A | A |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow A | A |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | Merlin | X |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 9

Quality Control: This form is complete ☐ & legible ☑.

Signature: AW (Field Personnel)

Signature: Katherine St James (Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 7, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | N (1) | 10 | 0 | 0 |

**Feature No::** W33 **Habitat Type:** ______ **Time Start:** 0912 **Time End:** 0940

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee H | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch H | H | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ H | H | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. H P | P | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. S | S |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling A | A | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock H | H | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 9

Quality Control: This form is complete ☐ & legible ☐.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G20 **Habitat Type:** **Time Start:** 0903 **Time End:** 1135

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | FY |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | FY |
| Virginia Rail | | Ea. Phoebe S | FY | European Starling | | Red-winged Bl. A | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † A | A |
| Killdeer | FY | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. S | CF | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow P | P |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove P S | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 9

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katrina St Jones
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 7, 2011
Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 22 | N (1) | 20 | 0 | 0 |

**Feature No::** W34 **Habitat Type:** ____ **Time Start:** 1032 **Time End:** 1055

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ H | H |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture H | H | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. S | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Birds Atlas of Ontario.*

Pg. 9 of 9

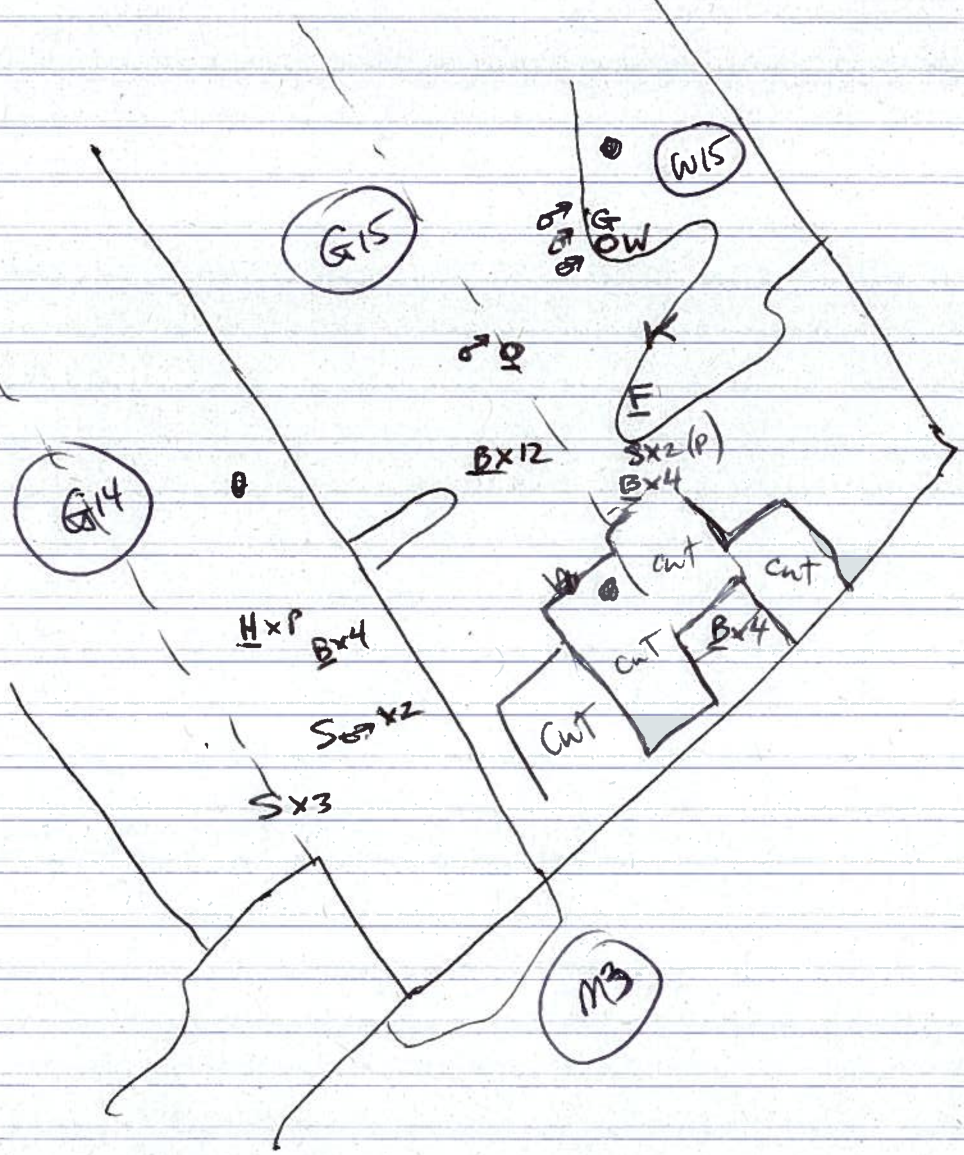
Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

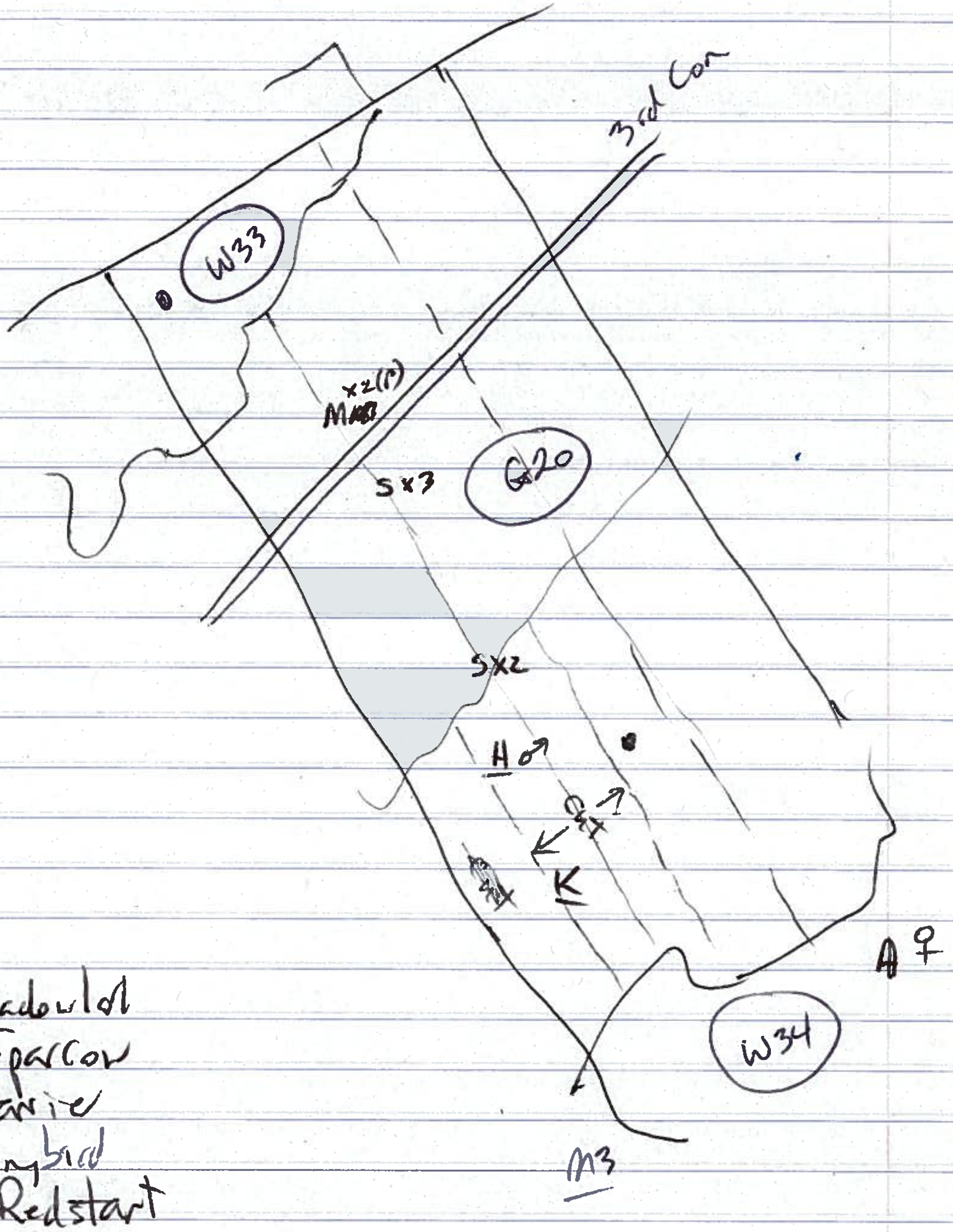
REV: 2011-05-27 / FORM 031

DAY 7 - July 7, 2011



| | |
|---|---|
| S | Savann Sparrow |
| H | N Harrier |
| B | Bobolink |
| O | B Oriole |
| G | R br Grosbeck |
| W | Wood Thrush |
| K | E Kingbird |
| F | Willow Flycatcher |

DAY 7 - July 7, 2011



|  |  |
|---|---|
| M | E Meadowlark |
| S | Sav Sparrow |
| H | N Harrier |
| K | E Kingbird |
| A | Am Redstart |

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 16096059S

Project Name: Amherst

Date July 7, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15 | Wind: N ① | Cloud: 0 | PPT: 0 | PPT in last 24 hrs: 0 |

✓

**GPS #:** T___

**Station:** P28 / 237 (M3)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

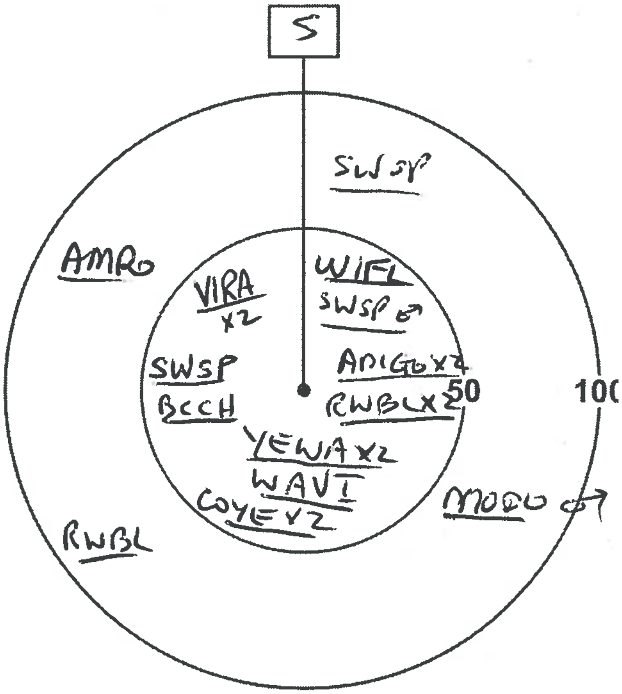
**Start Time:** 0559

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RWBL | | | | 1 | A |
| SWSP | 2 | 1 | | | O |
| AMGO | 2 | | | | A |
| BCCH | 1 | | | | O |
| RWBL | 2 | 1 | | | O |
| YEWA | 2 | | | | O |
| WAVI | 1 | | | | A |
| COYE | 2 | | | | O |
| MODO | | 1 | | | A |
| WIFL | 1 | | | | O |
| AMRO | | 1 | | | O |
| GRHE | | | | 3 | B |
| BARS | | | | 1 | A |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep

| | | | | | |
|---|---|---|---|---|---|
| VIRA | 2 | | | | O |

→ responded to tape!



Quality Control: This form is complete (__✓ ~~& legible~~ (_✓_).
Signature: AW
(Field Personnel)

Signature: Katrina St James
(Project Manager)

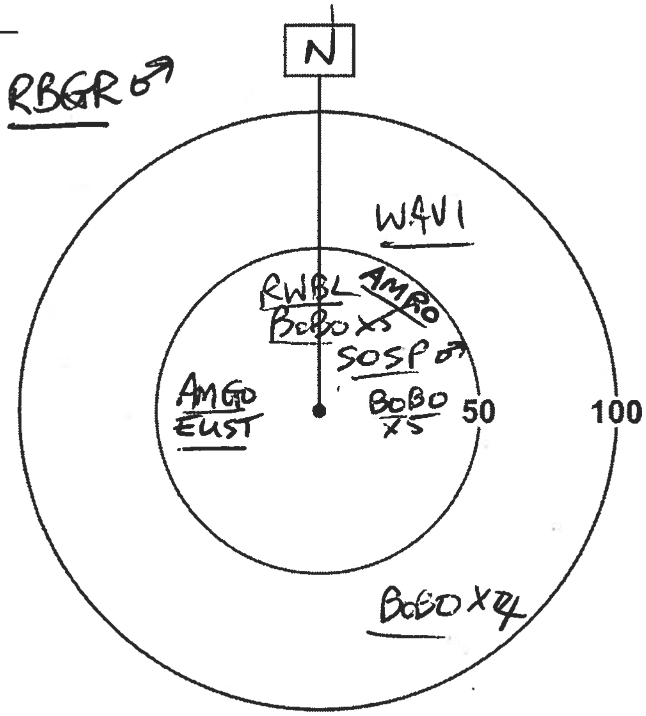
Page 1 of 5

REV: May, 07 Form 020

**Station:** P24 / 242 G14
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
✓
**Start Time:** 0702

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | | | | 2 | A |
| WAVI | | 1 | | | A |
| AMRO | 1 | | | | O |
| BOBO | 10 | 4 | | | A |
| RWBL | 1 | | | | A |
| SOSP | 1 | | | | O |
| RBGR | | | 1 | | A |
| AMGO | 1 | | | | A |
| EUST | 1 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P30 / 244 W15
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
✓
**Start Time:** 0752

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EUST | | | | 8 | A |
| AMGO | 3 | | | | O |
| SOSP | 1 | 1 | | | O |
| YEWA | | 1 | | | O |
| EUST | | 8 | | | A |
| RWBL | 5 | | | | A |
| GRCA | 1 | | | | O |
| | | | | | |
| | | | | | |
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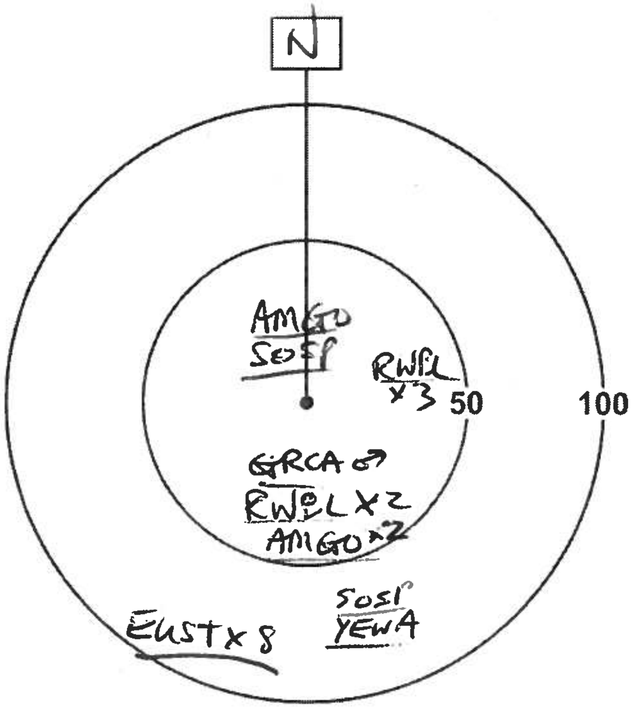
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)
Signature: ____________ (Field Personnel)
Signature: ____________ (Project Manager)
Page 2 of 5
AW
REV: May, 07 Form 020

Point Count
Field is cut

**Station:** P29 / 240 (G15)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
✓ **UTM:** ____________
**Start Time:** 0830

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 1 | A |
| MERL | | | | 1 | A |
| → adult (sex not certain); nesting in big marsh? | | | | | |
| GRSP | 1 | 1 | | | O |
| SAVS | 2 | 2 | | | O |
| SOSP | 1 | | | | O |
| RWBL | | | | 1 | A |
| | | | | | |
| | | | | | |
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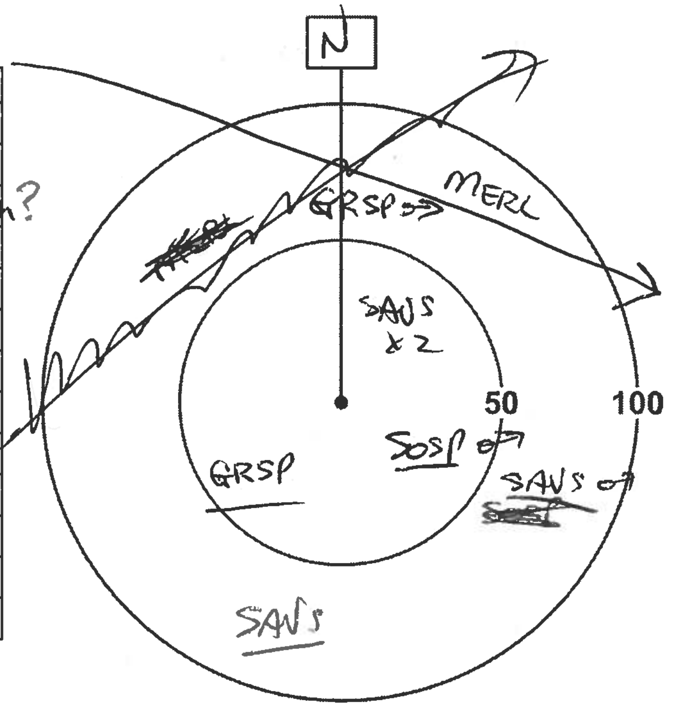
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P32 / 236 (W33)
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
✓ **UTM:** ____________
**Start Time:** 0920

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| YBSA | 1 | | | | A |
| HOWR | 1 | | | | O |
| BCCH | 1 | | | | A |
| REVI | 1 | | | | A |
| EAWP | 1 | | | | A |
| DOWO | 1 | | | | A |
| WBNU | | 1 | | | A |
| | | | | | |
| | | | | | |
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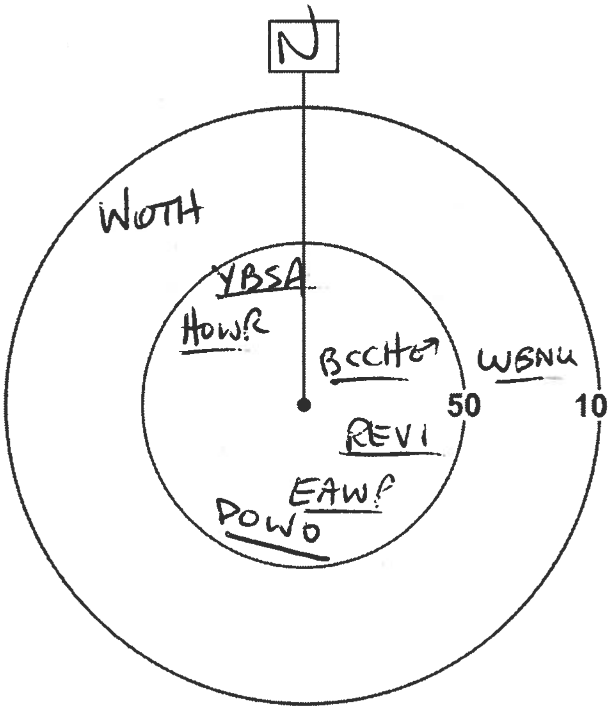
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: ____________ AW
(Field Personnel)
Signature: Katherine St James
(Project Manager)
Page 3 of 5
REV: May, 07 Form 020

✓

**Station:** P62 /233 (W34) (M3)

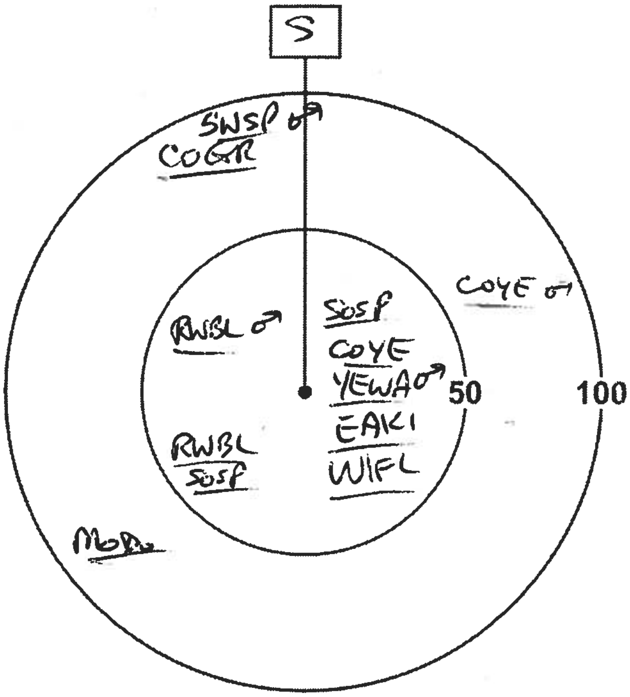
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 1002

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EUST | | | | 1 | A |
| BOBO | | | | 1 | A |
| COGR | | | | 1 | A |
| MALL | | | | 1 | A |
| COGR | | 1 | | | O |
| RWBL | 2 | | | | O |
| COYE | 1 | 1 | | | O |
| SOSP | 2 | | | | O |
| WIFL | 1 | | | | O |
| EAKI | 1 | | | | O |
| YEWA | 1 | | | | O |
| MODO | | 1 | | | A |
| SWSP | | 1 | | | O |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P63 / 234 (W34)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

**UTM:**

**Start Time:** 1038

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| HOWR | 1 | | | | O |
| REVI | 1 | | | | A |
| GCFL | | 1 | | | A |
| EAWP | | 1 | | | A |
| | | | | | |
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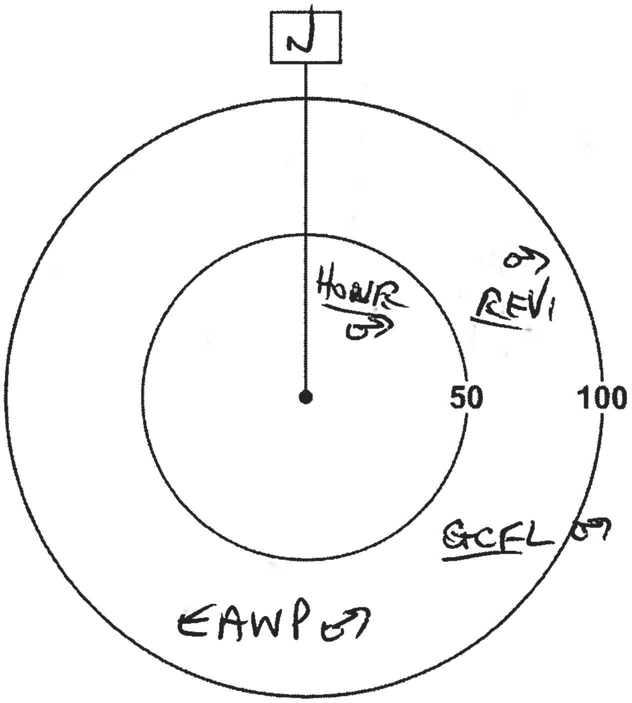
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel)

Signature: Kathrine St Jones (Project Manager)

Page 4 of 5

REV: May, 07 Form 020

✓

**Station:** P34 / 235 (G20)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** 1110

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 2 | A |
| RWBL | | | | 3 | A |
| YEWA | | 1 | | | O |
| BOBO | 9 | | | | A |
| RWBL | 3 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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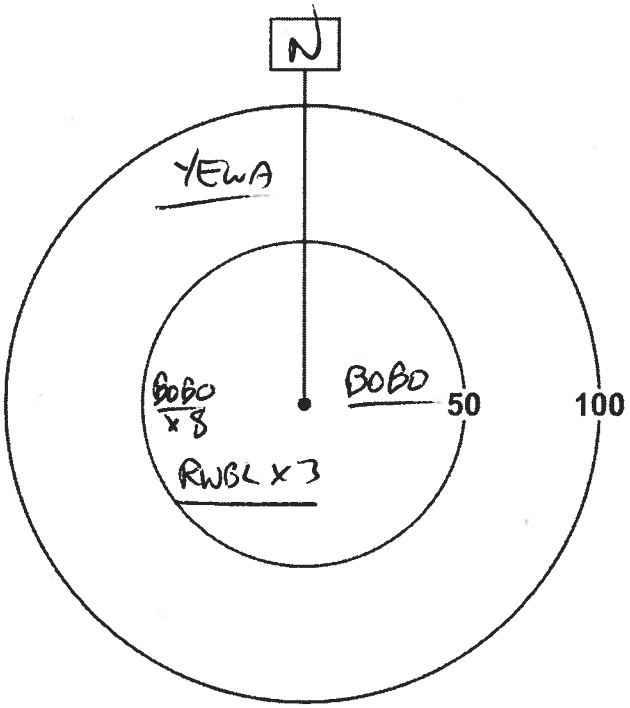
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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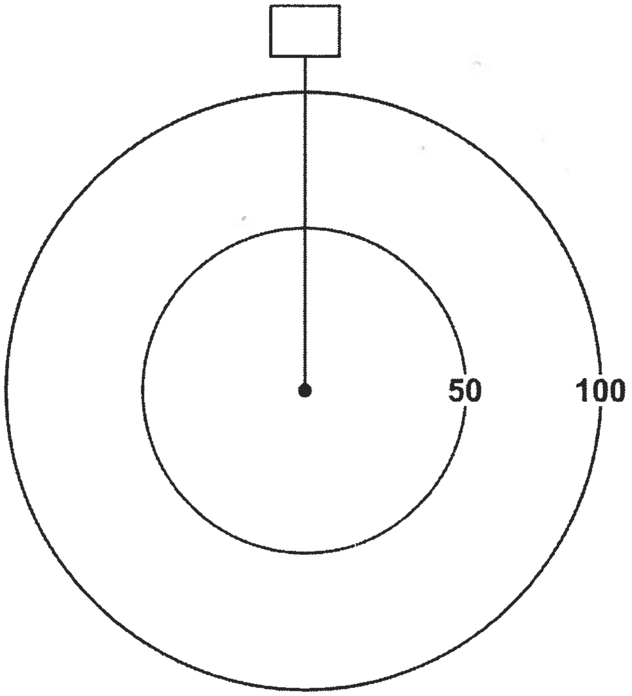
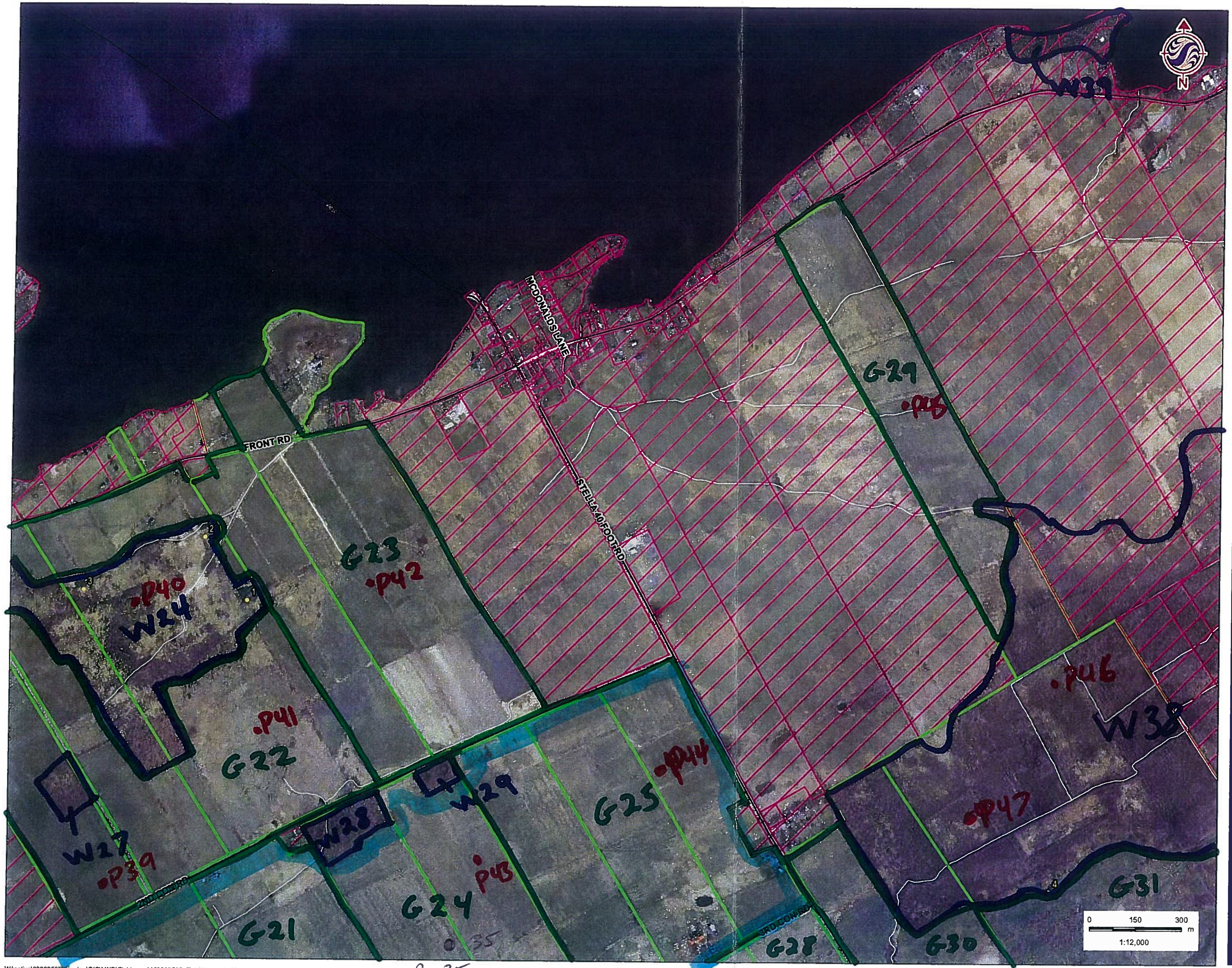
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.



Quality Control: This form is complete (✓) & legible (✓)
Signature: ______________ AV (Field Personnel)    Signature: Kathrine St Jones (Project Manager)
Page 5 of 5    REV: May, 07    Form 020

# DAY 2 – June 21, 2011

| | | |
|---|---|---|
| P28 | 237 | M3 |
| | | W36 |
| P24 | 242 | G14 |
| | | W37 |
| P30 | 244 | W15 |
| P29 | 240 | G15 |
| P32 | 236 | W33 |
| P62 | 233 | W34 / M3 |
| P63 | 234 | W34 |
| P34 | 235 | G20 |



W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

P 35

## Legend

Study Area

Road

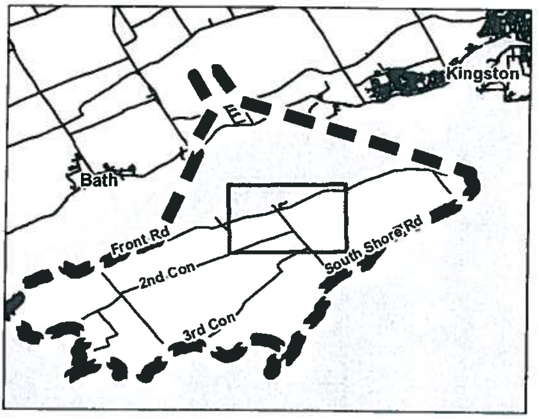
Watercourse

○ Amphibian Station

**Property Status**

🟩 Optioned

▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

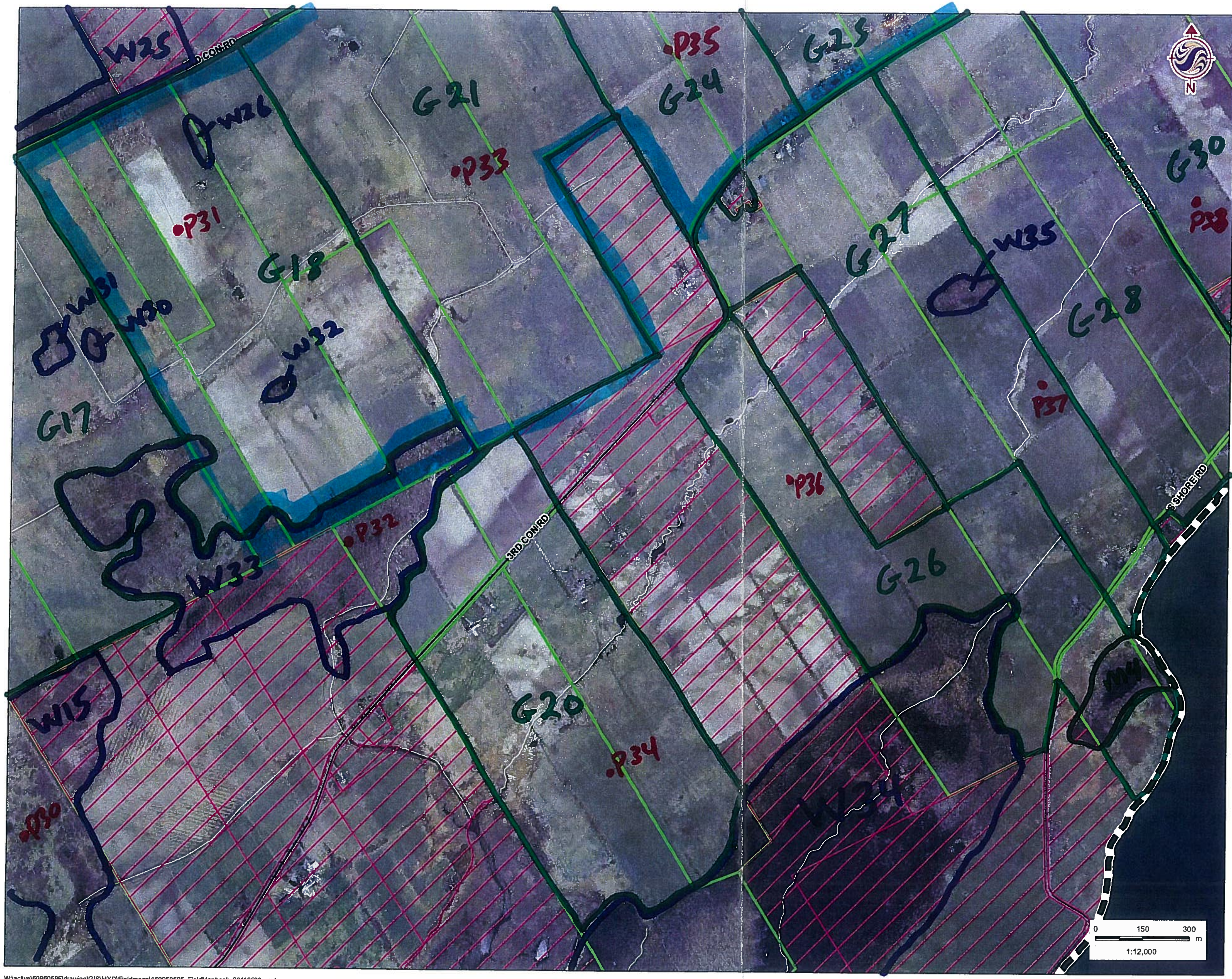
WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 5

Title

**FIELD MAPBOOK**

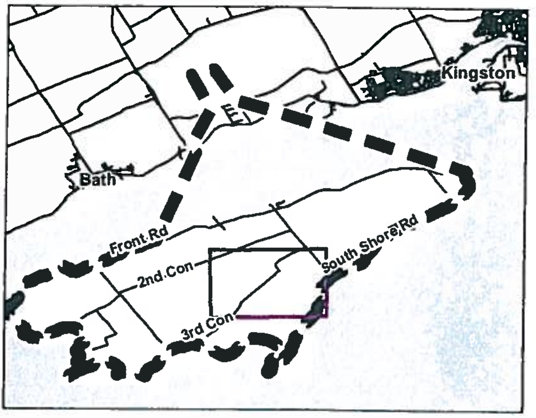


## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 6

Title
FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

# DAY 8

| Point | | |
|---|---|---|
| P31 | 254 | G18, W32, W33 |
| P33 | 255 | G21 |
| [illegible] | | [illegible] |
| [illegible] | | [illegible] |
| [illegible] | | |
| P 43 | 250 | G24 |
| P 35 | 251 | G24 |
| P44 | 248 | G25 |

Notes

26?

(1) In G18, W-6 does not exist (don't do it!)

(2)

Stantec
Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 5, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 17 | 0 | 20 | 0 | 0 |

**Feature No::** G21 **Habitat Type:** ______ **Time Start:** 0550 **Time End:** 0645

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | P |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | X | Veery | | Song Sp. | FY |
| N. Harrier †‡ A | A | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † H | H |
| Killdeer | | Ea. Kingbird † P H | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | H | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 6

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W33 **Habitat Type:** ____________ **Time Start:** 0658 **Time End:** 0715

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † S | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † S | S | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † S | S | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | X | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. H | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. P | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 6

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

Stantec

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 5, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>19 | WIND:<br>0 | CLOUD:<br>20 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No::** G18 **Habitat Type:** ________ **Time Start:** 0645 **Time End:** 0812

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. H | H |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † H | H | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch S H | S |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 6

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W32 **Habitat Type:** __________ **Time Start:** 0720 **Time End:** 0740

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow |  | Ovenbird ‡ |  |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat |  |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren S | S | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. S | S |
| N. Harrier †‡ |  | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † S | S | Am. Robin |  | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird S | S | Rose-br. Grosbeak † |  |
| Red-tailed Hawk A | A | Willow Fly. † |  | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. |  | Br. Thrasher † |  | Bobolink † |  |
| Virginia Rail |  | Ea. Phoebe |  | European Starling A | FY | Red-winged Bl. |  |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † |  | Blue-wing. Wa. † |  | Co. Grackle H | H |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo S | S | Yellow Wa. S | S | Baltimore Oriole † |  |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species ... |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove |  | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 6

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

**Stantec**
**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 5, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
|  | 22 | SW ① | 10 | 0 | 0 |

**Feature No::** G24 **Habitat Type:** ____________ **Time Start:** 0835 **Time End:** 0928

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † |  | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow | X | Ovenbird ‡ |  |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat |  |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren |  | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † P | P |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. | FY |
| N. Harrier †‡ H | H | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † |  | Am. Robin H | H | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird |  | Rose-br. Grosbeak † |  |
| Red-tailed Hawk | X | Willow Fly. † |  | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. |  | Br. Thrasher † |  | Bobolink † H | H |
| Virginia Rail |  | Ea. Phoebe |  | European Starling |  | Red-winged Bl. |  |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing |  | Ea. Meadowlark † | S |
| Killdeer |  | Ea. Kingbird † H | H | Blue-wing. Wa. † |  | Co. Grackle |  |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. |  |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo |  | Yellow Wa. |  | Baltimore Oriole † | X |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch |  |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove P H | P | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 6

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G25 **Habitat Type:** **Time Start:** 0940 **Time End:** 1025

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | N | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | P |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † S | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † H | H | Least Fly. | | Br. Thrasher † | | Bobolink † H | H |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove P | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 6

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katrina
(Project Manager)

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 5, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 20 | Wind: SW ① | Cloud: 10 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #: T___**

✓

**Station:** P31 /254 G18

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

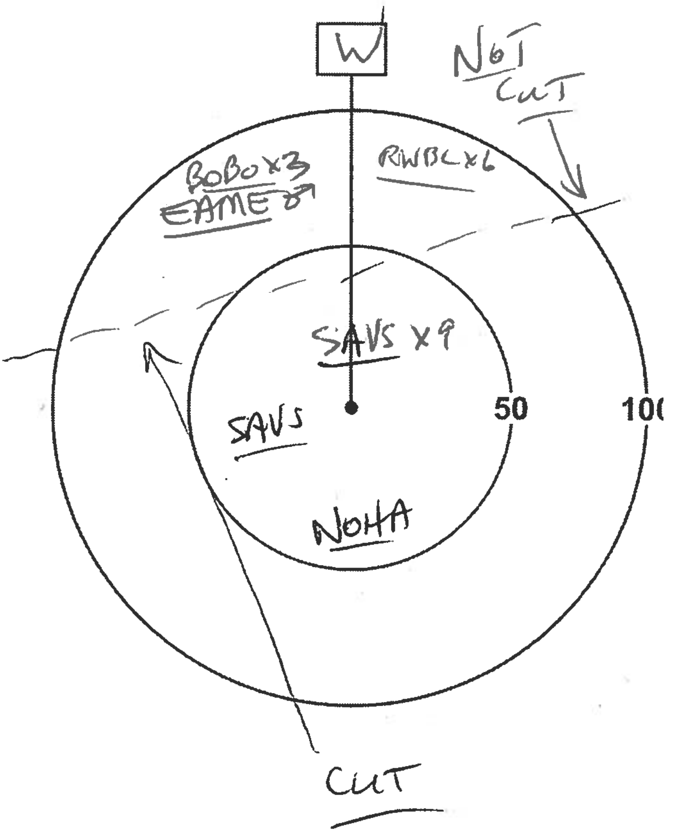
**UTM:**

**Start Time:** 0753

ad ♀

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NoHA | 1 | | | | O |
| EUST | | | | 4 | A |
| BOBO | | 3 | | | O |
| RWBL | | 6 | | | O |
| SAVS | 1 | | | | O |
| EAME | | 1 | | | O |
| * SAVS | 9 | | | | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
C – Above height of blade sweep; **D** – Well Above the height of blade sweep



* Sav Sparrow – family group(s?) in isolated ash tree.

Quality Control: This form is complete ( ✓ ) & legible ( ✓ )

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

**Station:** P33 / 255 G21

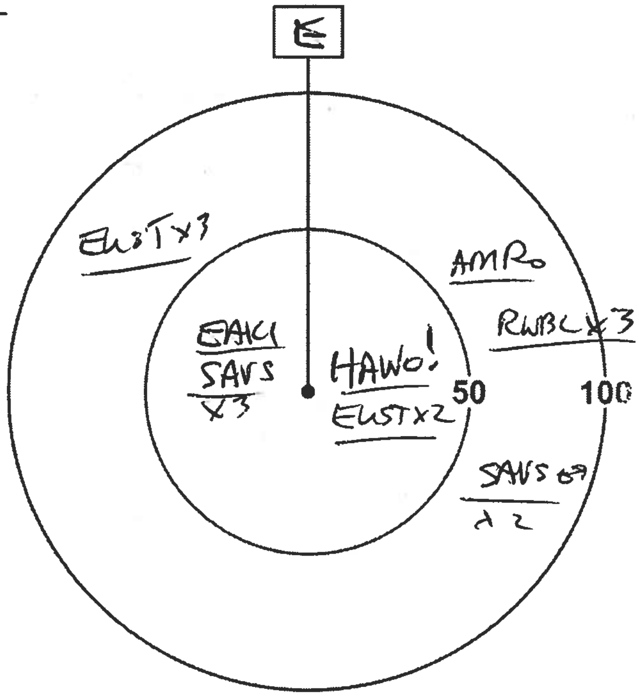
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

✓ **UTM:** ______________________________

**Start Time:** 0610

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 4 | A |
| BARS | | | | 2 | A |
| AMRo | | 1 | | | A |
| EUST | 2 | 3 | | | A |
| RWBL | | 3 | | | O |
| SAVS | 3 | 2 | | | O |
| HAWO | 1 | | | | A |
| EAKI | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** P43 /250 G24

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

✓ **UTM:** ______________________________

**Start Time:** 0909

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| MoDo | | 2 | | | O |
| EAME | | | | 1 | A |
| | | | | | |
| | | | | | |
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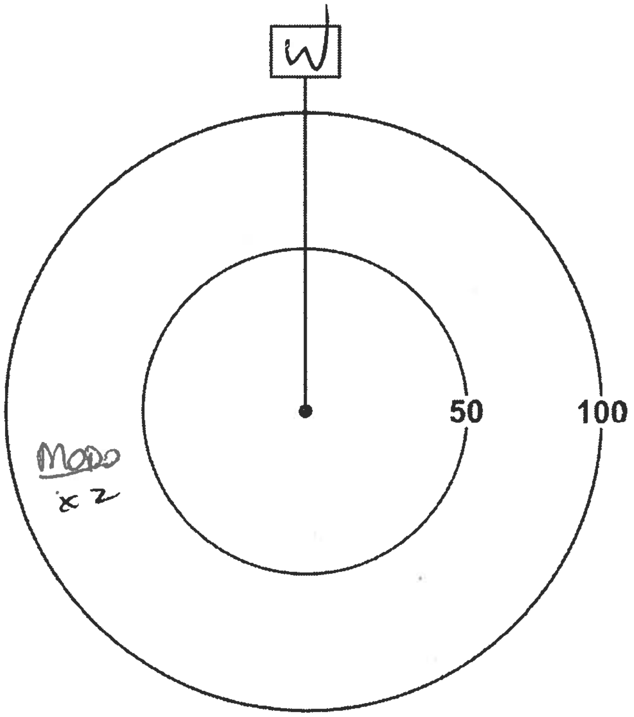
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete ( ✓ ) & legible ( ✓ )

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

✓

**Station:** P35/ 251 (G24) (TALL RANK GRASS)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop __________

**UTM:** __________

**Start Time:** 0850

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 1 | A |
| SAVS | 1 | 2 | | | O |
| BoBo | | 2 | | | O |
| | | | | | |
| | | | | | |
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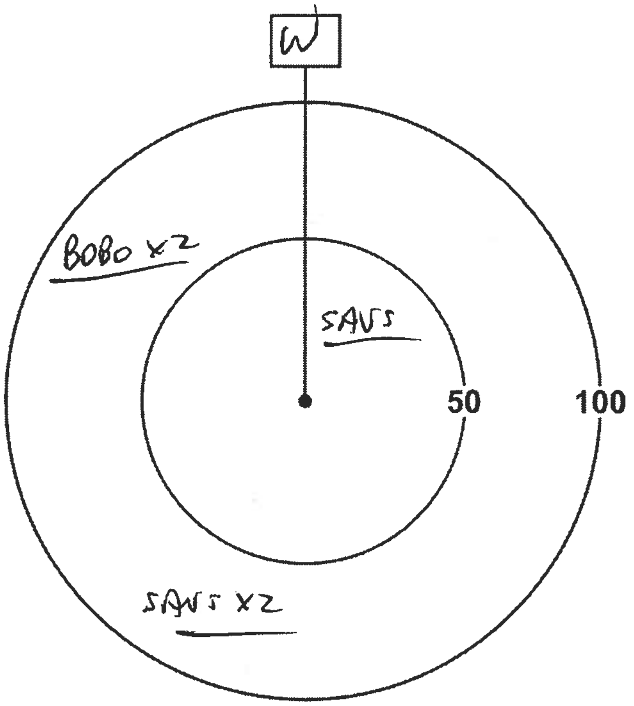
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P44/248 (G25)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop __________

**UTM:** __________

**Start Time:** 0943

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TUVU | | | | 1 | B |
| RBGU | | | | 1 | B |
| SOSP | 1 | 1 | | | O |
| RWBL | 1 | 1 | | | A |
| SAVS | 1 | | | | O |
| | | | | | |
| | | | | | |
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| | | | | | |
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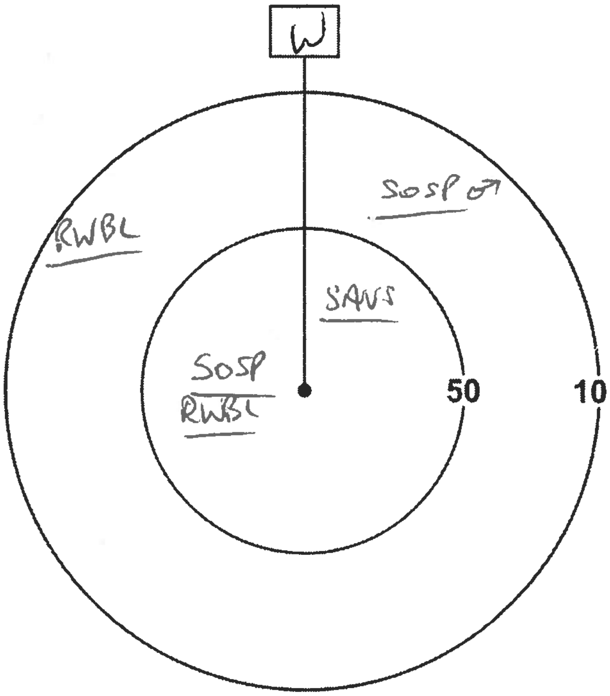
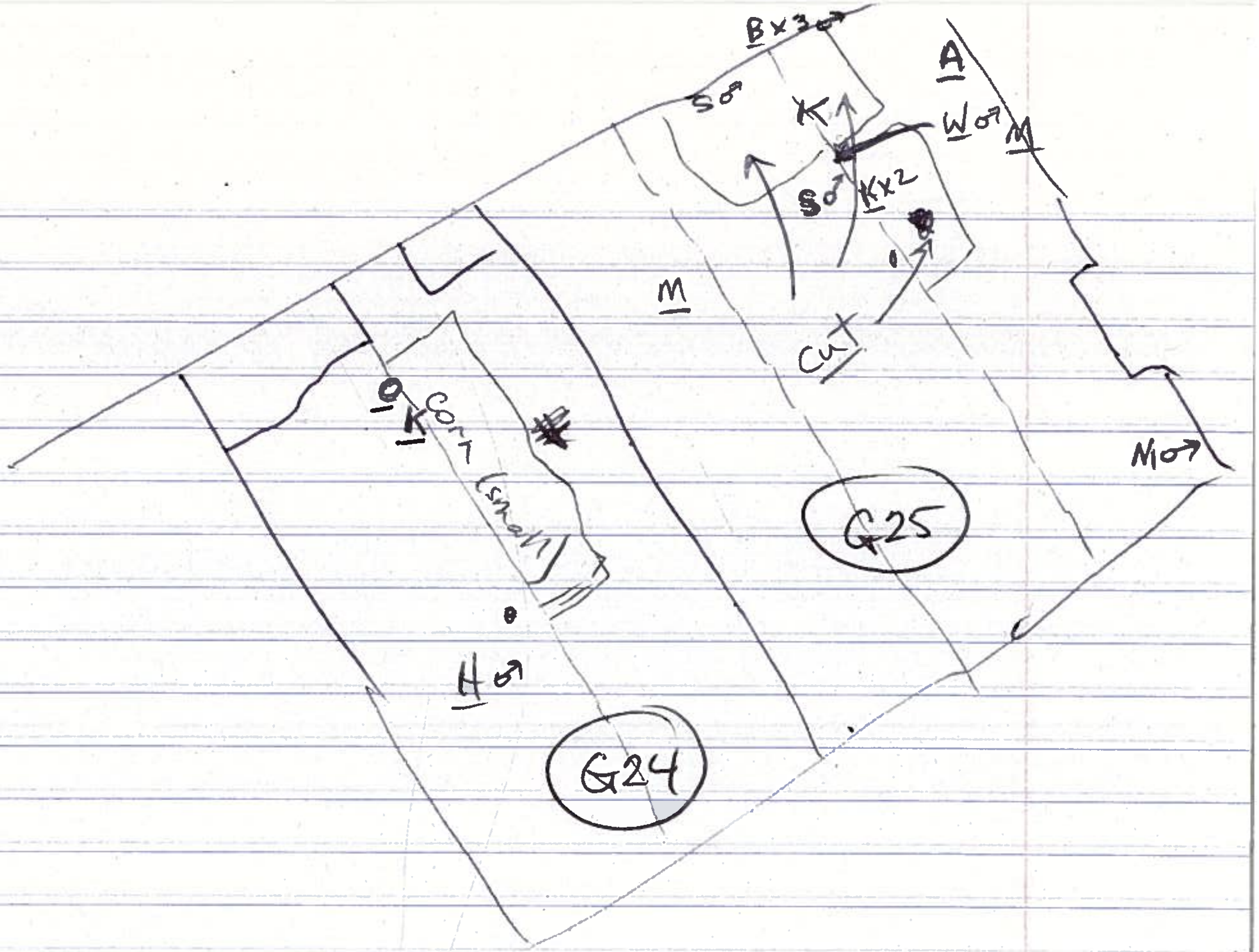
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓).
Signature: __________ (Field Personnel)          Signature: Katrine St James (Project Manager)

Page 3 of 3          REV: May, 07     Form 020

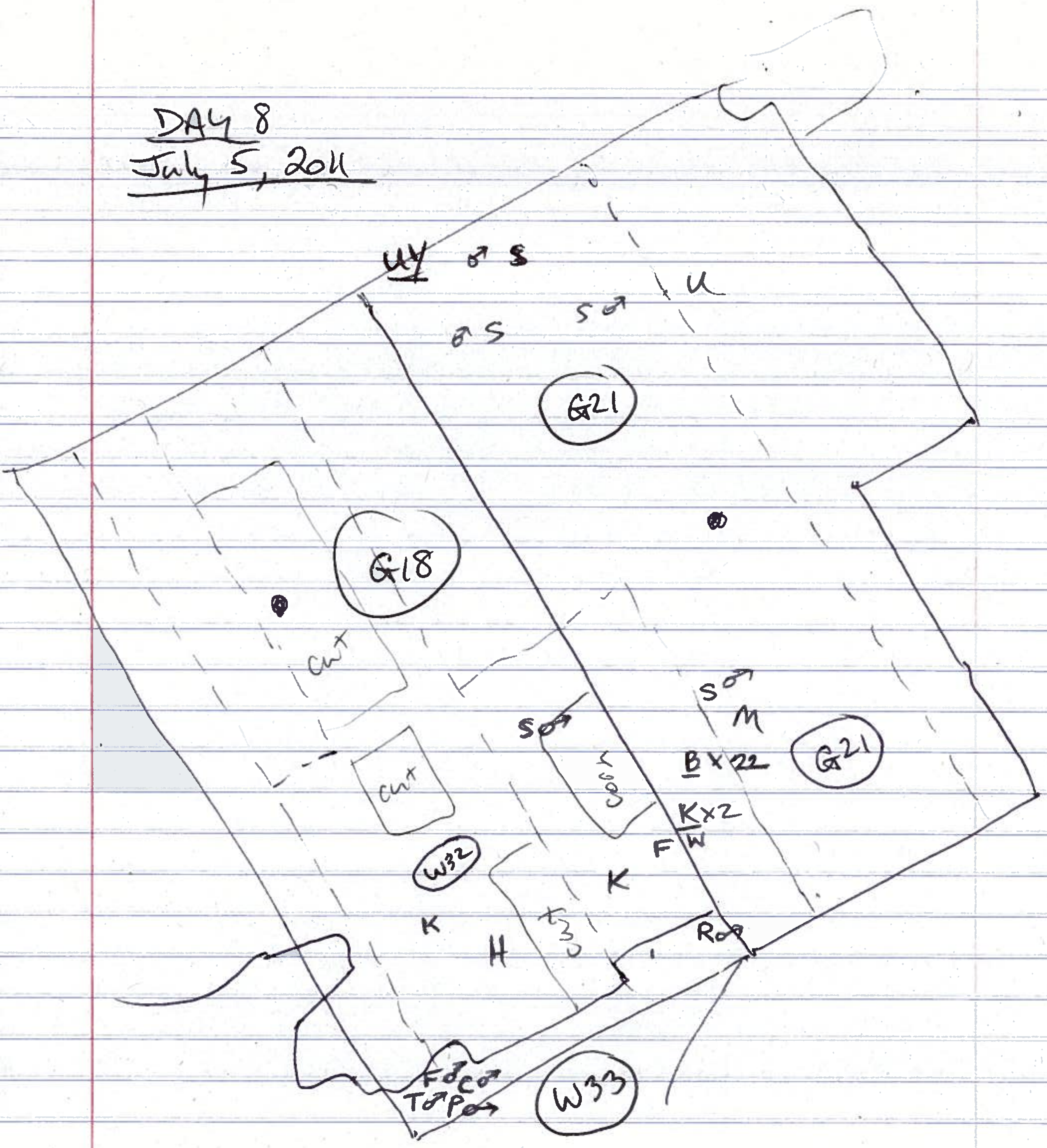


H N Harrier
K E Kingbird
O B Oriole

S Sav Sparrow
M E Meadowlark
A Am Kestrel
W Willow Flyc.
B Bobolink

DAY 8 - July 5, 2011

## DAY 8
## July 5, 2011



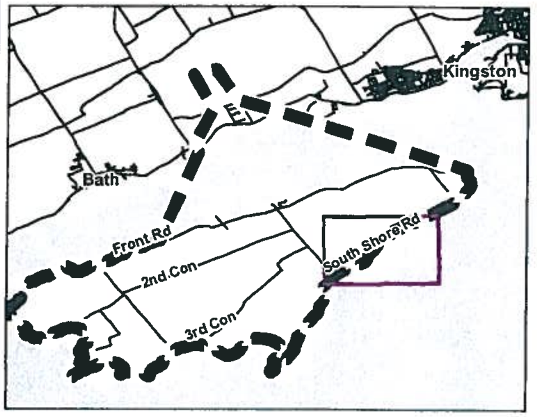
| | | | |
|---|---|---|---|
| S | Sav Sparrow | R | Rose-br Grosbeak |
| U | Upland Sandp | T | Wood Thrush |
| M | E Meadowlark | C | BBCuckoo |
| B | Bobolink | P | E Wood-Pewee |
| K | E Kingbird | H | N Harrier |
| W | Willow Flycatcher | UY | Upland Sandpiper juvenile (ran across road). |
| F | N Flicker | | |

## Legend

- Study Area
- Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 8

Title
**FIELD MAPBOOK**

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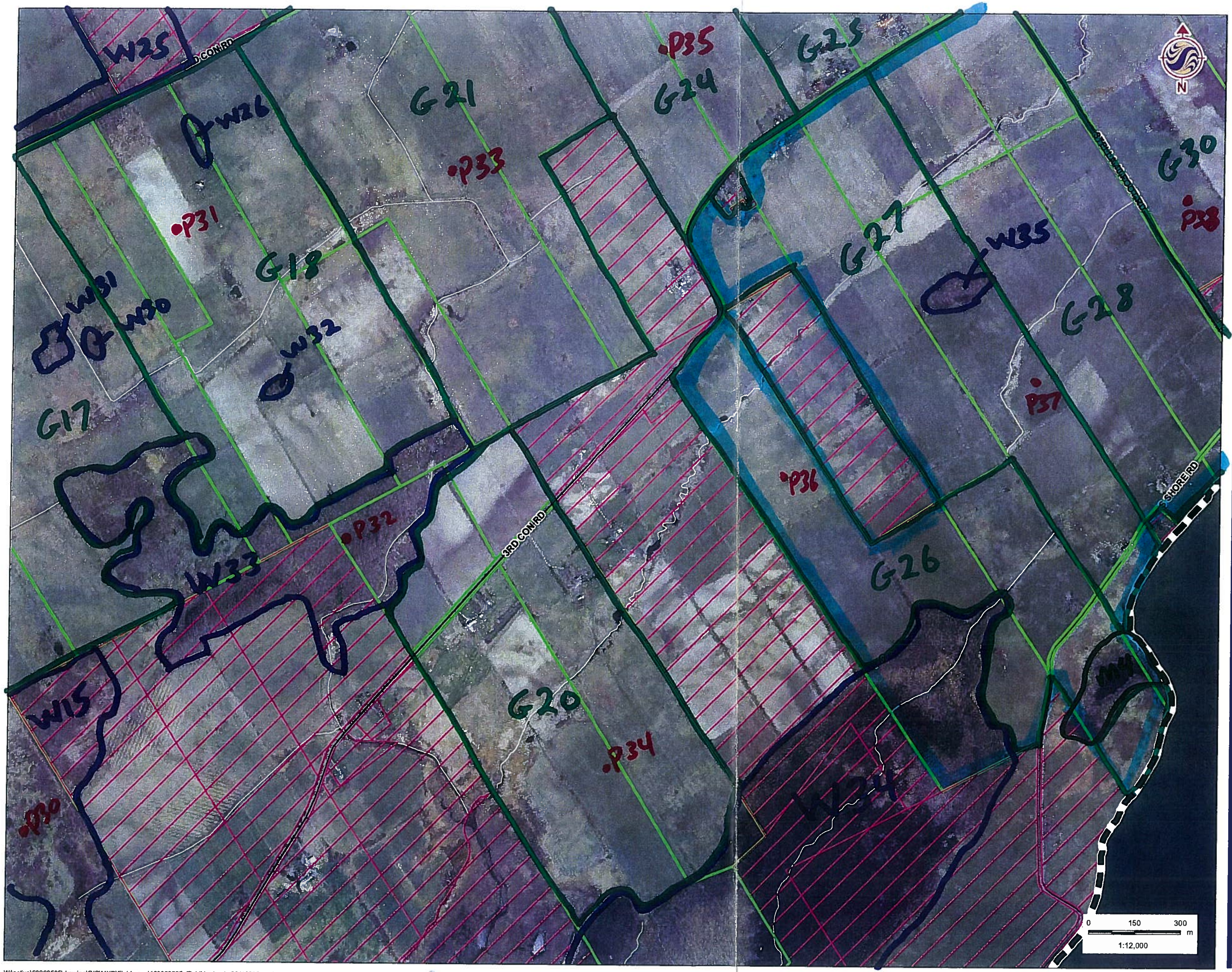
Revised on: 2011-05-27 By: dheavey

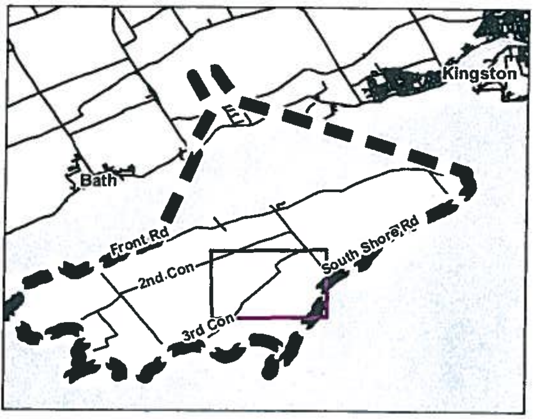


## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 6

Title

**FIELD MAPBOOK**

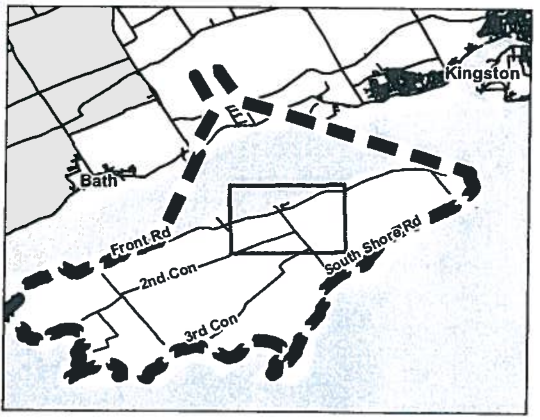
W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

## Legend

▚ Study Area
— Road
Watercourse
● Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 5

Title

**FIELD MAPBOOK**

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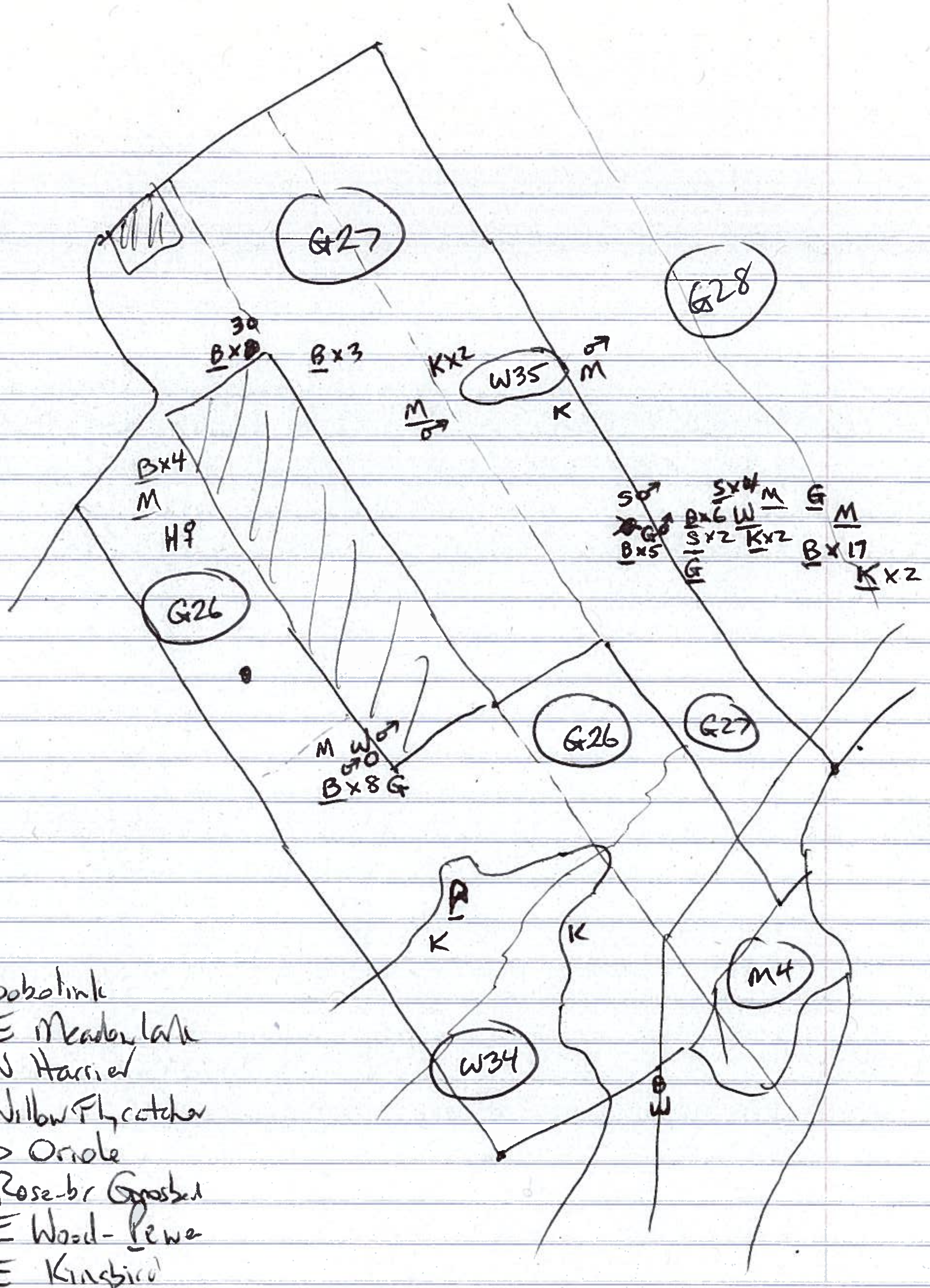
Revised on: 2011-05-27 By:



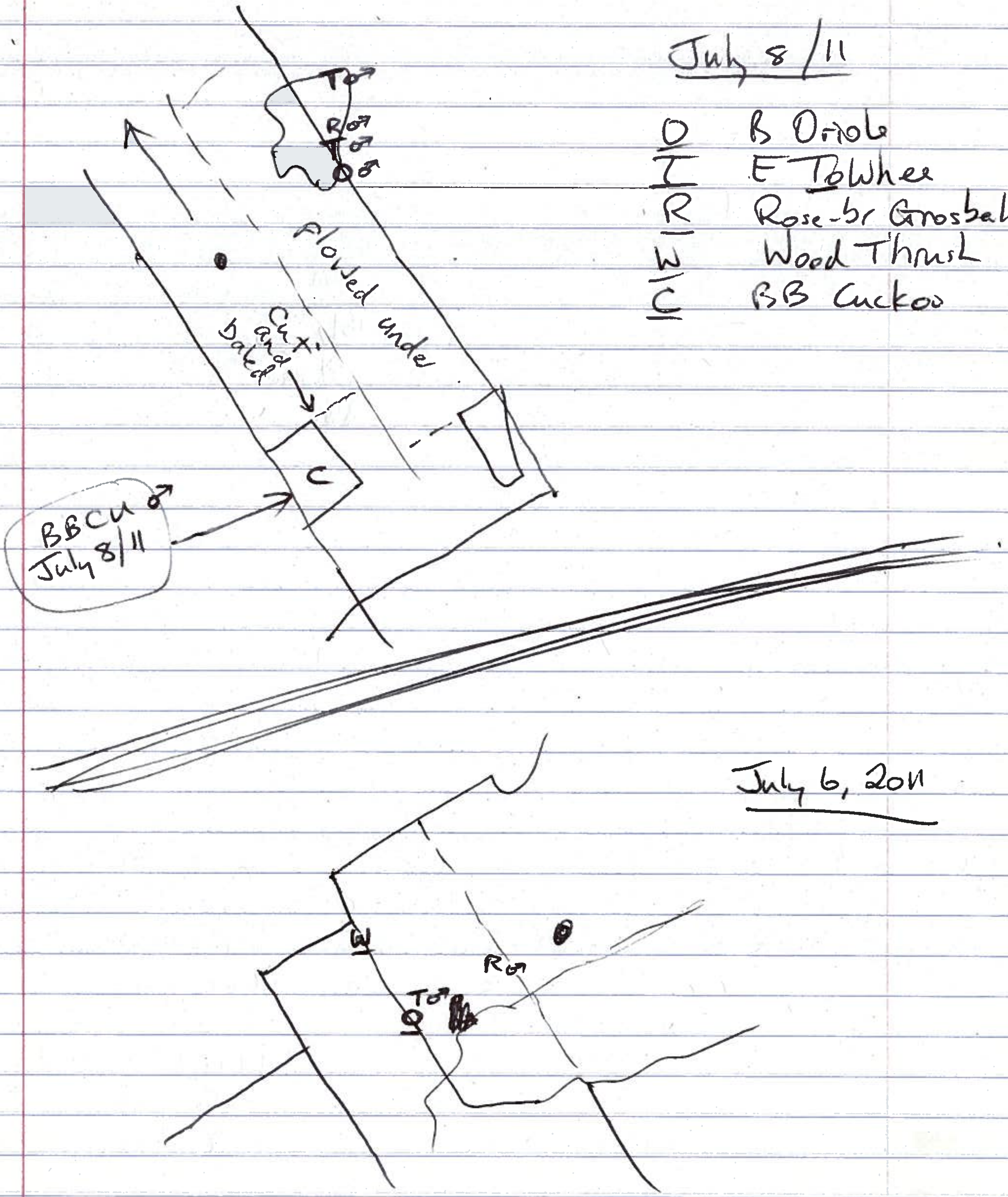
| | |
|---|---|
| B | Bobolink |
| M | E Meadowlark |
| H | N Harrier |
| W | Willow Flycatcher |
| O | B Oriole |
| G | Rose-br Grosbeak |
| P | E Wood-Pewee |
| K | E Kingbird |
| .G | Grasshopper Sparrow |
| S | Sav Sparrow |

DAY 9 - July 6, 2011

# DAY 9

July 8/11

| | |
|---|---|
| O | B Oriole |
| T | E Towhee |
| R | Rose-br Grosbak |
| W | Wood Thrush |
| C | BB Cuckoo |



July 6, 2011

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 6, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 17 | W (1) | 50 | 0 | 0 |

**Feature No::** G26 **Habitat Type:** ____________ **Time Start:** 0559 **Time End:** 0816

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | FY |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † H | H |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † S | S |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove P S | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 11

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

July 6/11

**Feature No.:** W34 **Habitat Type:** **Time Start:** 0650 **Time End:** 0712

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S A | A | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. H | H | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S A | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 11

Quality Control: This form is complete ☑ & legible ☐

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 6, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>20 | WIND:<br>SW (1) | CLOUD:<br>30 | PPT:<br>0 | PPT (in last 24 hrs):<br>trace |

**Feature No::** M4 **Habitat Type:** ____________ **Time Start:** 0723 **Time End:** 0810

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

Bullfrog #2

* Least Bittern → "kuk-kuck... kuk-kuk" (centre of marsh)

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard (flightless) | FY | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| * Least Bittern** ‡ S | T | Belt. Kingfisher † ♀ | X | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren 7♂ S | T | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | T |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | A | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | X |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | Common Moorhen | FY |
| Mourn. Dove | | No. R. W. Swal. | X | Cerulean Wa** †‡ | | Pair + 8 downy young | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 11

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

Common Merg (2) and C. Goldeneye (1) on lake shoreline.

July 6/11

**Feature No.:** G28 **Habitat Type:** ____________ **Time Start:** 0816 **Time End:** 0848

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose F | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † P | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † H | H |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † Ш | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † P | P |
| Virginia Rail | | Ea. Phoebe | | European Starling | NY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † A | A |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 11

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 6, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 23 | WIND: W [✓ 2] | CLOUD: 50 | PPT: 0 | PPT (in last 24 hrs): trace |

**Feature No::** G27 **Habitat Type:** ________ **Time Start:** 0848 **Time End:** 0935

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † S | S |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | S |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † A | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove P | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 11

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Kat
(Project Manager)

REV: 2011-05-27 / FORM 031

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July 6/11

**Feature No.:** W35 **Habitat Type:** ____ **Time Start:** 0905 **Time End:** 0917

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. H | H | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. S | S | Baltimore Oriole † | FY |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 11

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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Stantec

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 6, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 23 | WIND: W ② | CLOUD: 30 | PPT: 0 | PPT (in last 24 hrs): trace |

**Feature No::** G30 **Habitat Type:** ______ **Time Start:** 0950 **Time End:** 0957 } July 6/11

1040 → 1053 } July 6/11

July 9 → 0938 → 1010

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing P | P | Ea. Meadowlark † A | A |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 7 of 11

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature: Katrina S James
(Project Manager)

REV: 2011-05-27 / FORM 031

July 8, 2011 (correct)

**Feature No.:** W42 **Habitat Type:** **Time Start:** 0641 **Time End:** 0655

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † S | S |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird SH | S | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | FY |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † S | S |
| Am. Woodcock H | H | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | FY | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 8 of 11

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 9, 2011 (correct)
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 21 | WIND: N ① | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W40 **Habitat Type:** ______ **Time Start:** 0958 **Time End:** 1013

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † S | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo H | H | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 9 of 11

Quality Control: This form is complete ~~☐ & legible ☐.~~

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

July 8, 2011 (correct)

**Feature No.:** W41 **Habitat Type:** **Time Start:** 0558 **Time End:** 0612

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat A | A |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. A S | A | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 10 of 11

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 6, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | W (2) | 30 | 0 | Trace |

**Feature No::** W38 **Habitat Type:** ______ **Time Start:** 0955 **Time End:** 1040

***Record location of all significant species on site map.*** Broad-winged Skippe – 1 ex from

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † S | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee H | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | T |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. H | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | T |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † A | A | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SA | A | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † S | T |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † S | S |
| Am. Woodcock H | H | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 11 of 11

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595
Project Name: Amherst
Date Jul 6, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 17 | W (1) | 50 | 0 | 0 |

✓

GPS #: T___

Station: P36 / 261 G26

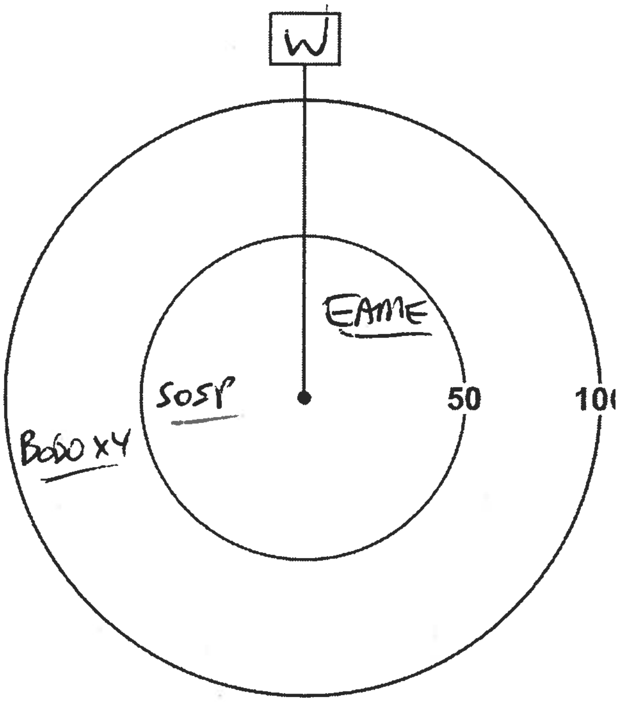
Habitat: ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop

UTM:

Start Time: 0622

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | | | | 1 | A |
| RBGU | | | | 1 | A |
| MODO | | | | 2 | A |
| RWBL | | | | 3 | A |
| SOSP | 1 | | | | O |
| BOBO | | 4 | | | O |
| EAME | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓ & legible ✓)
Signature: AW
(Field Personnel)
Signature:
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

✓

**Station:** P37 / 259 (G27) — July 6, 2011

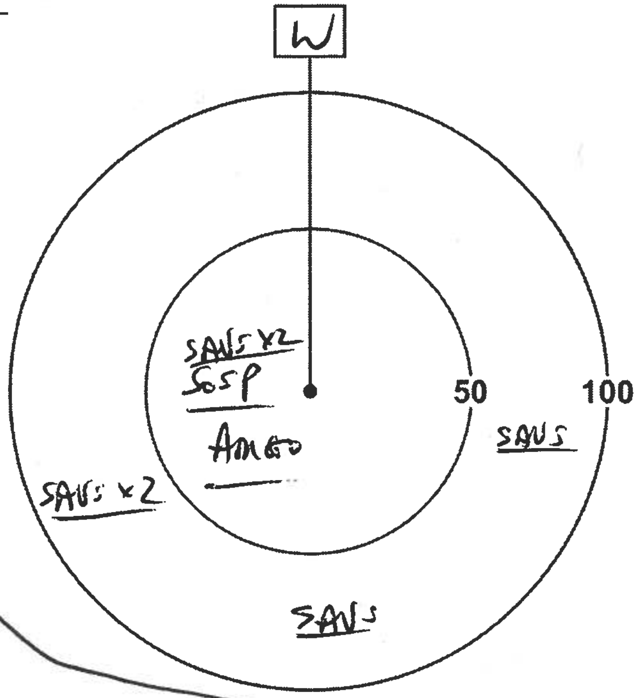
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0854

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMGO | | 1 | | | A |
| SAVS | 2 | 4 | | | O |
| SOSP | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P38 / 257 (G30)

July 9, 2011
Field is cut and baled

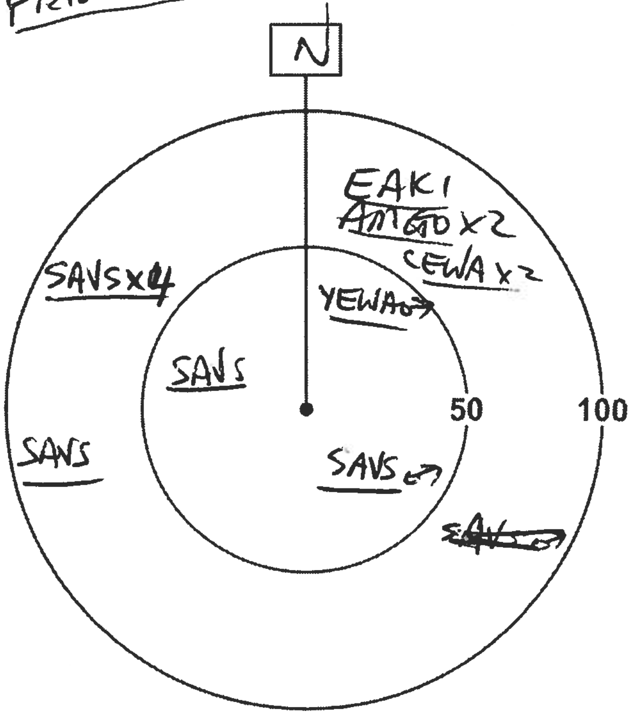
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0945

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMGO | | 2 | | | A |
| EAKI | | 1 | | | A |
| EUST | | | | 2 | A |
| WAXW CEWA | | 2 | | | A |
| SAVS | 2 | 5 | | | O |
| AMRO | | | | 1 | A |
| YEWA | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: ____________ Aw
(Field Personnel)

Signature: Kathr... S...
(Project Manager)

Page 2 of 3

REV: May, 07 Form 020

**Station:** P47 /263 (W38) July 6/11

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

✓ **UTM:** ____________

**Start Time:** 1016

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BBCU | 1 | 1 |  |  | A |
| SWSP |  | 2 |  |  | O |
| SOSP |  | 1 |  |  | O |
| RBGR |  | 1 |  |  | A |
| REVI |  | 1 |  |  | A |
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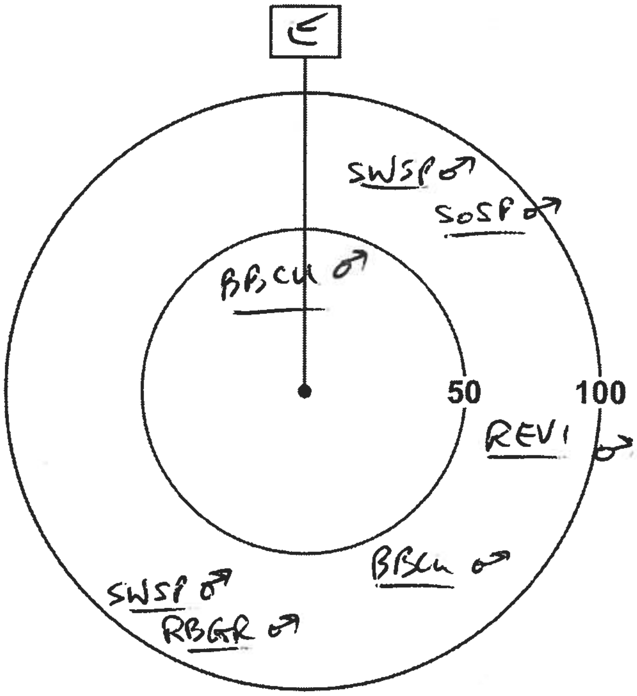

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
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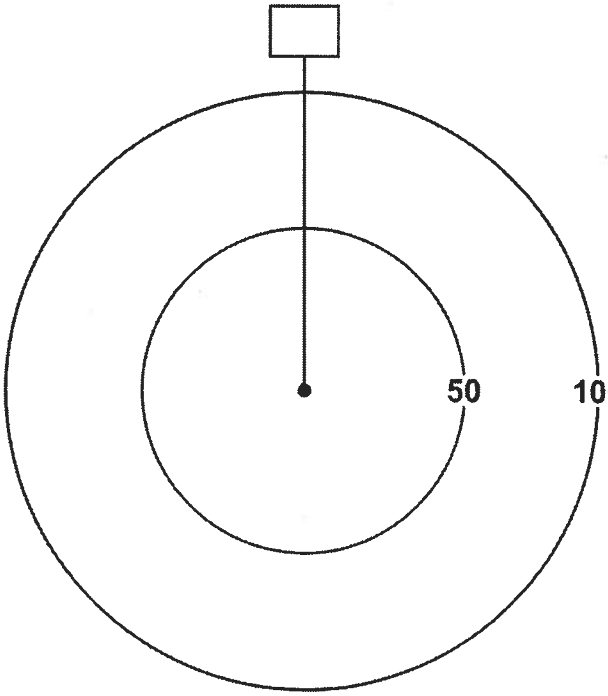


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓)

Signature: ____________ (Field Personnel) AW

Signature: ____________ (Project Manager)

Page 3 of 3

REV: May, 07 Form 020

# DAY 9 — June 20, 2011

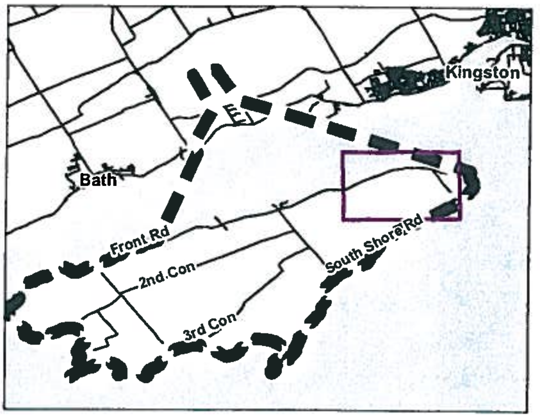
| Point | | |
|---|---|---|
| P36 | 261 | G26<br>W34<br>M4 |
| P37 | 259 | G27, G28 (first)<br>W35 |
| P38 | 257 | G30<br>W40, W41, W42 |
| P47 | 263 | W38 |

## Legend

Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

## Legend

▙ Study Area

— Road

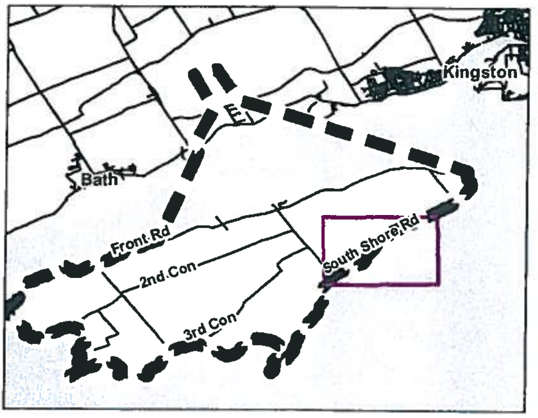
Watercourse

○ Amphibian Station

**Property Status**

🟩 Optioned

▨ Not Optioned



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 8

Title
## FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 8, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: 0 | CLOUD: 50 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G31 **Habitat Type:** ______ **Time Start:** 0550 **Time End:** 0752

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † S | S | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † P S | P | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † H | H | Least Fly. | | Br. Thrasher † | | Bobolink † | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | S |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. H | H |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. P | P | Baltimore Oriole † | |
| Am. Woodcock H | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 5

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G32 **Habitat Type:** ________ **Time Start:** 0807 **Time End:** 0944

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow H | H | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow H | H | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. S | S |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H P | P |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 5

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Stantec**

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 8, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 0 | 20 | 0 | 6 |

**Feature No::** W38 **Habitat Type:** ____________ **Time Start:** 0843 **Time End:** 0942

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ S | S | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | H | Rose-br. Grosbeak † S | S |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. S | S | Br. Thrasher † | | Bobolink † | [illegible] |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle P | P |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock H | H | Red-eyed Vireo S | S | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | X | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 5

Quality Control: This form is complete ☑ & legible ☑

Signature: Aw
(Field Personnel)

Signature: Katharine Fr
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G34 **Habitat Type:** __________ **Time Start:** 1002 **Time End:** 1030

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat H | H |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H | H |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. H | H |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

E Tailed - Blue - 14
mud puddle Owl Woods Road

Pg. 4 of 5

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

Stantec
**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 8, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: trace SE | CLOUD: 30 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W43 **Habitat Type:** ______ **Time Start:** 1002 **Time End:** 1033

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † H | H | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | H | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 5

Quality Control: This form is complete ☒ & legible ☒

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

# DAY 10

| | | |
|---|---|---|
| | | → (W41) |
| P48 | 269 | G31 |
| P49 | 271 | G31 |
| P51 | 273 | G32 |
| P50 | 275 | W38 (edge) |
| [illegible] | | [illegible] (edge) |
| P54 | 267 | G34, W43 |

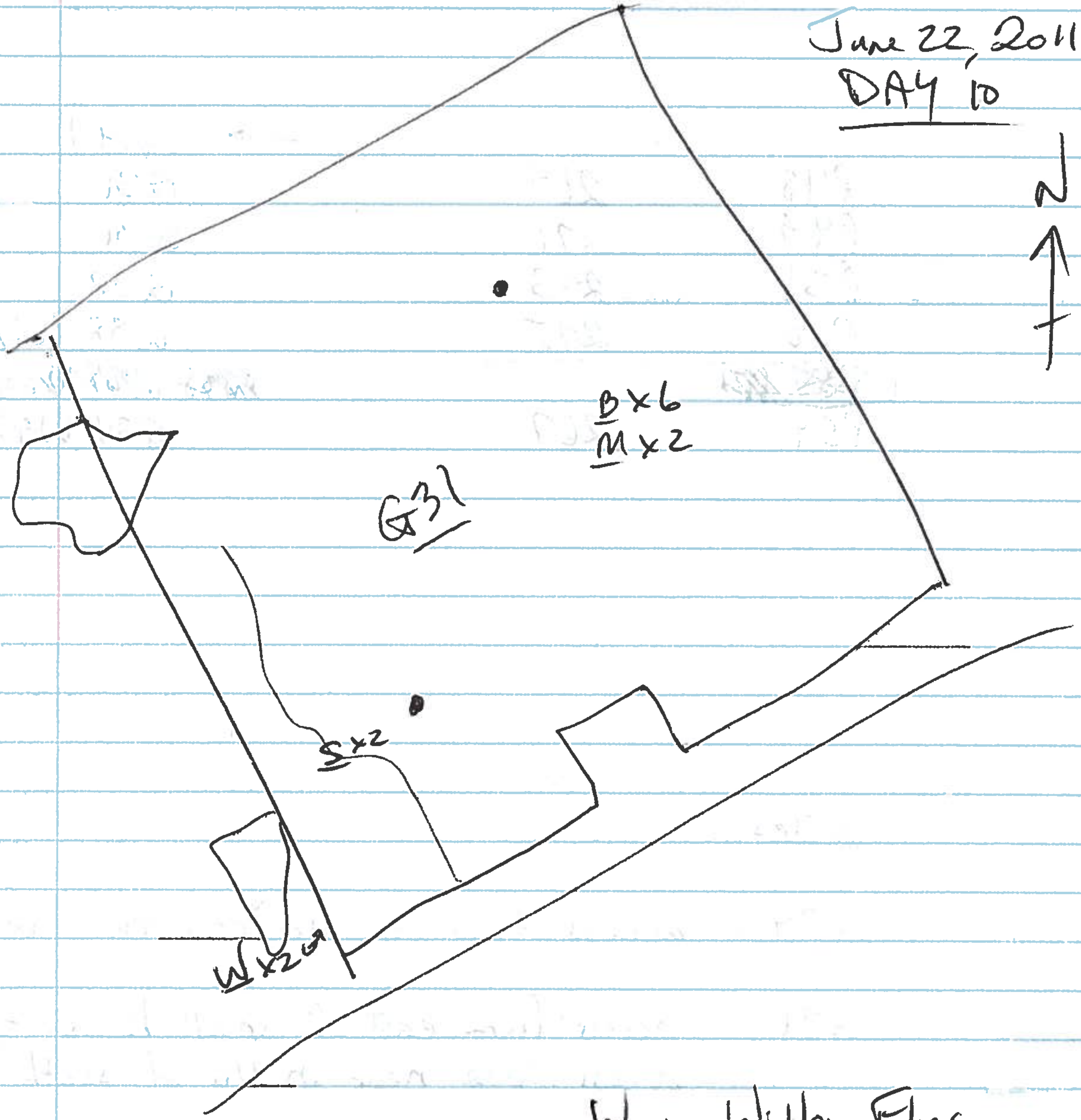
## Notes

G34 - access from bend in "cross-over" road

G31 - access from east of small house - no access zone near middle of south end.

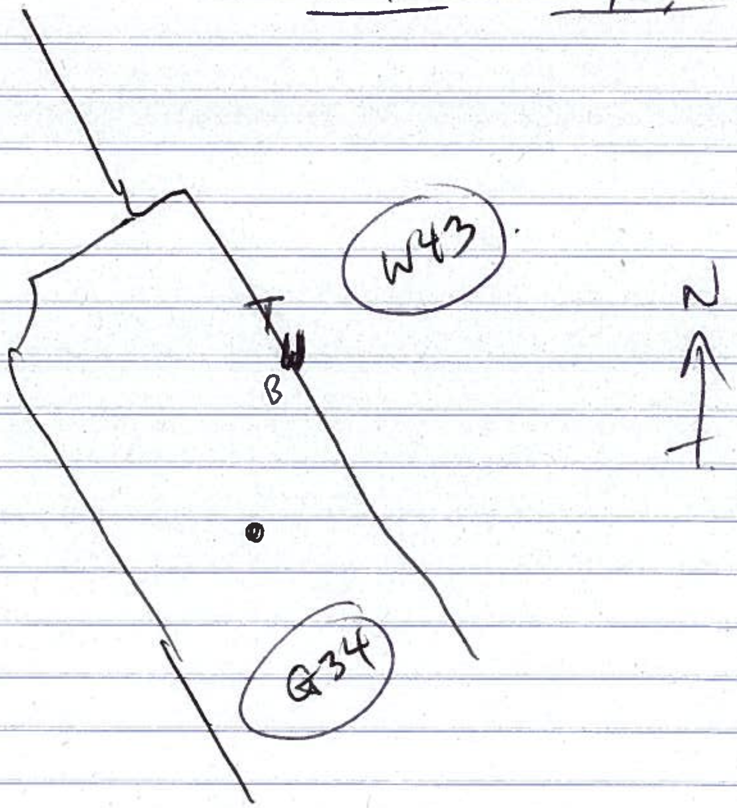
G32 - access from ditch to east of small house next to horses (east)

June 22, 2011
DAY 10



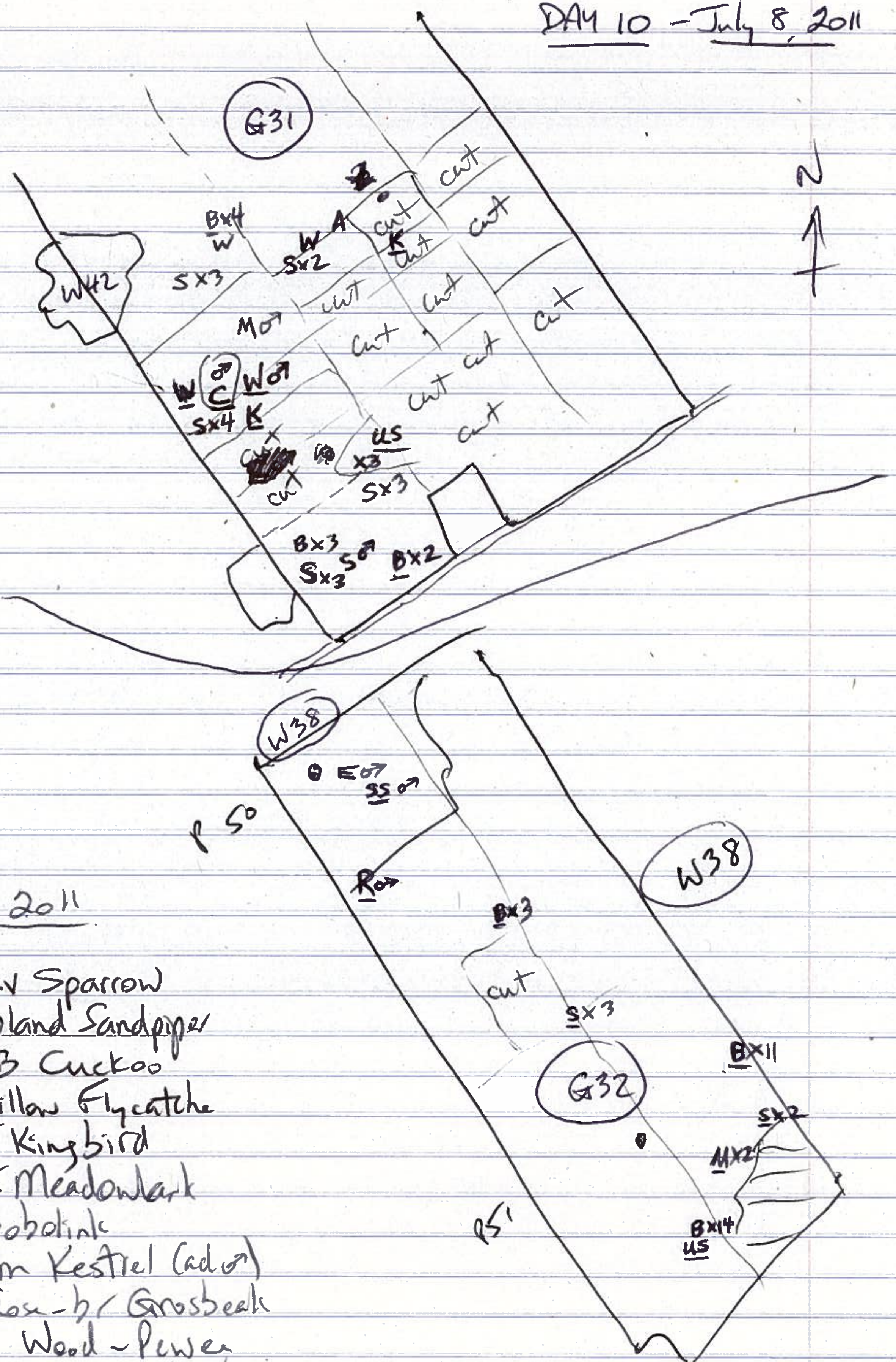
W – Willow Flyc
S Sav Sparrow
B – Bobolink
M – E Meadowlark

DAY 10 - July 8, 2011



| | |
|---|---|
| T | Brown Thrasher |
| W | Willow Flycatcher |
| B | Bobolink |

DAY 10 – July 8, 2011



July 8, 2011

| | |
|---|---|
| S | Sav Sparrow |
| US | Upland Sandpiper |
| C | BB Cuckoo |
| W | Willow Flycatche |
| K | E Kingbird |
| M | E Meadowlark |
| B | Bobolink |
| A | Am Kestrel (ad ♂) |
| R | Rose-br Grosbeak |
| E | E Wood-Pewee |
| SS | Sapsucker |

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 8, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 20 | 0 | 50 | 0 | 0 |

GPS #: T___

**Station:** P48 / 269 G31

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

✓ **Start Time:** 0616

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BARS | | | | 3 | A |
| BHCO | | | | 1 | A |
| SAVS | 2 | 4 | | | O |
| RWBL | | 2 | | | O |
| AMRO | 1 | | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
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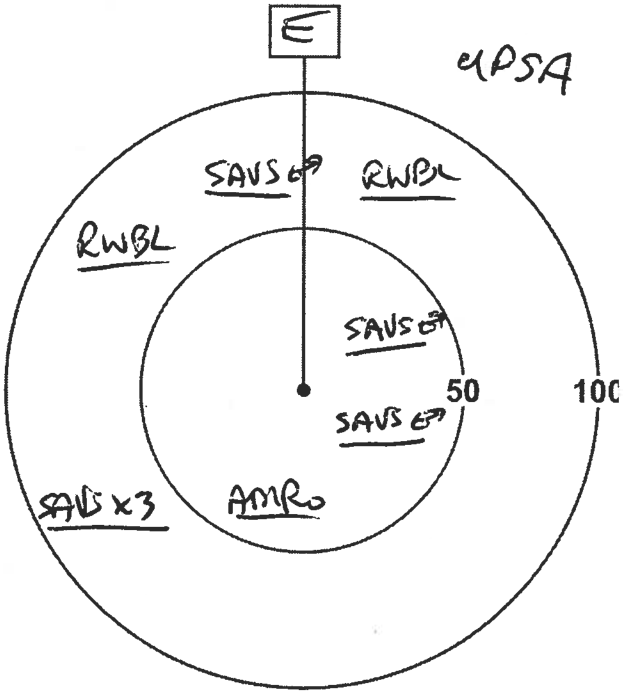
*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Field with Point Count has been cut + baled

Quality Control: This form is complete (✓) & legible (✓).

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 3

REV: May, 07 Form 020

**Station:** P49/ 271 G31

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ________________

**Start Time:** 0722

✓

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COYE | | 1 | | | O |
| EUST | | 1 | | | A |
| YEWA | | 1 | | | A |
| YEWA | 1 | | | | O |
| SOSP | 2 | | | | O |
| BHCO | 1 | | | | A |
| AMRO | 1 | | | | A |
| SAVS | 1 | | | | O |
| | | | | | |
| | | | | | |
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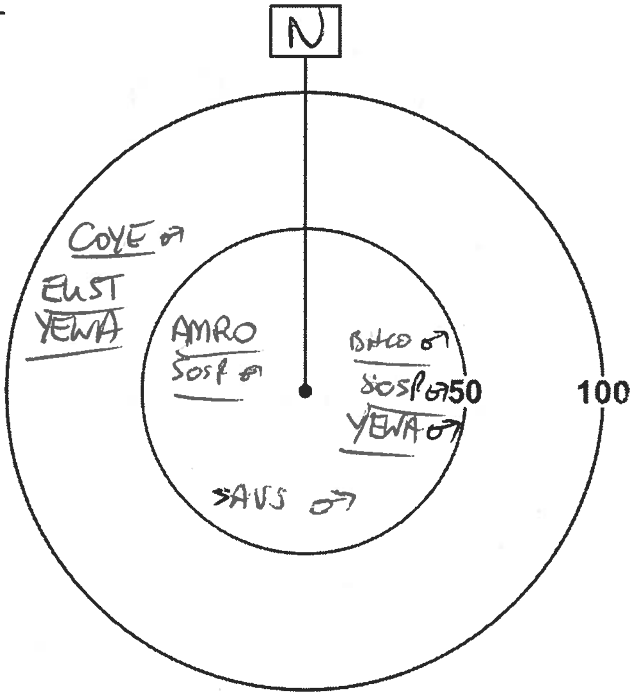


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** P51 /273 G32

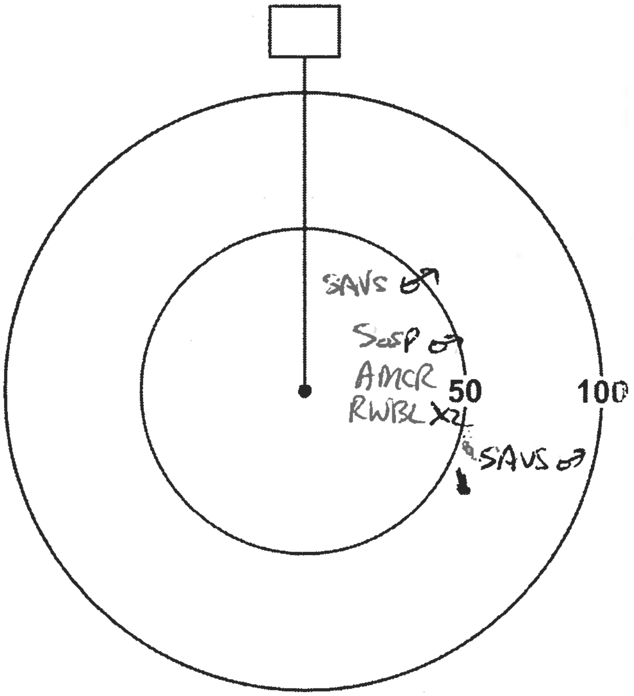
✓

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ________________

**Start Time:** 0820

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 3 | A |
| BARS | | | | 4 | A |
| CLSW | | | | 1 | A |
| SOSP | 1 | | | | O |
| AMCR | 1 | | | | A |
| RWBL | 2 | | | | A |
| SAVS | 1 | 1 | | | O |
| BOBO | | | | 1 | A |
| RBGU | | | | 1 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (—) & legible (—).

Signature: ________________ AW (Field Personnel)

Signature: ________________ (Project Manager)

Page 2 of 3

REV: May, 07 Form 020

✓

**Station:** P50 /275 W38 + Edge

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ________________________________

**Start Time:** 0851

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| REVI |  | 1 |  |  | A |
| EAWP | 1 |  |  |  | A |
| HOWR | 1 | 1 |  |  | O |
| AMRO | 1 |  |  |  | A |
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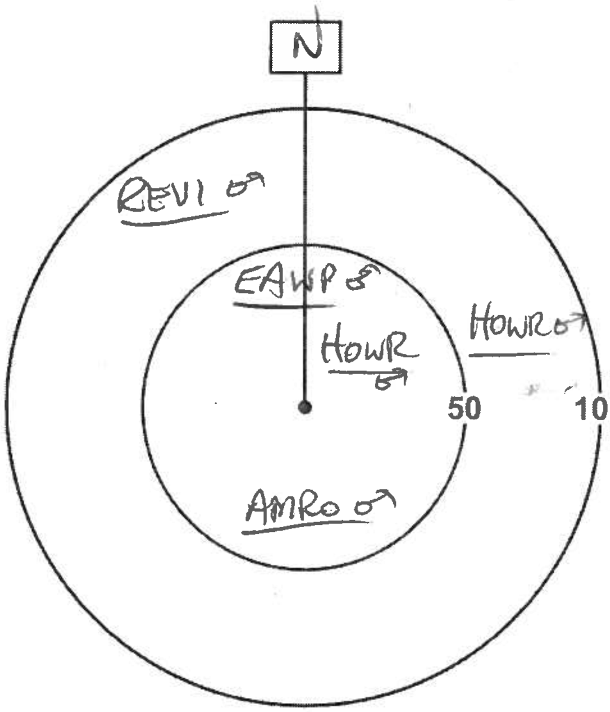

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

✓

**Station:** P54 /267 G34 W43

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ________________________________

**Start Time:** 1013

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BOBO | 1 |  |  |  | O |
| YEWA | 1 |  |  |  | O |
| RWBL |  | 1 |  |  | A |
| SOSP |  | 1 |  |  | O |
|  |  |  |  |  |  |
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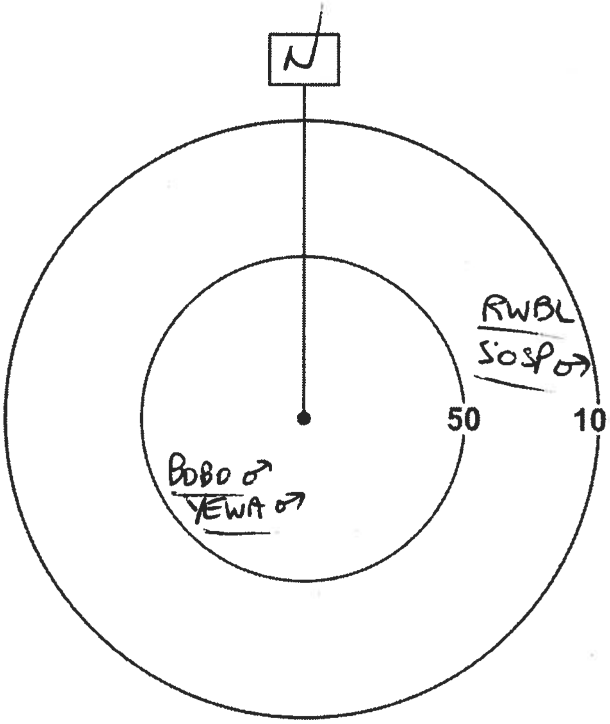


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: AW (Field Personnel) Signature: ________ (Project Manager)

Page 3 of 3

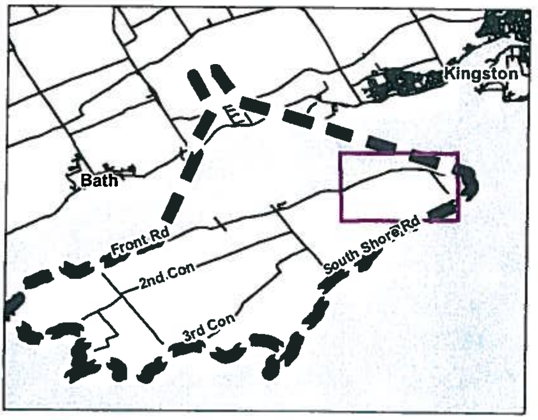
REV: May, 07 Form 020

## Legend

▙ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

FIELD MAPBOOK

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

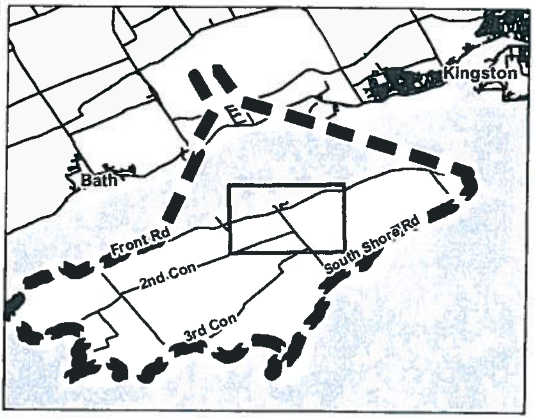
W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

## Legend

Study Area
Road
Watercourse
Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 5

Title
FIELD MAPBOOK

# DAY 11

| | | | |
|---|---|---|---|
| P45 | 278 | G29 | 900 m |
| P46 | 279 | W38 (x1) | |
| P53 | 281 | G33 | |
| P52 | 282 | W38 (x2) | |
| P56 | 283 | W43 | |
| P55 | 285 | G36 | |
| | | W45 | |
| | | G35 | |

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 10, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | WIND: SW ① | CLOUD: 80 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G29 **Habitat Type:** ________ **Time Start:** 0550 **Time End:** 0735

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † H | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | FY |
| N. Harrier †‡ H | CF | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H A | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. A | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † S | CF |
| Killdeer | | Ea. Kingbird † H | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. H | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | X | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 7

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W38 **Habitat Type:** **Time Start:** 0642 **Time End:** 0707

0833 [illegible]

0902

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | | Eastern Towhee † S | T |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture H | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. H | | Veery | | Song Sp. S | |
| N. Harrier †‡ | | No. Flicker † S | | Hermit Thrush ‡ | | Swamp Sp. S | T |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † S | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | | Am. Robin H | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. S | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock H | | Red-eyed Vireo S | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | CF | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | A | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 7

Signature: AW

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:

(Project Manager)

REV: 2011-05-27 / FORM 031

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Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 10, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>20 | WIND:<br>SW ② | CLOUD:<br>20 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Feature No::** Q33 **Habitat Type:** ____________ **Time Start:** 0758 **Time End:** 0908

***Record location of all significant species on site map.***

Meadow Frit – 1 rxysed

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | FY | Willow Fly. † H | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | H | Red-winged Bl. A | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | P | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † P | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow H | | Pine Wa. ‡ | | | |
| Mourn. Dove | P | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 7

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W43 **Habitat Type:** ______ **Time Start:** 0910 **Time End:** 0943

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern

† Partners In Flight

‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | SA | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | HS | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | S | Am. Robin | FY | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | HA |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | H |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | H | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | A | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | X | Yel-rumped Wa. ‡ | | Am. Goldfinch | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 7

Signature: AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 10, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: S ① | CLOUD: 20 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G36 **Habitat Type:** ________ **Time Start:** 0943 **Time End:** 1008

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | |
| N. Harrier †‡ H | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. S | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | X | Willow Fly. † H | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | X | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 7

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** W45 **Habitat Type:** ________ **Time Start:** 1008 **Time End:** 1016

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | FY | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird H | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † H | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | | Blue-wing. Wa. † | | Co. Grackle H | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. H | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | P | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 6 of 7

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW (Field Personnel)

Signature: Katherine St. James (Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 10, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | S ① | 20 | 0 | 0 |

**Feature No::** G35 **Habitat Type:** ____ **Time Start:** 1012 **Time End:** 1022

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | H |
| Killdeer | | Ea. Kingbird † | H | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | X | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | X |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species ... | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

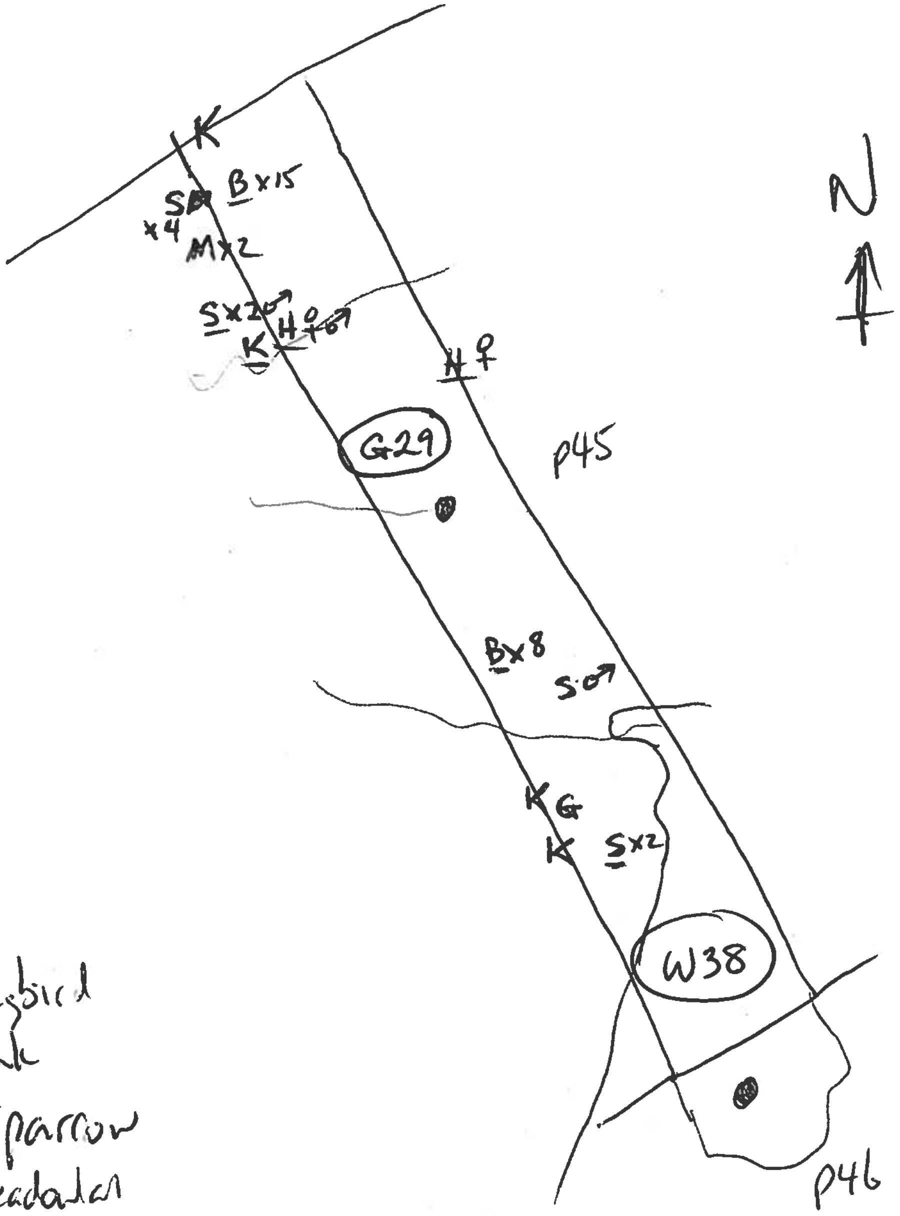
Pg. 7 of 7

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

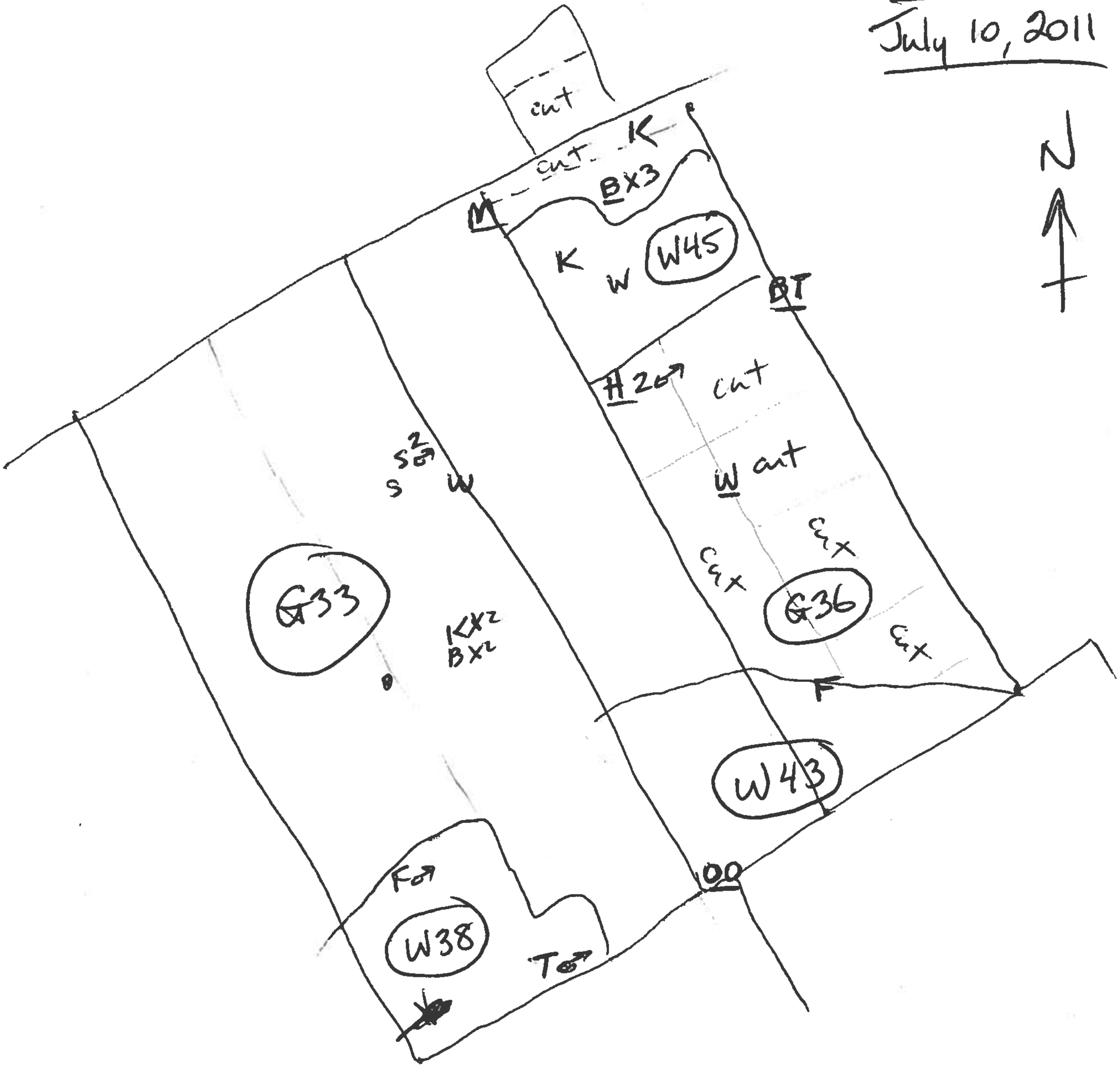
REV: 2011-05-27 / FORM 031



| | |
|---|---|
| K | E Kingbird |
| B | Bobolink |
| S | Sav Sparrow |
| M | E Meadowlark |
| H | N Harrier |
| G | Grashopper Sparrow |

DAY 11 – July 10, 2011

DAY 11
July 10, 2011



W Willow Flycatcher
S Sav Sparrow
B Bobolink
F N Flicker
T E Towhee
OO Orchard Oriole (ad ♂)
H N Harrier
BT Brown Thrasher
K E Kingbird
M E Meadowlark

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 10, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | Temp: 18 | Wind: SW ① | Cloud: 70 | PPT: 0 | PPT in last 24 hrs: 0 |
|---|---|---|---|---|---|

**GPS #:** T___

900 m

✓ **Station:** P45/278 (G29)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

**Start Time:** 0612

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| NOHA | | 1 | | | A |
| BOBO | 3 | 2 | | | O |
| SAVS | 1 | | | | O |
| | | | | | |
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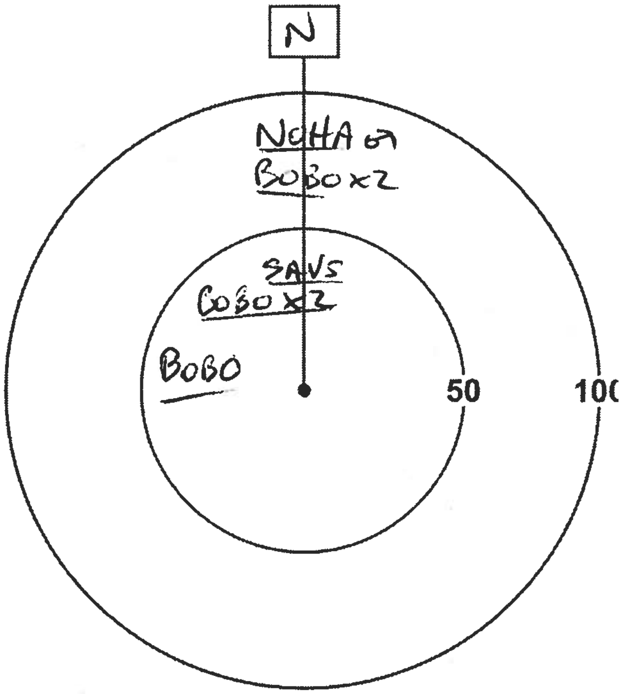
*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (__).

Signature: ________________ (Field Personnel)

Signature: Katherine Stokes (Project Manager)

Page 1 of 4

REV: May, 07 Form 020

✓

**Station:** P46 / 279 W38 x1
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0648

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMGO | | | | 1 | A |
| SWSP | 2 | | | | O |
| COYE | 1 | | | | O |
| HOWR | 1 | | | | O |
| AMRO | 1 | | | | A |
| WOTH | 1 | | | | A |
| SOSP | 1 | | | | O |
| EAWP | | 1 | | | A |
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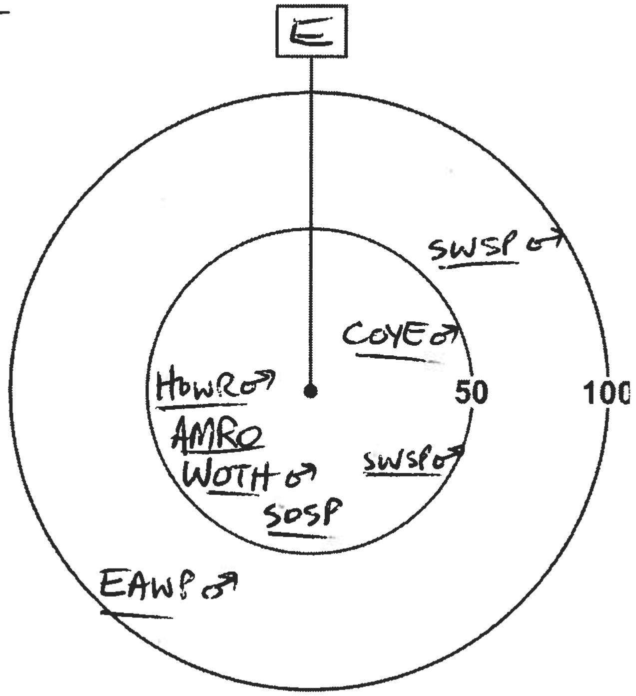

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

✓

**Station:** P53 /281 G33
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________
**UTM:** ____________
**Start Time:** 0810

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| EUST | | | | 10 | A |
| TRES | | | | 1 | A |
| AMRO | | | | 1 | A |
| MODO | | | | 2 | A |
| Wax CEWA | 1 | | | | A |
| SAVS | 2 | | | | O |
| RWBL | 4 | | | | A |
| EAKI | 1 | 1 | | | A |
| SOSP | 1 | | | | O |
| | | | | | |
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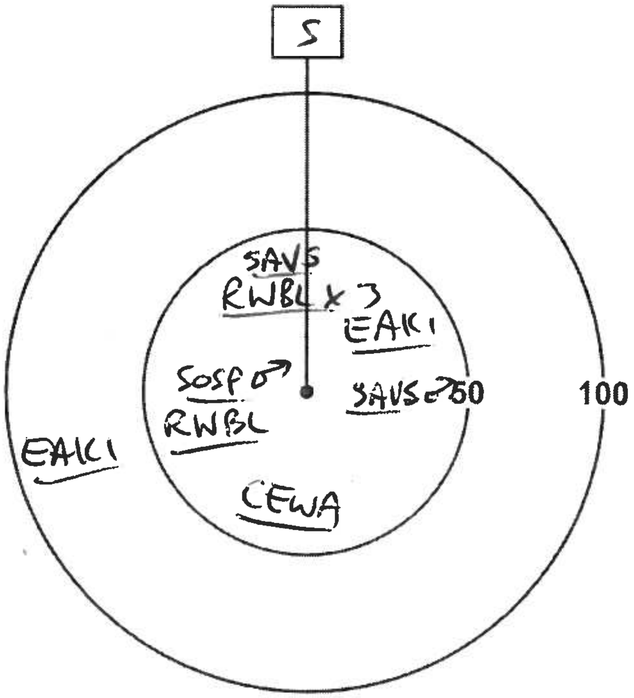

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).
Signature: ____________ (Field Personnel)
Signature: Katherine St James (Project Manager)

Page 2 of 4

REV: May, 07 Form 020

✓

**Station:** P52 /282 (W38)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** 0841

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| WOTH |  | 1 |  |  | O |
| REVI | 1 | 1 |  |  | A |
| AMRO | 1 |  |  |  | A |
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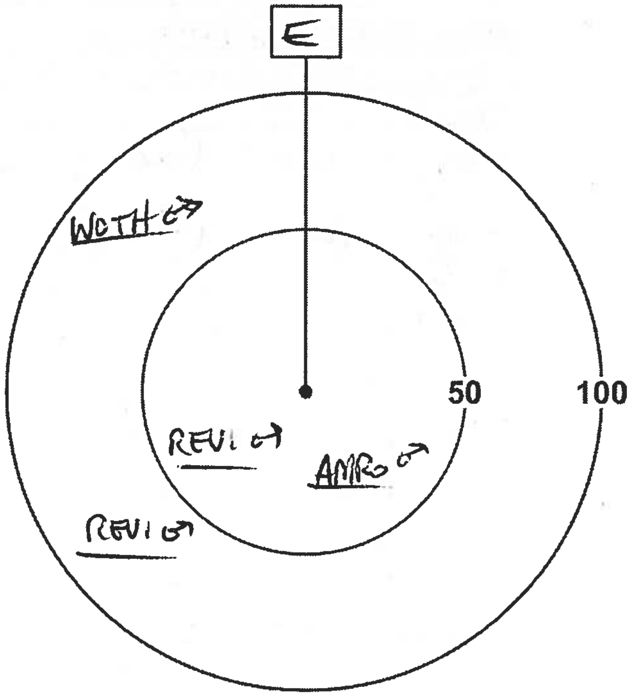
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P56 /283 (W43)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** 0923

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COGR | 1 |  |  |  | A |
| GRCA | 1 |  |  |  | O |
| BLJA | 1 |  |  |  | A |
| EAWP |  | 1 |  |  | A |
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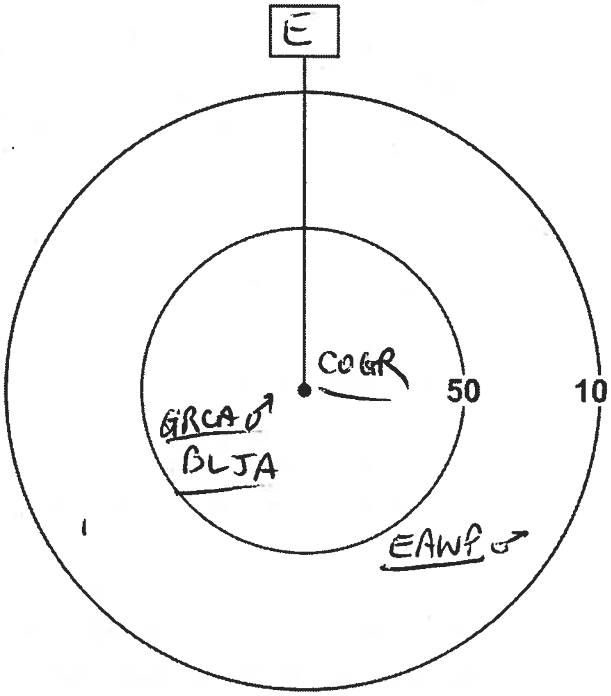
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (—) & legible (__).

Signature: ______________________ Signature: ______________________
(Field Personnel) (Project Manager)

Page 3 of 4

REV: May, 07 Form 020

✓

**Station:** P55 / 285 G36
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________
**UTM:** ______________________________
**Start Time:** 0956

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 2 | A |
| BARS | 1 → feeding | | | | A |
| SOSP | 2 | | | | O |
| AMRO | ~~#~~ | 1 | | | O |
| EUST | | | | ~~#~~ 4 | A |
| AMCR | | | | 2 | A |
| | | | | | |
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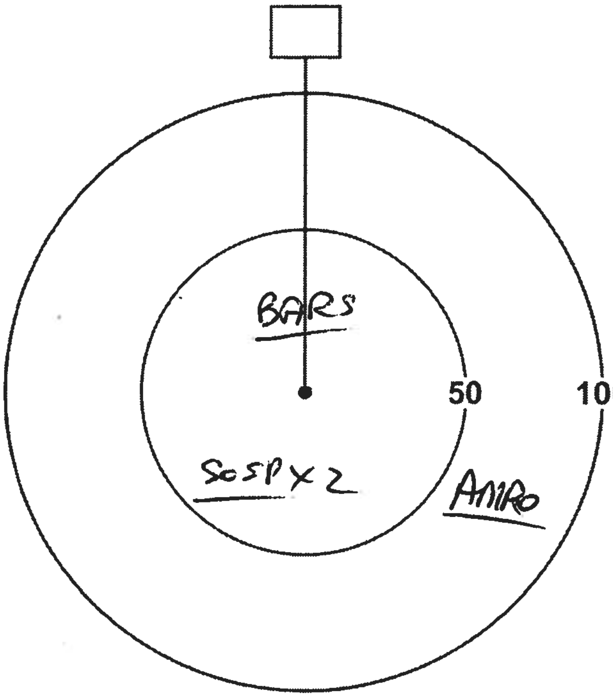

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

**Station:** _____
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________
**UTM:** ______________________________
**Start Time:** ____________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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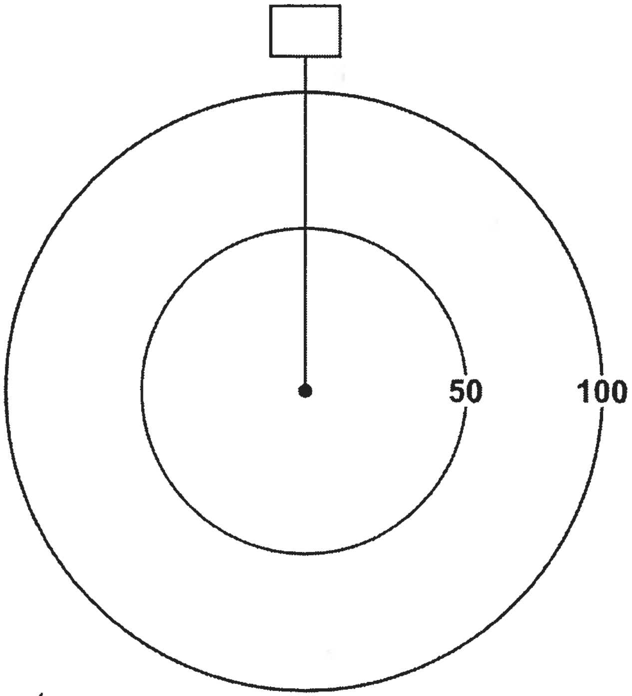


*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep.

Quality Control: This form is complete (✓) & legible (✓).
Signature: ______________________ (Field Personnel)
Signature: ______________________ (Project Manager)

Page 4 of 4

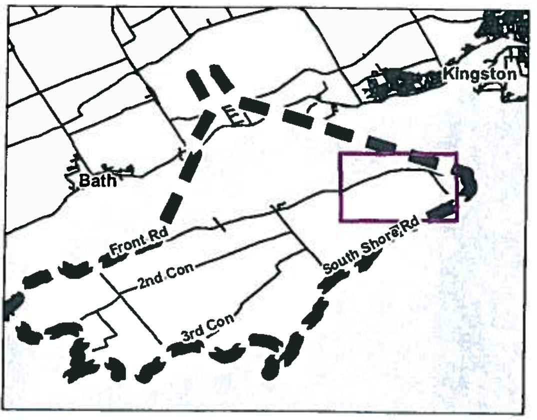
REV: May, 07 Form 020

## Legend

- Study Area
- Road
- Watercourse
- Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

FIELD MAPBOOK

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Revised on: 2011-05-27 By:

Stantec
**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 11, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: S ① | CLOUD: 75 | PPT: +trace<br>0 | PPT (in last 24 hrs): 0 |

**Feature No::** G39 **Habitat Type:** ________ **Time Start:** 0650 / 0743 **Time End:** 0655 / 0756

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † H | H |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † S H | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer H | H | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 5

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form 031 breeding-bird-survey large-sites.docx

**Feature No.:** W47 **Habitat Type:** ______ **Time Start:** 0646 806 **Time End:** 0650 809

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl H | H | Bl-capped Chickadee H | H | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | FY | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † S | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † P | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. S | S | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 5

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 11, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | S ① | 75 | trace<br>0 | 0 |

**Feature No::** G37 **Habitat Type:** ____________ **Time Start:** 0700 **Time End:** 0800

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | N | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | X | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin SH | FY | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | X | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer A | A | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | X |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. S | S |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | X |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove H | H | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 5

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-27 / FORM 031

art w:\resource\internal info and teams\field forms\birds\breeding bird\form_031_breeding-bird-survey_large-sites.docx

**Feature No.:** W46 **Habitat Type:** ______ **Time Start:** 0737 **Time End:** 0745

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl H | H | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. H | H | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. S | S |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | CF | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. S | S | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | FY |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 5

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 11, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 23 | WIND: S ① | CLOUD: 80 | PPT: 0 | PPT (in last 24 hrs): trace |

**Feature No::** G38 **Habitat Type:** ______ **Time Start:** 813 **Time End:** 0918

(nothing cut)

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | X | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | X | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H | H |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ A | A | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | NU |
| Common Tern | | Purple Mart. | X | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 5

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

DAY 12 – June 26, 2011

– July 11, 2011

| | | |
|---|---|---|
| P58 | 287 | G37 |
| | | W46 |
| | | G39 |
| | | W47 |
| P57 | 288 | G38 |

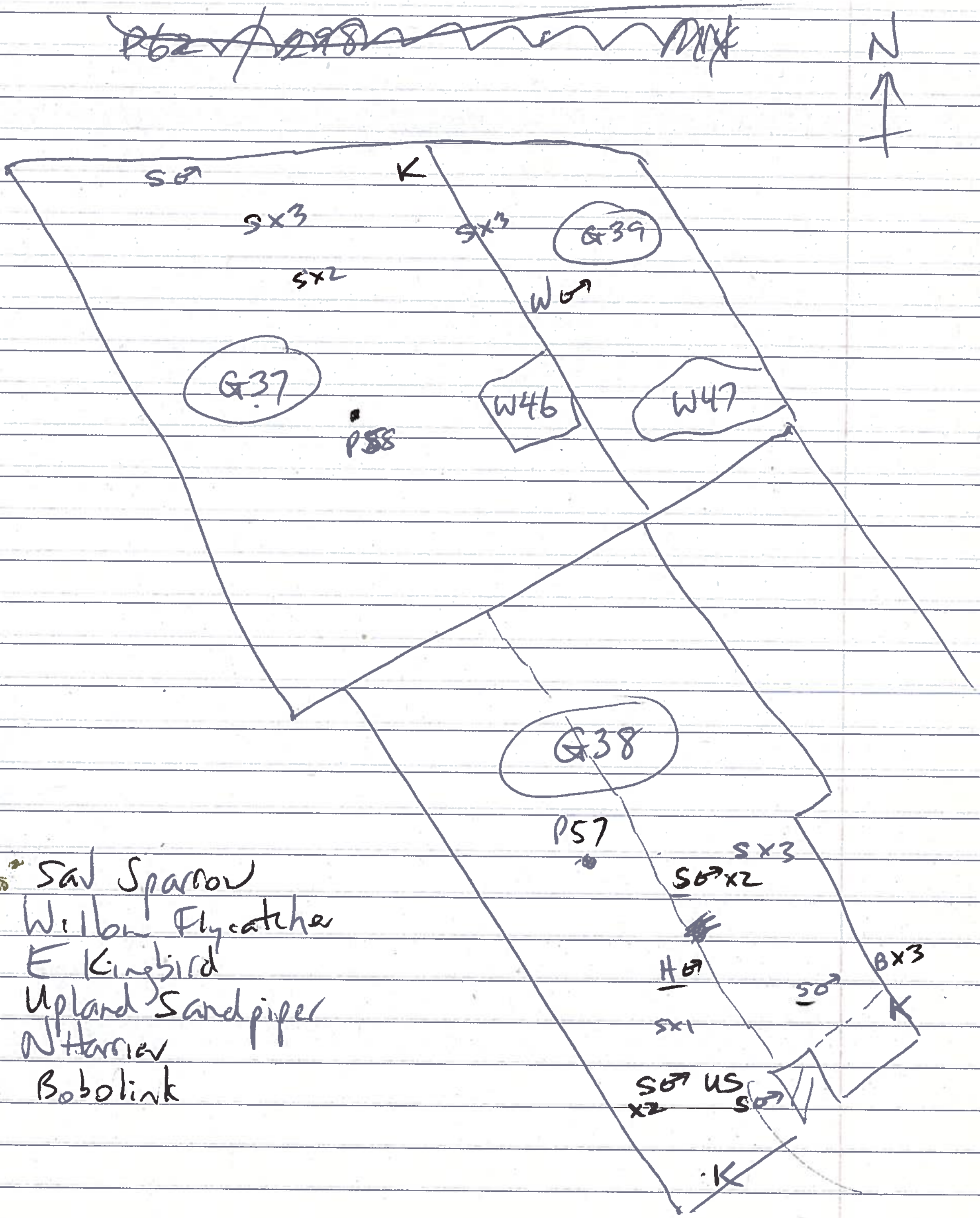
[ P62 / 298 M4 ]

W47

| | |
|---|---|
| WAVI | S |
| BAOR | H |
| WIFL | S |

DAY 12 - July 11, 2011

~~P62 / A298~~



| | |
|---|---|
| S | Sav Sparrow |
| W | Willow Flycatcher |
| K | E Kingbird |
| US | Upland Sandpiper |
| H | N Harrier |
| B | Bobolink |

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: July 11, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 22 | S ① | 85 | 0 | 0 |

✓

**GPS #:** T___

**Station:** P58 /287 (G37)

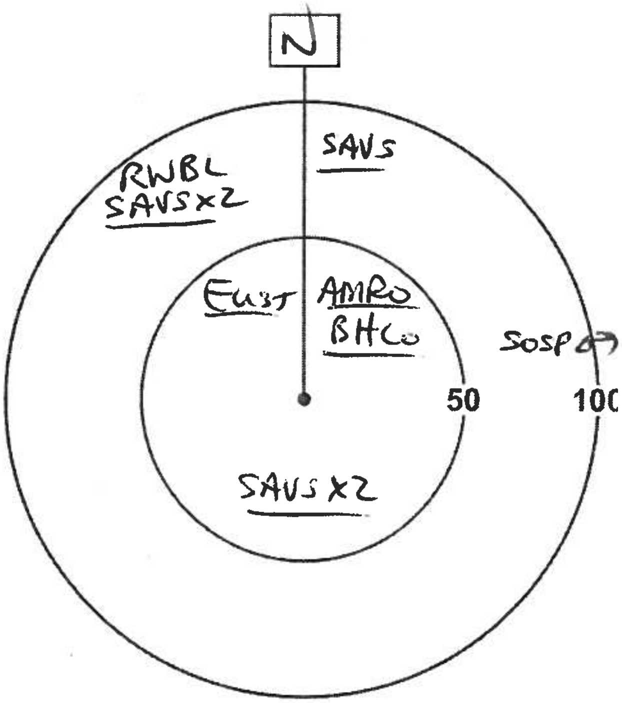
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0713

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| AMGO | 2 | | | | A |
| RTHA | | | | 1 | A |
| BARS | | | | 1 | A |
| RWBL | | | | 1 | A |
| SAVS | 2 | 3 | | | O |
| EUST | 1 | | | | A |
| AMRO | 1 | | | | A |
| BHCO | 1 | | | | A |
| SOSP | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (__).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page _____ of ______

REV: May, 07 Form 020

**Station:** P57 / 288 (G38)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

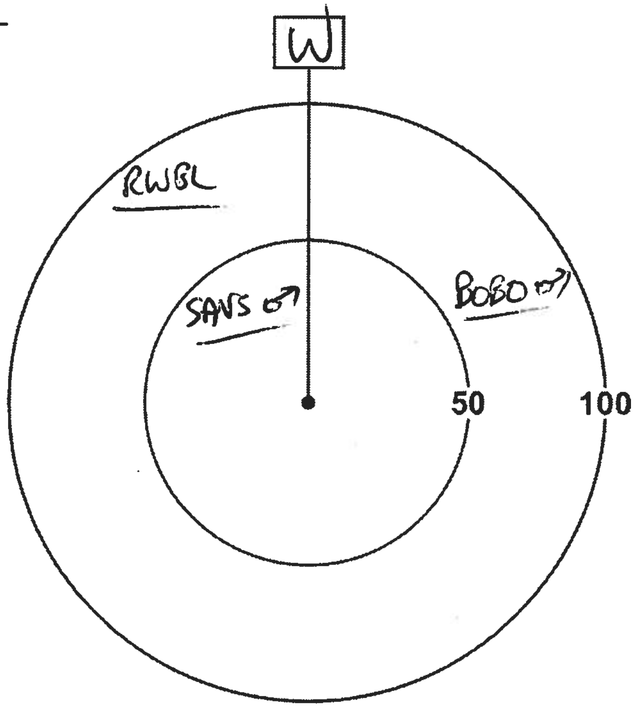
**UTM:** ______________________________

✓

**Start Time:** 0830

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| RBGU | | | | 2 | A |
| PUMA | | | | 1 | A |
| RWBL | | 1 | | | O |
| SAVS | 1 | | | | O |
| BOBO | | 1 | | | O |
| TRES | | | | 2 | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________________

**UTM:** ______________________________

**Start Time:** __________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
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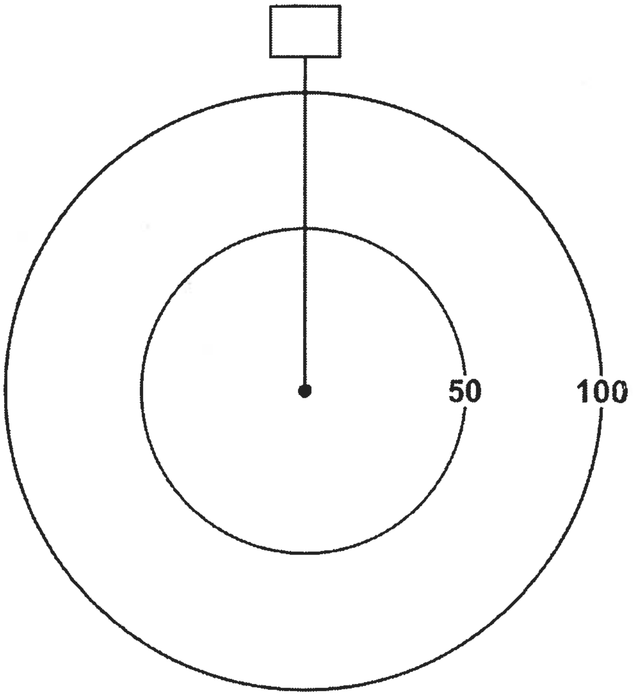
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



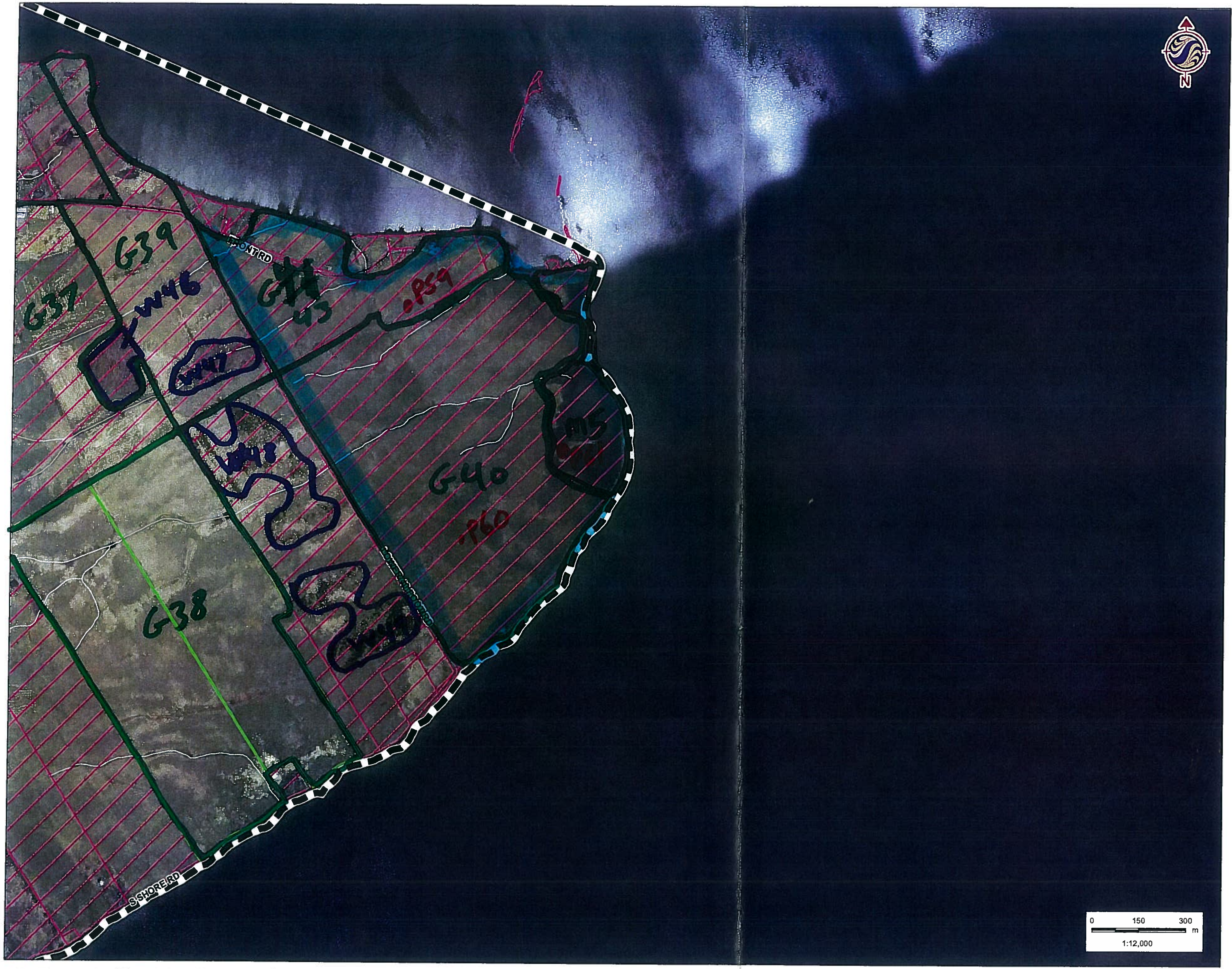
Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________________ (Field Personnel)

Signature: Katrine (Project Manager)

Page ____ of ____

REV: May, 07 Form 020

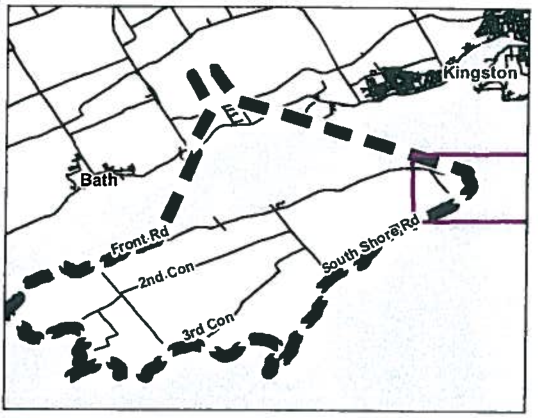


## Legend

- ▙ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

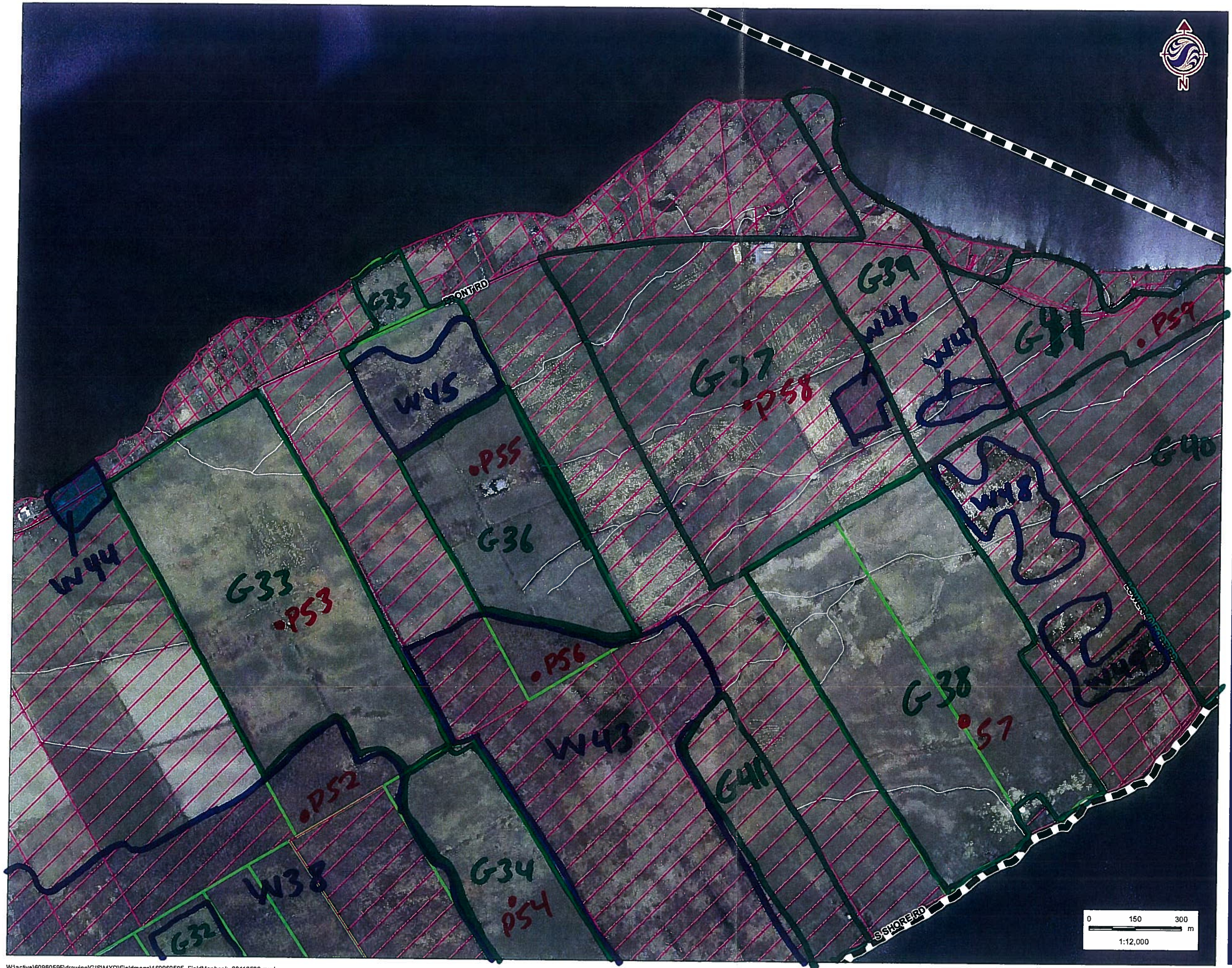
Figure No.

Tile 10

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

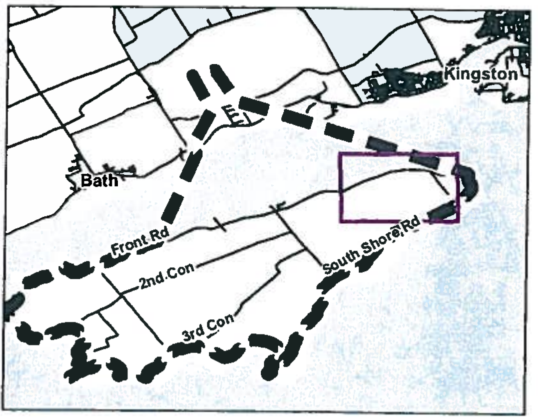


## Legend

🟫 Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

🟩 Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 9

Title

FIELD MAPBOOK

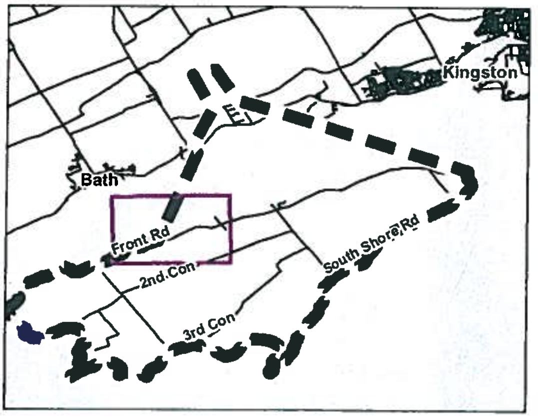
W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

## Legend

▭ Study Area
— Road
Watercourse
○ Amphibian Station

**Property Status**

▭ Optioned
▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

Tile 4

Title

**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

✓

**Station:** P60 / 294 (G40)

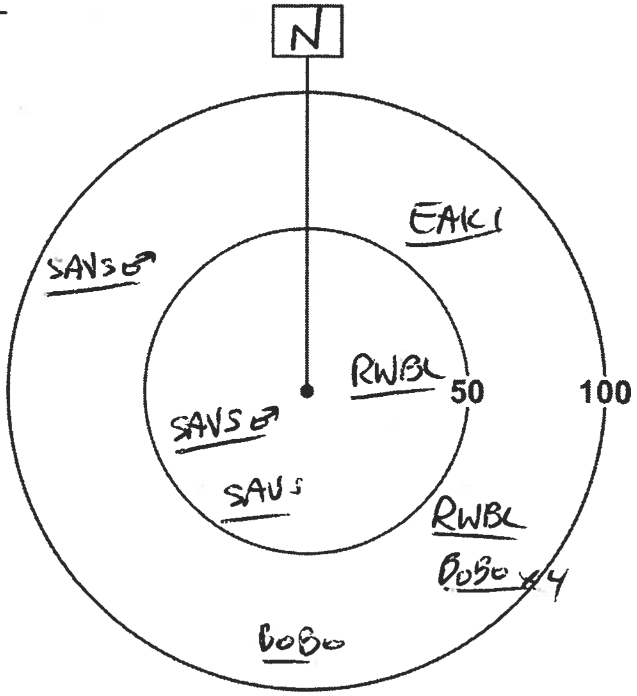
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0758

| | Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|---|
| Feeding | BARS | 3 | [illegible] | | [illegible] | A |
| | TRES | 4 | | | | A |
| | SAVS | | | | 1 | A |
| | SAVS | 2 | 1 | | | O |
| | EAKI | | 1 | | | O |
| | RWBL | 1 | 1 | | | A |
| | BOBO | | 5 | | | O |
| | PUMA | | | | 2 | A |
| | | | | | | |
| | Eastern Garter-Snake ① | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



✓

**Station:** P61 / 302 (M5)

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

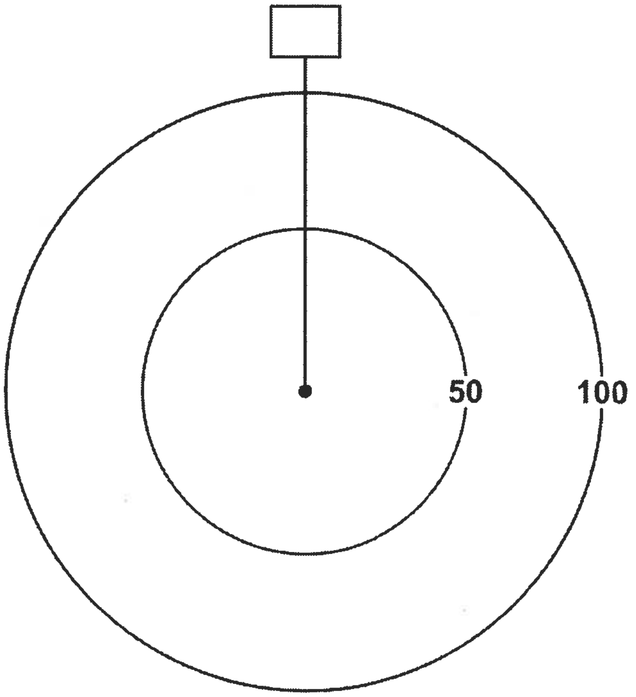
**UTM:** ____________

**Start Time:** 0825

| | Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|---|
| 1 | HERG | | 1 | | | O |
| 1 | RBGU | | 1 | | | O |
| 5 | GADW | | 5 | | | O |
| 1 | CAGO | | 1 | | | O |
| 11 | WISN | | 2 | | | O |
| 11 | LEYE | | 2 | | | O |
| 卌 | KILL | | 5 | | | O |
| 5 | EUST | | 5 | | | O |
| 111 | SPSA | | 3 | | | O |
| 1111 | WIFH | | ~~3~~ 4 | | | O |
| 1 | GWTE | | 1 | | | O |
| 111 | MALL | | 3 | | | O |
| | SAVS | | 5 | | | O |

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

MAWR 1 O
LESA 3 O



Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ AW
(Field Personnel)

Signature: ____________
(Project Manager)

Page 2 of 2

REV: May, 07 Form 020

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 9, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 20 | Wind: N (1) | Cloud: 0 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #:** T___

**Station:** P59/291 (G41)

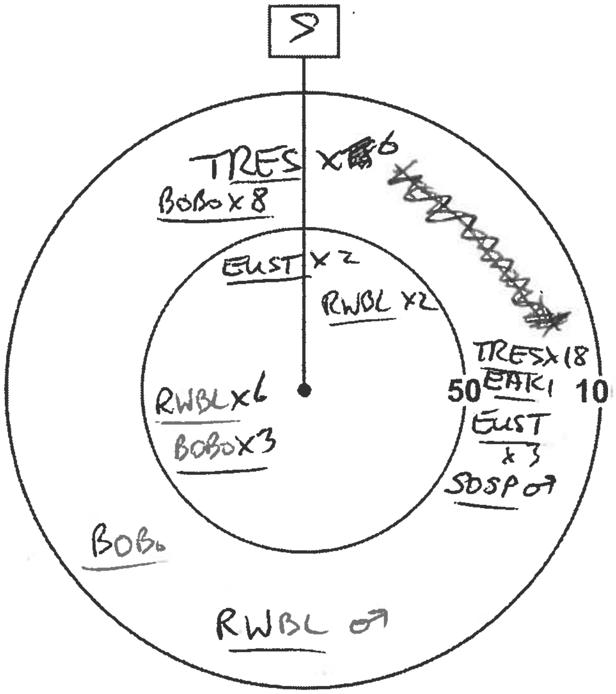
**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0707

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | 18 | | | A |
| TRES | | 6 | | | O |
| EAKI | | 1 | | | A |
| BOBO | 3 | 9 | | | O |
| EUST | 2 | 3 | | | A |
| RWBL | 8 | 1 | | | A |
| BARS | | | | 4 | A |
| SOSP | | 1 | | | O |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



18 Tree Swallow – feeding in lee of large trees

Quality Control: This form is complete (Y) & legible (Y).

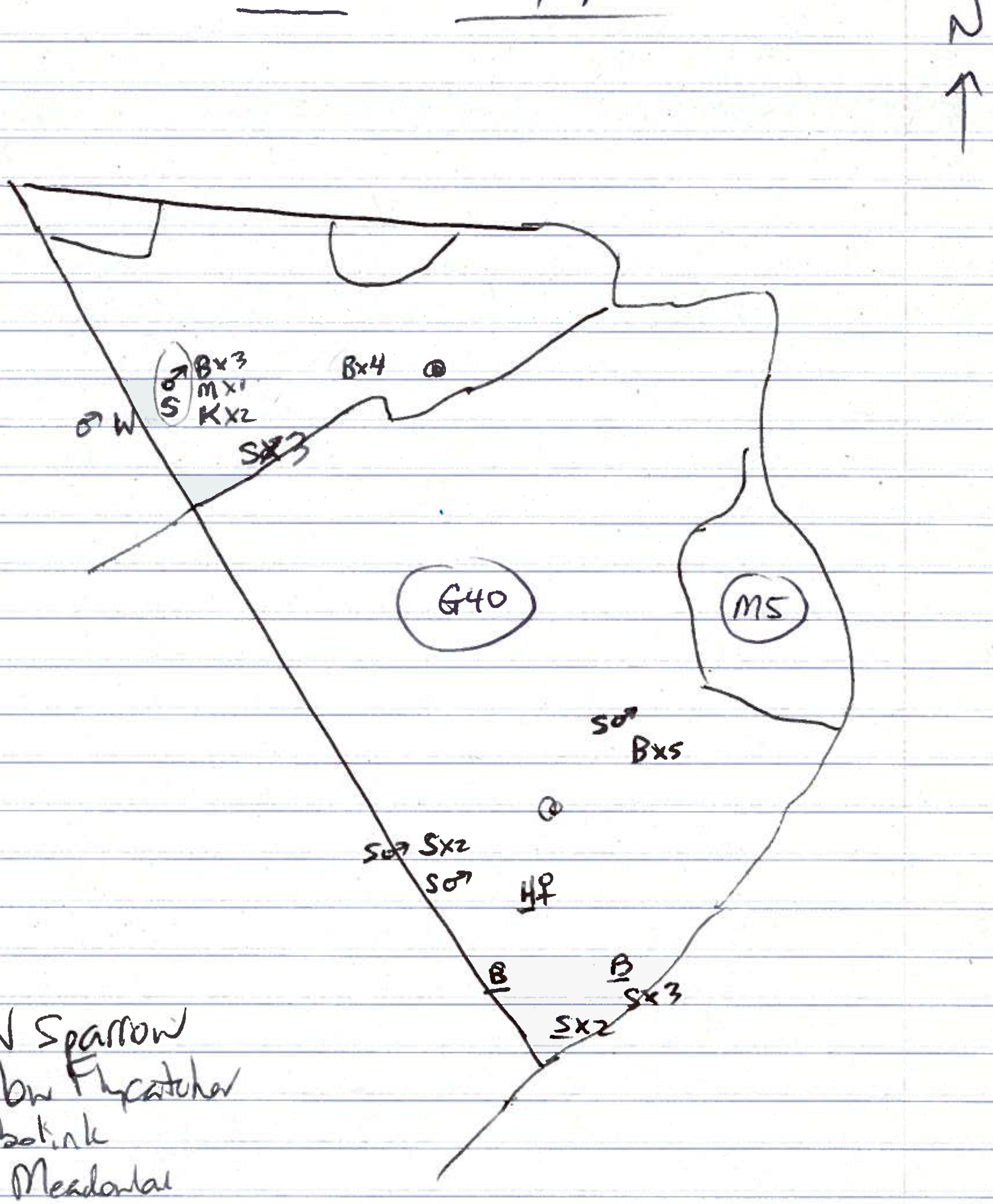
Signature: ____________ AW
(Field Personnel)

Signature: ____________
(Project Manager)

Page 1 of 2

REV: May, 07 Form 020

# DAY 13 - July 9, 2011



S Sav Sparrow
W Willow Flycatcher
B Bobolink
M E Meadowlark
K E Kingbird
H N Harrier

**Feature No.:** M5 **Habitat Type:** ______ **Time Start:** 0820 **Time End:** 0902

***Record location of all significant species on site map.***

| | |
|---|---|
| ** | Endangered, Threatened or Special Concern |
| † | Partners In Flight |
| ‡ | Area Sensitive Species |

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose H | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard H | H | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern H | H | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | X | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | X | Red-headed Wo** † | | Marsh Wren ~~卌~~ 6♂ | T | Field Sp. † | |
| Gr. Egret | X | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | X | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † H | H |
| Virginia Rail | | Ea. Phoebe | | European Starling | X | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | FY | Ea. Kingbird † | NE | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | FY | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe S H | DD | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | X | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | X | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | X | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | GW Teal | X |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | Gadwall | X |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

W Phalarope FY

Black cr. N Heron X
→ 3 adults + 1 imm

L Yellowlegs – Migrant (2) X

Least Sandpiper – " (3) X

Wilson's Phalarope – only one (!) adult still present; all others have migrated south; a total of (4) flying juveniles present.

Pg. 6 of 6

**Signature:** AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 9, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: N (1) | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** G40 **Habitat Type:** ______ **Time Start:** 0750 **Time End:** 0922

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | FY | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | FY |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| * Osprey | NY | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ H | H | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | FY |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | FY |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull (shore) | H | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | NY |
| Common Tern | | Purple Mart. H | N | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | FY | Pine Wa. ‡ | | Gadwall (shore) | X |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | W Phalarope H | A |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 5 of 6

Quality Control: This form is complete ☑ ~~&~~ legible ~~☐~~.

Signature: AW
(Field Personnel)

Signature: Kathne
(Project Manager)

* Osprey – At least 1 small young

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**Feature No.:** G41/G43 **Habitat Type:** ______ **Time Start:** 0645 **Time End:** 0735

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † S | S |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † S | S | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † CF P | CF |
| Virginia Rail | | Ea. Phoebe | | European Starling 1 | FY | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † H | H |
| Killdeer H | H | Ea. Kingbird † P H | P | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | FY | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Woods opposite

WAVI S
BAOR H
WIFL S

Pg. 4 of 6

Signature: AW (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: ______ (Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 9, 2011

Field Personnel: Alan Warmington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | WIND: N ① | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W44 **Habitat Type:** ____ **Time Start:** 0623 **Time End:** 0632

***Record location of all significant species on site map.***

Am Redstart - adult ♂♂

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ S | S |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † S | S | Am. Robin P | P | No. Cardinal S | S |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling H | H | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo S | S | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 6

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Kathrin Sh
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** W22 **Habitat Type:** ______ **Time Start:** 0548 **Time End:** 0612

***Record location of all significant species on site map.*** ● North Section

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee S H | FY | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † ● S | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † H | P | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † H | H |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. H ● | H | Purple Finch | |
| Ring-b. Gull | | Blue Jay H | H | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Brown Thrasher – S end at intersection with main road
Field Sparrow – N section, West of laneway
Baltime Oriole – S end at intersection with main (paved) road

Pg. 2 of 6

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Katherine St
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595
Project Name: Amherst
Date: July 9, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 16 | WIND: N ① | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** [illegible] W23 **Habitat Type:** ______ **Time Start:** 0536 **Time End:** 0545

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin S | S | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | S | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. H | H |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove S | S | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 6

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:** Katrine
(Project Manager)

REV: 2011-05-27 / FORM 031

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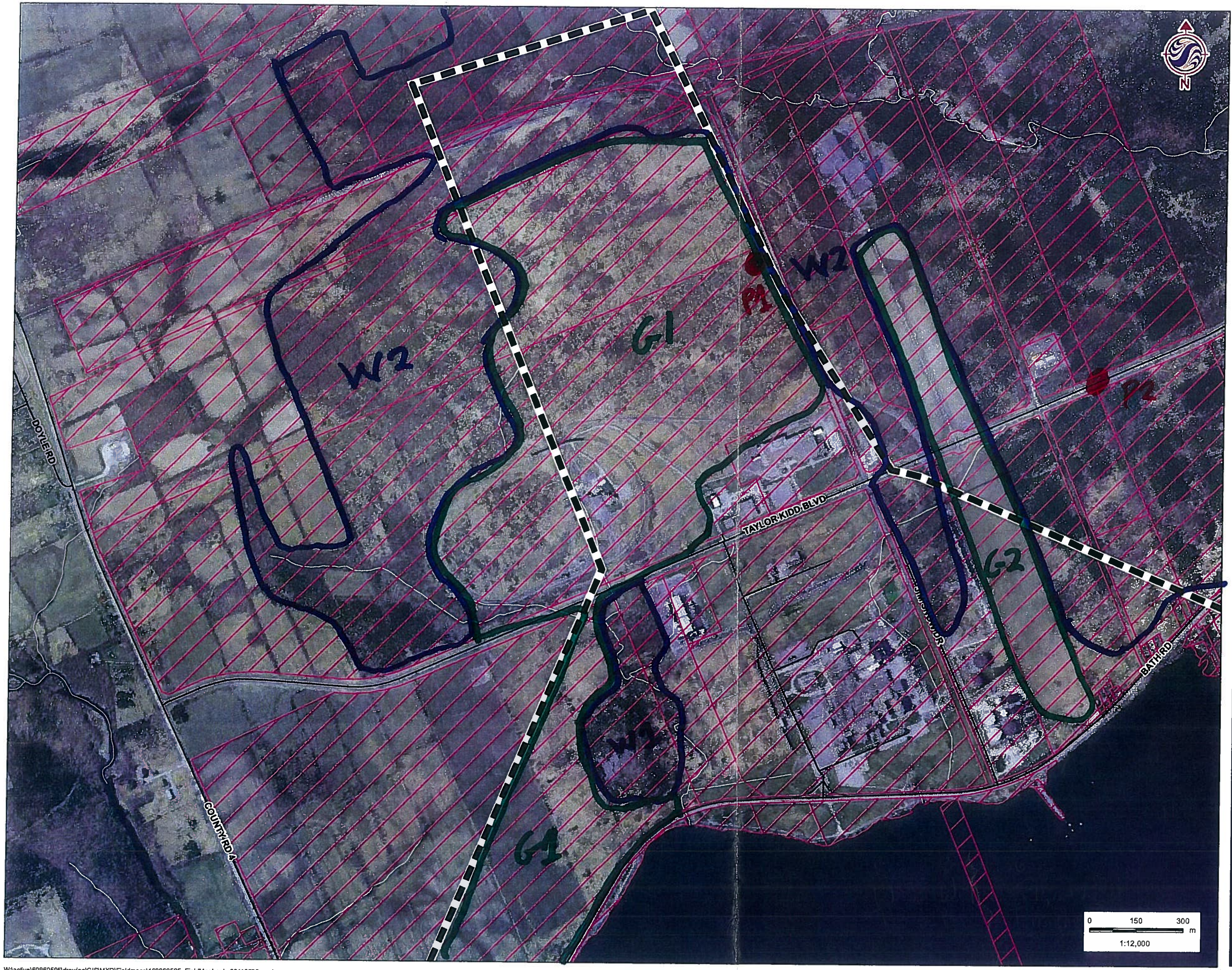
# DAY 13

| | | | |
|---|---|---|---|
| | | W44 | ✓ |
| | | W23 | ✓ |
| | | W22 | ✓ |
| P59 | 291 | G41 | ✓ |
| P60 | 294 | G40 | |
| P61 | 302 | M5 | |

Do P61 at a distance, before flushing birds

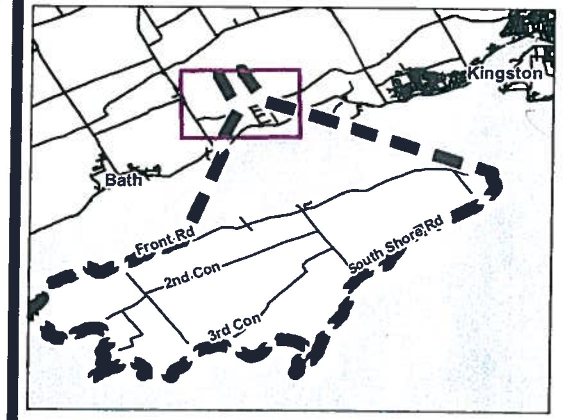


## Legend

- ▟ Study Area
- — Road
- Watercourse
- ○ Amphibian Station

**Property Status**

- 🟩 Optioned
- ▨ Not Optioned



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

Stantec

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
Tile 11

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbook_20110526.mxd
Revised on: 2011-05-27 By: dharvey

DAY 14 – June 27, 2011

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | P62 | | | 298 | | M4 |
| | | | | | | | | |
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| | | | | | | | | |
| | | | P1 | | | 301 | | G1, W2 |
| 1st → | | | P2 | | | 299 | | W2 |
| | | | | | | | | W1 |
| | | | | | | | | G2 |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. ___ of ___

Quality Control: This form is complete ☐ & legible ☐.

**Signature:** ______________________ (Field Personnel)

**Signature:** ______________________ (Project Manager)

REV: 2011-05-06 / FORM 036-b

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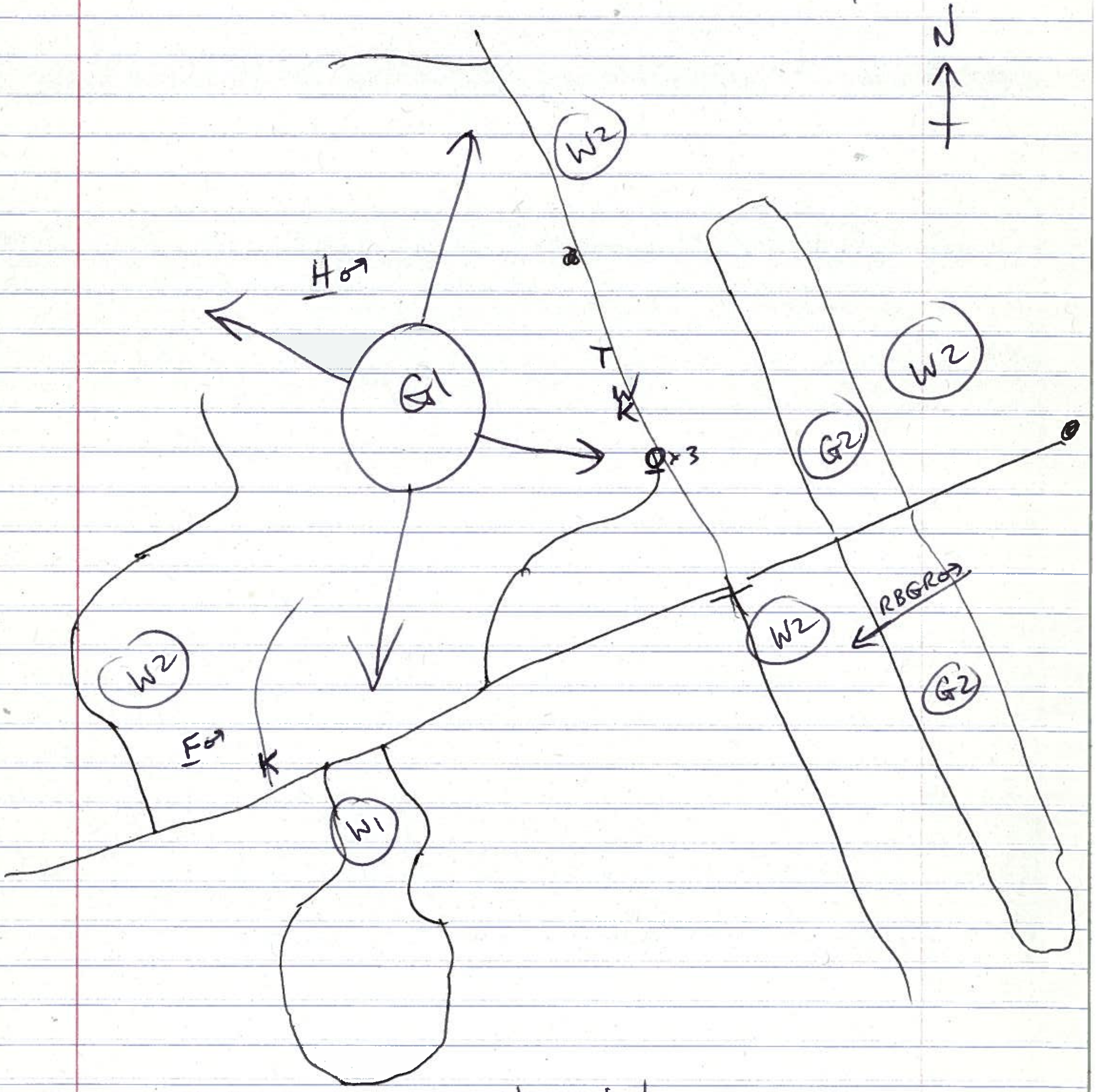
DAY 14 – July 12, 2011



| | | | |
|---|---|---|---|
| F | Field Sparrow | H | N Harrier |
| K | E Kingbird | | |
| O | B Oriole | | |
| W | Willow Flycatch | | |
| T | Brow-Thrashe | | |

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
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Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 12, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 23 | Wind: S ① | Cloud: 100 | PPT: 0 | PPT in last 24 hrs: 0 |

**GPS #:** T___

**Station:** P2/ 299 W2

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ____________

**UTM:** ____________

**Start Time:** 0630

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| COYE | 1 | 1 | | | O |
| SOSP | 1 | 1 | | | O |
| | | | | | |
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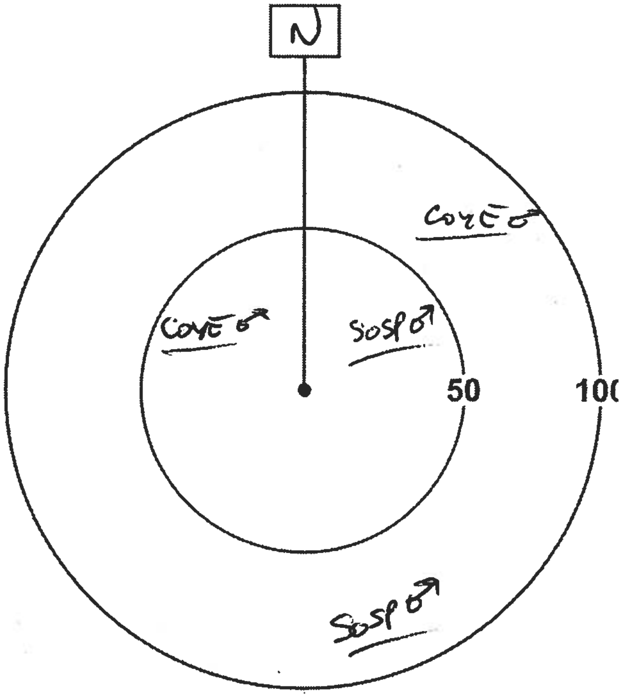

*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ AW
(Field Personnel)

Signature: Katherine St James
(Project Manager)

Page 1 of 2

REV: May, 07 Form 020

**Station:** P1/ 301   G1   W2

✓ **Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ______________

**UTM:** ______________________________

**Start Time:** 0737

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| BHCO | | | | 2 | A |
| AMGO | 2 | | | | O |
| GRCA | 2 | | | | O |
| YEWA | 2 | | | | O |
| SOSP | 4 | | | | O |
| RWBL | | 1 | | | O |
| BRTH | 1 | | | | O |
| BBCU | 1 | | | | O |
| | | | | | |
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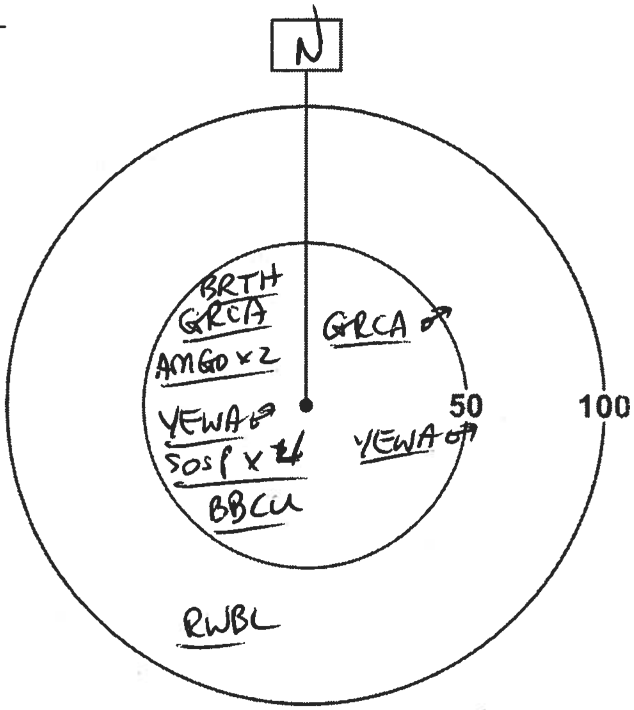
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



**Station:** _____

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ______________

**UTM:** ______________________________

**Start Time:** __________

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| | | | | | |
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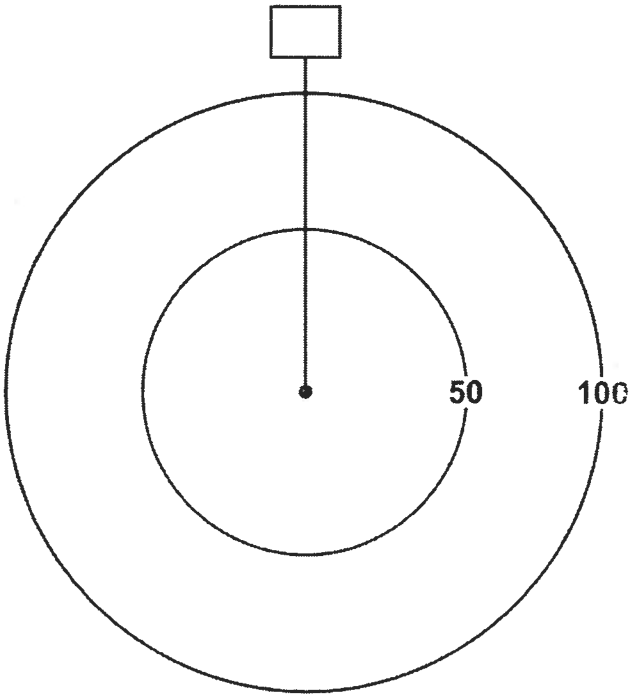
*Height of blade sweep will vary from project to project; Check with Project Manager
**O** – On ground; **A** – Below height of blade sweep; **B** – At height of blade sweep;
**C** – Above height of blade sweep; **D** – Well Above the height of blade sweep



Quality Control: This form is complete (✓) & legible (✓)

Signature: ______________________ (Field Personnel)    Signature: Katherine St James (Project Manager)

Page 2 of 2    REV: May, 07    Form 020

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Birding Point Counts Survey Observation Form

Project Number 160960595

Project Name: Amherst

Date July 11, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | Temp: 22 | Wind: S ① | Cloud: 60 | PPT: 0 | PPT in last 24 hrs: 0 |
|---|---|---|---|---|---|

**GPS #:** T___

**Station:** A P62 / 298 M4

**Habitat:** ☐Forest ☐Swamp ☐Marsh ☐Hay ☐Pasture ☐Crop ________

**UTM:** ________

**Start Time:** 607

| Species | <50 m | 50-100 m | > 100m | Flyovers | Height* |
|---|---|---|---|---|---|
| TRES | | | | 1 | A |
| NRWS | | | | 3 | A |
| COMO | 1 | | | | O |
| | | | | | |
| | | | | | |
| TAPE: | | | | | |
| COMo | 3 | | | | O |
| | | | | | |
| | | | | | |
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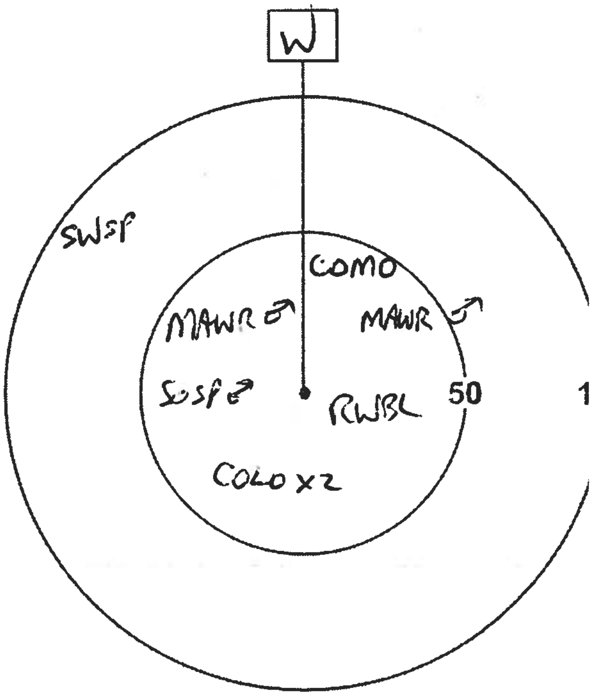
*Height of blade sweep will vary from project to project; Check with Project Manager
O – On ground; A – Below height of blade sweep; B – At height of blade sweep;
C – Above height of blade sweep; D – Well Above the height of blade sweep



Common Moorhen:
- (1) during regular census (calling)
- (1) called durin V. Rail tape
- (2) called during COMO tape
- (1) called durin Pied-b Grebe tape
- total of (3) adults calling

Quality Control: This form is complete ( ) & legible ( )

Signature: AW (Field Personnel)

Signature: Kathrine Sh (Project Manager)

Page 1 of 1

REV: May, 07 Form 020

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 12, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): 23 | WIND: W ① | CLOUD: 100 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Feature No::** W2 **Habitat Type:** ______ **Time Start:** 0625 0655 0718 **Time End:** 0645 0707 0800

***Record location of all significant species on site map.***
** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Species** | **BE*** | **Species** | **BE*** | **Species** | **BE*** | | **BE*** |
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren S | S | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † S | S |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | FY |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin H | H | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird S | P | Rose-br. Grosbeak † H | H |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | FY | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † H | H | Blue-wing. Wa. † | | Co. Grackle H | H |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. S | P |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. P S | P | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow H | H | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch P | P |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | FY | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature: Katrina St James
(Project Manager)

REV: 2011-05-27 / FORM 031

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**Feature No.:** G2 **Habitat Type:** ____________ **Time Start:** 0643 **Time End:** 0646

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat | |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | X |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 2 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________________ (Field Personnel)

**Signature:** ____________________ (Project Manager)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 12, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | S ① | 100 | 0 | 0 |

**Feature No::** W1 **Habitat Type:** ______ **Time Start:** 0648 **Time End:** 0654

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| Mallard | | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| Co. Loon ‡ | | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. | |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing H | H | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. S | S |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. S | S | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch H | H |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | X | Tree Swallow | | Pine Wa. ‡ | | | |
| Mourn. Dove | | No. R. W. Swal. | | Cerulean Wa** †‡ | | | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 3 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Katherine St James
(Project Manager)

REV: 2011-05-27 / FORM 031

**Feature No.:** G1 **Habitat Type:** ____________ **Time Start:** 0707 0720 **Time End:** 0712 0758

***Record location of all significant species on site map.***

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* |  | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose |  | Yellow-b Cuckoo |  | Bank Swallow † |  | Bl-and-wh Wa. ‡ |  |
| Wood Du. |  | Black-b Cuckoo † | H | Cliff Swallow |  | Am. Redstart ‡ |  |
| Am. Black Duck |  | Ea. Screech Owl |  | Barn Swallow | H | Ovenbird ‡ |  |
| Mallard |  | Gr. Horned Owl |  | Bl-capped Chickadee |  | No. Waterthrush ‡ |  |
| R. N. Pheasant |  | Barred Owl ‡ |  | Tufted Titmouse |  | Mourning Wa. ‡ |  |
| Ruffed Grouse ‡ |  | Long-eared Owl |  | Red-br. Nuthatch |  | Co. Yellowthroat DD S | S |
| W. Turkey |  | No. Saw-whet Owl |  | Wh-br. Nuthatch |  | Hooded Wa** †‡ |  |
| Co. Loon ‡ |  | Co. Nighthawk** |  | Br. Creeper ‡ |  | Canada Wa. †‡ |  |
| Pied-b. Grebe |  | Whip-poor-will †‡ |  | Carolina Wren. |  | Scarlet Tanager ‡ |  |
| D. C. Cormorant ‡ |  | Chimney Swift** † |  | House Wren |  | Eastern Towhee † |  |
| Am. Bittern |  | Ruby-thr. Humming. |  | Winter Wren ‡ |  | Chipping Sp. |  |
| Least Bittern** ‡ |  | Belt. Kingfisher † |  | Sedge Wren |  | Clay-colored Sp. |  |
| G. B. Heron |  | Red-headed Wo** † |  | Marsh Wren |  | Field Sp. † |  |
| Gr. Egret |  | Red-bellied Wo. |  | Golded-cr. Kinglet ‡ |  | Vesper Sp. † |  |
| Green Heron |  | Yell-bellied Sap. ‡ |  | B. G. Gnatcatcher ‡ |  | Savannah Sp. † |  |
| T. Vulture |  | Downy Wo. |  | Ea. Bluebird |  | Grasshopper Sp. † |  |
| Osprey |  | Hairy Wo. |  | Veery |  | Song Sp. S | FY |
| N. Harrier †‡ | T | No. Flicker † |  | Hermit Thrush ‡ |  | Swamp Sp. |  |
| Sharp-sh. Hawk ‡ |  | Pileated Wo. ‡ |  | Wood Thrush † |  | Wh-throated Sp. ‡ |  |
| Coopers Hawk ‡ |  | Ea. Wood-Pewee † |  | Am. Robin |  | No. Cardinal |  |
| Red-shou. Hawk †‡ |  | Alder Fly. |  | Gray Catbird H | P | Rose-br. Grosbeak † |  |
| Red-tailed Hawk |  | Willow Fly. † H | H | No. Mockingbird |  | Indigo Bunt. |  |
| Am. Kestrel † |  | Least Fly. |  | Br. Thrasher † H | H | Bobolink † |  |
| Virginia Rail |  | Ea. Phoebe |  | European Starling |  | Red-winged Bl. | FY |
| Sora |  | Gr. Crested Fly. |  | Cedar Waxwing H | H | Ea. Meadowlark † |  |
| Killdeer |  | Ea. Kingbird † H | H | Blue-wing. Wa. † |  | Co. Grackle | CF |
| Spot. Sandpiper |  | Yellow-thr. Vireo ‡ |  | Gold-wing. Wa** † |  | Br-headed Cow. | P |
| Upla. Sandpiper ‡ |  | Blue-headed Vireo ‡ |  | Nashville Wa. |  | Orchard Oriole |  |
| Wilson's Snipe |  | Warbling Vireo |  | Yellow Wa. S | P | Baltimore Oriole † | FY |
| Am. Woodcock |  | Red-eyed Vireo |  | Chestnut-s. Wa. |  | Purple Finch |  |
| Ring-b. Gull |  | Blue Jay |  | Magnolia Wa. ‡ |  | House Finch |  |
| Herring Gull |  | Am. Crow |  | Bl-thr Blue Wa. ‡ |  | Pine Siskin |  |
| Caspian Tern |  | Co. Raven |  | Yel-rumped Wa. ‡ |  | Am. Goldfinch H P | P |
| Black Tern** ‡ |  | Horned Lark |  | Bl-thr Gr. Wa. ‡ |  | House Sparrow |  |
| Common Tern |  | Purple Mart. |  | Blackburnian Wa. ‡ |  | Other Species … |  |
| Rock Dove |  | Tree Swallow |  | Pine Wa. ‡ |  |  |  |
| Mourn. Dove S | S | No. R. W. Swal. |  | Cerulean Wa** †‡ |  |  |  |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.*

Pg. 4 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Katherine St
(Project Manager)

REV: 2011-05-27 / FORM 031

Stantec

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Bird Survey Observation Form

(Use a separate form for each habitat type)

Project Number: 160960595

Project Name: Amherst

Date: July 11, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | S 1 | 60 | 0 | 0 |

**Feature No::** M4 **Habitat Type:** ______ **Time Start:** 0555 **Time End:** 0635

***Record location of all significant species on site map.*** * on lake side

** Endangered, Threatened or Special Concern
† Partners In Flight
‡ Area Sensitive Species

| Species | BE* | Species | BE* | Species | BE* | | BE* |
|---|---|---|---|---|---|---|---|
| Can. Goose | | Yellow-b Cuckoo | | Bank Swallow † | | Bl-and-wh Wa. ‡ | |
| Wood Du. | | Black-b Cuckoo † | | Cliff Swallow | | Am. Redstart ‡ | |
| Am. Black Duck | | Ea. Screech Owl | | Barn Swallow | X | Ovenbird ‡ | |
| * Mallard | FY | Gr. Horned Owl | | Bl-capped Chickadee | | No. Waterthrush ‡ | |
| R. N. Pheasant | | Barred Owl ‡ | | Tufted Titmouse | | Mourning Wa. ‡ | |
| Ruffed Grouse ‡ | | Long-eared Owl | | Red-br. Nuthatch | | Co. Yellowthroat S | S |
| W. Turkey | | No. Saw-whet Owl | | Wh-br. Nuthatch | | Hooded Wa** †‡ | |
| * Co. Loon ‡ | P | Co. Nighthawk** | | Br. Creeper ‡ | | Canada Wa. †‡ | |
| Pied-b. Grebe | | Whip-poor-will †‡ | | Carolina Wren. | | Scarlet Tanager ‡ | |
| D. C. Cormorant ‡ | | Chimney Swift** † | | House Wren | | Eastern Towhee † | |
| Am. Bittern | | Ruby-thr. Humming. | | Winter Wren ‡ | | Chipping Sp. | |
| Least Bittern** ‡ | | Belt. Kingfisher † | | Sedge Wren | | Clay-colored Sp. | |
| G. B. Heron | | Red-headed Wo** † | | Marsh Wren | T | Field Sp. † | |
| Gr. Egret | | Red-bellied Wo. | | Golded-cr. Kinglet ‡ | | Vesper Sp. † | |
| Green Heron | | Yell-bellied Sap. ‡ | | B. G. Gnatcatcher ‡ | | Savannah Sp. † | |
| T. Vulture | | Downy Wo. | | Ea. Bluebird | | Grasshopper Sp. † | |
| Osprey | | Hairy Wo. | | Veery | | Song Sp. S | S |
| N. Harrier †‡ | | No. Flicker † | | Hermit Thrush ‡ | | Swamp Sp. | T |
| Sharp-sh. Hawk ‡ | | Pileated Wo. ‡ | | Wood Thrush † | | Wh-throated Sp. ‡ | |
| Coopers Hawk ‡ | | Ea. Wood-Pewee † | | Am. Robin | | No. Cardinal | |
| Red-shou. Hawk †‡ | | Alder Fly. | | Gray Catbird | | Rose-br. Grosbeak † | |
| Red-tailed Hawk | | Willow Fly. † | | No. Mockingbird | | Indigo Bunt. | |
| Am. Kestrel † | | Least Fly. | | Br. Thrasher † | | Bobolink † | |
| Virginia Rail | | Ea. Phoebe | | European Starling | | Red-winged Bl. A | A |
| Sora | | Gr. Crested Fly. | | Cedar Waxwing | | Ea. Meadowlark † | |
| Killdeer | | Ea. Kingbird † | | Blue-wing. Wa. † | | Co. Grackle | |
| Spot. Sandpiper | | Yellow-thr. Vireo ‡ | | Gold-wing. Wa** † | | Br-headed Cow. | |
| Upla. Sandpiper ‡ | | Blue-headed Vireo ‡ | | Nashville Wa. | | Orchard Oriole | |
| Wilson's Snipe | | Warbling Vireo | | Yellow Wa. | | Baltimore Oriole † | |
| Am. Woodcock | | Red-eyed Vireo | | Chestnut-s. Wa. | | Purple Finch | |
| Ring-b. Gull | | Blue Jay | | Magnolia Wa. ‡ | | House Finch | |
| Herring Gull | | Am. Crow | | Bl-thr Blue Wa. ‡ | | Pine Siskin | |
| Caspian Tern | | Co. Raven | | Yel-rumped Wa. ‡ | | Am. Goldfinch | |
| Black Tern** ‡ | | Horned Lark | | Bl-thr Gr. Wa. ‡ | | House Sparrow | |
| Common Tern | | Purple Mart. | | Blackburnian Wa. ‡ | | Other Species … | |
| Rock Dove | | Tree Swallow | X | Pine Wa. ‡ | | C Moorhen | T |
| Mourn. Dove | | No. R. W. Swal. | X | Cerulean Wa** †‡ | | See Point | |

** Record highest Breeding Evidence (BE) observed over all habitat. Use codes as in Breeding Bird Atlas of Ontario.* Count Sheet

Pg. 1 of 1

Quality Control: This form is complete ☑ ~~& legible ☐~~.

Signature: Aw
(Field Personnel)

Signature: Katrina Sh
(Project Manager)

REV: 2011-05-27 / FORM 031

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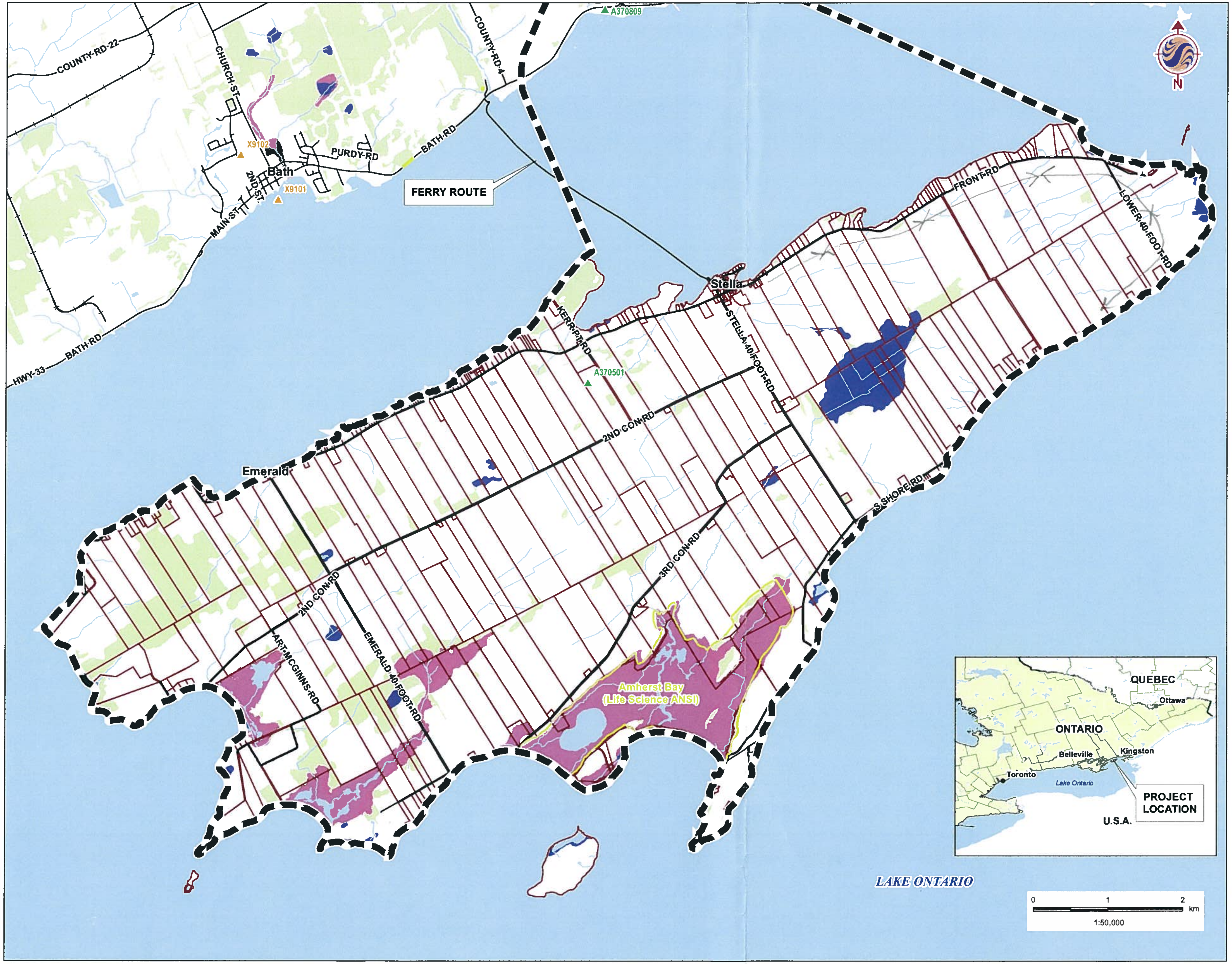

## Legend

Study Area
▲ Active Landfill
▲ Closed Landfill
Road
Railway
Watercourse
☐ Property Boundaries
🟩 Wooded Area
■ Waterbody
■ Unevaluated Wetland
■ PSW
☐ ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

**Stantec**

April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

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Revised on: 2011-04-05 By: pworsell

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Driving Short-eared Owl Observation Form

Project Number: 160960595
Project Name: Amherst
Date / Time: June 9/2011 8:20-8:40 9:05-9:20
Field Personnel: Pete Read

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 19 | Wind: 3 NE | Cloud: 100% | PPT: 0 | PPT in last 24 hrs: 1 cm | Ave. Snow Depth: — |

| Time | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

Quality Control: This form is complete (__) & legible (__).

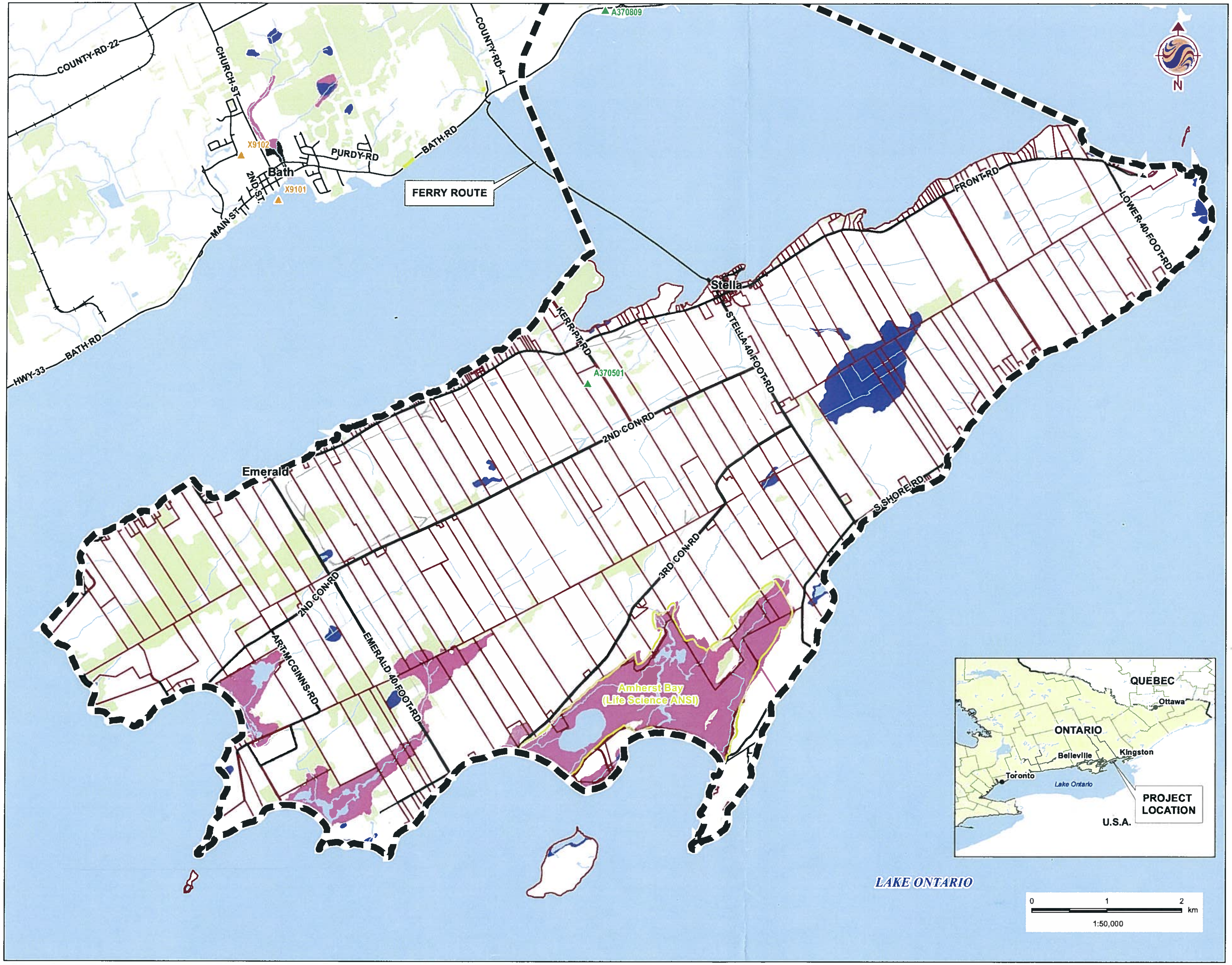
Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 1

REV: May, 07

Form 022



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- Property Boundaries
- Wooded Area
- Waterbody
- Unevaluated Wetland
- PSW
- ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

**Stantec**

April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
# STUDY AREA

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Revised on: 2011-04-05 By: pworsell

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Driving Short-eared Owl Observation Form

Project Number: 160 960 595

Project Name: Amherst

Date / Time: June 10 /2011

Field Personnel: Pete Read

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>18 | Wind:<br>3 NE | Cloud:<br>100% | PPT:<br>0 | PPT in last 24 hrs:<br>< 0.1cm | Ave. Snow Depth:<br>— |

8:00 - 9:15

| Time | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

Quality Control: This form is complete (__) & legible (__).

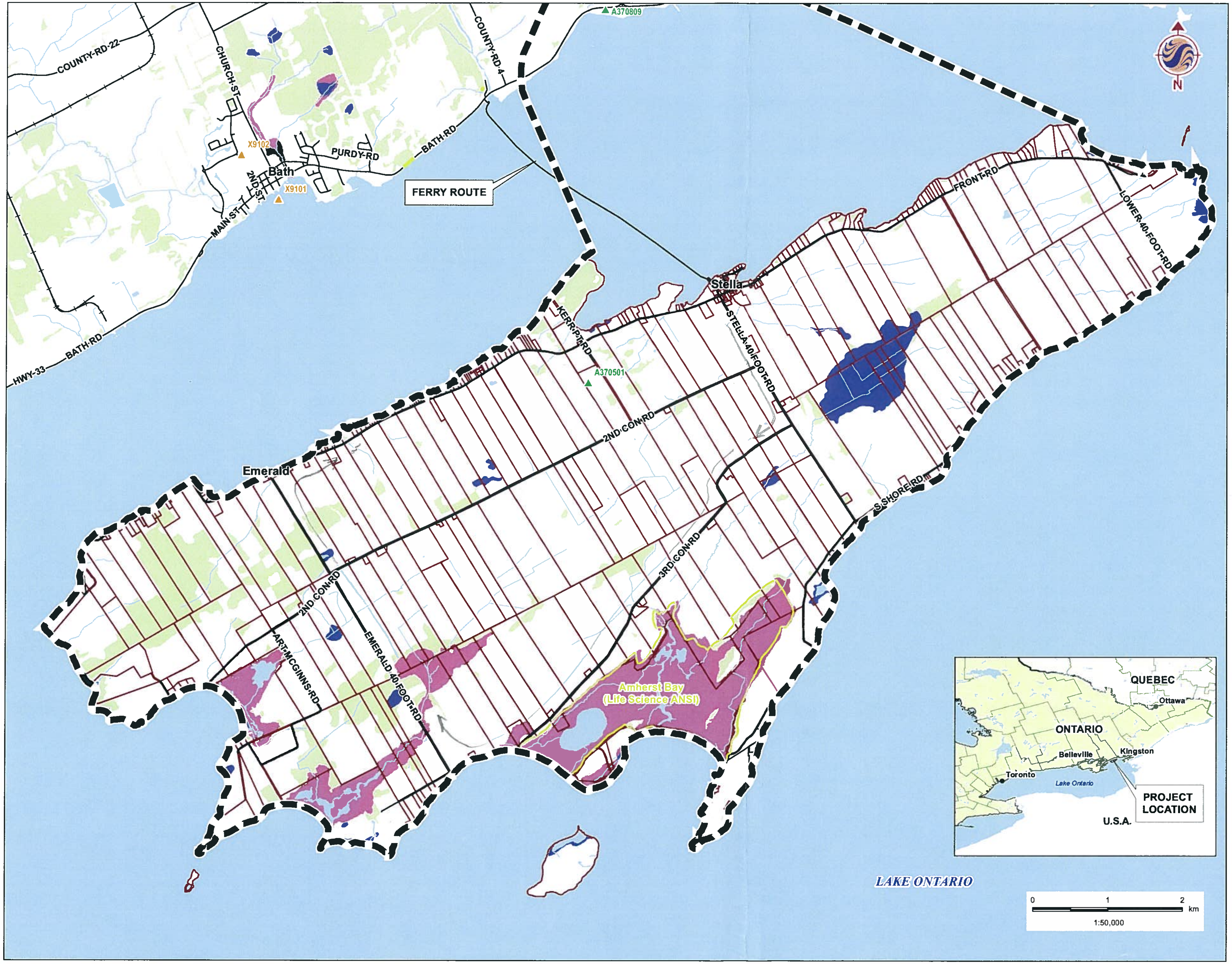
Signature: P. Read
(Field Personnel)

Signature: ________
(Project Manager)

Page 1 of ____

REV: May, 07

Form 022



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- ■ Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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**Stantec**

April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

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Revised on: 2011-04-05 By: pworsell

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Driving Short-eared Owl Observation Form

Project Number: 160960595

Project Name: Amherst

Date / Time: June 11/2011 8:00 - 9:15

Field Personnel: Pete Read

| | | | | | | |
|---|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 19 | Wind: 2-3 S | Cloud: 100% | PPT: sprinkle | PPT in last 24 hrs: 3 mm | Ave. Snow Depth: - |

| Time | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *Habitat type, proximity to features (woodlands, ravines etc.)* | *Perched, Hunting, flying, height* |

Quality Control: This form is complete (__) & legible (__).

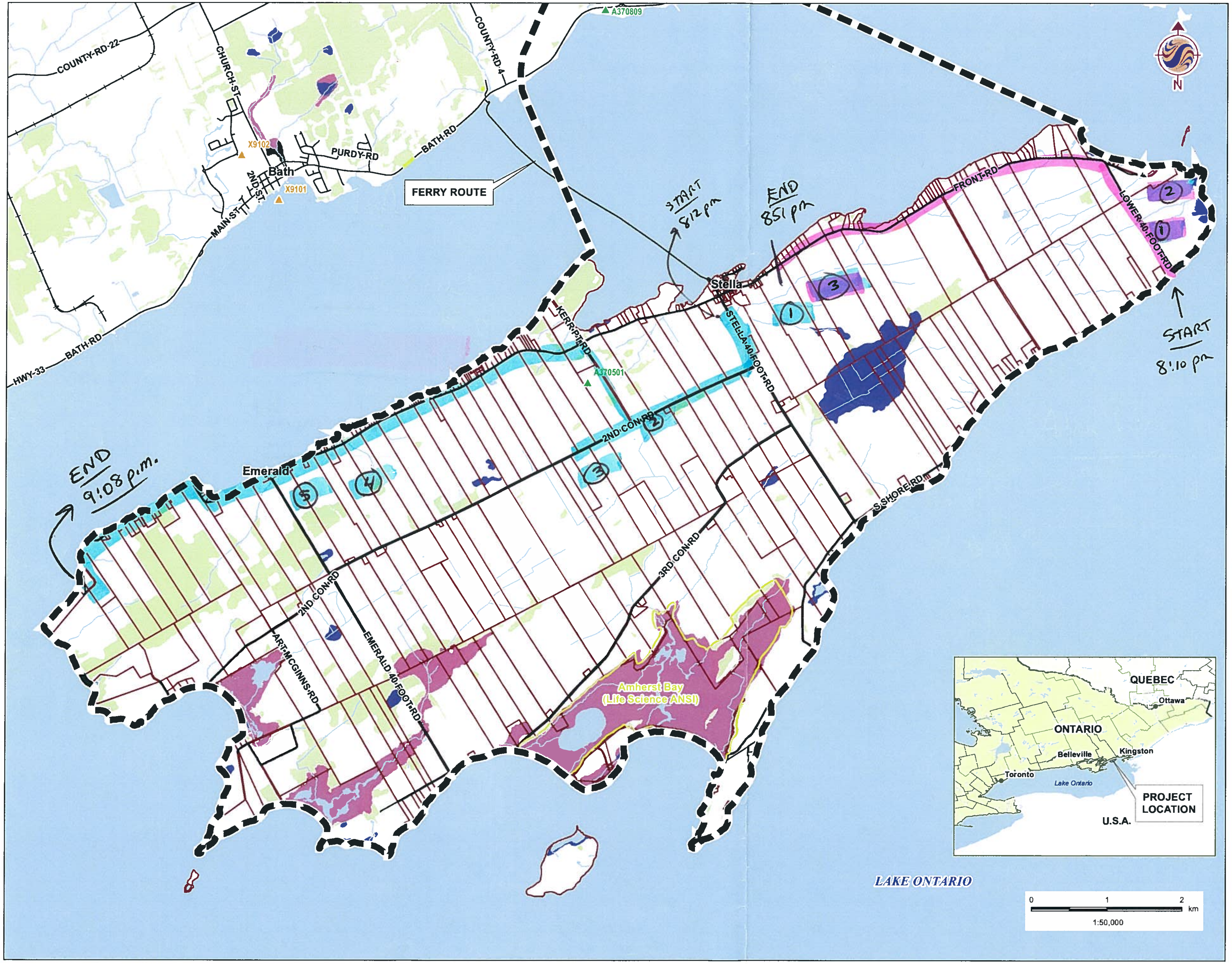
Signature: P. Read
(Field Personnel)

Signature: ____________________
(Project Manager)

Page 1 of ______

REV: May, 07

Form 022



START 8:12 pm

END 8:51 pm

START 8:10 pm

END 9:08 p.m.

## Legend

- ⬚ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- ┼ Railway
- — Watercourse
- ▭ Property Boundaries
- 🟩 Wooded Area
- ▨ Waterbody
- ■ Unevaluated Wetland
- ■ PSW
- ▭ ANSI Boundary

July 2, 2011

Alan Wormington

July 3, 2011

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

Stantec

April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595_FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Short-eared Owl Driving Survey Form

Project Number: 160960595

Project Name: Amherst

Date: July 2, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 23 | 0 | 40 | 0 | 0 |

**Start Time:** 8:10 pm

**End Time:** 851 p.m

**Total KM Driven:** 6

| **Raptor No.** (as on map) | **Time** | **Species & No.** | **Age/Sex** (if determined) | **Height*** (m) | **Habitat** | **Behaviour** (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 826 | NOHA ♂ | ad ♂ | A | grassland | hunting |
| 2 | 828 | Osprey | ad | A | " | nest platform |
| 3 | 846 | NOHA | ad ♂ | A | " | hunting |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-06 / FORM 036b

art w:\resource\internal info and teams\field forms\birds\windfarm birding\form_036-a_raptor-behaviour-driving-survey_2-sided.docx

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Short-eared Owl Driving Survey Form

Project Number: 160960595

Project Name: Amherst

Date: July 3, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 24 | trace W | 30 | 0 | lots of rain<br>0330 to 0430 am |

**Start Time:** 812 pm

**End Time:** 908 pm

**Total KM Driven:** 13 km

| Raptor No. (as on map) | Time | Species & No. | Age/Sex (if determined) | Height* (m) | Habitat | Behaviour (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 823 | NOHA 1 | ad ♂ | B | grass | flying (not hunting) |
| 2 | 829 | UPSA 1 | ad | A | " | on post |
| 3 | 836 | NOHA | 1 ad ♂ | A | " | hunting |
| 4 | 853 | AMKE | 2 (ad pr.) | A | forest edge | sitting on dead trees |
| 5 | 857 | RTHA | 1 ad | A | grass | sitting in dead tree |
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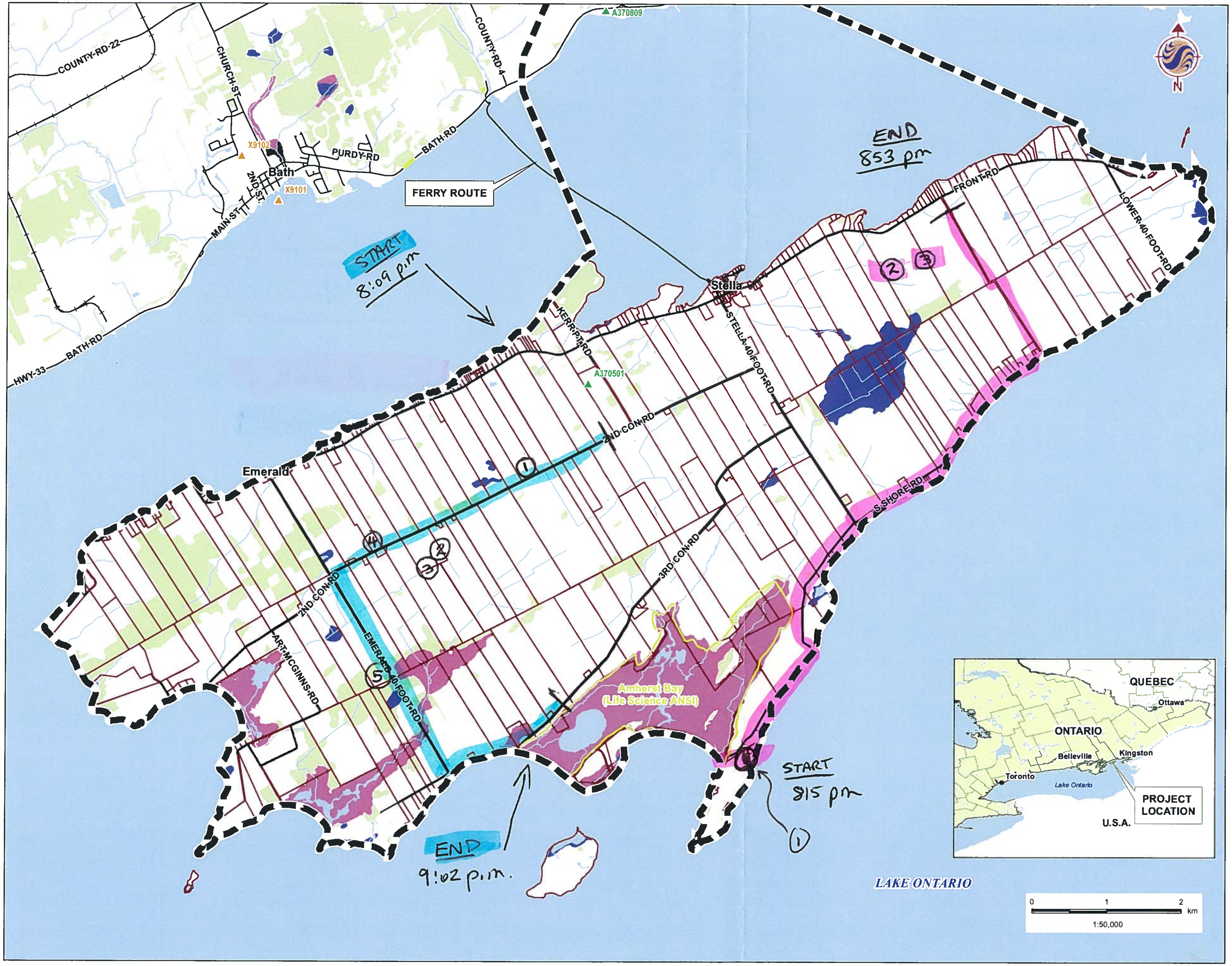
** Height of blade sweep varies from project to project; check with project manager.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- ▨ Waterbody
- ■ Unevaluated Wetland
- ▨ PSW
- ☐ ANSI Boundary

July 4, 2011

July 5, 2011

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595_FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
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Canada N1G 4P5
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# Short-eared Owl Driving Survey Form

Project Number: 160960595

Project Name: Amherst

Date: July 4, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 24 | W ① | 0 | 0 | 0 |

**Start Time:** 815 p.m

**End Time:** 853 pm

**Total KM Driven:** 9 km

| **Raptor No.** (as on map) | **Time** | **Species & No.** | **Age/Sex** (if determined) | **Height*** (m) | **Habitat** | **Behaviour** (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 730 | OROR | 1 ad. ♂ | A | overgrown thickets | / singing perching dead tree |
| 2 | 848 | RTHA | 1 ad | 0 | grass | sitting on hay bales |
| 3 | 853 | RTHA | 1 ad | 0 | '' | sitting on post |
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** Height of blade sweep varies from project to project; check with project manager.*

Pg. ___ of ___

**Signature:** AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Kathrine
(Project Manager)

REV: 2011-05-06 / FORM 036b

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# Short-eared Owl Driving Survey Form

Project Number: 160960595

Project Name: Amherst

Date: July 5, 2011

Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 23 | SW ① | 70 | trace | 0 |

**Start Time:** 8:09 p.m

**End Time:** 9;02 pm

**Total KM Driven:** 11 km

gloomy!

| **Raptor No.** (as on map) | **Time** | **Species & No.** | **Age/Sex** (if determined) | **Height*** (m) | **Habitat** | **Behaviour** (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 814 | NOHA | 1 ad ♀♀ | A | grass | hunting |
| 2 | 820 | NOHA | 1 ad ♀♀ | O | " | sitting on post |
| 3 | 820 | NOHA | 1 ad ♀♀ | O | " | " " " |
| 4 | 827 | RTHA | 1 juvenile | O | " | sitting on hay bale |
| 5 | 839 | NOHA | 1 ad ♂♂ | A | " | hunting |
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** Height of blade sweep varies from project to project; check with project manager.*

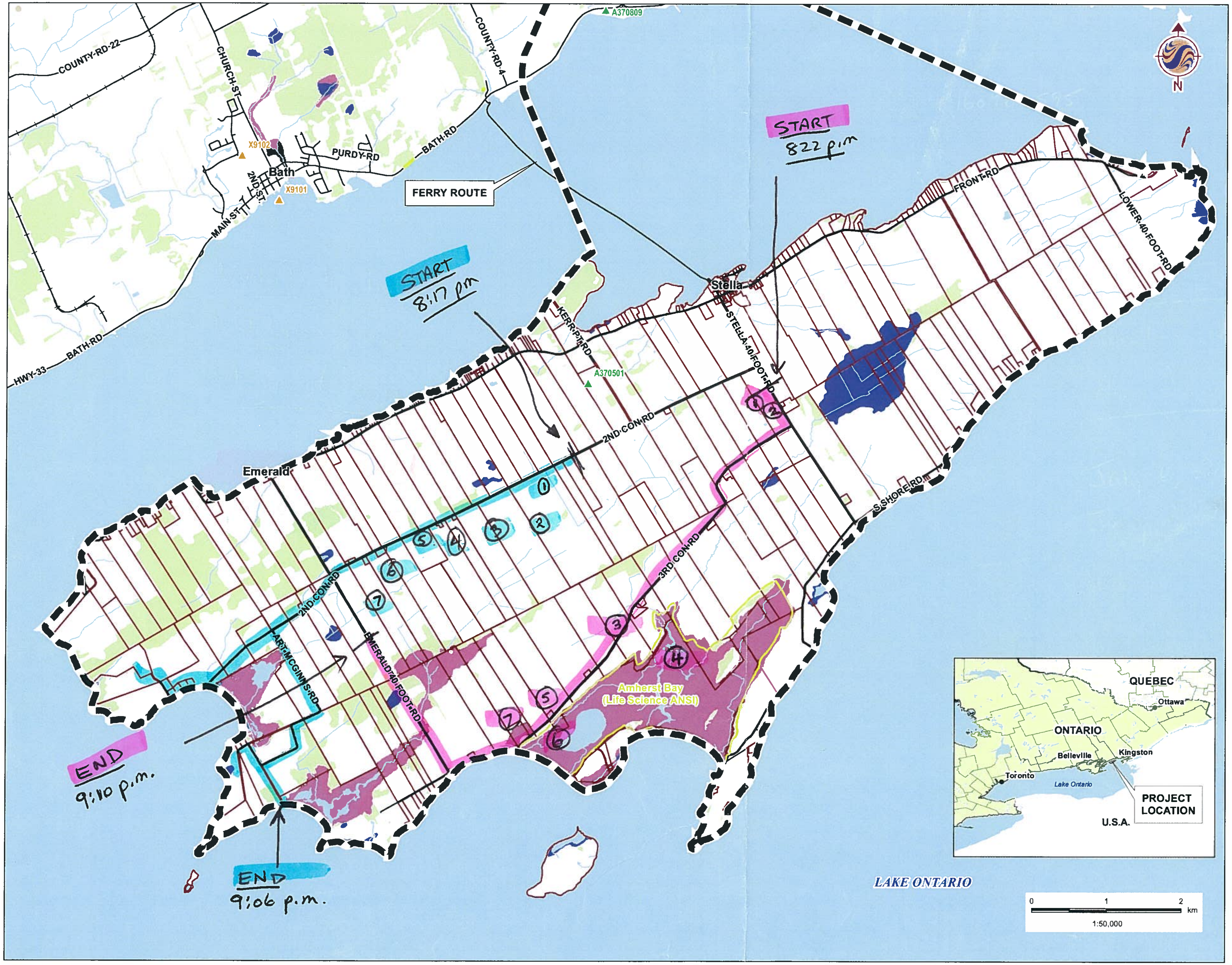
Pg. ___ of ___

**Signature:** AW
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrine
(Project Manager)

REV: 2011-05-06 / FORM 036b



## Legend

- ⌐ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- ┼ Railway
- — Watercourse
- ▭ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- ■ Unevaluated Wetland
- ■ PSW
- ▭ ANSI Boundary

July 6, 2011

July 7, 2011

## Notes

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Client/Project
Client
Title
Project

Figure No.
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Title
## STUDY AREA

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Revised on: 2011-04-05 By: pworsell

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# Short-eared Owl Driving Survey Form

Project Number: 160960595

Project Name: Amherst

Date: July 6, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | Trace SW | 25 | 0 | trace |

**Start Time:** 822 p.m.

**End Time:** 9:10 p.m.

**Total KM Driven:** 9 km

| **Raptor No.** (as on map) | **Time** | **Species & No.** | **Age/Sex** (if determined) | **Height*** (m) | **Habitat** | **Behaviour** (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 822 pm | RTHA | 2 ad. | A | grass | sitting dead-tree / pair |
| 2 | 824 | AMKE | 1 ♂ | A | " | flying by |
| 3 | 842 | AMKE | 1 | A | " | " " |
| 4 | 844 | GBHE | 4 ad | A | marsh | |
| 2+ nests in dead-trees, in marsh / exact location difficult to judge on map. | | | | | | |
| 5 | 854 | NOHA | 1 ad ♂♂ | A | grass | hunting |
| 6 | 857 | NOHA | 1 ad ♂♂ | A | marsh | " ? |
| 7 | 858 | NoHA | 1 ad ♂♂ | A | grass | " |
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** Height of blade sweep varies from project to project; check with project manager.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036b

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# Short-eared Owl Driving Survey Form

Project Number: 160960595

Project Name: Amherst

Date: July 7, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: 0 | CLOUD: 50 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Start Time:** 8:17 pm

**End Time:** 9:06 pm

**Total KM Driven:** 13 km

| **Raptor No.** (as on map) | **Time** | **Species & No.** | **Age/Sex** (if determined) | **Height*** (m) | **Habitat** | **Behaviour** (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 8:18 | NOHA | 1 ad ♂♂ | 0 | grass | sitting on post |
| 2 | 8:19 | NOHA | 1 ad ♀♀ | 0 | grass | " " " |
| 3 | 8:24 | RTHA | 1 ad | A | grass | flying |
| 4 | 8:25 | NOHA | 1 ad ♀♀ | 0 | grass | sitting on post |
| 5 | 8:26 | AMKE | 1 ad | A | grass | flying |
| 6 | 8:34 | RTHA | 1 ad | 0 | grass | sitting on hay bale |
| 7 | 8:34 | NOHA | 1 ad ♀♀ | 0 | grass | " " " " |
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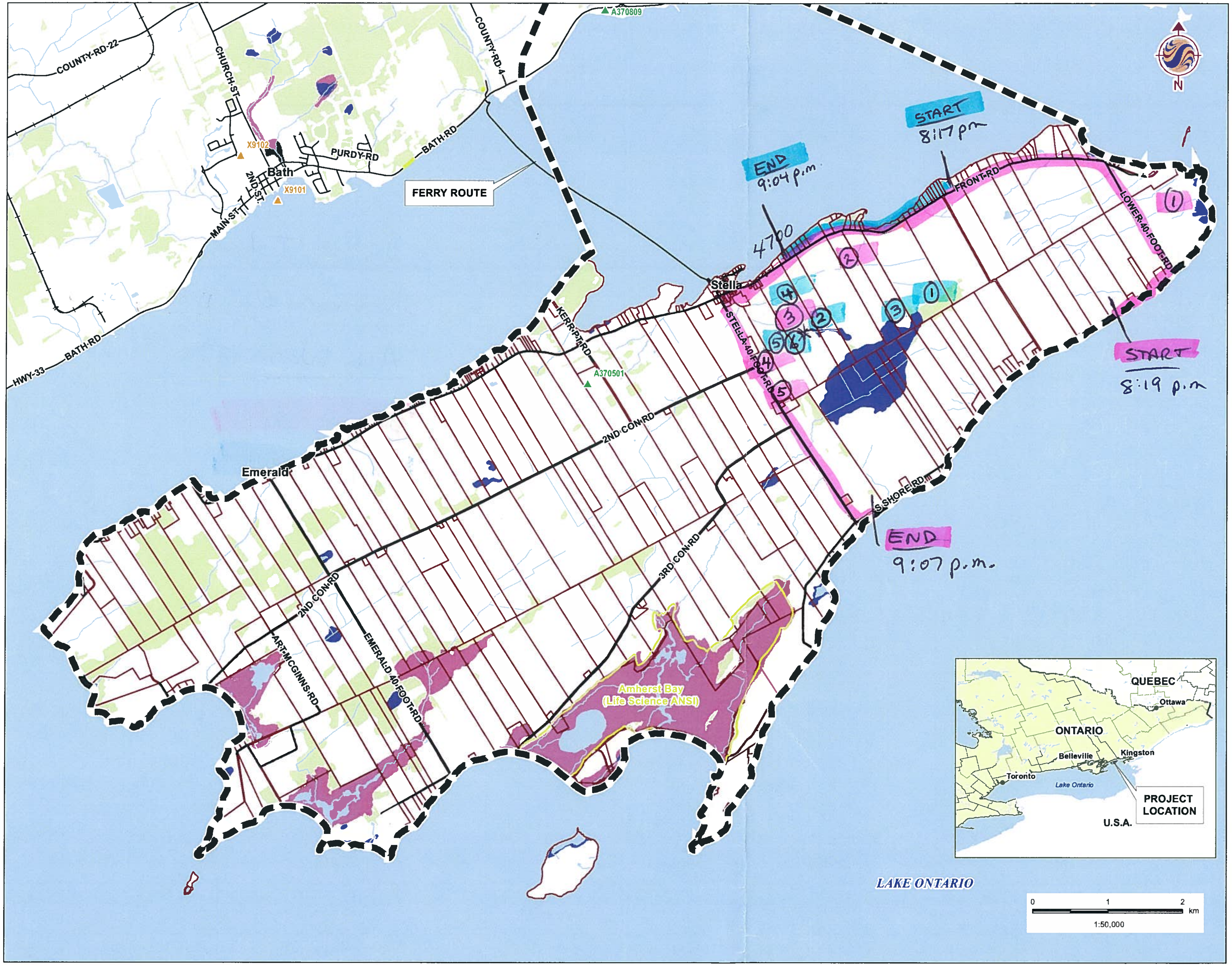
** Height of blade sweep varies from project to project; check with project manager.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________________ (Field Personnel)

**Signature:** Katherine ____________________ (Project Manager)



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

July 8, 2011

July 9, 2011

## Notes

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April 2011
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Client
Title
Project

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**STUDY AREA**

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# Short-eared Owl Driving Survey Form

Project Number: 160960595

Project Name: Amherst

Date: July 8, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: W ① | CLOUD: 15 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Start Time:** 8:19 pm

**End Time:** 9:07 p.m

**Total KM Driven:** 11 km

| **Raptor No.** (as on map) | **Time** | **Species & No.** | **Age/Sex** (if determined) | **Height*** (m) | **Habitat** | **Behaviour** (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 832 | OSPR | 2 | A | grass | two on platform (age?) |
| 2 | 844 | NOHA | 1 ad ♂♂ | A | grass | hunting |
| 3 | 846 | NOHA | 1 ad ♀♀ | 0 | grass | sitting on post |
| 4 | 858 | RTHA | 1 ad | A | grass | flying |
| 5 | 902 | AMKE | 2 (pr?) | A | grass | flying |
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** Height of blade sweep varies from project to project; check with project manager.*

Pg. ___ of ___

Signature: ______________________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kathrine (Project Manager)

REV: 2011-05-06 / FORM 036b

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Short-eared Owl Driving Survey Form

Project Number: 160960595
Project Name: Amherst
Date: July 9, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | WIND: SW [✓ 1] | CLOUD: 30 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Start Time:** 8:17 p.m.
**End Time:** 9:04 pm
**Total KM Driven:** 2 km

| Raptor No. (as on map) | Time | Species & No. | Age/Sex (if determined) | Height* (m) | Habitat | Behaviour (i.e. hunting, perching, actively migrating) |
|---|---|---|---|---|---|---|
| 1 | 823 | RTHA | 1 [illegible] | A | grass/wood edge | sitting in dead tree |
| 2 | 828 | NOHA | 1 ad ♀♀ | O | grass | sitting on post |
| 3 | 832 | NOHA | 2 ad ♀♀ | A | grass | hunting |
| 4 | 842 | NOHA | 2 ad ♂♂ | A | grass | fighting |
| 5 | 849 | RTHA | 1 ad | A | grass | flying |
| 6 | 850 | NOHA | ♀ or juv | A | grass | hunting |
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** Height of blade sweep varies from project to project; check with project manager.*

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

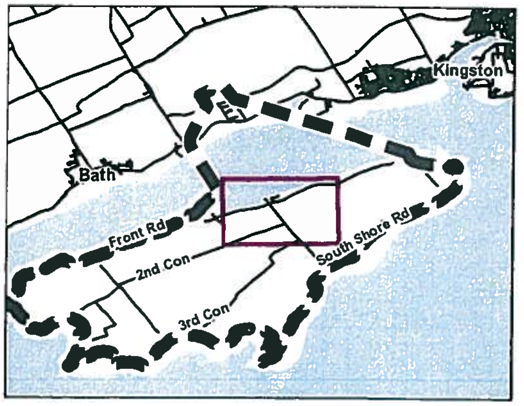
**Signature:** ____________________ (Field Personnel)

**Signature:** ____________________ (Project Manager)

REV: 2011-05-06 / FORM 036b

**Legend**

- ▚ Study Area
- — Road
- Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property
- ▭ Tentitive Access Properties
- ○ Amphibian Station



**Notes**

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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

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Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property
- Tentitive Access Properties
- Amphibian Station

## Notes

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Client
Title
Project

Figure No.
Tile 4

Title
**FIELD MAPBOOK**

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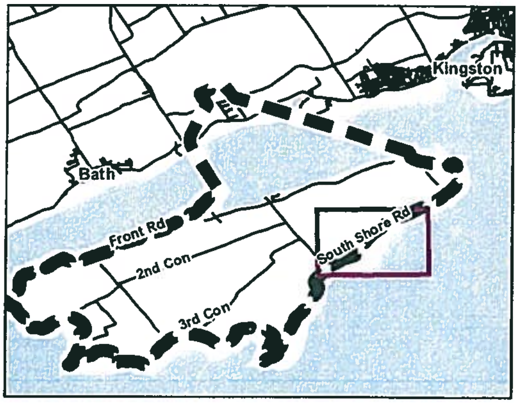
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- ☐ Property Boundaries
- 🟩 Signed Property
- 🟥 Tentitive Access Properties
- Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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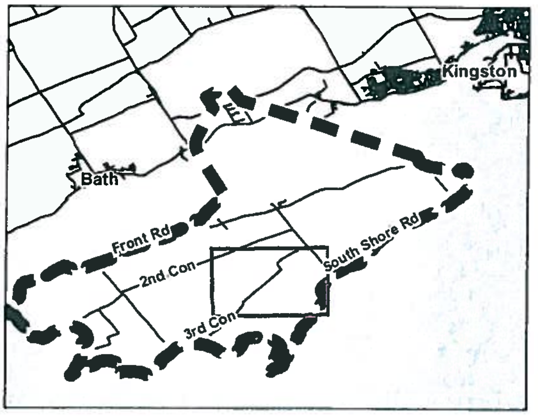
## Legend

- ▛ Study Area
- — Road
- Watercourse
- ▢ Property Boundaries
- 🟩 Signed Property
- 🟥 Tentitive Access Properties
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

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HESP
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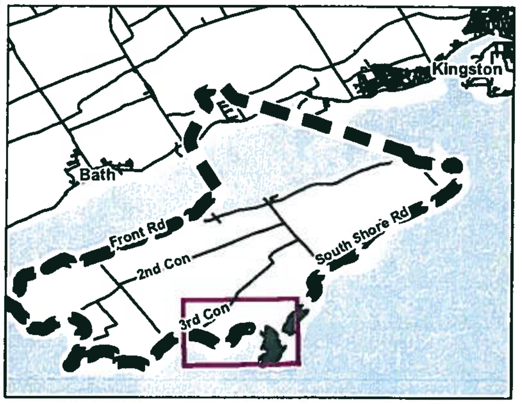
3

## Legend

- ▙ Study Area
- — Road
- Watercourse
- ☐ Property Boundaries
- 🟩 Signed Property
- 🟥 Tentitive Access Properties
- Amphibian Station



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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 7

Title
**FIELD MAPBOOK**

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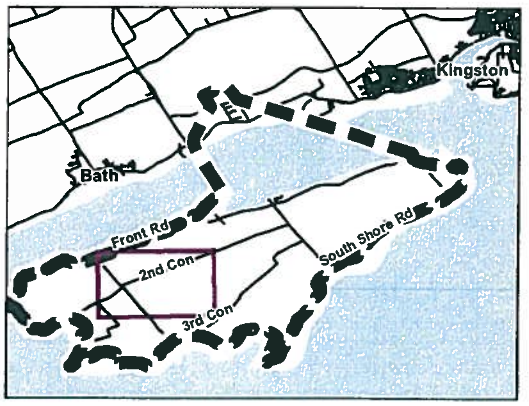
## Legend

- ▞ Study Area
- — Road
- Watercourse
- ☐ Property Boundaries
- 🟩 Signed Property
- 🟥 Tentitive Access Properties
- Amphibian Station



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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 8

Title
**FIELD MAPBOOK**

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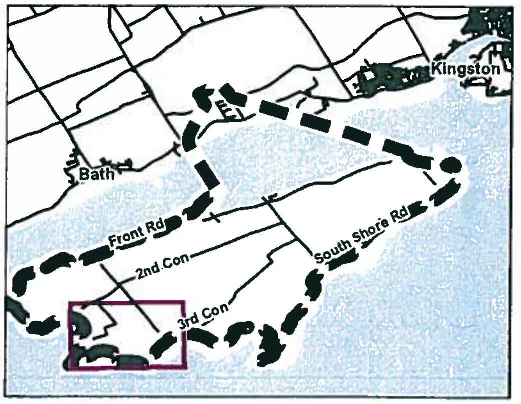
## Legend

- Study Area
- — Road
- Watercourse
- ▭ Property Boundaries
- ▭ Signed Property
- ▭ Tentitive Access Properties
- ○ Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

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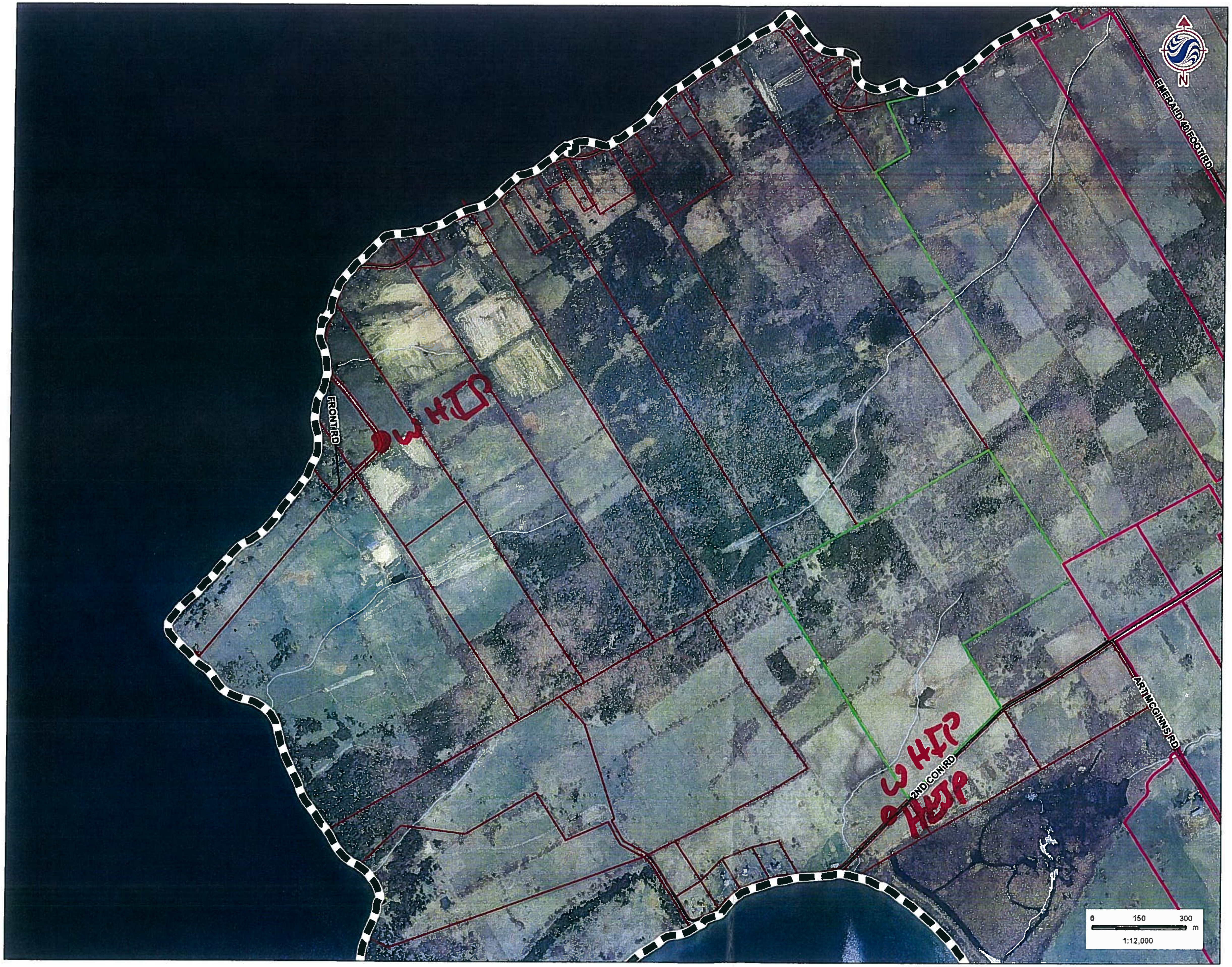
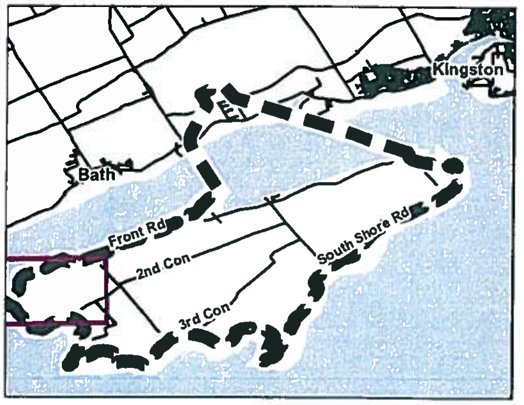


## Legend

Study Area
Road
Watercourse
▭ Property Boundaries
🟩 Signed Property
🟥 Tentitive Access Properties
Amphibian Station



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Imagery Source: First Base Solutions ©, 2011. Imagery Date: 2008

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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 10

Title
**FIELD MAPBOOK**

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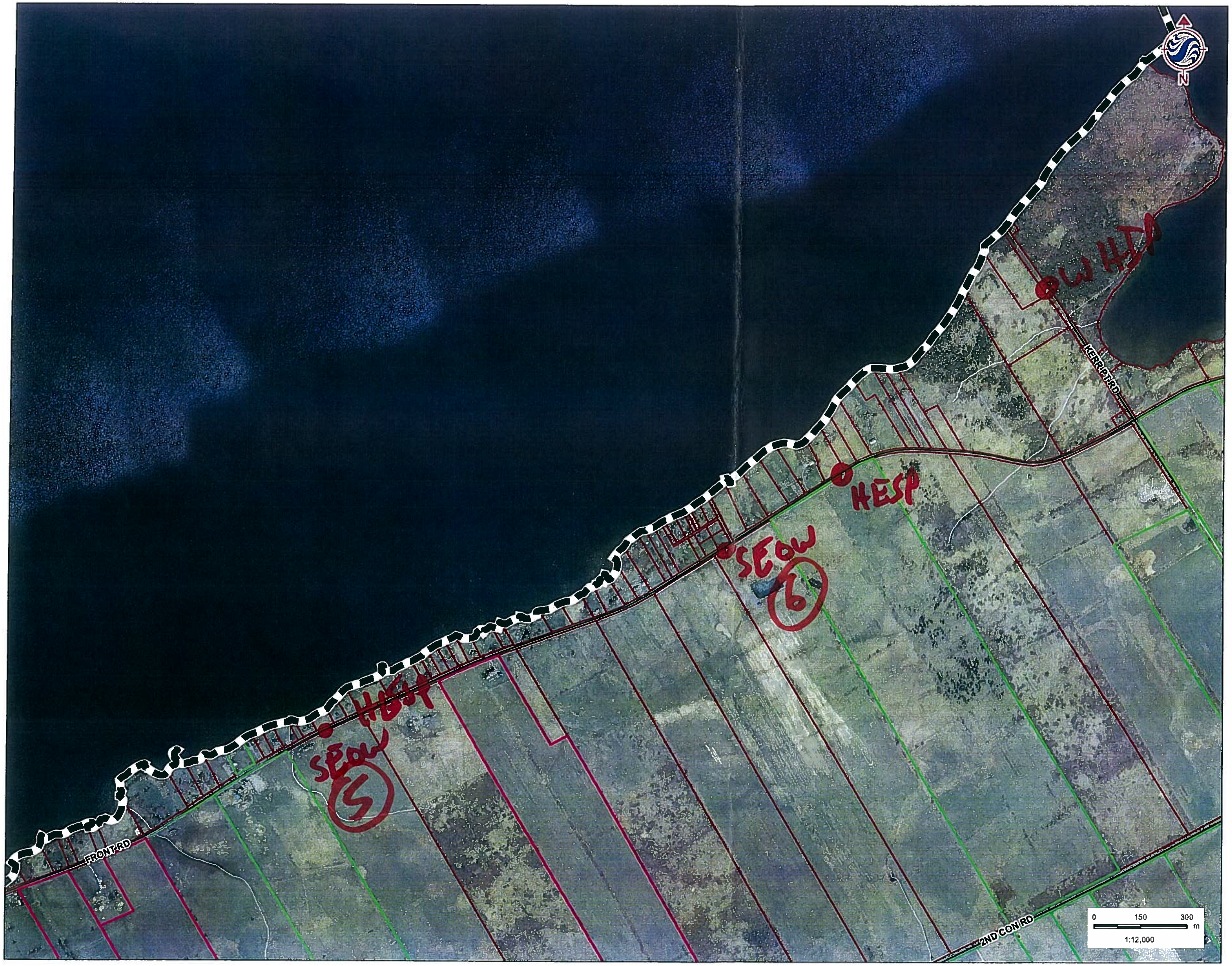
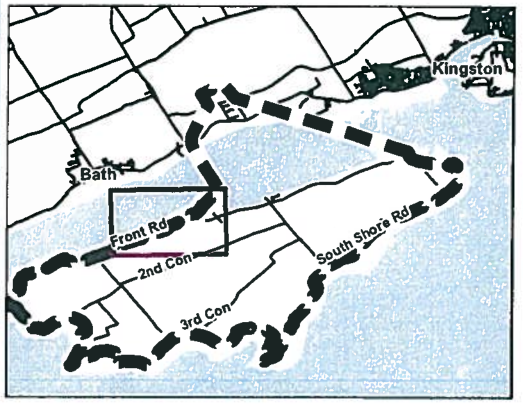
Revised on: 2011-04-15 By: pworsell



## Legend

Study Area
Road
Watercourse
Property Boundaries
Signed Property
Tentitive Access Properties
Amphibian Station



## Notes

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Client
Title
Project

Figure No.
Tile 11

Title
**FIELD MAPBOOK**

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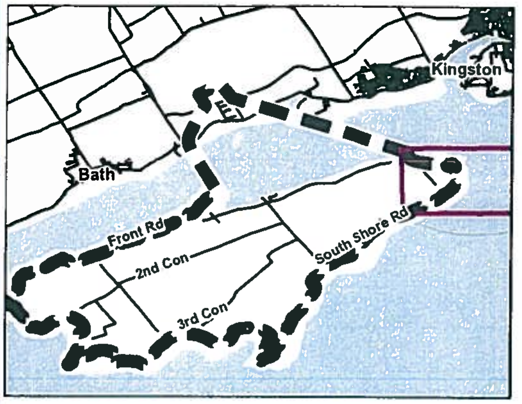
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- 🟩 Signed Property
- Tentitive Access Properties
- Amphibian Station



## Notes

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Client/Project
Client
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Project

Figure No.
Tile 12

Title
**FIELD MAPBOOK**

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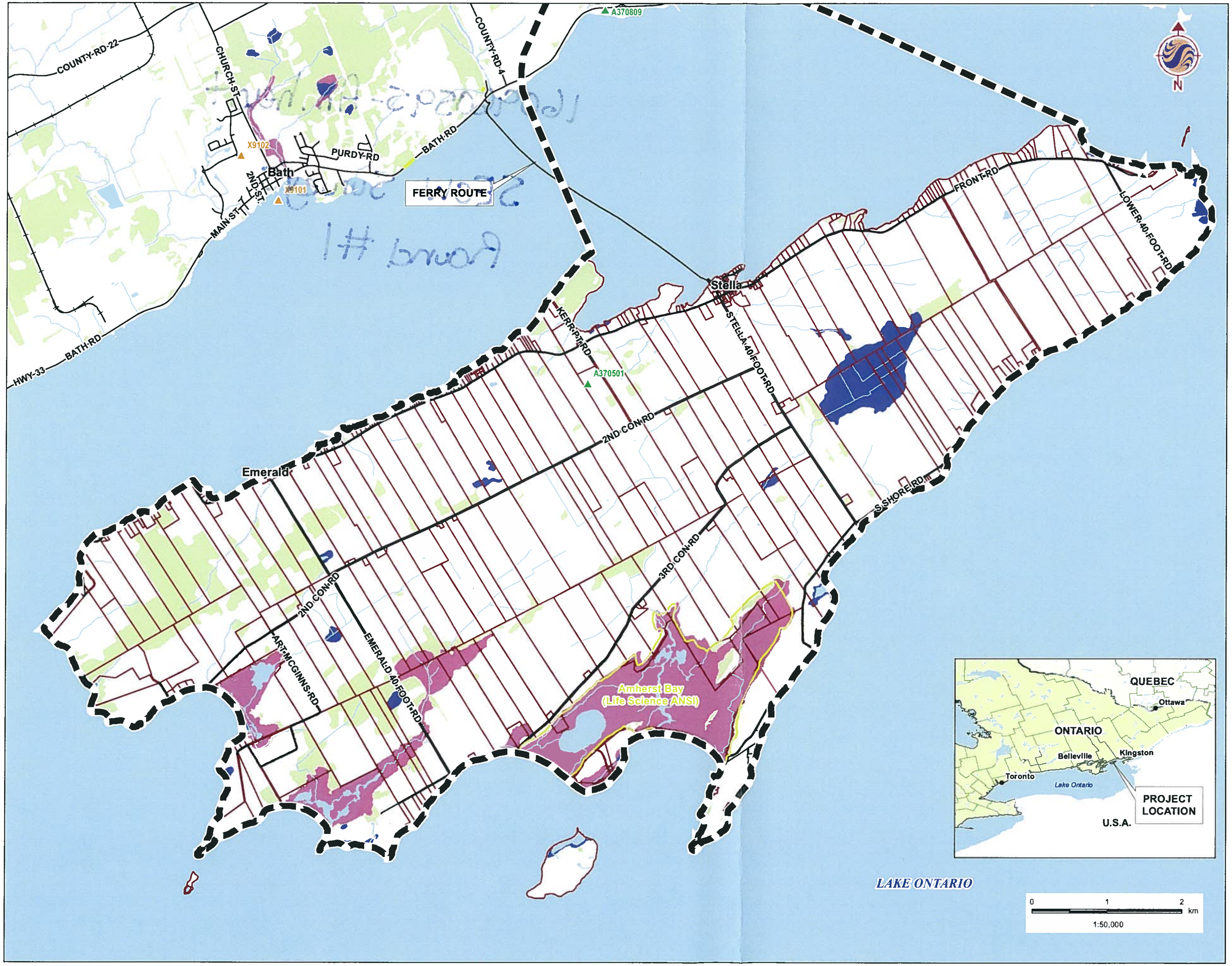
Revised on: 2011-04-15 By: pworsell



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

## Notes

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160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595_FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell

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Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst Island
Date: May 11
Field Personnel: Don Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 10 | WIND: 1 | CLOUD: 20% | PPT: None | PPT (in last 24 hrs): None |

**Station #:** 11
**UTM:** 365309, 4892899
**Start Time:** 8:00
**End Time:** 8:20
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | Pasture | Pasture throughout observational area, |
| | | woody vegetation limited to a few |
| | | shrubs which cover less than |
| | | 1% of area |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. ___ of ___

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960575
Project Name: Amherst Island
Date: May 10, 2011
Field Personnel: Don Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 10 | 1 | 20% | None | None |

**Station #:** 12
**UTM:** 366911, 4893462
**Start Time:** 8:~~00~~ 10
**End Time:** 8:30
**Raptor #:** No SEOW
**Age:** (e.g. juvenile or adult)

Moved station east by 100m as it improved visibility

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | field | fallow field covers entire observational area. Very few shrubs or trees. |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. ___ of ___

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

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Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 10, 2011

Field Personnel: Don Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>10 | WIND:<br>1 | CLOUD:<br>20% | PPT:<br>None | PPT (in last 24 hrs):<br>None |

**Station #:** 13

**UTM:** 368425, 4894017

**Start Time:** 8:30

**End Time:** 8:50

**Raptor #:** No SEOW

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | Sheep pasture | Sheep in about 50% of pasture. Vegetation grasses & herbaceous species, few shrubs or trees |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey

**2 – Pursing:** Level, direct flight path; not searching for prey

**3 – Perched:** Perching

**4 – Courtship Display:** Swooping calling display

Pg. ___ of ___

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 11

Field Personnel: Don Graham

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10 | 1 | 20% | None | None |

**Station #:** 14

**UTM:** 369657, 4892386

**Start Time:** 827

**End Time:** 847

**Raptor #:** None

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | Sheep pasture | Occupies most of observational |
| | | area. Recently used by sheep. No |
| | | trees, very few shrubs |
| 2 | Conifer stand | Dense conifers, 5m high |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. ___ of ___

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

**Project Number:** 160960595

**Project Name:** AMHERST IS.

**Date:** MAY 11, 2011 8 t 820

**Field Personnel:** BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 15°C | E 2 | 20% | 0 | 0 |

**Station #:** 1

**UTM:** 18T 0358989 4888152

**Start Time:** 8:00 PM

**End Time:** 8:20

**Raptor #:** NO OWLS

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | GRASSLAND | 8" NEW GRASS WITH DEAD WEED HEADS TO 1m |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 1 of 1

**Signature:** 
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** 
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: AMHERST IS.

Date: MAY 11, 2011

Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 15°C | E 2 | 20% | 0 | 0 |

**Station #:** 2

**UTM:** 18T 0360817 4889404

**Start Time:** 826

**End Time:** 846

**Raptor #:** NO OWLS

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | GRASSLAND | |
| 2 | WOODLAND | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 1 of 1

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: AMHERST
Date: MAY 10, 2011
Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 14°C | E 1 | 30% | 0 | 0 |

**Station #:** 8
**UTM:** 18T 0363107 4890580
**Start Time:** 808 PM
**End Time:** 828 PM.
**Raptor #:** NONE OBSERVED
**Age:** (e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| ① | GRASSLAND (PASTURE) | 12cm + NEW GRASS WITH SCATTERED CLUMPS |
| | LOTS OF WOODEN FENCE POSTS. | OF DEAD GRASS |
| ② | WOODLAND | WET + YOUNG. |
| ③ | GRASSLAND WITH SCATTERED RED CEDARS | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 1 of 1

**Signature:** Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine St
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: AMHERST

Date: MAY 10, 2011

Field Personnel: BOB STAMP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10°C | E 3 | 10% | 0 | 0 |

**Station #:** 9

**UTM:** 18T 0364276 4891129

**Start Time:** 832

**End Time:** 852

**Raptor #:** NO BIRDS OBSERVED.

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| 1 | GRASSLAND | NEW GRASS 6 cm STANDING DEAD |
| ~~2~~ | ~~GRASSLAND~~ | QUEEN ANNE'S LACE 50 cm. |
| 2 | GRASSLAND | NO DEAD WEEDS |
| 3 | GRASSLAND | SCATTERED DEAD WEED + SHRUBS |
| 4 | PLOUGHED FIELD | |

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 1 of 1

**Signature:** Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathern Stan
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: AMHERST ISLAND.
Date: 17 MAY/11
Field Personnel: J. HESLOP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10°C | NE 15 | 100% | 0 | RAIN |

**Station #:** AA =6
**UTM:** 18 360874E - 4891141N
**Start Time:** 20:00
**End Time:** 20:30
**Raptor #:** NO SEOW OBSERVED
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
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Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
1 – **Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
2 – **Pursing**: Level, direct flight path; not searching for prey
3 – **Perched**: Perching
4 – **Courtship Display**: Swooping calling display

Pg. 1 of 1

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine Sh
(Project Manager)

**Stantec**

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Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst Is.

Date: 17 MAY /11

Field Personnel: J. Heslop

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 9°C | NE 15 | 100% | 0 | RAIN |

**Station #:** AB =5

**UTM:** 18 359762E 4890616N

**Start Time:** 20:33

**End Time:** 21:00

**Raptor #:** No SEOW OBSERVED

**Age:**

(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
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Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 1 of 1

**Signature:** Heslop
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine
(Project Manager)

REV: 2011-05-06 / FORM 03

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: AMHERST IS.
Date: MAY 17 2011
Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 8°C | E-5 | 95% | RAIN JUST STOPPED | RAIN |

**Station #:** ON 3rd W. OF BIG BEND. =4
**UTM:** 19T 0363460 4888665
**Start Time:** 822
**End Time:** 837
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| ① | CLOVER & DANDELIONS ⟷ | GRASSLAND |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each

#4 of 7

t.

| **Time** | **Behaviour** (see definitions be 1 | 2 | 3 | 4 | | | | **Notes** |
|---|---|---|---|---|---|---|---|---|
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 1 of 1

Signature: Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: AMHERST IS.

Date: MAY 17, 2011

Field Personnel: BOB STAMP

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 8°C | E - 5 | 95% | LIGHT RAIN | RAIN |

**Station #:** STELLA 40FT. BETWEEN 3rd & S. SHORE =7

**UTM:** 18T 0365379 4889867

**Start Time:** 755

**End Time:** 815

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type**<br>(i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland (hay field) | grasses, dandelion |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

1 – **Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
2 – **Pursing**: Level, direct flight path; not searching for prey
3 – **Perched**: Perching
4 – **Courtship Display**: Swooping calling display

Pg. 1 of 1

**Signature:** Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

| | | | |
|---|---|---|---|
| Project Number: | 160 960 595 | Project Name: | Amherst |
| Date: | May 30/2011 | Field Personnel: | Pete Read |

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 0 | 10 % | 0 | T-storms |

| | | | |
|---|---|---|---|
| **Station #:** | SE 11 | **UTM:** | 365614 4893049 #166 |
| **Start Time:** | 8:55 | **End Time:** | 9:15 |
| **Raptor #:** | | **Age:** (e.g. juvenile or adult) | |

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grasslands pasture | hay / pasture open |
| 2 | brushlands | low bushy areas, grassy |
| 3. | wet spots | Fens |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

AMWO
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Pg. 1 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:** Kathrin
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160 960 595
Project Name: Amherst
Date: May 30/2011
Field Personnel: Pete Read.

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 0 | 10% | 0 | T-storm |

**Station #:** SE 12
**UTM:** 366879 4893446 #165
**Start Time:** 8:20
**End Time:** 8:40
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland | -large pasture area |
| 2 | wet areas | fens/wet spots - some paragmites<br>- some not |
| 3 | dugout | ponds |
| 4 | hedgerow | edges of field/trees, brush |
| 4. | drainage creek | natural low area sloping away to lake. |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

NOHA ♂ EAME
UPSA WISN (2 WTDE)
BOBO

Pg. 2 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature: Kathrin
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160 960 595

Project Name: Amherst

Date: May 31 /2011

Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 2 breezy | <10%. | 0 | 0 |

**Station #:** SEOW 13

**UTM:** 368131 4893989 T-1 193

**Start Time:** 8:30

**End Time:** 8:50

**Raptor #:**

**Age:**

(e.g. juvenile or adult)

*fields of many sheep, several large dogs "protecting" → noisy + full of activity – no owls seen.

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type<br>(i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| 1 | grassland | open pasture mainly grass some sedge areas. |
| 2. | hedgerow | a few shrubs & trees lining fields |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 3 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: Pete Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160 960 595

Project Name: Amherst

Date: May 31 /2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>22 | WIND:<br>2+ | CLOUD:<br><10 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Station #:** SE 15

**UTM:** 369603 4893228 T-1 #194

**Start Time:** 8:55

**End Time:** 8:15

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

* both sides of road suitable.

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland (East) | open grassland - a few scattered trees |
| 2 | treed grassland (West) | mostly grass with numbers of evergreens |
| 3. | Ditch and hedgerow | some trees & shrubs on hedgerows and ditches |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

osprey on nest platform
down near water
– great habitat for SEOW

Pg. 4 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature: Kathrina
(Project Manager)

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst Is.

Date: June 1/2011

Field Personnel: Pete Read

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | 3+ W-NW | <10 | 0 | 0 |

Station #: SE7

UTM: 365622 4889498 T-1 #214

Start Time: 9:05

End Time: 9:25

Raptor #:

Age:
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| | Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|---|
| W | 1 | grassland | -lower part and small hills to N&S) |
| | | | - a few scattered trees, shrubs |
| W | 2 | fencelines | - some bushes and small trees |
| | | | |
| E | 3 | grassland | with a few hedgerows. |

WISN WTDE
AMWO - flights.

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 5 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160 960 595

Project Name: Amherst Is.

Date: June 1 /2011

Field Personnel: Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 3+ W-NW | <10 | 0 | 0 |

**Station #:** SE 10

**UTM:** 366666 4889695 r-1 #213

**Start Time:** 8:40

**End Time:** 9:00

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland | - gently rolling, widely scattered trees |
| 2 | "ponds" | - small dugouts with mounds beside |
| 3 | weedy areas | - dry dead material prominant in patchy areas. |
| 4 | "hawthorn" areas | - open grass with scattered bushes. |
| | | |

WTDE with fawn

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

1 – **Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
2 – **Pursing**: Level, direct flight path; not searching for prey
3 – **Perched**: Perching
4 – **Courtship Display**: Swooping calling display

Pg. 6 of 15

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Peter Read
(Field Personnel)

**Signature:** Kathi[illegible]
(Project Manager)

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# Breeding Short-eared Owl Observational Survey Form

**Project Number:** 160 960 595
**Project Name:** Amherst
**Date:** June 3
**Field Personnel:** Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 17 | 1 | 10% | 0 | 0 |

**Station #:** SE 9
**UTM:** 364498 4891299 #169
**Start Time:** 8:30
**End Time:** 8:45
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland | - flat to gently rolling |
| 2 - | brushlands | - a few areas with scattered |
| | | tree |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat. NOHA ♀ hunting

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 7 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:** Kathrine
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 3
Field Personnel: Pete Read.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 17 | WIND: 1 | CLOUD: 10% | PPT: 0 | PPT (in last 24 hrs): 0 |

**Station #:** 8
**UTM:** 363138 4890596 #227.
**Start Time:** 8:50
**End Time:** 9:10
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| 1. | Grassland | grass with some scattered trees [illegible] |
| 2. | Wet grass | wet field some dead trees |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat. NOHA hunting.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 8 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature: Katherine
(Project Manager)

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160 960 595
Project Name: Amherst
Date: June 5/2011
Field Personnel: Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 0 | 30% | 0 | -1cm |

**Station #:** SE 5.
**UTM:** 359090 4890240 #246
**Start Time:** 8:55
**End Time:** 9:15
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1. | grassland | open flat grassland |
| 2. | "evergreen forest" | -small patch evergreens - thick. |
| 3. | brushlands | grassy with scattered shrubs |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
1 – **Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
2 – **Pursing**: Level, direct flight path; not searching for prey
3 – **Perched**: Perching
4 – **Courtship Display**: Swooping calling display

Pg. 9 of 15

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.
**Signature:** Katherine
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960959

Project Name: Amherst

Date: June 5/2011

Field Personnel: Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 17 | 0 | 30 % | 0 | .1 cm |

**Station #:** SE6

**UTM:** 361044 4891247 #245

**Start Time:** 8:30

**End Time:** 8:50

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland | -open a bit rolly. |
| 2. | dugout | -large dugout with berms |
| 3. | brushland's | -grassland with scattered evergreens + bushes |
| 4. | Hedgerow | -edge of fields/trees/shrubs |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 10 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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**Stantec**

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 6 /2011

Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 17 | WIND: 1 | CLOUD: <10% | PPT: 0 | PPT (in last 24 hrs): 0 |

**Station #:** 1

**UTM:** 359079 488005 #176

**Start Time:** 8:50

**End Time:** 9:10

**Raptor #:**

**Age:**

(e.g. juvenile or adult)

both sides appropriate

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland | |
| 2. | wet area drainage | drainage ditch. |
| 2. | marsh | cattails, tall grasses, weeds |
| 3. | wet area 2 | wet sedgy/grass. |
| | | |

NOHA – both sides of rd.

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

1 – **Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
2 – **Pursing**: Level, direct flight path; not searching for prey
3 – **Perched**: Perching
4 – **Courtship Display**: Swooping calling display

Pg. 11 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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Stantec

# Breeding Short-eared Owl Observational Survey Form

| | | | |
|---|---|---|---|
| Project Number: | 160 960 595 | Project Name: | Amherst |
| Date: | June 6/2011 | Field Personnel: | Pete Read |

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 17 | 1 S- | <10 % | 0 | 0 |

| | | | |
|---|---|---|---|
| **Station #:** | 2 | **UTM:** | 360652 4889320 #205 |
| **Start Time:** | 8:30 | **End Time:** | 8:50 |
| **Raptor #:** | | **Age:** (e.g. juvenile or adult) | |

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | grassland | mainly flat grassland |
| 2 | Woods | grazed woods |
| | | |
| | | |
| | | |

NOHA

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 12 of 15

**Signature:** P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 7/2011
Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>18 | WIND:<br>0 | CLOUD:<br>20% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Station #:** 3
**UTM:** 361981 4886761 #265
**Start Time:** 8:55
**End Time:** 9:15
**Raptor #:**
**Age:** (e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| 1 | Grassland | open grassy fields. |
| 2. | Scrubland | grass with scattered bushes/trees |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

NOHA

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 13 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** P. Read
(Field Personnel)

**Signature:** Kathin
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

**Project Number:** 160960595

**Project Name:** Amherst

**Date:** June 7

**Field Personnel:** Pete Read

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | **PPT** (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 0 | 20% | 0 | 0 |

**Station #:** 4

**UTM:** 363 132 4888277 #264

**Start Time:** 8:30

**End Time:** 9:50

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1 | Grassland | gently rolling pastures/hayfields |
| 2. | Brushland | grass with scattered trees/bushes |
| 3. | Plowed field | cultivated land |
| 4. | Wetlands | grassy wet field (south by marsh) |
| 5. | Wetlands | swamp/dead trees (S.E.) |
| 6. | Wetlands | marsh (S.W.) |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

NOHA WISN RIPH
AMBI

Pg. 14 of 15

Signature: P. Read
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katherine
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160 960 595
Project Name: Amherst
Date: June 9/2011
Field Personnel: Pete Read

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>19 | WIND:<br>3 NE | CLOUD:<br>100 % | PPT:<br>0 | PPT (in last 24 hrs):<br>1 cm |

**Station #:** 14
**UTM:** 369331 4891966 #286
**Start Time:** 8:40
**End Time:** 9:00
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| 1. | Grassland | gently rolling grass area |
| 2 | Grassland two | taller grass area to NW (pond edge?) |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat. RTHA hunting

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

200 DCCO flew to NE over this spot in blade height 8:49

Pg. 15 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: P. Read
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 21, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 21 | WIND: NE ① | CLOUD: 100 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Station #:** 1 / 176

**UTM:**

**Start Time:** 8:45 p.m.

**End Time:** 9:05 pm

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
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| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| | | No raptors | | | | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 1 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 21, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 21 | WIND: NE ① | CLOUD: 90 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Station #:** 2 / 205

**UTM:**

**Start Time:** 8:17 pm

**End Time:** 8:37 pm

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
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Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
| N. Harrier – 2 birds (pair) in fields; ♂ hunting; ♀ sitting on post | | | | | | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 2 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 14/11
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 13 | WIND: 0 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Station #:** 03
**UTM:**
**Start Time:** 0857 pm
**End Time:** 0917 pm
**Raptor #:**
**Age:** (e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
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| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
| NHarrier | | | | | | 1♂ | hunting | well to W, N side of road |
| | | | | | | | | |
| | | | | | | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 3 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 14/11
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 15 | WIND: 0 | CLOUD: 0 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Station #:** 04
**UTM:**
**Start Time:** 0830 pm
**End Time:** 0850 pm
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | | | |
| N Harrier | | | | | | | | 1♂ hunting over fields far to SE |
| " | 4 | | | | | | | 1♂ flying high going W |
| | | | | | | | | |
| | | | | | | | | |
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** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Viewing mostly to the south; Virtually nothing on N side of road!

Pg. 4 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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**Stantec**

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 16/11

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18 | WIND: 0 | CLOUD: 60 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Station #:** 5 /246

**UTM:**

**Start Time:** 0857

**End Time:** 0917

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| | No raptors | | | | | | | |
| | | | | | | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

The only habitat is South of the road

Pg. ~~3~~ 5 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature: Kathrin
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 16/11

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 0 | 50 | 0 | 0 |

Station #: 6 / 245

UTM:

Start Time: 0833

End Time: 0853

Raptor #:

Age:

(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| — Purple Martin — 3+ foraging over fields at "B" height | | | | | | | | |
| — No raptors | | | | | | | | |
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| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Only the south side of Road has habitat

Pg. 6 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

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Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 15/11

Field Personnel: A Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 0 | 20 | 0 | 0 |

**Station #:** 7

**UTM:**

**Start Time:** 0853 pm

**End Time:** 0913 pm

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| | No raptors | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 1 of 15

Quality Control: This form is complete ☑ & legible ☑

**Signature:** AW
(Field Personnel)

**Signature:** Katherine
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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**Stantec**

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 24, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | S ① | 80 | ~~trace~~ light | – |

**Station #:** 8 / 227

**UTM:**

**Start Time:** 825 pm

**End Time:** 845 pm

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| No Raptors | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 8 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:** Katherine
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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**Stantec**

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 24, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: S ① | CLOUD: 80 | PPT: ~~Light~~ trace | PPT (in last 24 hrs): — |

**Station #:** 9 / 169
**UTM:**
**Start Time:** 849 pm
**End Time:** 909 pm
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) 1 | 2 | 3 | 4 | 5 | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| N Harrier – 1 ♀ hunting low over fields to the NW | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 9 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW (Field Personnel)

Signature: Kathrn (Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 15/11
Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 22 | 0 | 10% | 0 | 0 |

**Station #:** 10
**UTM:**
**Start Time:** 826 pm
**End Time:** 846 pm
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| Red-tailed Hawk → one ad perched in isolated dead tree, then flew N | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Looking 100% to the N of road
A mosaic of meadows with scattered trees + shrubs. Actually looks good for Henslows in the distance!

Pg. 10 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 26, 2011

Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | W ① | 35 | 0 | trace |

**Station #:** 11 / 166

**UTM:**

**Start Time:** 834 pm

**End Time:** 854 pm

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| | | | | | | | | – Red-tailed Hawk – 1 sitting in tree along woods to the SE (2.0 km? |
| | | | | | | | | N Harrier – total of 3 ♀ and 2 ♂ ~~feeding~~ hunting in fields to S |
| | | | | | | | | – thus a minimum of 3 breeding pairs. |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*

1 – **Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
2 – **Pursing**: Level, direct flight path; not searching for prey
3 – **Perched**: Perching
4 – **Courtship Display**: Swooping calling display

Pg. 11 of 15

Quality Control: This form is complete ☒ & legible ☒.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 27, 2011
Field Personnel: Alan Wormington

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 0 | 50 | 0 | 0 |

**Station #:** 12/165
**UTM:**
**Start Time:** 822 pm
**End Time:** 842 pm
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| — | No | | Raptors | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*
**1 – Coursing:** Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing:** Level, direct flight path; not searching for prey
**3 – Perched:** Perching
**4 – Courtship Display:** Swooping calling display

Pg. 12 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** AW
(Field Personnel)

**Signature:**
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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Fax: (519) 836-2493

# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 27, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | 0 | 50 | 0 | 0 |

**Station #:** 13 / 193

**UTM:**

**Start Time:** 0846 pm

**End Time:** 906 p.m.

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| – No Raptors (too many sheep?) | | | | | | | | |
| – Upland Sandpiper displaying 1/2 km to the SSW. | | | | | | | | |
| – ♂ House Finch singing at Point Count (N side of road) | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg 3 of 15

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595
Project Name: Amherst
Date: June 22, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20 | WIND: E ① | CLOUD: 100 | PPT: 0 | PPT (in last 24 hrs): lots! |

**Station #:** 14 /286
**UTM:**
**Start Time:** 8:17 p.m
**End Time:** 8:37 p.m.
**Raptor #:**
**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| **Habitat Unit #** | **Habitat Type** (i.e. woodland, grassland, crop, wetland) | **Description** |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| **Time** | **Behaviour** (see definitions below) | | | | | **Height*** (m) | **Habitat Unit #** (from table above) | **Notes** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| N. Harrier – 1 ♀ hunting over fields | | | | | | | | |
| Red-tailed Hawk – 1 flying @ B height far off to the N (hunting) | | | | | | | | |
| Upland Sandpiper – 1 displaying adjacent to car @ A height (N sideroad) | | | | | | | | |
| N Harrier – 1 ♂ flying low + then landed on post, then resumed hunting | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*
1 – **Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
2 – **Pursing**: Level, direct flight path; not searching for prey
3 – **Perched**: Perching
4 – **Courtship Display**: Swooping calling display

Pg. 14 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-06 / FORM 036-b

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# Breeding Short-eared Owl Observational Survey Form

Project Number: 160960595

Project Name: Amherst

Date: June 22, 2011

Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20 | E ① | 100 | 0 | lots! |

**Station #:** 15/194

**UTM:**

**Start Time:** 0845 pm

**End Time:** 905 pm

**Raptor #:**

**Age:**
(e.g. juvenile or adult)

Provide a description of each habitat unit within the observational area.

| Habitat Unit # | Habitat Type (i.e. woodland, grassland, crop, wetland) | Description |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Provide a line entry for each change in behavior or habitat.

| Time | Behaviour (see definitions below) | | | | | Height* (m) | Habitat Unit # (from table above) | Notes |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| – | | | | | | | | Osprey family on artificial platform far off to the east |
| – | | | | | | | | ♂ Willow Flycatcher singing on W side of road |
| – | | | | | | | | ♀ N Harrier hunting low on W side of road |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

** Height of blade sweep varies from project to project; check with project manager.*

**1 – Coursing**: Low patrolling flight over grass or weedy areas / searching for prey
**2 – Pursing**: Level, direct flight path; not searching for prey
**3 – Perched**: Perching
**4 – Courtship Display**: Swooping calling display

Pg. 15 of 15

Quality Control: This form is complete ☑ & legible ☑.

Signature: AW
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-06 / FORM 036-b

Cruickshank property

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# Wildlife Habitat and Incidental Wildlife Observation Form

Project Number 160960595

Project Name: AMHERST

Date / Time: APR. 30, 2012 10AM

Field Personnel: BOB STAMP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 12 | Wind: | Cloud: | PPT: 0 | PPT in last 24 hrs: 0 |

## Wildlife Habitat

*List specific microhabitats present (snags, logs, hibernacula, vernal pools etc.) and what community they were encountered in (use ELC code where applicable).*

FRAGMITES LOW SPOT IN AGR. FIELD.

GR. DOGWOOD

## Incidental Species Observations

*List species and type of observation:*
*(**TK** = track, **SC** = scat, **VO** = vocalization, **OB** = observed, **DP** = distinctive parts, **FE** = feeding evidence, **CA** = carcass, **FY** = eggs, nest, **HO** = house/den, **SI** = other sign)*

| Birds | Mammals | Herps | Butterflies / Dragonflies | Other |
|---|---|---|---|---|
| *i.e. AMRO/VO* | | CHFR<br>20 to 30 FROGS<br>SPPE<br>10 FROGS | | |

Quality Control: This form is complete (✓) & legible (__).

Signature: Robt Stamp
(Field Personnel)

Signature:
(Project Manager)

Page 1 of ______

REV: May, 07 Form 006

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# Amphibian Call Survey Observation Form

Project Number 160960595

Project Name: Amherst Island WP

Date June 9, 2012

Field Personnel: Sarah Rogers

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 18°C | 2 | 60% | 0 | 1-3mm |

| | | | |
|---|---|---|---|
| Visit Number: | # | | |
| Start Time: | 21:20 | End Time: | 21:35 |

- **Record Start Time at Each Station**

station start/stop 21:25 - 21:28

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | X |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

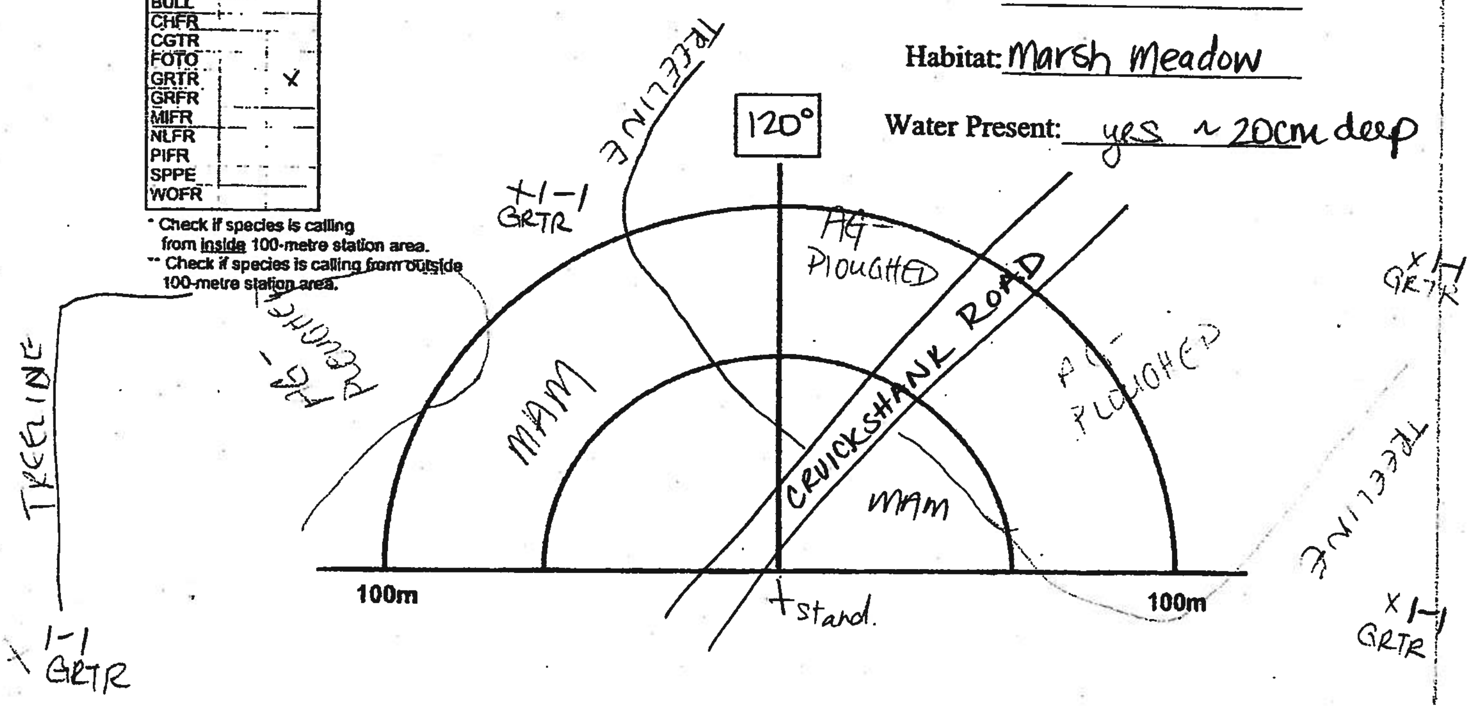
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station**

UTM:

Habitat: Marsh Meadow

Water Present: yes ~20cm deep



Quality Control: This form is complete ( ) & legible ( ).

Signature: ____ (Field Personnel)

Signature: ____ (Project Manager)

Page 1 of 1

REV: Mar, 09 Form 003

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# Amphibian Call Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date May 18 / 2012

Field Personnel: Josh Mansell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 14°C. | Wind: 5 5 km/h | Cloud: 90% | PPT: 0 | PPT in last 24 hrs: 0 |

| | | | |
|---|---|---|---|
| Visit Number: | # | | |
| Start Time: | 21:10 | End Time: | 21:25 |

- **Record Start Time at Each Station**

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | X |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

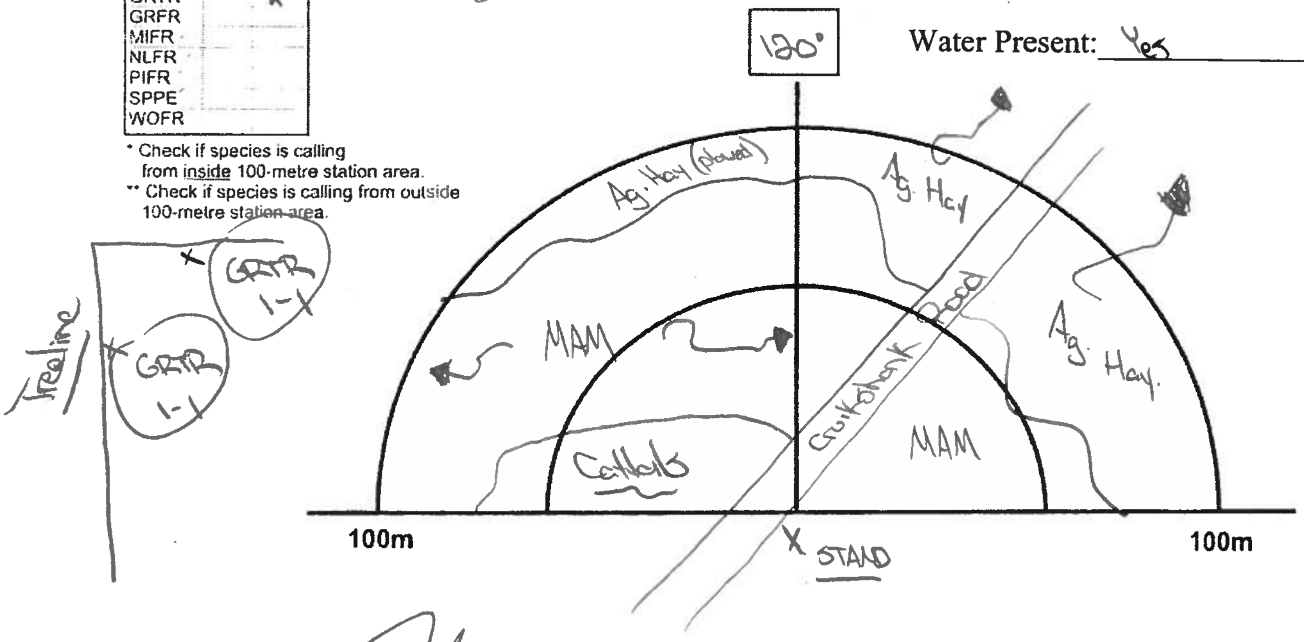
21:15 - 21:19

Station A

UTM: 362839 N 4697772 E

Habitat: Marsh Meadow - Standing Water

Water Present: Yes



Quality Control: This form is complete (__) & legible (__).

Signature: ______ (Field Personnel)

Signature: Katherine S (Project Manager)

Page 1 of 1

REV: Mar, 09 Form 003

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# Amphibian Call Survey Observation Form

Project Number 160960595

Project Name: Amherst Island WP

Date June 9, 2012

Field Personnel: Sarah Rogers

| **Weather Conditions:** | Temp: 18°C | Wind: 2 | Cloud: 60% | PPT: 0 | PPT in last 24 hrs: 1-3mm |
|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Visit Number: | # | | |
| Start Time: | 21:20 | End Time: | 21:35 |

- **Record Start Time at Each Station**

station start/stop 21:25 - 21:28

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | X |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

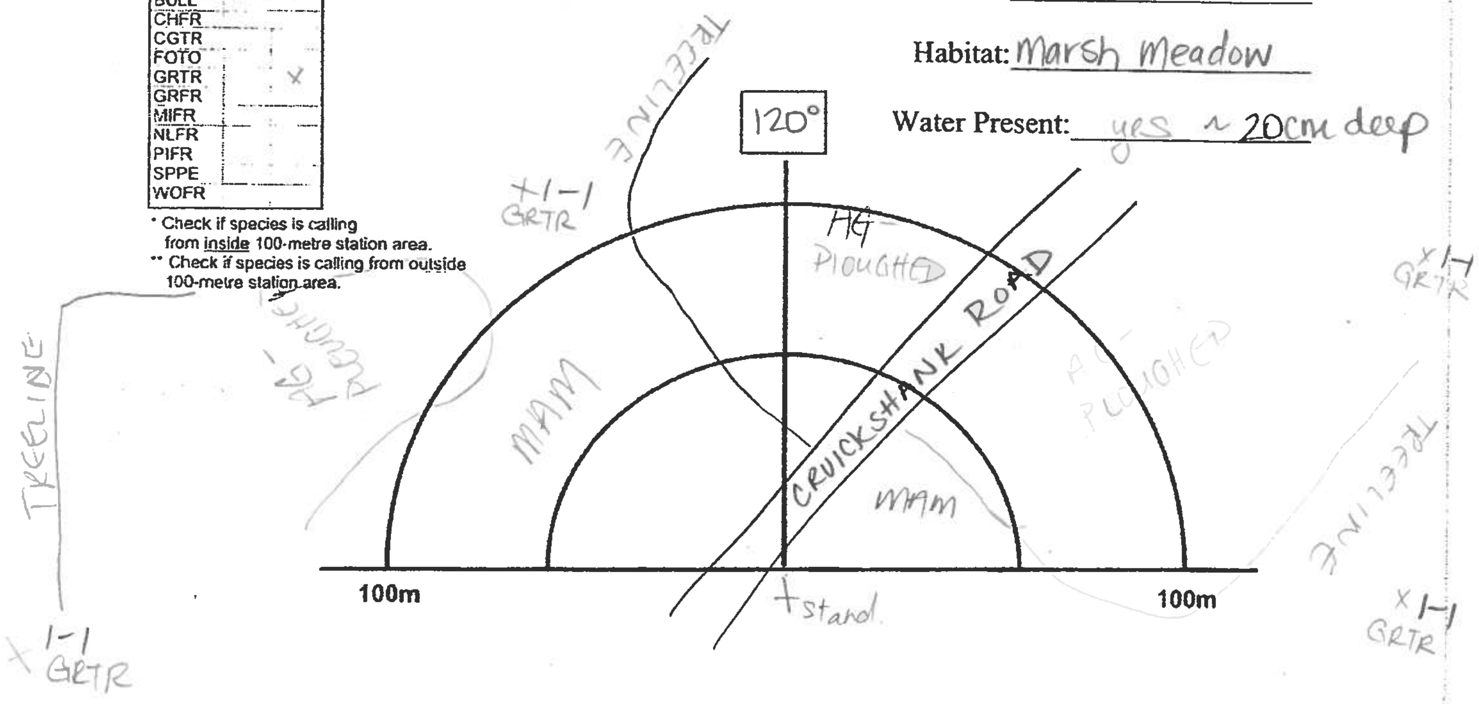
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station**

UTM:

Habitat: Marsh meadow

Water Present: yes ~ 20cm deep



Quality Control: This form is complete (__) & legible (__).

Signature: ____________________
(Field Personnel)

Signature: ____________________
(Project Manager)

Page 1 of 1

REV: Mar, 09 Form 003

Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Amphibian Call Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date Apr 19, 2011

Field Personnel: B. Holder, J. Heslop

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>7oC | Wind:<br>3-4 ENE<br>steady | Cloud:<br>100% | PPT:<br>/ | PPT in last 24 hrs:<br>— |

18T
364195
4887527

| | | | |
|---|---|---|---|
| Visit Number: | 1 | | |
| Start Time: | 1945 | End Time: | 2200 |

- **Record Start Time at Each Station**

18T 364616 4888247

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | ✓ | ✓ |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

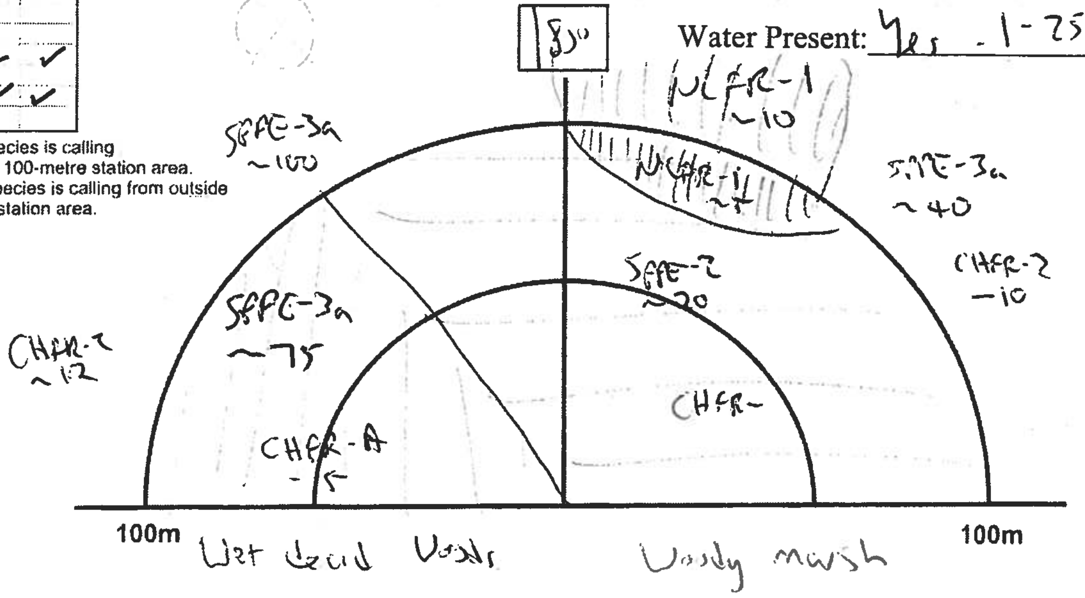
7:49

**Station** 23
6

UTM:

Habitat: Woody Swamp

Water Present: Yes .1-.25"



Quality Control: This form is complete (__) & legible (__).

Signature: ____________ (Field Personnel)

Signature: Katherine ____________ (Project Manager)

Page 1 of 5

REV: Mar, 09 Form 003

15

Station 5

UTM: 18T 0363871 4887445

Habitat: on map

Water Present: Yes - 5-25"

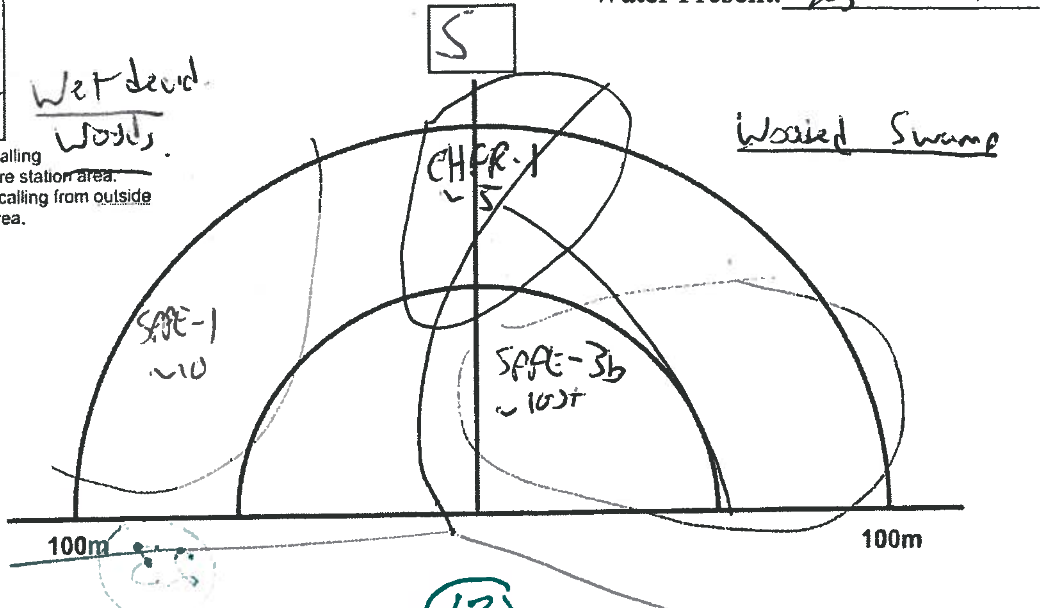
| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

8:10

Wet decid Woods.



12

Station ~~8~~

Field.

UTM: 18T 0362168 4886966

Habitat Cattail Marsh

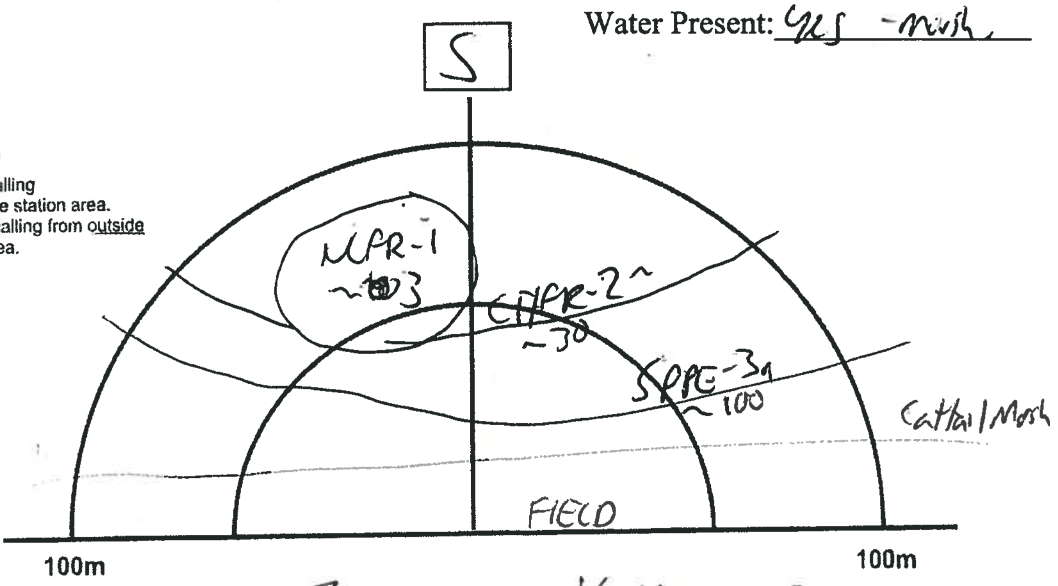
Water Present: Yes - marsh.

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | ✓ | |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

8:35



(Field Personnel)

(Project Manager)

Page 2 of 5

REV: Mar, 09 Form 003

18T
0361655
4886989

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | ✓ | |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

841

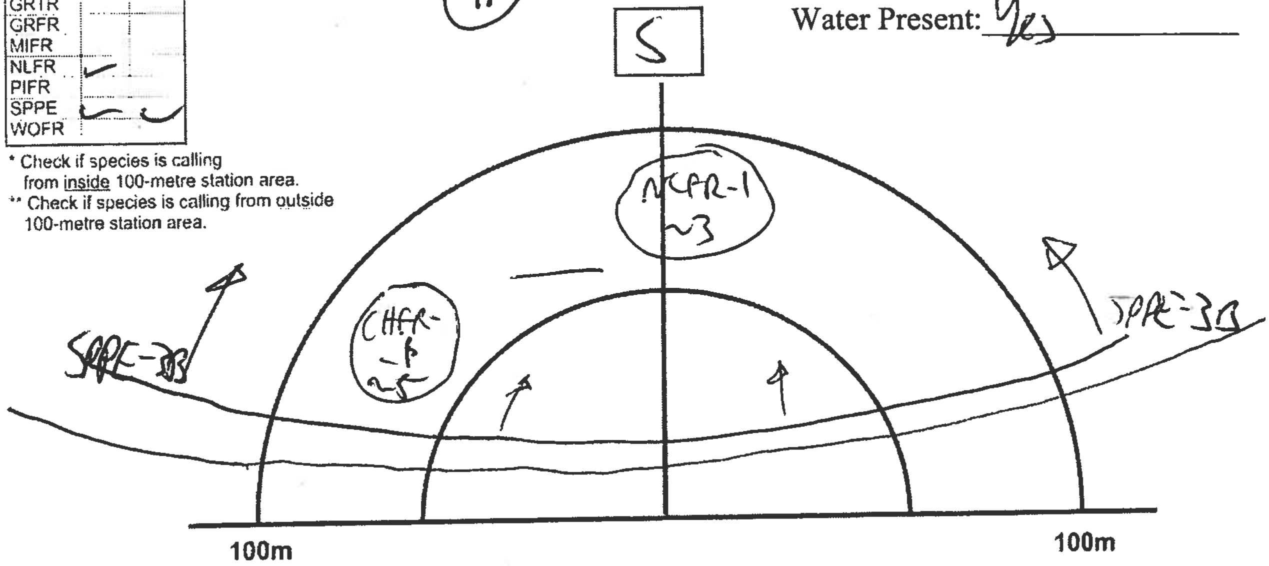
11

Station
7

UTM:

Habitat: All Cattail Marsh

Water Present: Yes



18T 0360065 4886478

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | ✓ | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

851

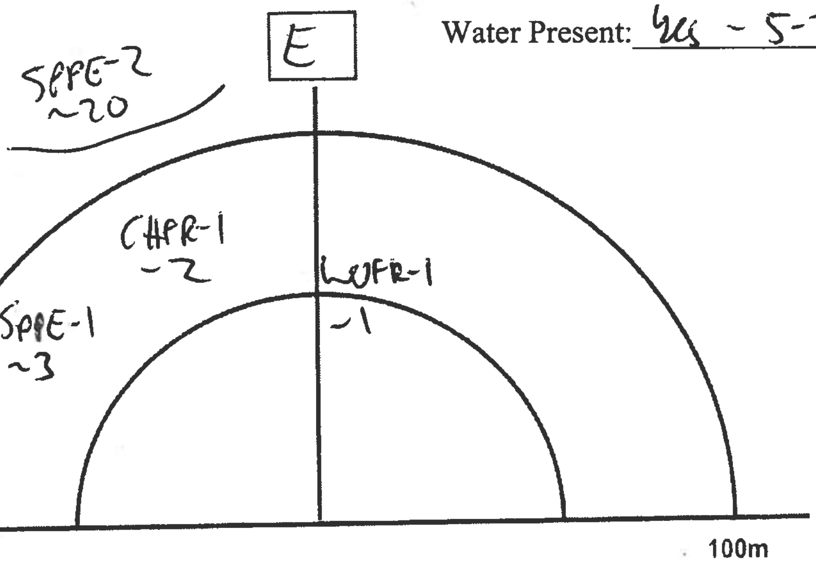
6

Station
13

UTM:

Habitat: Wooded Decid Swamp

Water Present: Yes ~ 5-30"



Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 3 of 5

REV: Mar, 09 Form 003

18T 0359787
4886849

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

SPPE
very
loud

9:04

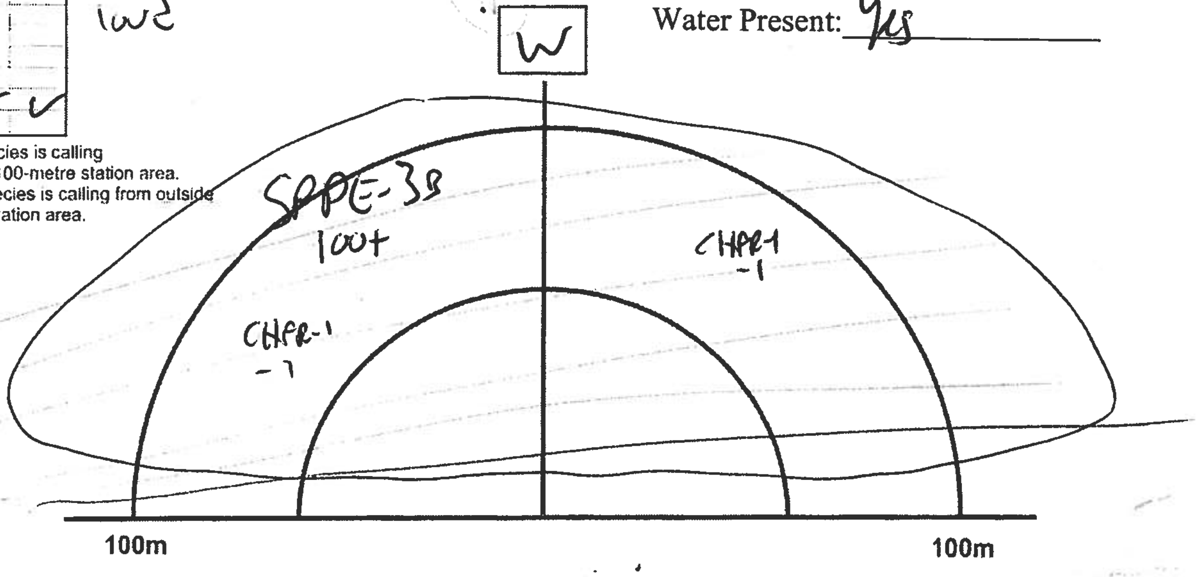
⑤

**Station** 11

UTM: ____________________

Habitat: Flooded Decid Woods

Water Present: Yes



④ 18T 0359680

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

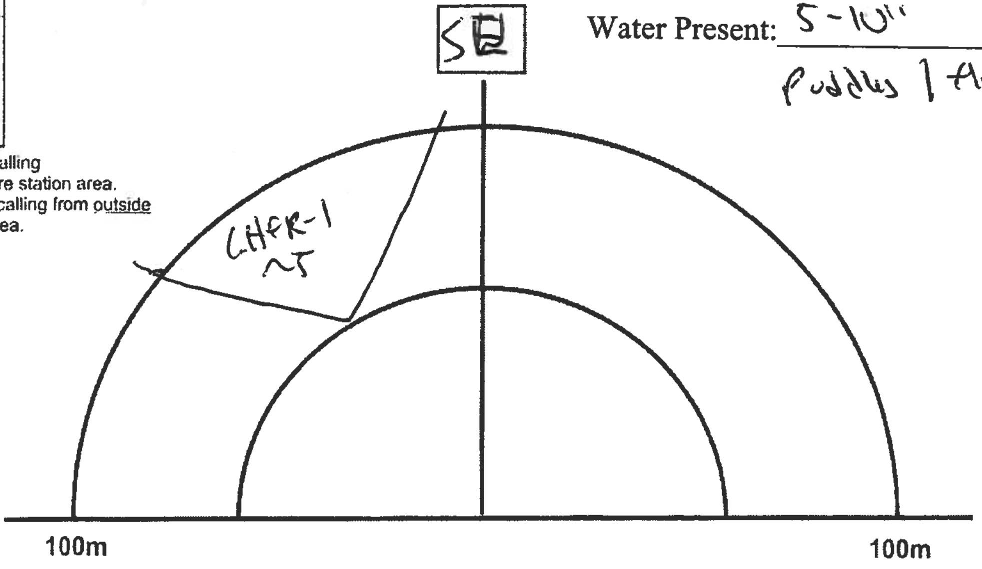
9:17

**Station** new 12

UTM: 4887373

Habitat: Wet Woods

Water Present: 5-10"
puddles / flooded



Signature: ____________________ (Field Personnel)
Signature: ____________________ (Project Manager)

Page 4 of 5

REV: Mar, 09 Form 003

2

**Station** 9

9:29

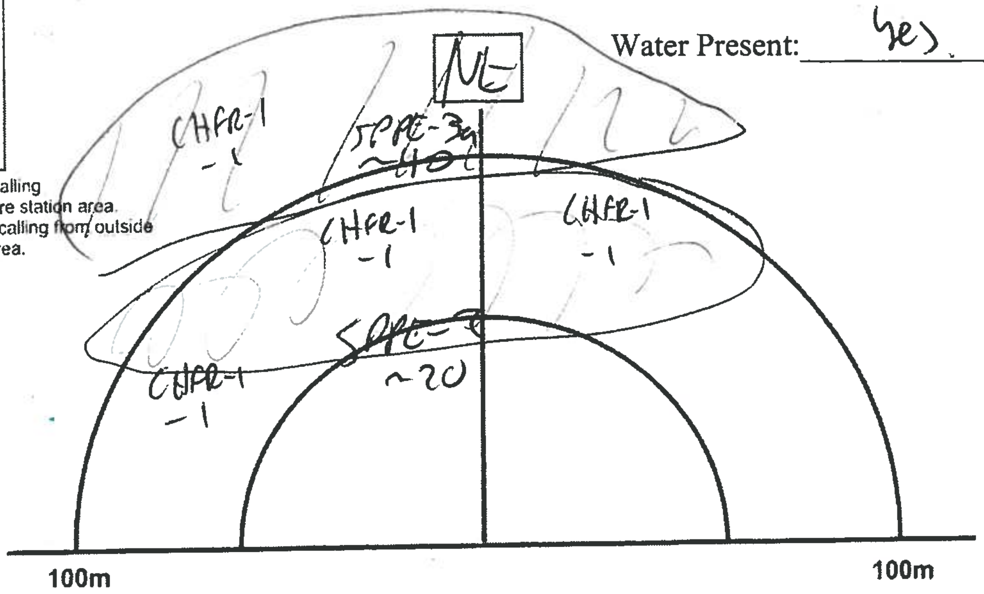
UTM: 18T 0357766 4886159

Habitat: Cattail Marsh

Water Present: yes.

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



24

**Station** 10

9:49

UTM: 18T 0358385

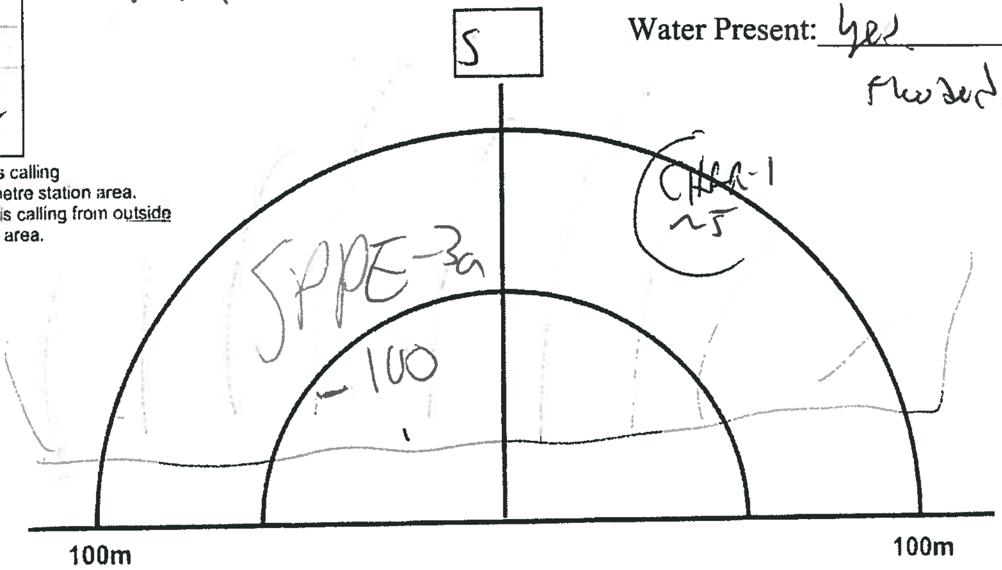
Habitat: Wet Woody Cattail Marsh

Water Present: yes flooded.

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

SPPE widely spread out.



Signature: ____________ (Field Personnel) Signature: ____________ (Project Manager)

Page 5 of 5 REV: Mar, 09 Form 003

Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Amphibian Call Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date ~~[illegible]~~ Apr 20, 2011

Field Personnel: B. Holden, J. Heslop

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: ~~4~~ 3 °C | Wind: 0-7 ~~[illegible]~~ | Cloud: 100% | PPT: Drizzle | PPT in last 24 hrs: RAIN |

~~[illegible]~~

~~[illegible]~~

~~[illegible]~~

~~[illegible]~~

| | | | |
|---|---|---|---|
| Visit Number: | 1 | | |
| Start Time: | 20:00 ~~[illegible]~~ | End Time: | 21:30 ~~2200~~ |

- **Record Start Time at Each Station**

~~[illegible] 364616 [illegible]47~~

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| ~~CHFR~~ | ~~✓~~ | ~~✓~~ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| ~~[illegible]~~ | ~~✓~~ | ~~✓~~ |
| PIFR | | |
| SPPE | ✓ | ✓ |
| ~~WOFR~~ | | |

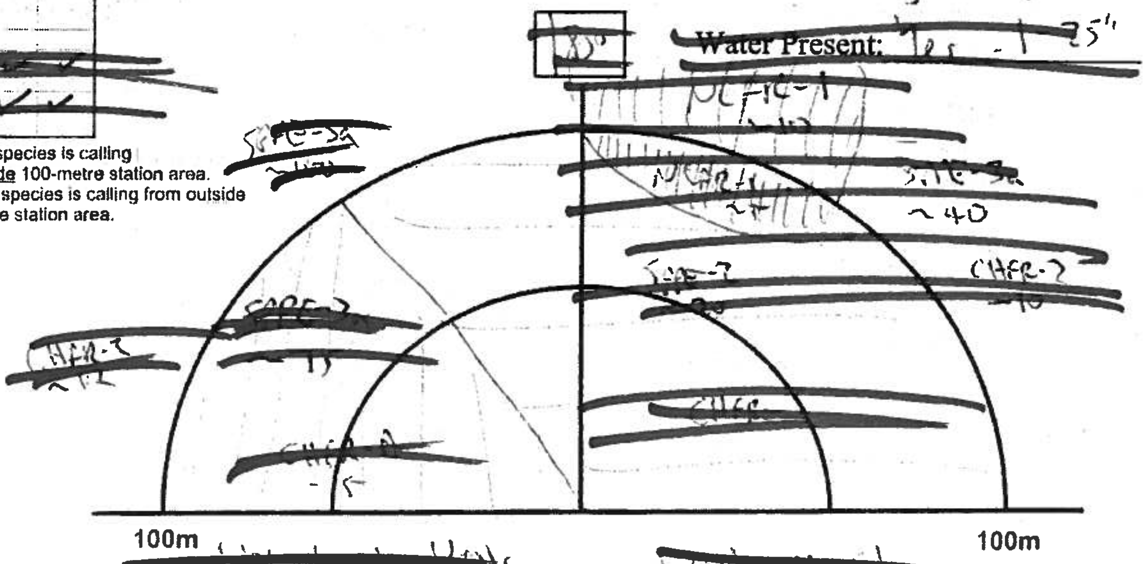
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station** ~~[illegible]~~

~~UTM:~~

~~Habitat: [illegible]~~

~~Water Present: [illegible]~~



~~[illegible]~~ ~~[illegible]~~

SEE PAGE TWO

Quality Control: This form is complete (__) & legible (__).

Signature: ~~[illegible]~~
(Field Personnel)

Signature: ____________________
(Project Manager)

Page ~~[illegible] of [illegible]~~

REV: Mar, 09 Form 003

Very windy.

22

Station
14

UTM: 18T 0367599 4892436.

Habitat: Wet young dead wood.

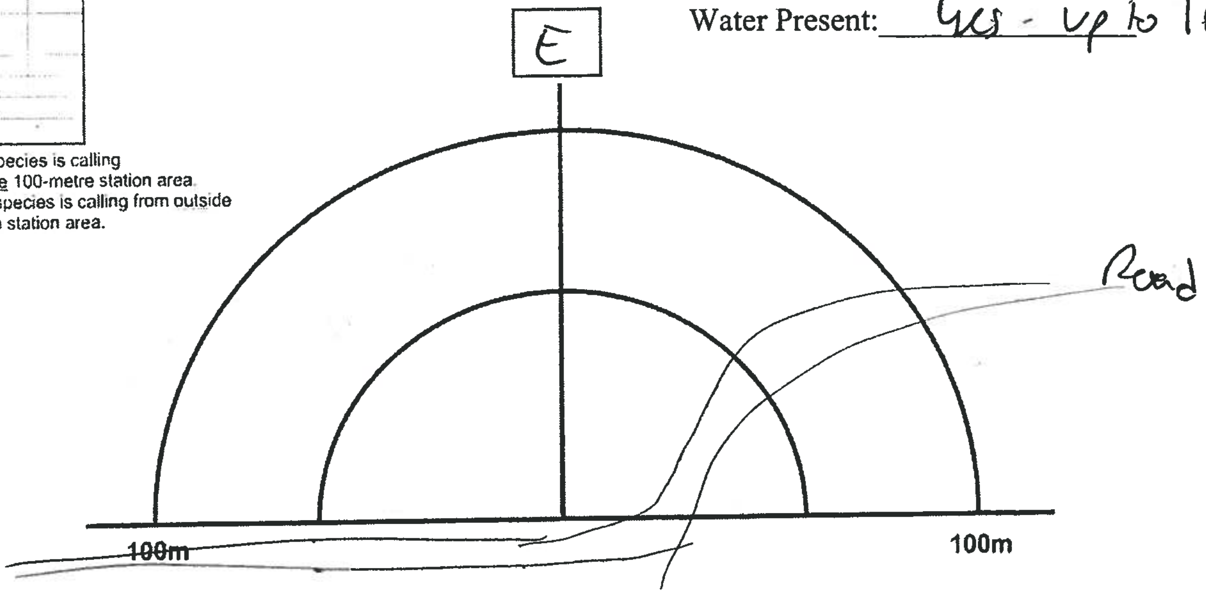
Water Present: yes - up to 1 foot

8:02

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

No frogs heard



17

Station
1

UTM: 18T 0362691 4891061

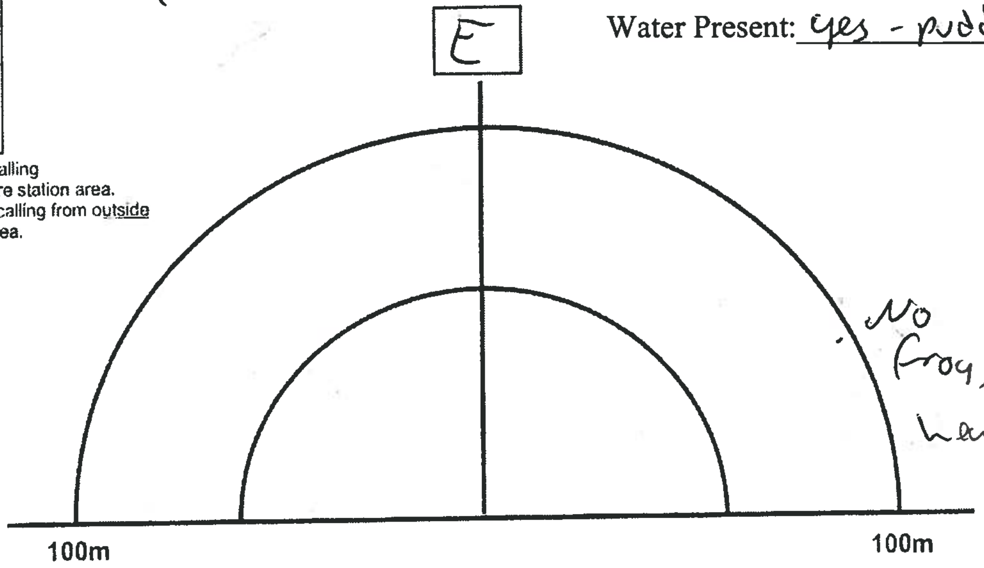
Habitat: Wet Juniper Scrub.

Water Present: yes - puddles

8:19

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



No frogs heard.

Light Rain & wind.

Signature: ____________ (Field Personnel)   Signature: Katherine ____________ (Project Manager)

Page 2 of 4   REV: Mar, 09   Form 003

①

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

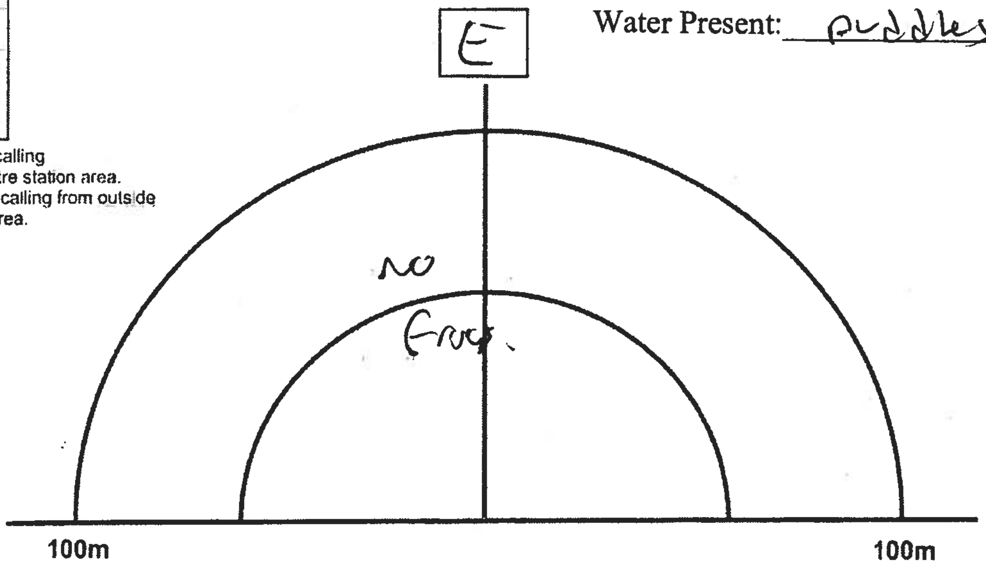
8:50

**Station**
3

UTM:

Habitat: Wet Juniper Scrub

Water Present: puddles



Ø

⑲

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

9:19

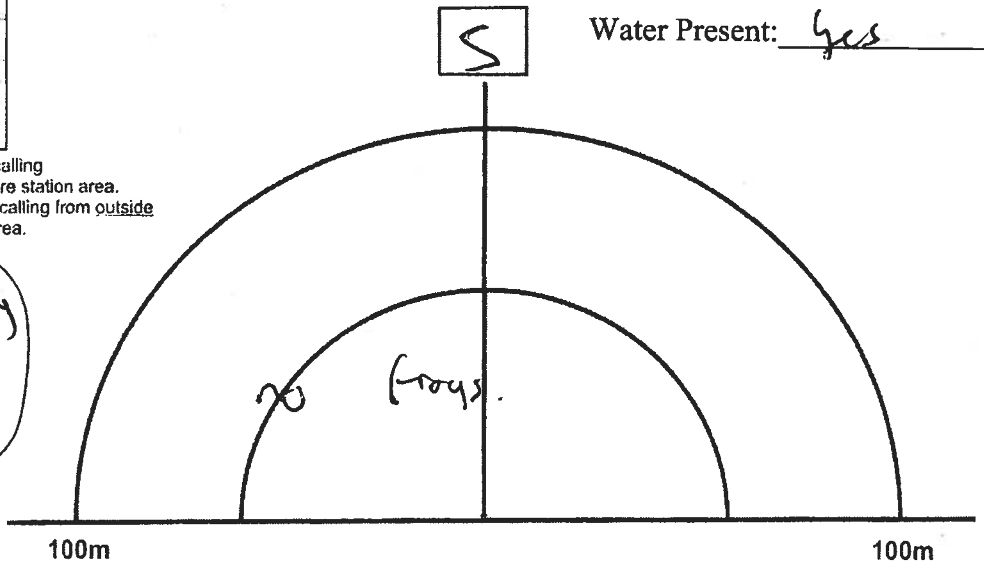
**Station**
2

UTM: 16T 0363001 4841608

Habitat: Wet woods

Water Present: Yes

Very windy & Drizzle



Signature: (Field Personnel)

Signature: (Project Manager)

Page 3 of 4

REV: Mar, 09 Form 003

Poor weather, cant not conducted.

21

STATION MOVED to creek @ woodlot edge, access

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

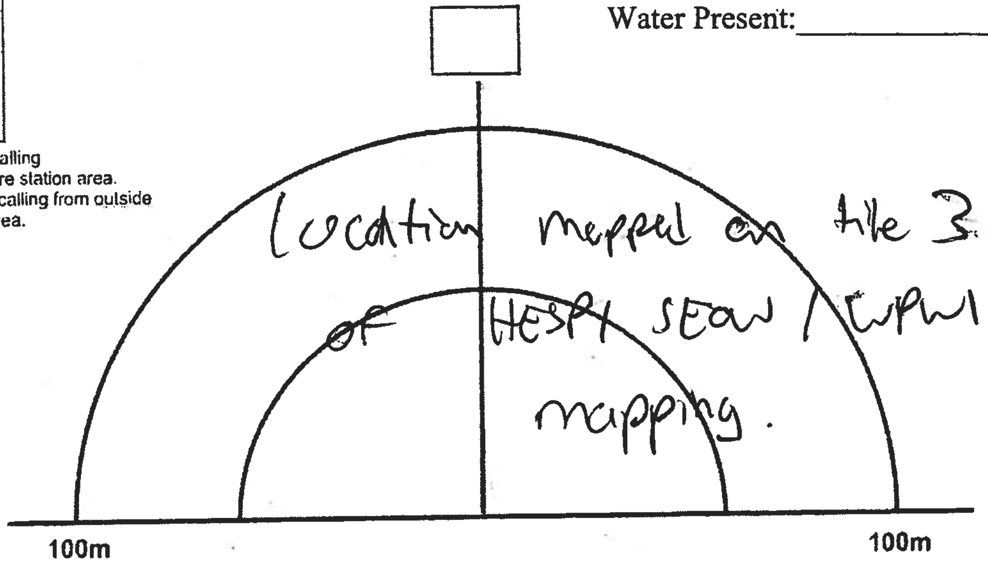
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station** 4

UTM: off of Stella 40ft

Habitat: Road.

Water Present: ______________



Location mapped on tile 3 of HESP SEOW/WPWI mapping.

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

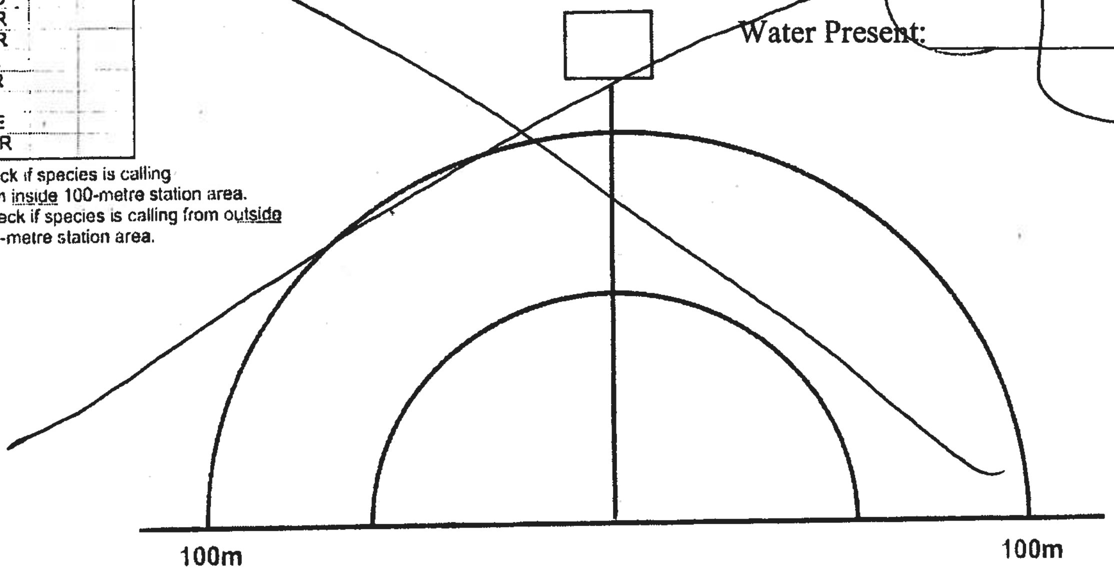
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station**

UTM: ______________

Habitat: ______________

Water Present: ______________



Signature: ______________ (Field Personnel)

Signature: Katherine ______________ (Project Manager)

Page 4 of 4

REV: Mar, 09 Form 003

Very windy.

18T 0367599

UTM: 4892436

**Station**

14

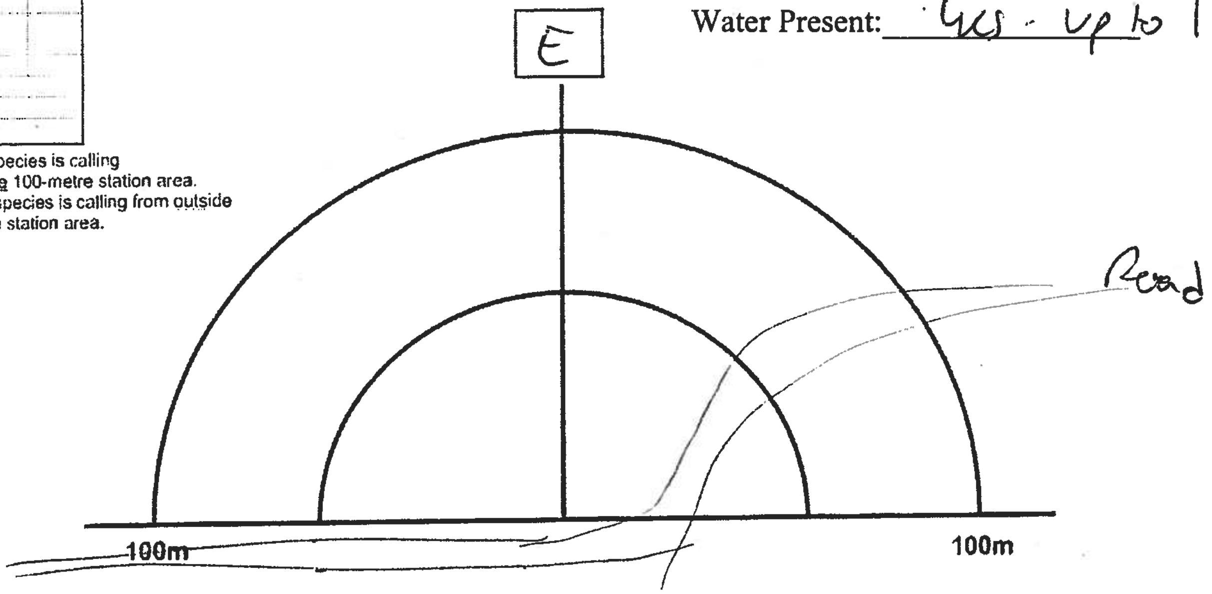
8:02

Habitat: Wet young dead wa

Water Present: yes - up to 1f

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



No frogs heard

18T 0367691 4891061

UTM:

**Station**

1

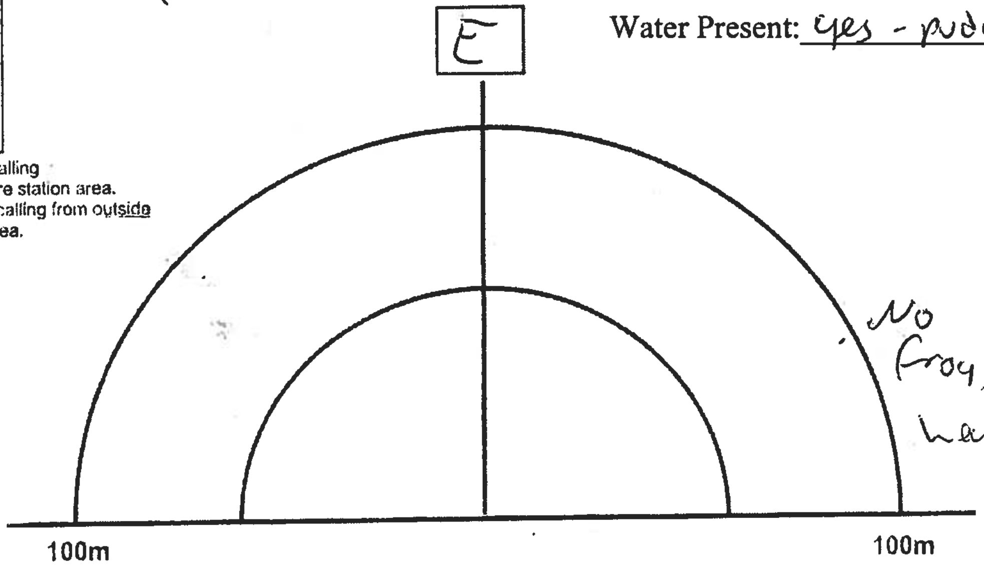
8:19

Habitat: Wet Juniper Scrub.

Water Present: yes - puddles

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



No frogs heard.

Light Rain & Wind.

Signature: ______ (Field Personnel) Signature: Kathin ______ (Project Manager)

Page 2 of 4

REV: Mar, 09 Form 003

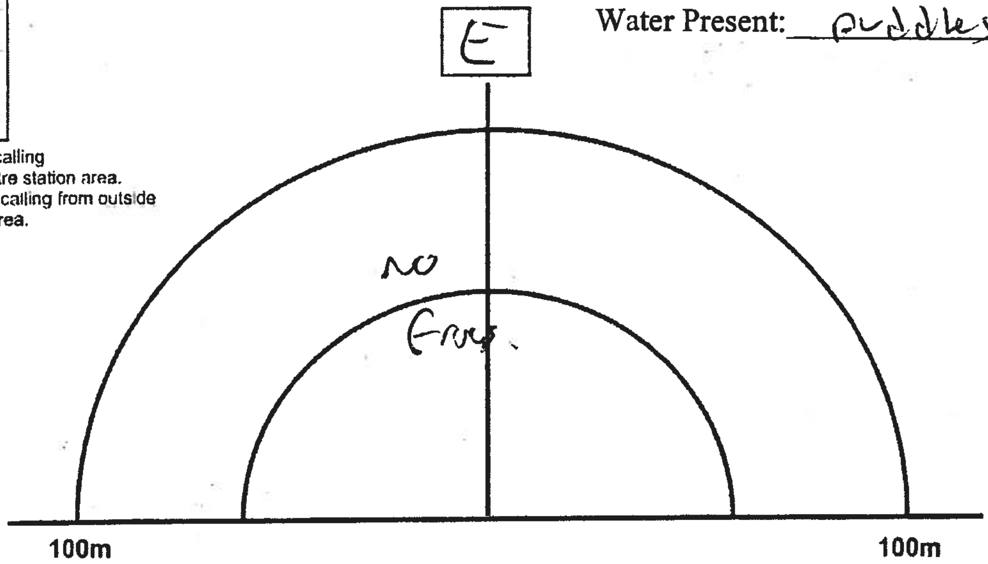
| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

8:50

**Station** 3

UTM: 
Habitat: Wet Juniper Sun
Water Present: puddles



no Frogs.

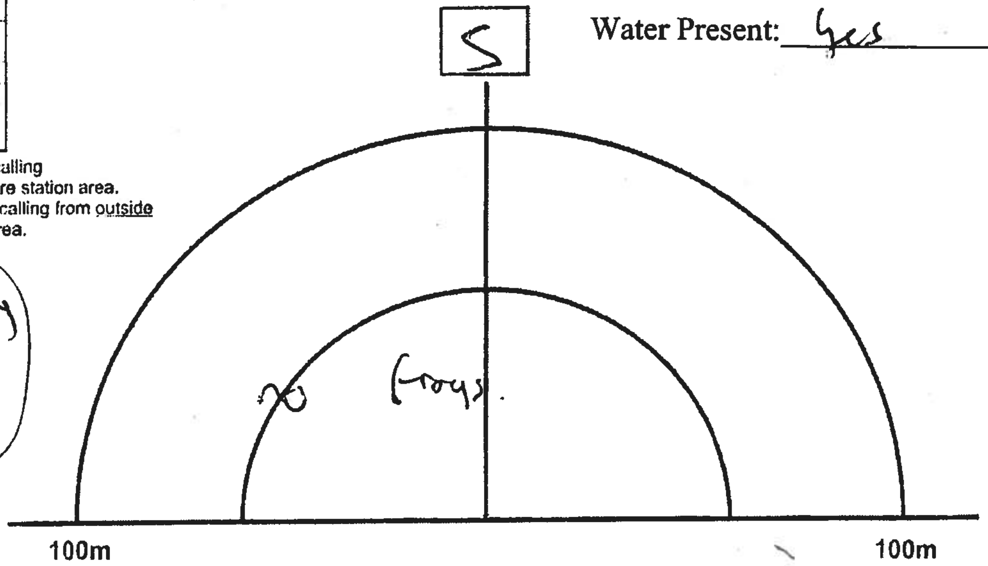
| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

9:19

**Station** 2

UTM: 16T 0363001 4891608
Habitat: Wet woods
Water Present: yes



no Frogs.

Very windy & Drizzle

Signature: (Field Personnel)
Signature: (Project Manager)

Page 3 of 4
REV: Mar, 09 Form 003

Poor weather, cant not conducted.

STATION MOVED. to creek @ Woodlot edge, ac

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

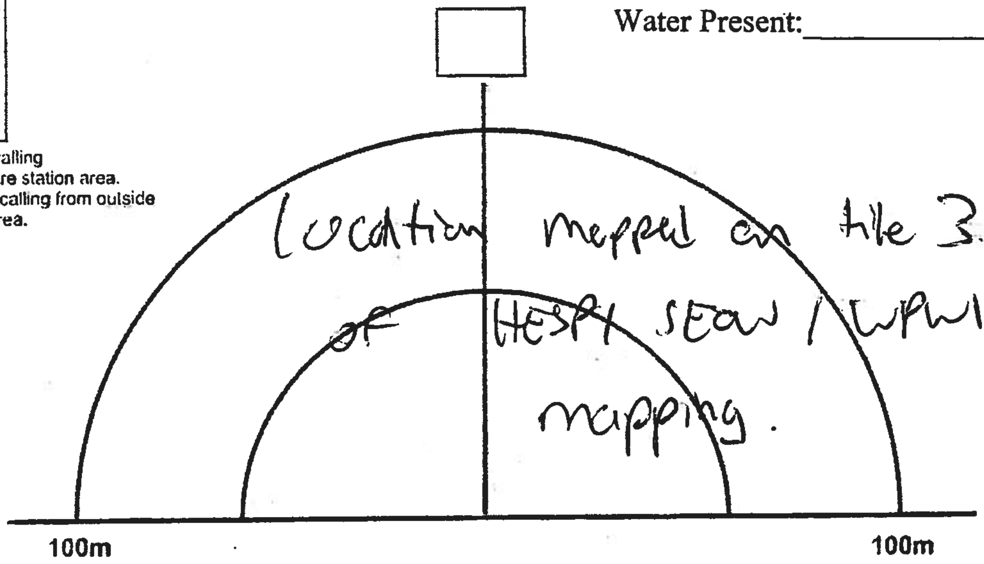
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station** 4

UTM: off of Stella 40

Habitat: Road.

Water Present:



location mapped on tile 3 of HESP SEOW / WPWI mapping.

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

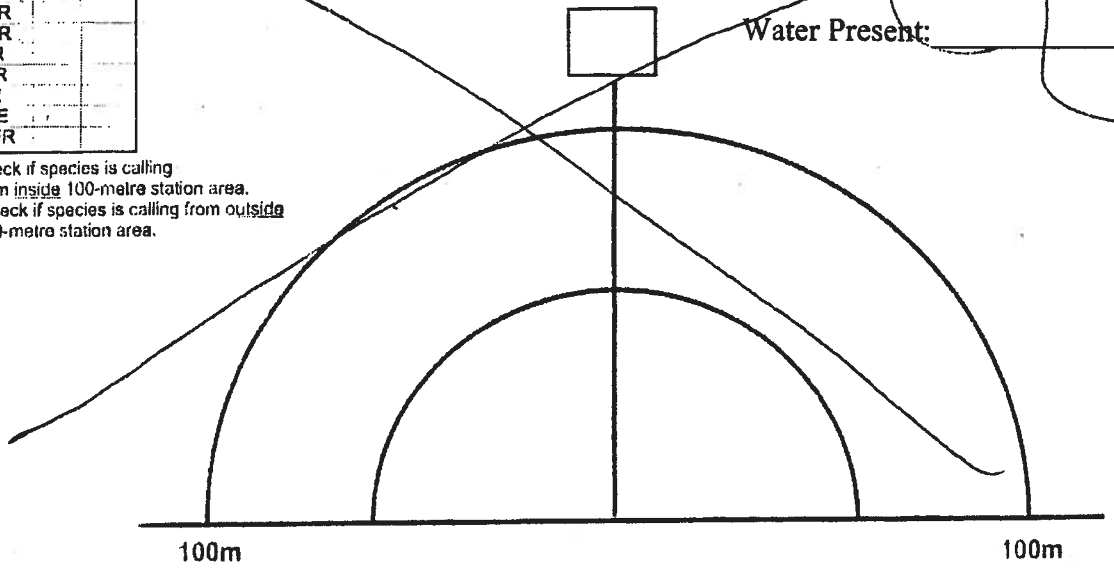
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station**

UTM:

Habitat:

Water Present:



Signature: ____________ (Field Personnel) Signature: ____________ (Project Manager)

Page 4 of 4

REV: Mar, 09 Form 003

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Amphibian Call Survey Observation Form

Project Number 160960595

Project Name: AMHERST IS.

Date MAY 17, 2011

Field Personnel: BOB STAMP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp:<br>8°C | Wind:<br>E 5 | Cloud:<br>95% | PPT:<br>RAIN JUST STOPPED | PPT in last 24 hrs:<br>RAIN |

| | | | |
|---|---|---|---|
| Visit Number: | 2 | | |
| Start Time: | 843 | End Time: | 848 |

- **Record Start Time at Each Station**

15

**Station** 5

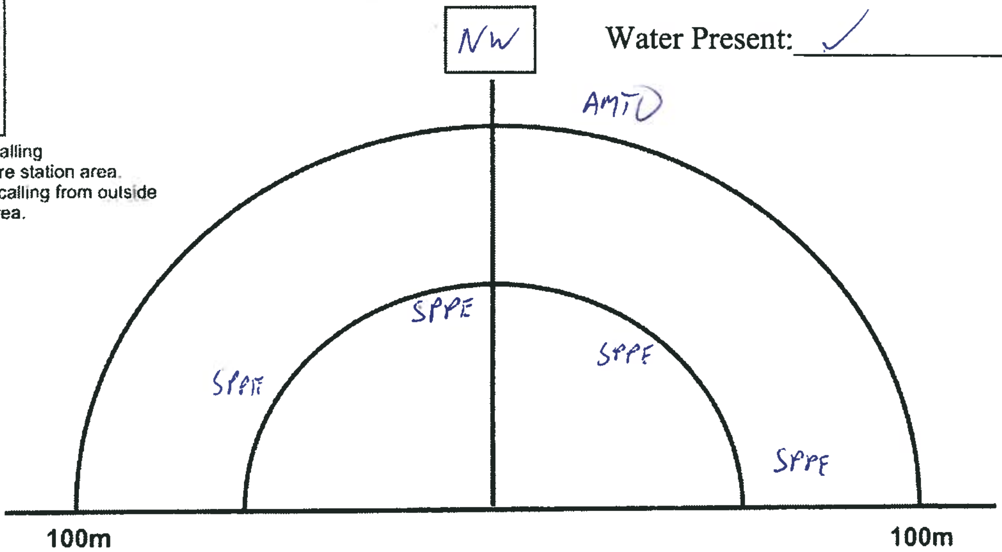
UTM: 18T 0363290 4888964

Habitat: CHANNEL THROUGH WOODS

Water Present: ✓

| Species | In* | Out** |
|---|---|---|
| AMTO | | / |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | //// | 卌 |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



Quality Control: This form is complete (✓) & legible (__).

Signature: Robt Stamp (Field Personnel)

Signature: __________ (Project Manager)

Page 1 of ____

REV: Mar, 09 Form 003

23

**Station** #6

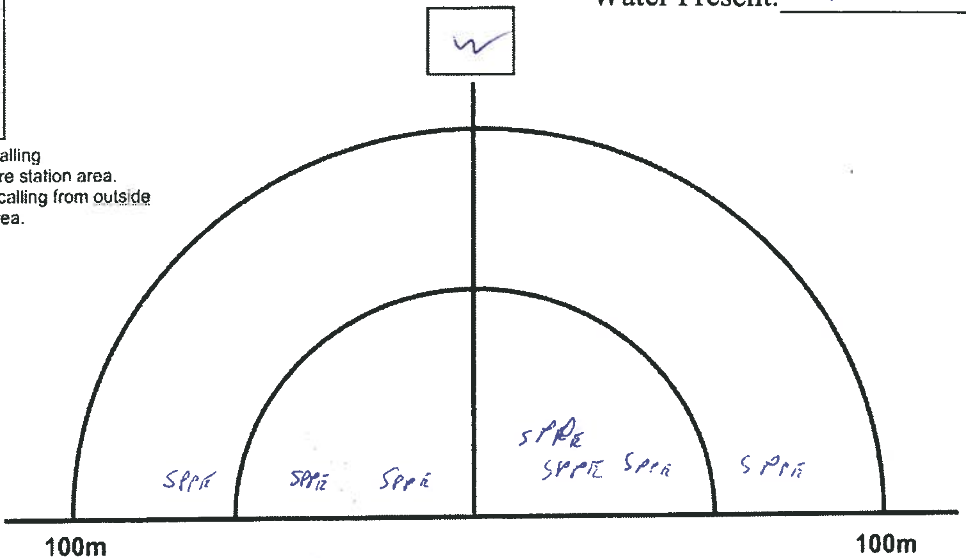
UTM: 18T 0362892 4888026

Habitat: STREAM THROUGH PASTURE

Water Present: ✓

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | 𝍸 | ll |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



TOO NUMEROUS TO COUNT.

5

**Station** 11

UTM: 18T 0359772 488188

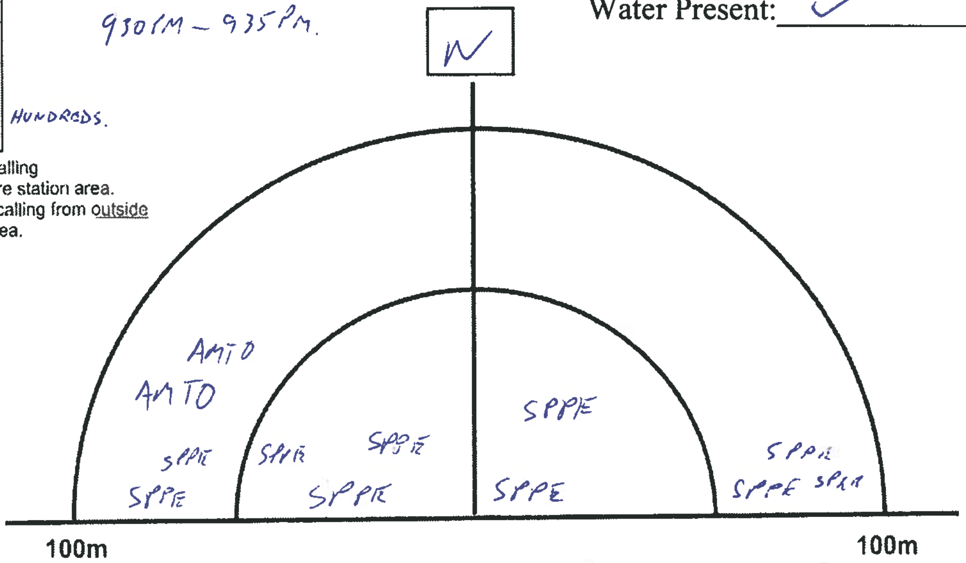
Habitat: SWAMP FOREST

Water Present: ✓

930PM – 935PM.

| Species | In* | Out** |
|---|---|---|
| AMTO | // | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | 𝍸 | 𝍸 HUNDREDS. |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



BOB STAMP (Field Personnel)

Kathern (Project Manager)

Page 2 of ______

REV: Mar, 09 Form 003

③

**Station** X

UTM: 18T 0358628
4888733

Habitat: WET PASTURE

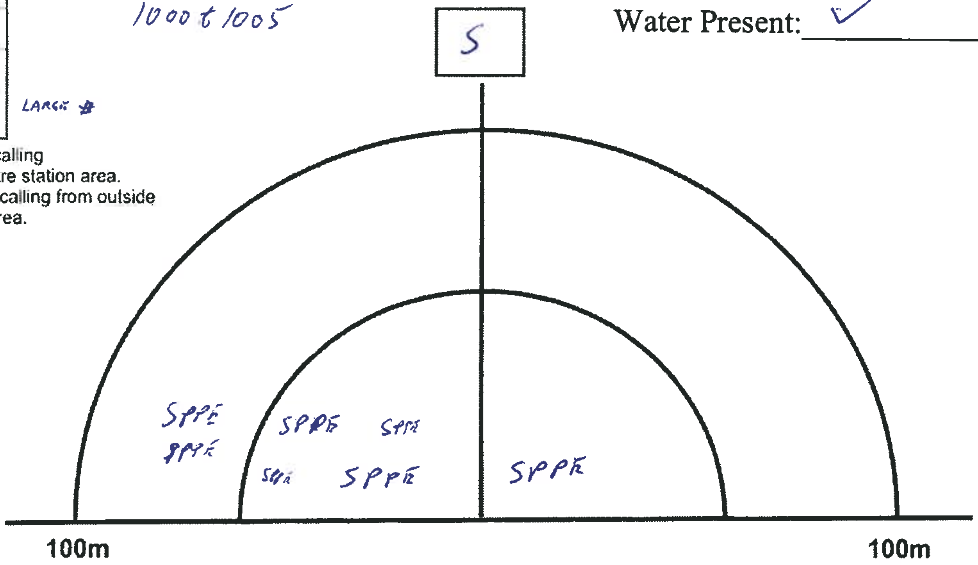
Water Present: ✓

1000 t 1005

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | 卌 | 卌 |
| WOFR | | |

LARGE #

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



UNKNOWN #1 (NL)

⑩

**Station**

UTM: 18T 0360001
4889017

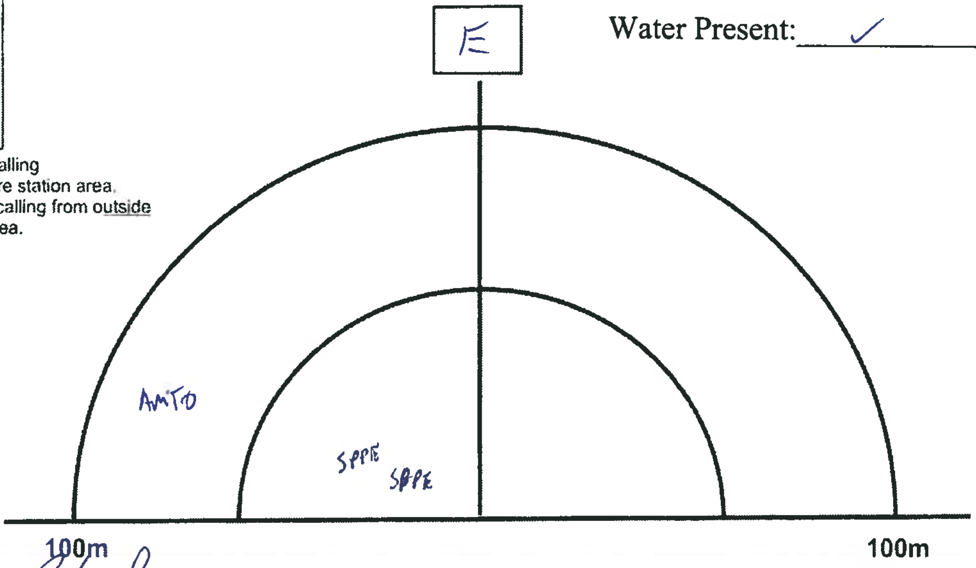
Habitat: FOREST

Water Present: ✓

1012 t 1017

| Species | In* | Out** |
|---|---|---|
| AMTO | I | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | II | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



Signature: ______________________
(Field Personnel)

Signature: ______________________
(Project Manager)

Page _____ of _____

REV: Mar, 09 Form 003

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Fax: (519) 836-2493

# Amphibian Call Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date Apr. 26, 2011

Field Personnel: Don Graham & Matt Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 8 | Wind: 1 | Cloud: 100% | PPT: None | PPT in last 24 hrs: Rain |

| | | | |
|---|---|---|---|
| Visit Number: | 2 | | |
| Start Time: | 8:25 | End Time: | 8:28 |

- **Record Start Time at Each Station**

WHIP calling 200 m NE of station.
367599
4892436

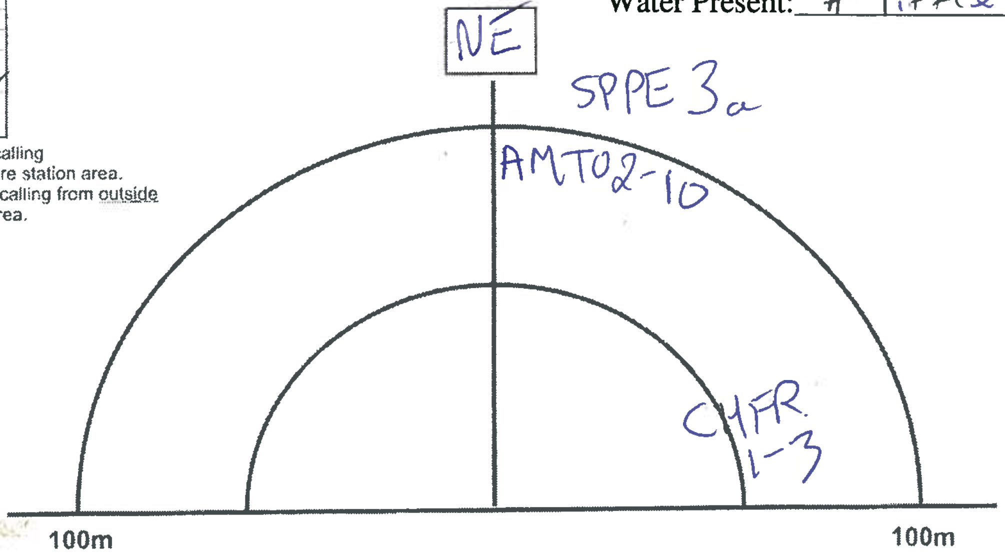
22

**Station** 14

Start Time: 8:25
UTM:
Habitat: SWD & MM
Water Present: A little

| Species | In* | Out** |
|---|---|---|
| AMTO | ✓ | ✓ |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



Quality Control: This form is complete (__) & legible (__).
Signature: Don Graham
(Field Personnel)

Signature: Kathi
(Project Manager)

Page 1 of 3

REV: Mar, 09 Form 003

Used site @ creek ~ woodlot edge
365246
4890208

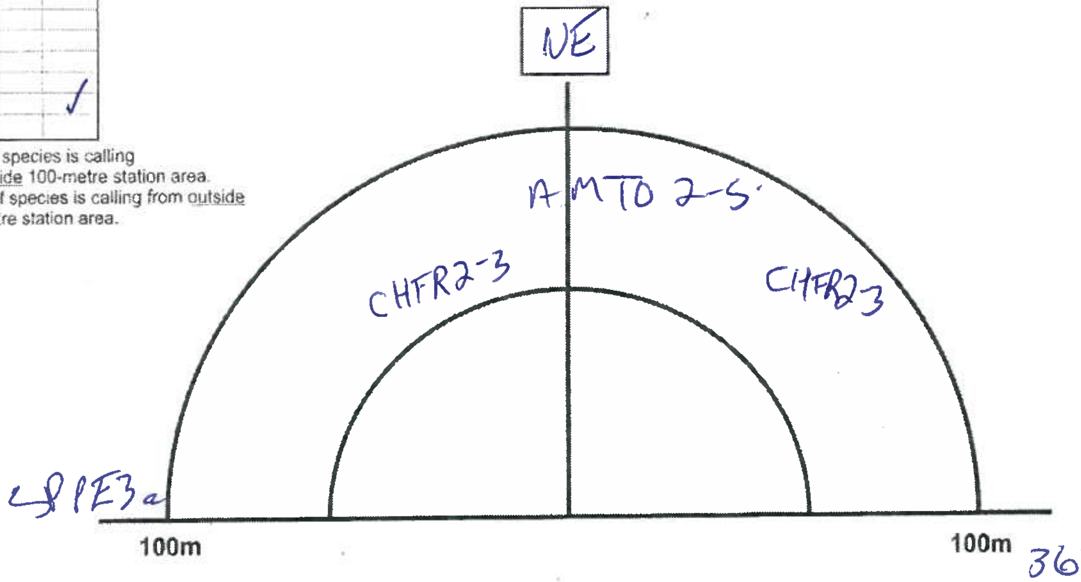
(21)

**Station** 4

Start Time: 8:52
UTM:
Habitat: SWT
Water Present: Yes

| Species | In* | Out** |
|---|---|---|
| AMTO | ✓ | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



363009
4891609

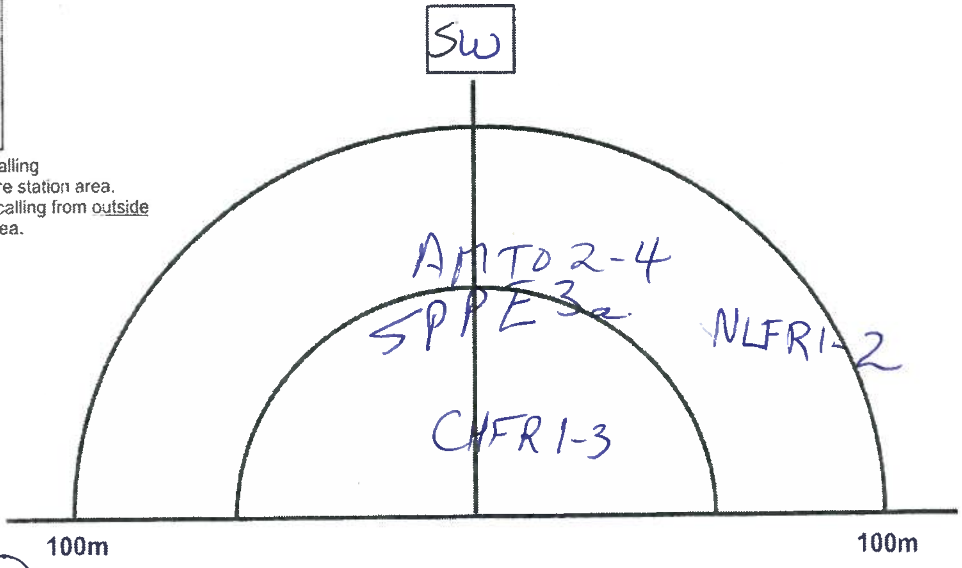
(19)

**Station** 2

Start Time: 9:38
UTM:
Habitat: SWT, MAM 2-2
Water Present: Yes

| Species | In* | Out** |
|---|---|---|
| AMTO | ✓ | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | ✓ | |
| PIFR | | |
| SPPE | ✓ | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



Signature: (Field Personnel)    Signature: (Project Manager)

Page 2 of 3    REV: Mar, 09    Form 003

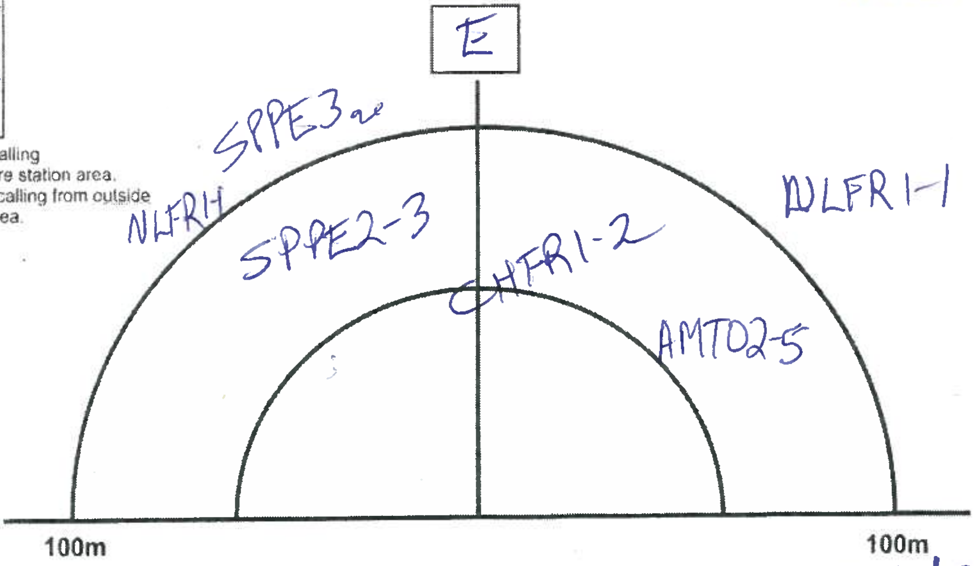
362790
4891542
~~363~~
~~4891608~~

① **Station** 3

Start Time: 9:22
UTM:
Habitat: SWD
Water Present: water

| Species | In* | Out** |
|---|---|---|
| AMTO | ✓ | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | ✓ |
| PIFR | | |
| SPPE | ✓ | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



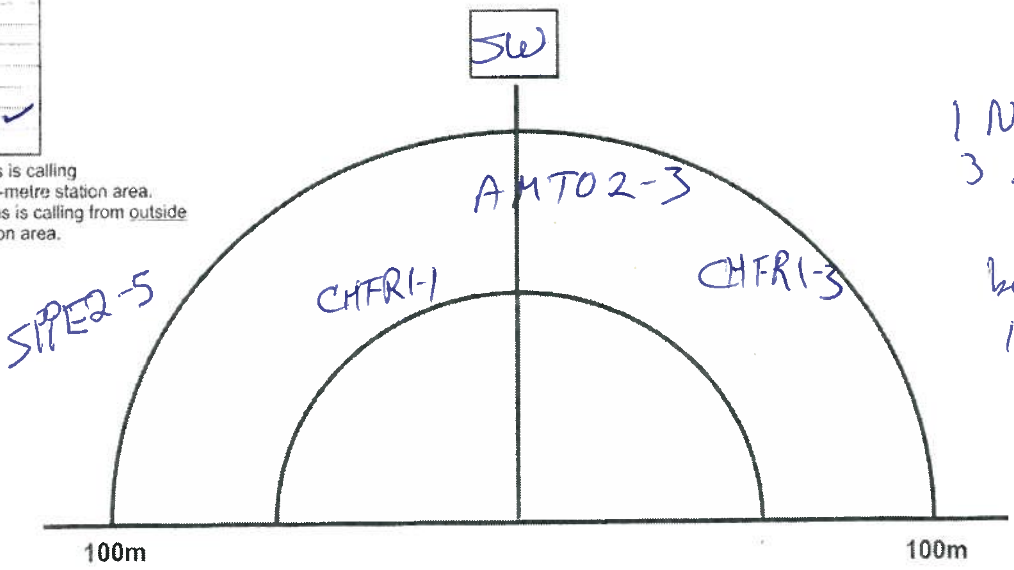
363681
4891431

⑰ **Station** 1

Start Time: 9:58
UTM:
Habitat: SwT
Water Present: Yes

| Species | In* | Out** |
|---|---|---|
| AMTO | ✓ | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | ✓ |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



1 NLFR after 3 minute survey beyond 100m

Quality Control: This form is complete (__) & legible (__).

Signature: ______________ (Field Personnel)    Signature: ______________ (Project Manager)

Page 3 of 3    REV: Mar, 09    Form 003

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Fax: (519) 836-2493

# Amphibian Call Survey Observation Form

Project Number 16960595

Project Name: AMHERST ISLAND

Date 17 MAY /14

Field Personnel: J. Heslop

| **Weather Conditions:** | Temp: 9°C | Wind: NE15 | Cloud: 100% | PPT: 0 | PPT in last 24 hrs: RAIN |
|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Visit Number: | | | |
| Start Time: | 21:52 | End Time: | 22:57 |

- **Record Start Time at Each Station** 21:52

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

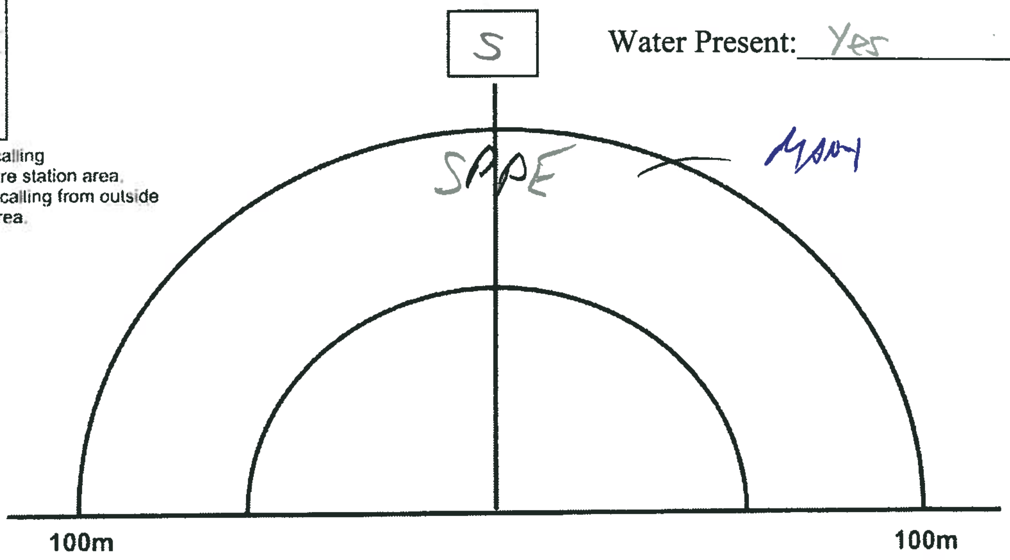
**Station** J3

Pa 056

UTM: 18 357259E 4887039N

Habitat: MARSH

Water Present: Yes



Quality Control: This form is complete (__) & legible (__).
Signature: ________ (Field Personnel)

Signature: Katherine S (Project Manager)

Page 1 of 3

REV: Mar, 09 Form 003

⑦

**Station** 18

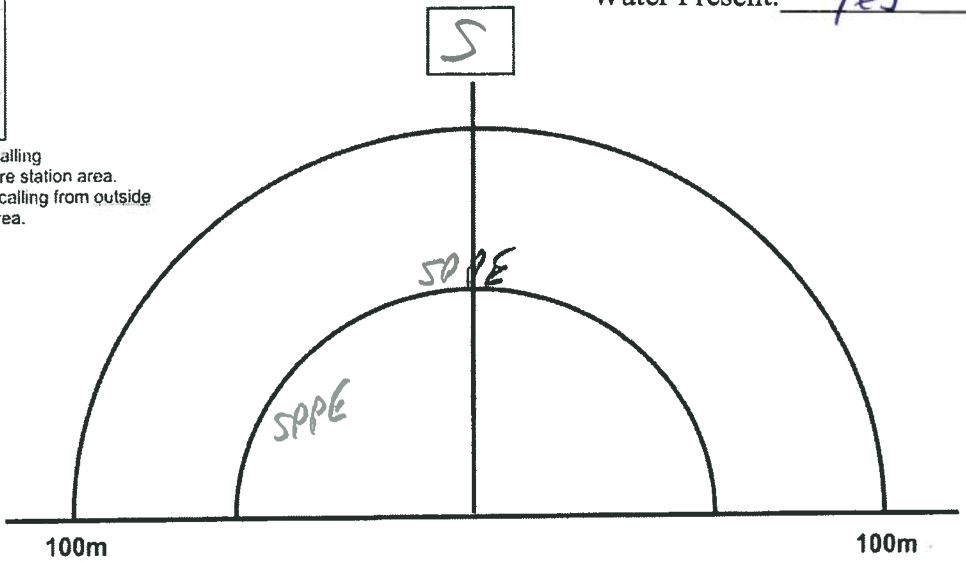
UTM: 18 360085E 4885822N

Habitat: WET Field

Water Present: Yes

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



⑤

**Station** 11

Pt 059

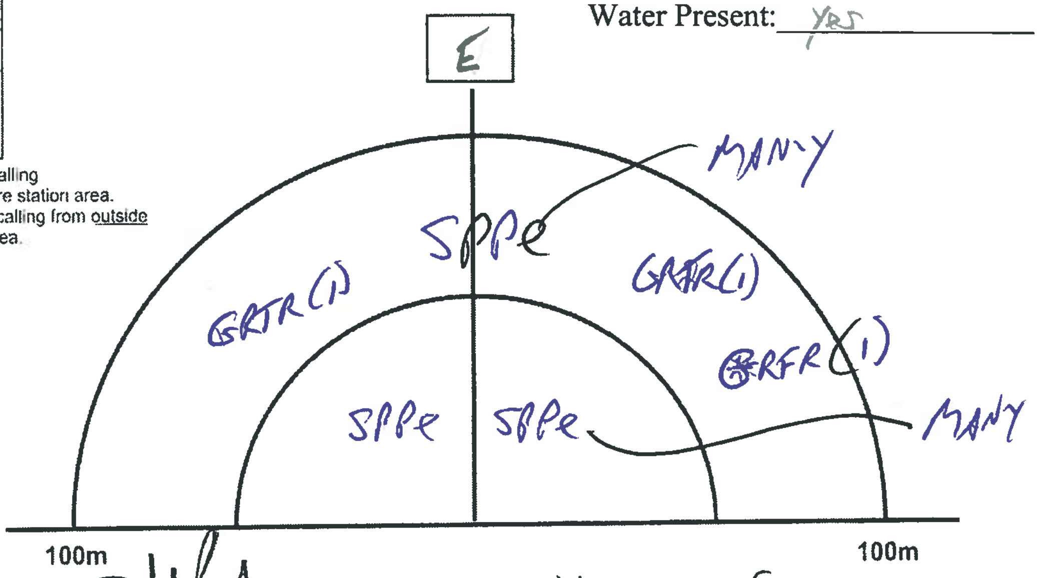
UTM: 18 360034E 4886433N

Habitat: WET Woods

Water Present: YES

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | ✓ | |
| GRFR | ✓ | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



(Field Personnel)

(Project Manager)

⑫

START 22:35

8
**Station**
Poi 008

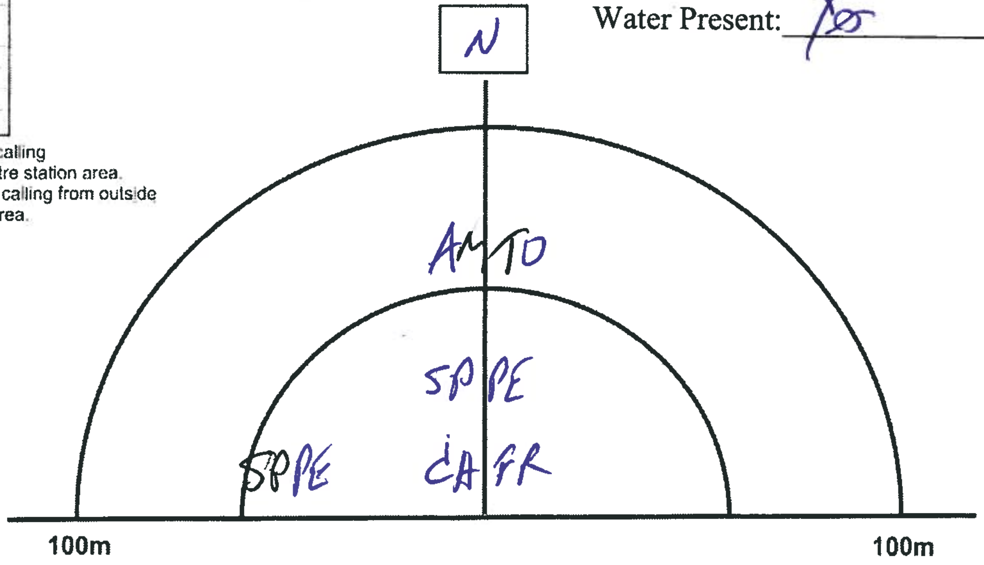
UTM: 18 361069E - 4886073N

Habitat: Wet Field

Water Present: Yes

| Species | In* | Out** |
|---|---|---|
| AMTO | ✓ | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



START 22:50

⑪

7
**Station**
Poi 007

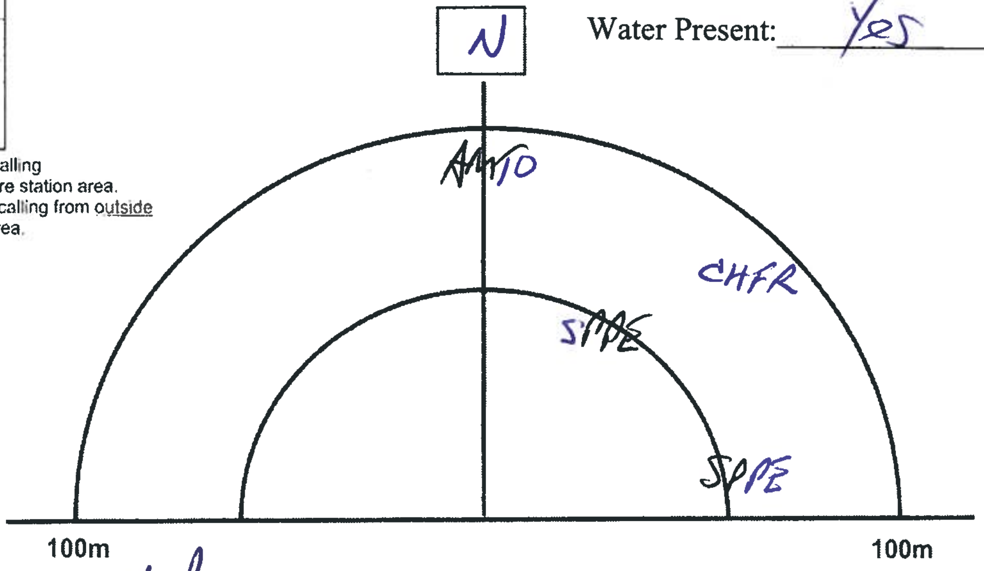
UTM: 18 360618E 4885918N

Habitat: Wet Field

Water Present: Yes

| Species | In* | Out** |
|---|---|---|
| AMTO | ✓ | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | ✓ | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



Signature: ____________________
(Field Personnel)

Signature: ____________________
(Project Manager)

Page 3 of 3

REV: Mar, 09 Form 003

0930-

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Fax: (519) 836-2493

# Amphibian Call Survey Observation Form

Project Number 1609605?5

Project Name: Amherst

Date Jun 18, 2011

Field Personnel: B. Holden A. Wolmington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 14°C | Wind: 2-3 | Cloud: — | PPT: — | PPT in last 24 hrs: — |

| | | | |
|---|---|---|---|
| Visit Number: | 3 | | |
| Start Time: | 2135 | End Time: | 2345 |

- **Record Start Time at Each Station**

18T 0364616 4888747

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | ✓ |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | ✓ | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

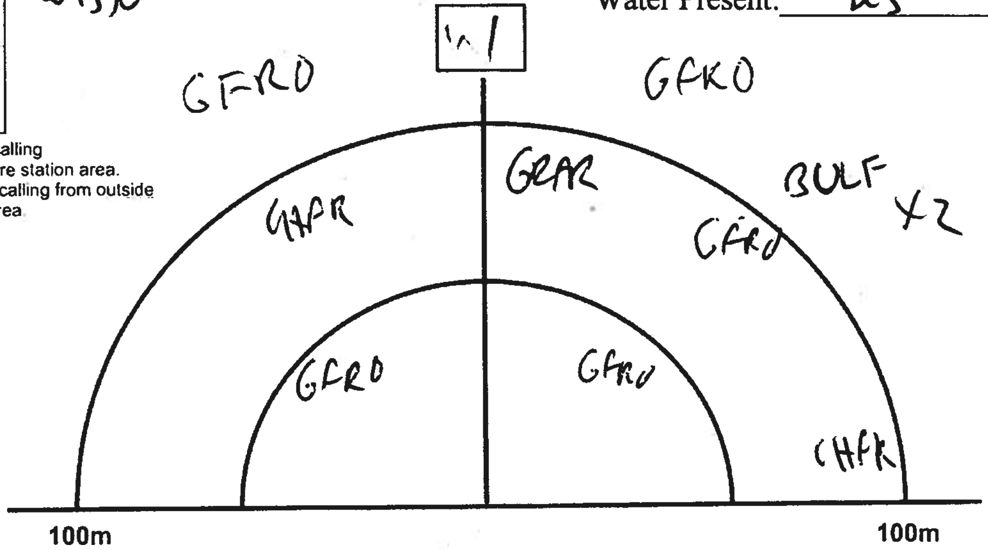
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

WISN

WISN x2

(23) Station 6

Start Time: 935
UTM:
Habitat: Swamp
Water Present: yes



Quality Control: This form is complete (__) & legible (__)
Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 1 of 4

REV: Mar, 09 Form 003

0363871
4887440

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | ✓ | ✓ |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | ✓ | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

955

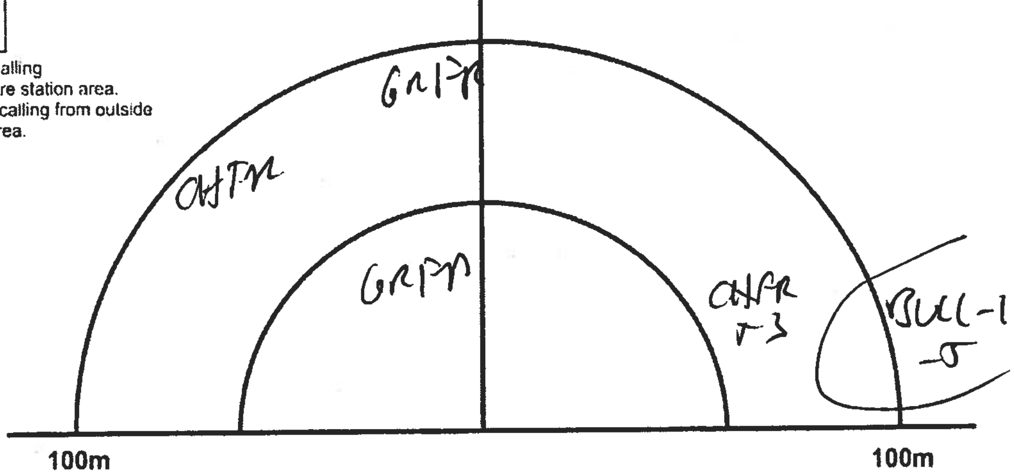
Station 15

UTM:

Habitat: Swmp

Water Present: Y

SW



0364616
4887440

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | ✓ | ✓ |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | ✓ | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

1035

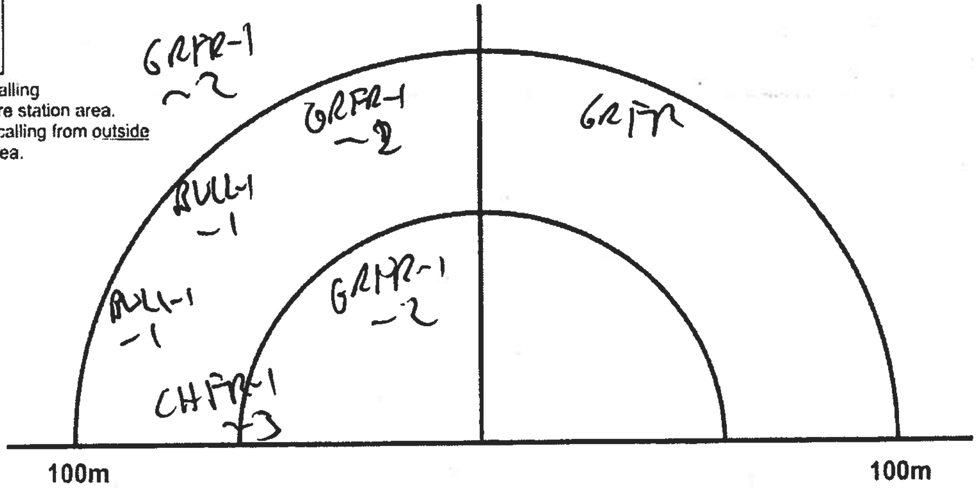
Station 16

UTM:

Habitat: Marsh

Water Present: Y

S



Signature: (Field Personnel)

Signature: Kathrine S (Project Manager)

Page 2 of 4

REV: Mar, 09 Form 003

1031

0359787
4846549

⑧

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

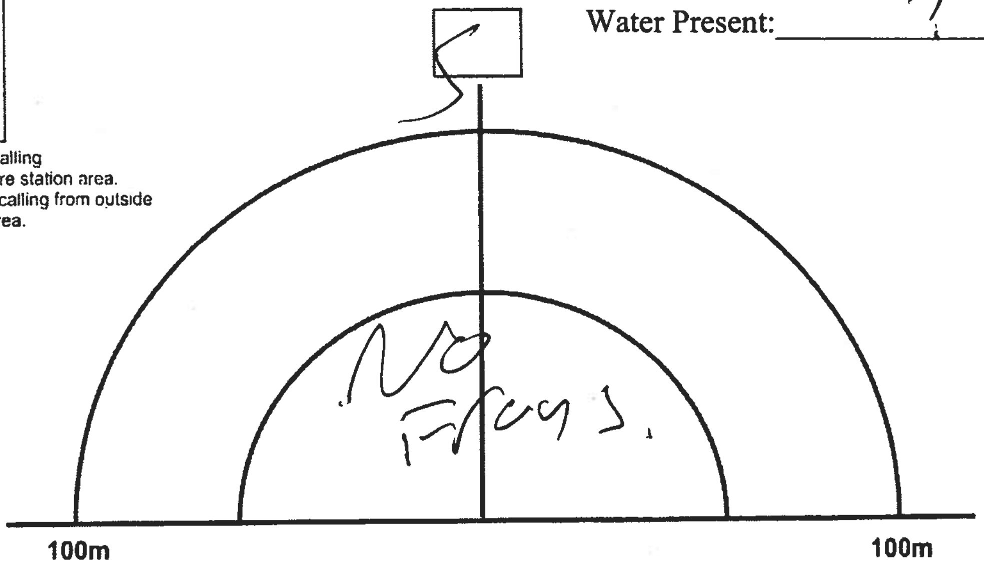
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station** 11

UTM:

Habitat: Woods

Water Present: ?



①

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | ✓ | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | ✓ | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

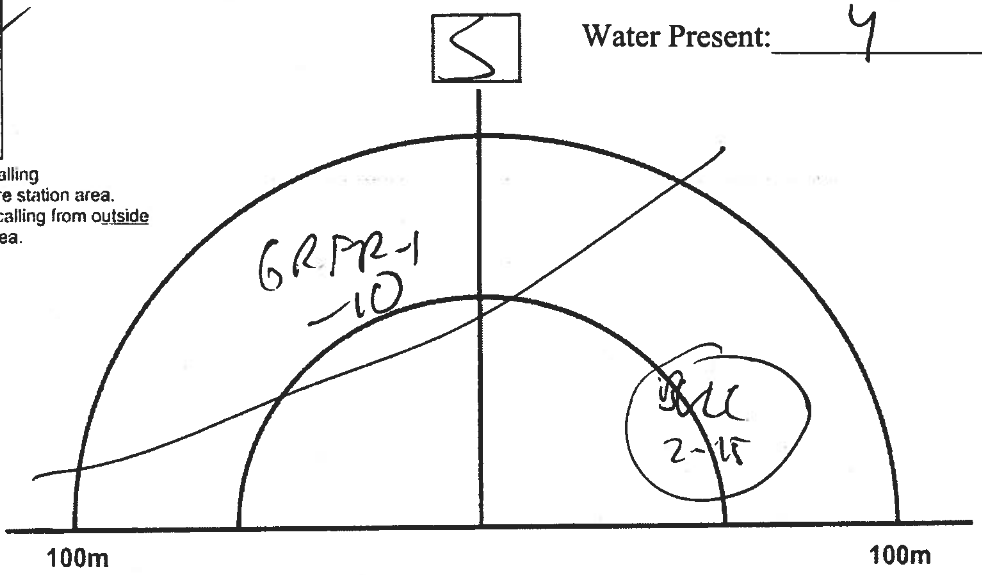
1052

**Station** 3

UTM:

Habitat: Marsh

Water Present: Y



Signature: ______ (Field Personnel)    Signature: ______ (Project Manager)

Page 3 of 4    REV: Mar, 09    Form 003

24

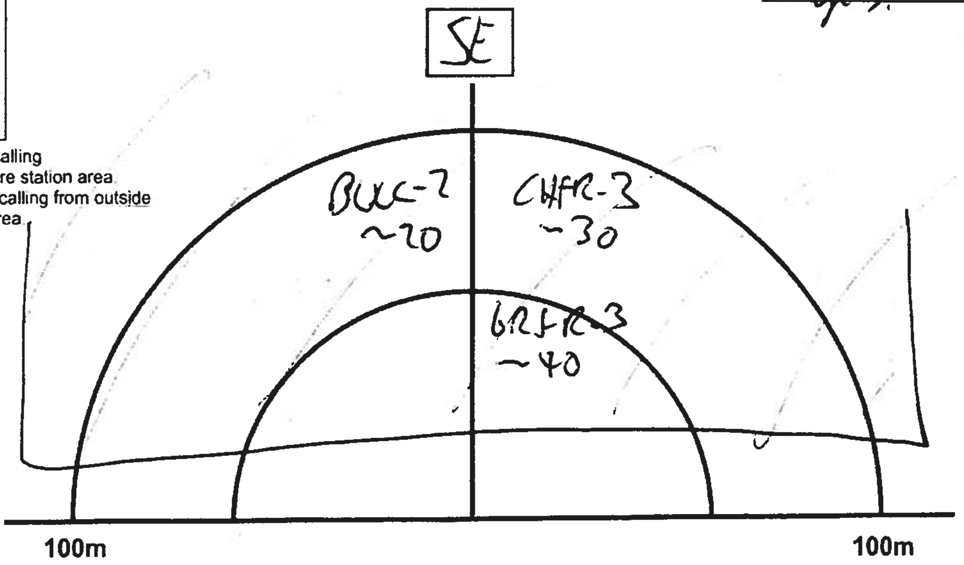
| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | ✓ | ✓ |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | ✓ | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

Frogs everywhere

**Station** 10

18T
Start Time: ~~05885~~ -7
UTM:
1106
Habitat: Marsh
Water Present: yes.



22

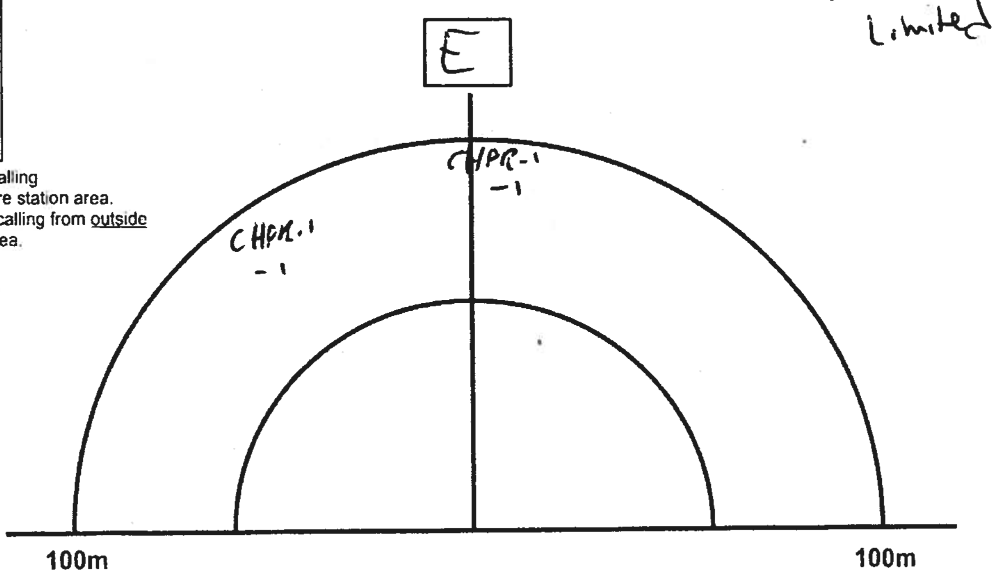
18T 0367599 4892436

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

**Station** 14

Start Time:
1137
UTM:
Habitat: Woods / swamp
Water Present: yes
limited.



Quality Control: This form is complete (_) & legible (_).
Signature: __________ (Field Personnel)
Signature: __________ (Project Manager)

Page 4 of 4

REV: Mar, 09 Form 003

Jun 19, 2011 10°C E-1 5% cc PPT-X

24PPT-X

BH AW

16096059T

START -1925 End - 2345

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

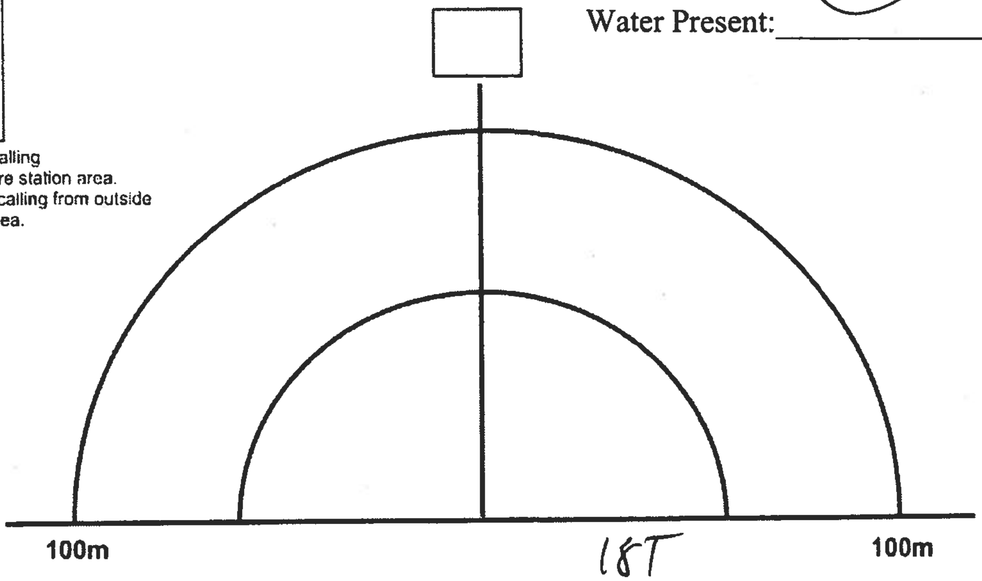
[illegible]

**Station**

UTM: ______

Habitat: ______

Water Present: ______



18T

17

**Station** 01

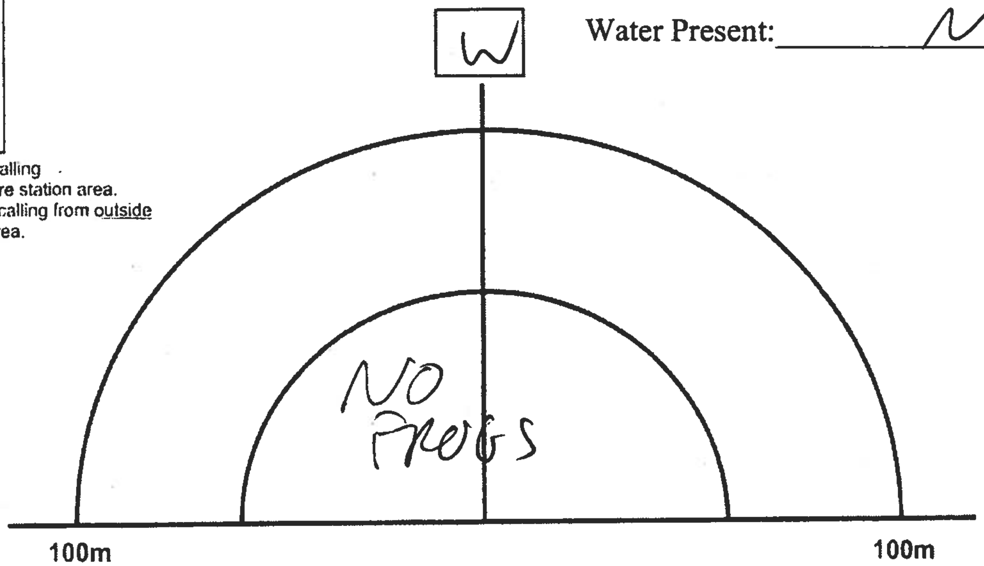
UTM: 0362691 4891061

Habitat: Upland dogwood thicket

Water Present: NO

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



Signature: ______ (Field Personnel)

Signature: Katherine ______ (Project Manager)

Page 1 of 4

REV: Mar, 09 Form 003

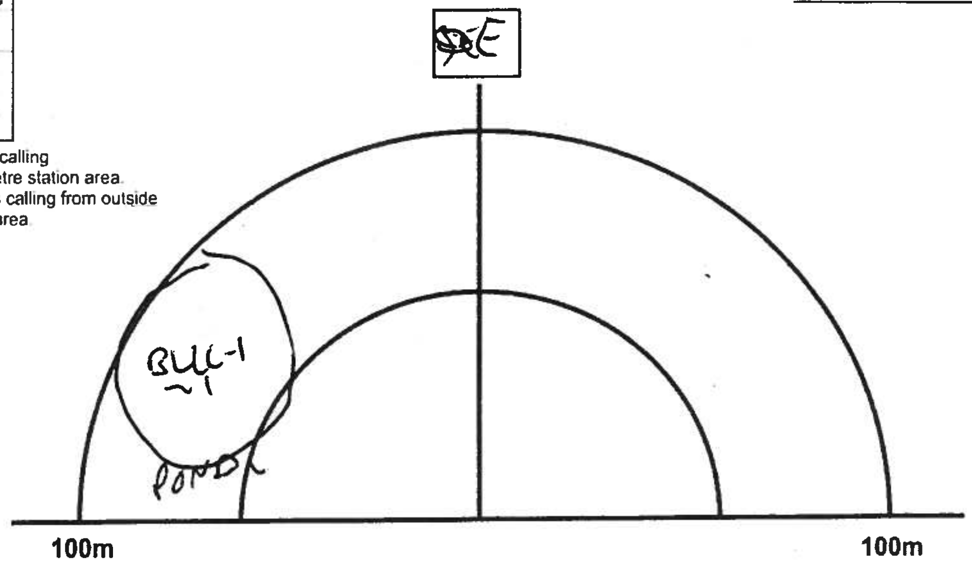
(19)

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | ✓ | ✓ |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area

**Station** 2

Start Time: 10:00
UTM:
Habitat:
Water Present:



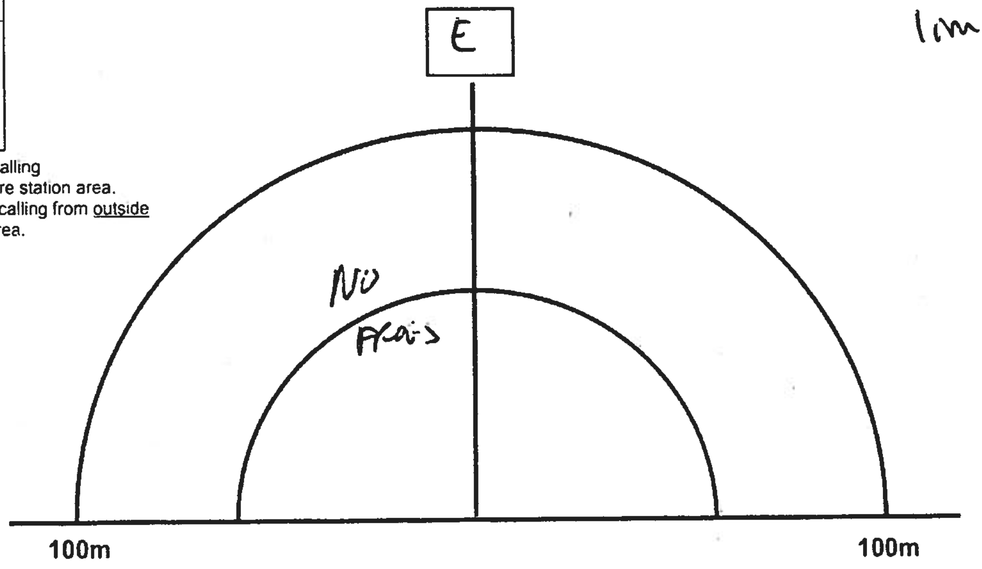
BULL-1 GRFR-1
~2

Start Time: 1015
UTM:
Habitat: wet woods
Water Present: yes, But limited?

(21) **Station** 4

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



Quality Control: This form is complete (__) & legible (__).
Signature: (Field Personnel) Signature: (Project Manager)
Page 2 of 4 REV: Mar, 09 Form 003

18T 0362168 4886966

18T
0362168
~~4886966~~

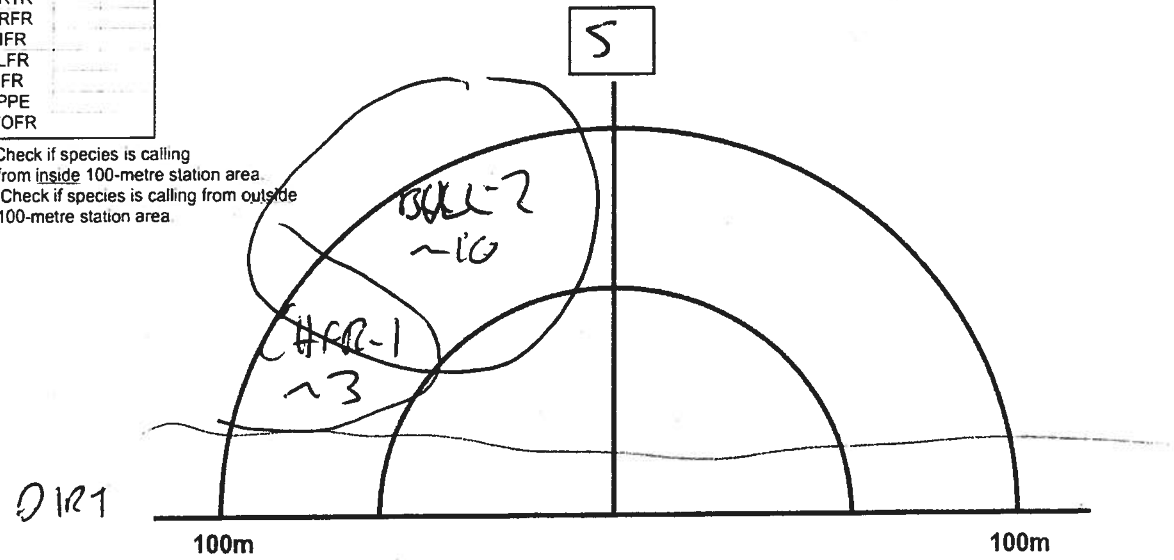
(12)

**Station** 8

Start Time: 1045
UTM:
Habitat:
Water Present: yes

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | ✓ | ✓ |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area



5T 0360065 4886428

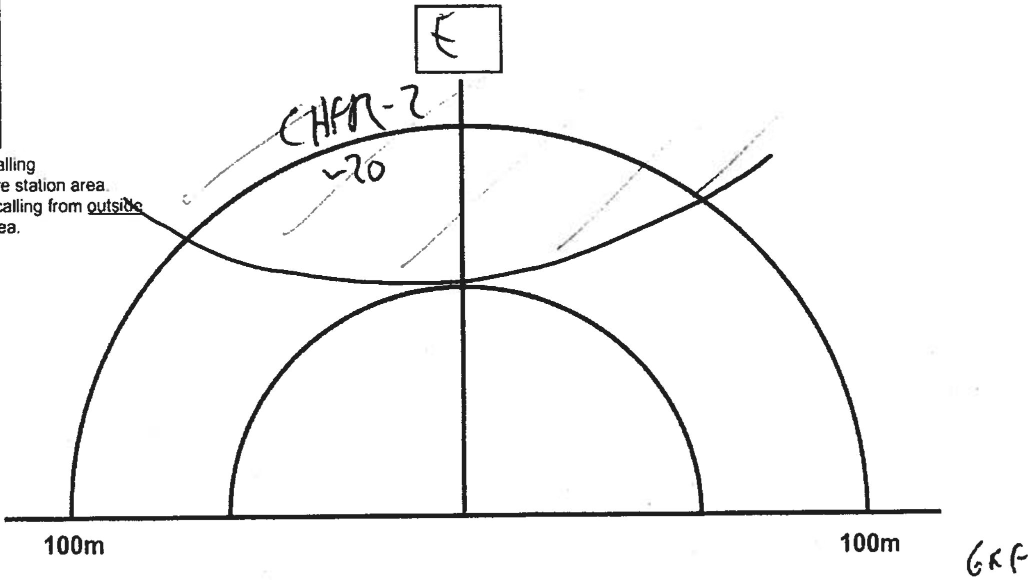
(6)

**Station** 13
~~12~~

Start Time: 11:00
UTM:
Habitat: Swamp/woods
Water Present: yes

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



GRFR-1
-2

Signature: ____________ (Field Personnel)
Signature: Katherine ____________ (Project Manager)

Page 3 of 4
REV: Mar, 09 Form 003

1107

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | | |
| CHFR | ✓ | ✓ |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | ✓ | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.

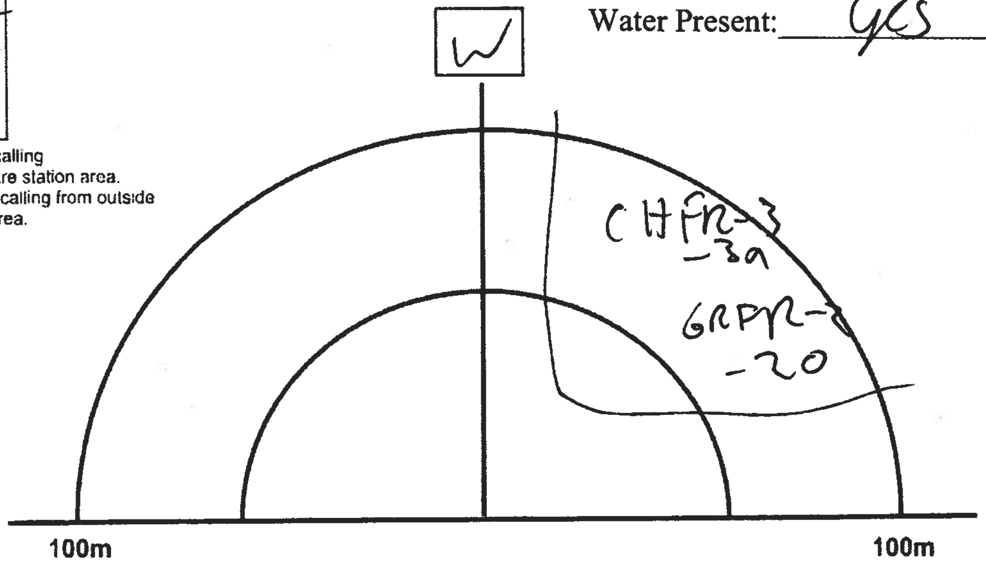
** Check if species is calling from outside 100-metre station area.

**Station** 4

UTM:

Habitat: Wooded Swamp

Water Present: yes



---

| Species | In* | Out** |
|---|---|---|
| AMTO | | |
| BCFR | | |
| BULL | ✓ | ✓ |
| CHFR | | |
| CGTR | | |
| FOTO | | |
| GRTR | | |
| GRFR | ✓ | ✓ |
| MIFR | | |
| NLFR | | |
| PIFR | | |
| SPPE | | |
| WOFR | | |

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

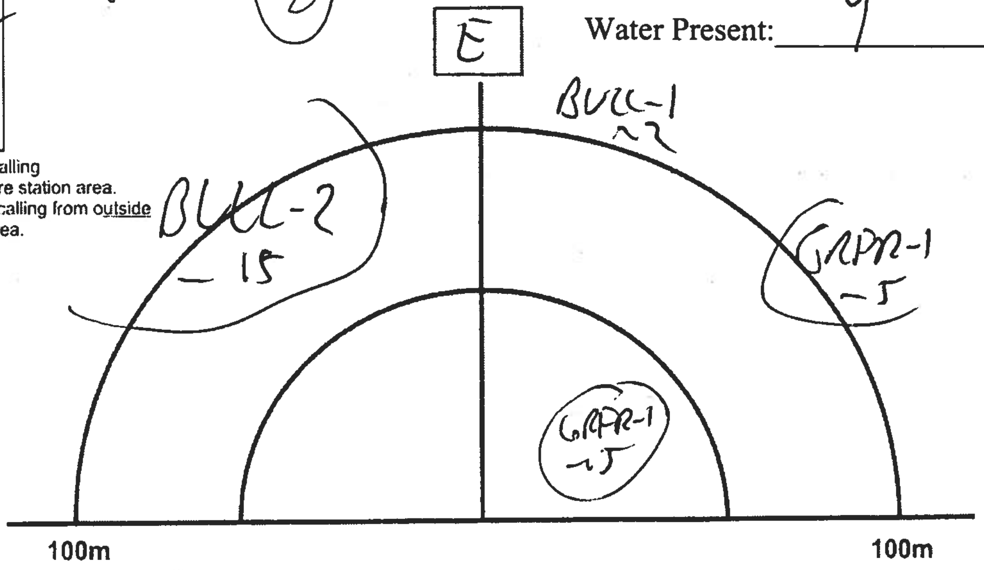
1136

**Station** 2

UTM:

Habitat: Marsh

Water Present: Y

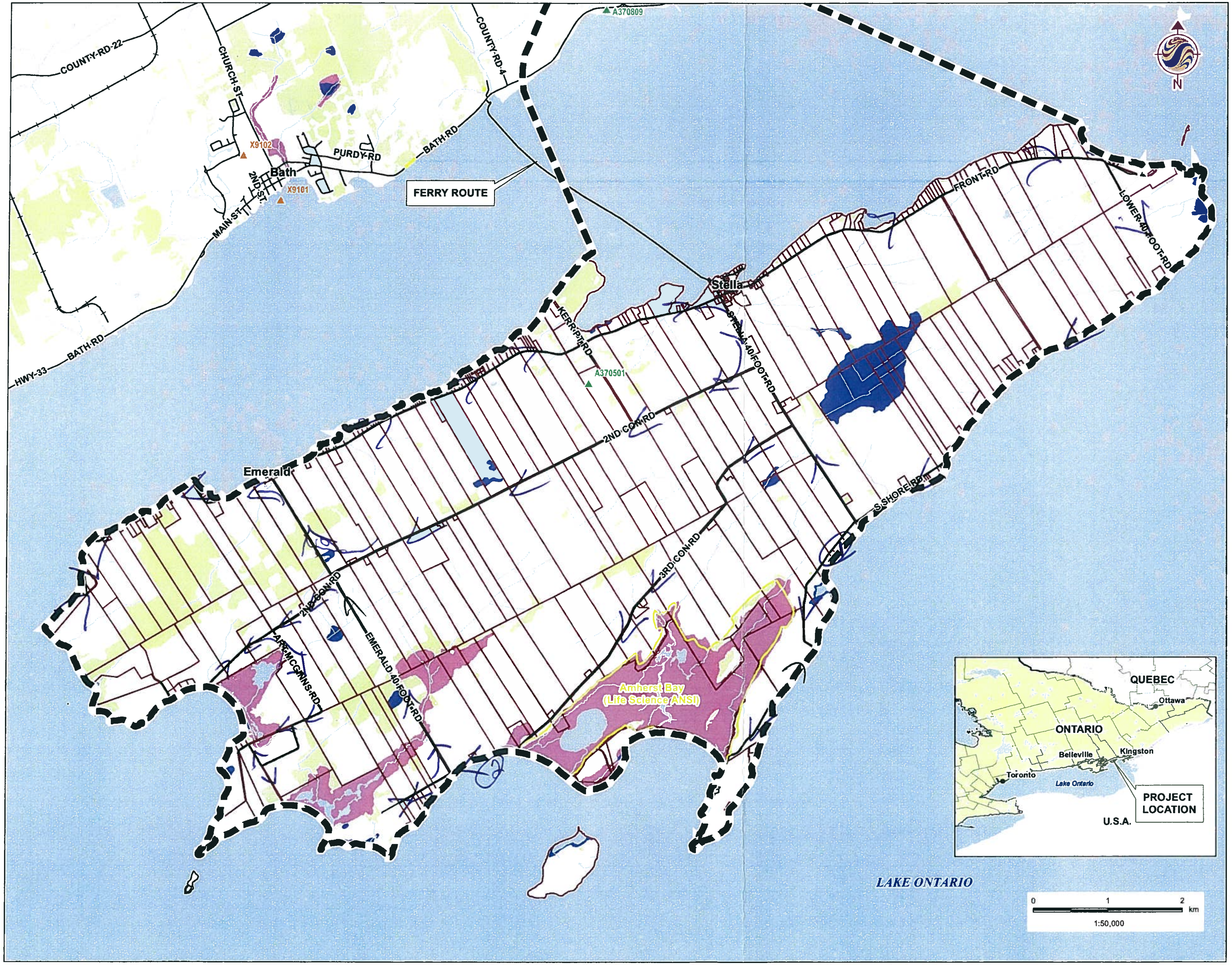


Signature: ______________________ (Field Personnel)

Signature: Kathrine ______________________ (Project Manager)

Page 4 of 4

REV: Mar, 09 Form 003



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- ▨ Waterbody
- ■ Unevaluated Wetland
- ■ PSW
- ☐ ANSI Boundary

Shorebird Migration

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

**Stantec**

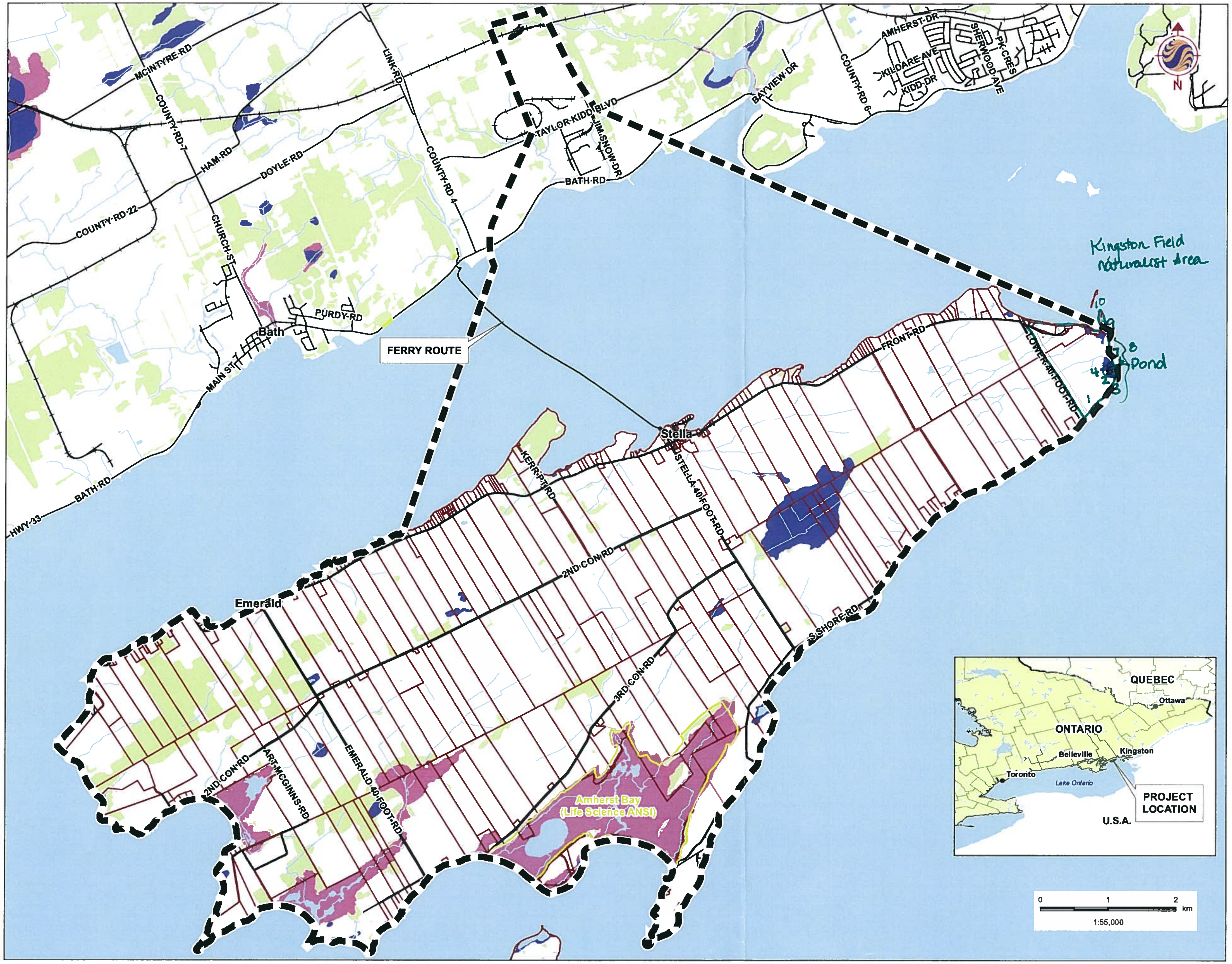
April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595_FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell



## Legend

- ▚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 Provincially Significant Wetland
- 🟨 ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

Survey By: D. Graham

See sketched map attached.

**Stantec**

May 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

# PROJECT STUDY AREA

W:\active\60960595\drawing\GIS\MXD\PDR\60960595_ProjectStudyArea_20110503.mxd
Revised on: 2011-05-03 By: dharvey

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Shorebird Migration Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: May 3/11 2:07pm – 2:45pm
4:15 – 7:47 pm

Field Personnel: Matthew Ross + Don Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 8° | Wind: 3 | Cloud: 100% | PPT: Rain | PPT in last 24 hrs: Rain |

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *agr. field near puddle, shoreline etc.* | *Feeding, flying, flock behaviour etc.* |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________
(Field Personnel)

Signature: ______________________
(Project Manager)

Page 1 of 1

REV: May, 07 Form 015

Stantec
Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Shorebird Migration Observation Form

Project Number 160960595

Project Name: AMHERST IS.

Date / Time: MAY 11, 2011 321

Field Personnel: STAMP + GRAHAM.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 20°C | Wind: | Cloud: 0% | PPT: 0 | PPT in last 24 hrs: 0 |

29472

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *agr. field near puddle, shoreline etc.* | *Feeding, flying, flock behaviour etc.* |
| ① | WISN | 1 | PASTURE | FEEDING |
| ② | SPSA | 3 | SHORE | FLYING @ 0 am |
| ③ | UPSA | 2 | AG. FIELD | ON ALERT. ON GROUND |
| ④ | SPSA | 2 | SHORE | ON ROCK |

Quality Control: This form is complete (✓) & legible (✓).

Signature: (Field Personnel)

Signature: Katherine St[illegible] (Project Manager)

Page 1 of 1

REV: May, 07 Form 015

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Shorebird Migration Observation Form

Project Number: 160760595

Project Name: AMHERST IS.

Date: MAY 17, 2011

Field Personnel: STAMP & HESLOP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 12 8°C | E - 4 | 95% | 0-2 | RAIN |

55245

**Start Time:** 14:20 - 17:20

**End Time:**

**Total KM Driven:**

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| ① | 15:12 | SOSA | 1 | Puddle on Lawn | Feeding |
| ② | 15:52 | SPSA | 2 | ON SHORELINE ROCKS | ✓ |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Signature: Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-09 / FORM 015

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Stantec**

# Shorebird Migration Observation Form

Project Number: 160960595
Project Name: Amherst
Date: May 20, 2011
Field Personnel: ART - with KFN

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 15 °C | 0 | 100 | None | None |

**Start Time:** 9:00
**End Time:** 11:00
**Total KM Driven:** N/A - Walking Survey

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| ① | 9:05 | KILL | 1 | shoreline | - on ground<br>- possible breeder |
| ② | 9:15 | WIPH | 18 | flushed from puddle in field | - possible breeder<br>- flew up to 2m high |
| ③ | 9:20 | SPSA | 2 | shoreline | - possible breeder.<br>- on ground |
| ④ | 9:27 | SPSA | 3 | edge of pond | - on ground |
| ⑤ | 9:36 | SPSA | 2 | " | - flying up to 10m high |
| ⑥ | 9:38 | SPSA<br>KILL | 3<br>1 | - shoreline | - on ground |
| ⑦ | 9:40 | SPSA<br>DUNL | 6<br>1 | - mudflat, | - feeding<br>- on ground. |
| ⑧ | 10:07 | WIPH | 1 | - flooded field | - flushed, flying up to 10m high<br>- possible breeder |
| ⑨ | 10:08 | COSN | 1 | - | - flushed, flying up to 10m high<br>- possible breeder |
| ⑩ | 10:15 | COSN | 1 | - over pasture | - displaying up to 40m high<br>- possible breeder |

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature: Sutton
(Project Manager)

REV: 2011-05-09 / FORM 015

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Shorebird Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 25/11

Field Personnel: Matthew Ross + Don Graham

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20° | 3 | 5% | None | None |

**Start Time:** 1135am

**End Time:** 2:59

**Total KM Driven:**

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| ① | 1151 | WISN | 1 | Fence @ Fallow Field | 2m Perch |
| KILL observed throughout survey area | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin
(Project Manager)

REV: 2011-05-09 / FORM 015

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Shorebird Migration Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: May 26/11
Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 | 1-3 | 80% | / | Rain |

Start Time: 9:24
End Time: 10:30
Total KM Driven:
Kingston Field Naturalists Area

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 1 | 924 | WIPH | 2 | Small irrigation pond on south shore | |
| | | LESA | 2 | | |
| | | DUNL | 2 | | |
| | | SESA | 1 | | |
| | | SPSi | 2 | | |
| 2 | 930 | DUNL | 40 | inland pond | |
| 3 | 932 | DUNL | 20 | shingle shoreline | |
| 4 | 935 | Brant | 5 | edge of inland pond | |
| 5 | 936 | DUNL | 300 ~~150~~ | inland pond | |
| 5 | 936 | SESA | 20 | " | |
| 5 | 930 | SBDO | 1 | " | |

Quality Control: This form is complete ☑ & legible ☑.

Signature: Don Graham
(Field Personnel)

Signature: Kathrine
(Project Manager)

REV: 2011-05-09 / FORM 015

***Other Bird Species***

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| | **Species** | **No. of Individuals** | **Location** (e.g. agr. field near puddle, shoreline, etc.) | **Behaviour** (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|
| 6 | BBPL | 2 | 945 Shingle beach | |
| | SEPL | 1 | | |
| | DUNL | 1 | | |
| | SESA | 10 | | |
| 7 | BCNight Heron | 1 | Over shoreline | Flying |
| 8 | SPPA | 8 | Shingle beach. Spread out into pairs | |
| 004 9 | LESA | 2 | Near shore shingle beach | |
| " | SESA | 3 | shingle bar on north side | |
| 10 1010 | LESA | 6 | " | |
| | SESA | 2 | " | |
| | DUNL | 2 | " | |
| | RUTU | 1 | " | |
| | | | | |
| | | | | |

Signature: ________________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: ________________________
(Project Manager)

REV: 2011-05-09 / FORM 015

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# ~~Migratory Bird Survey Observation Form~~

Project Number: 160960595

Project Name: Amherst Island

Date: May 26, 2011

Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 | 1-3 | 80% | / | Rain |

**Start Time:** 9:15

**End Time:** 10:30

**Start Point UTM:**

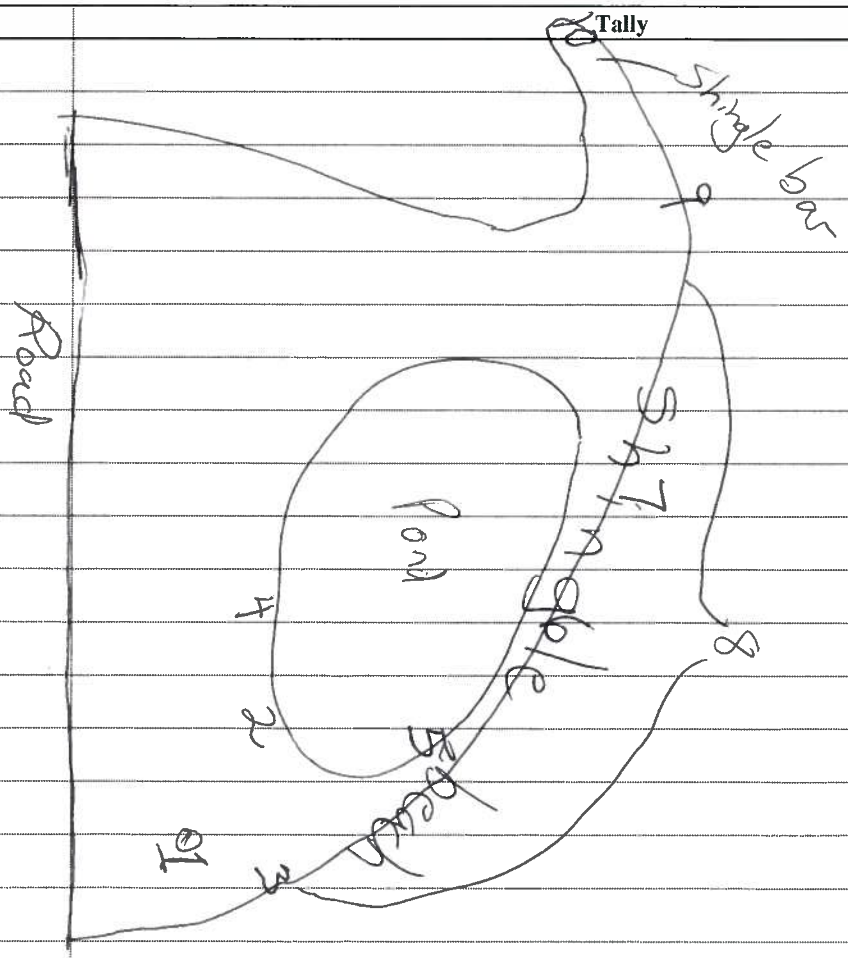
**End Point UTM:**

**Habitat:**

**Transect:**

**Feature #:**

| Species | Tally |
|---|---|



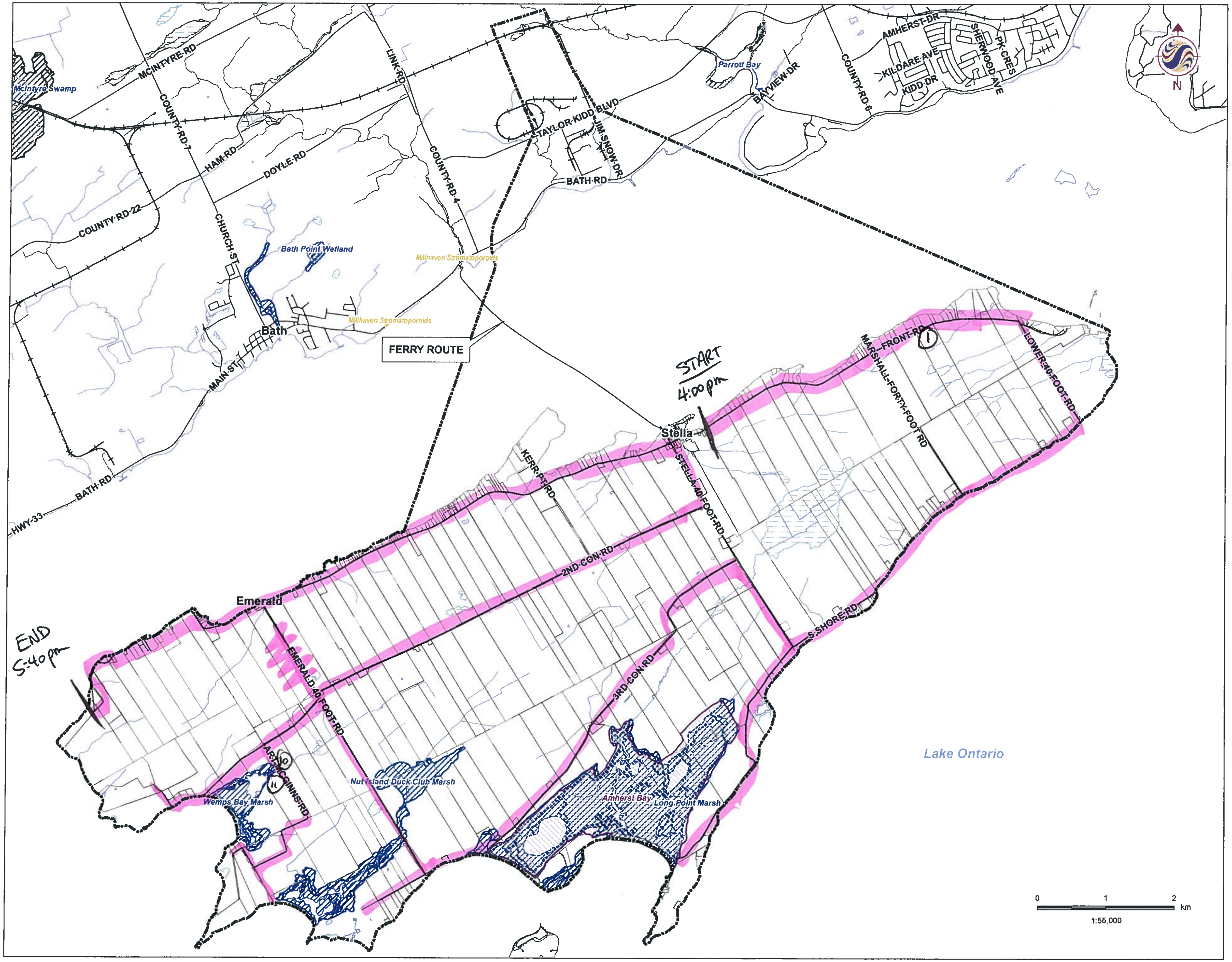
Pg. ___ of ___

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine
(Project Manager)

REV: 2011-05-03 / FORM 014

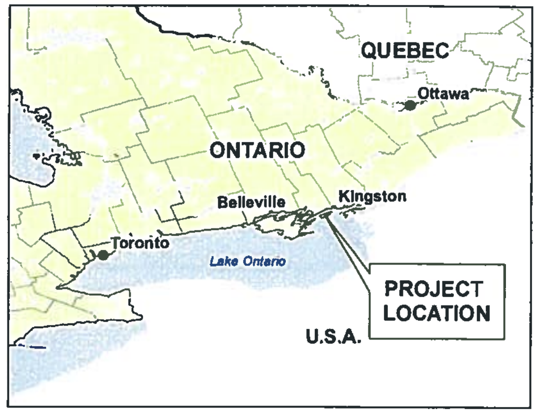


## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ▤ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area

Waterfowl Survey

September 1, 2011



## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

Stantec

August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl & Raptor Migration**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Sept 1, 2011

Field Personnel: A. Wormington / B. Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (ºC): 25 | WIND: S ① | CLOUD: 50 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Start Time:** 4:00 p.m.

**End Time:** 5:40 pm

**Total KM Driven:** 59

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 1 | 407 pm | CAGO | 50 | Ag field | feeding |
| | | | | | |
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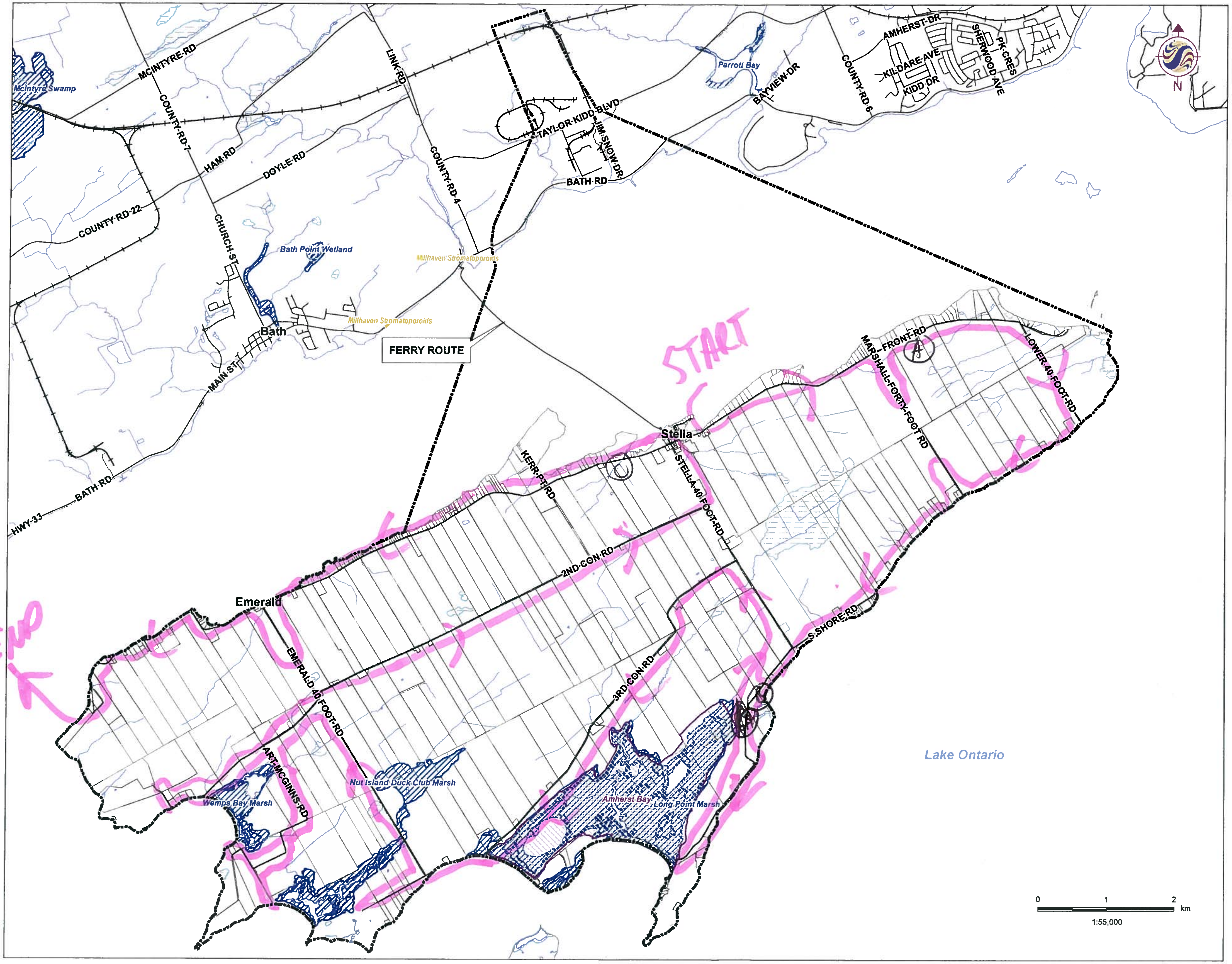
| | | | | | |

**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

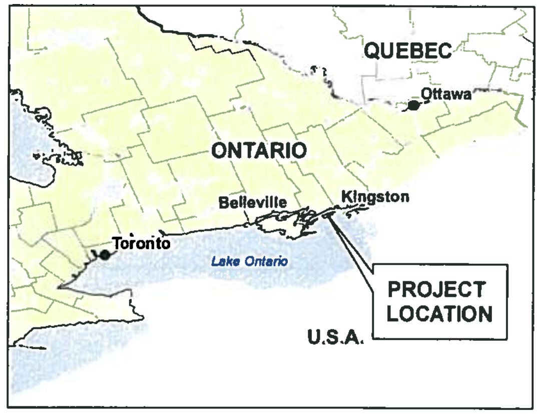
**Signature:** Katherine St
(Project Manager)

REV: 2011-05-18 / FORM 010-c



## Legend

⬚ Project Study Area
— Road
┼ Railway
— Watercourse
☐ Waterbody
▨ Unevaluated Wetland
▨ Provincially Significant Wetland
▨ ANSI, Earth Science
▨ ANSI, Life Science
☐ Property Boundaries
Wooded Area



## Notes

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August 2011
160960595

Client/Project
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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
## Field Map - Waterfowl & Raptor Migration

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Fax: (519) 836-2493

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# Waterfowl Migration Observation Form

Project Number: 160960545

Project Name: Amherst

Date: Sep 6, 11 430

Field Personnel: B. Holder A. Warrington

| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20°C | 2 | 10% | — | Drizzle |

**Start Time:** 430pm

**End Time:** 7pm

**Total KM Driven:** 59

| **Flock No.** | **Time** | **Species** | **No. of Individuals** | **Location**<br>(e.g. agr. field near puddle, shoreline, etc.) | **Behaviour**<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| Ⓐ | 445 | CAGO | 25 | Pasture | Feeding — ⊗ |
| Ⓑ | 525 | CAGO | 30 | Pasture | Feeding ⊗ |
| Ⓒ | 6:30 | CAGO | 175 | Pasture | Feeding ⊗ |
| | | | | | |
| | | | | | |
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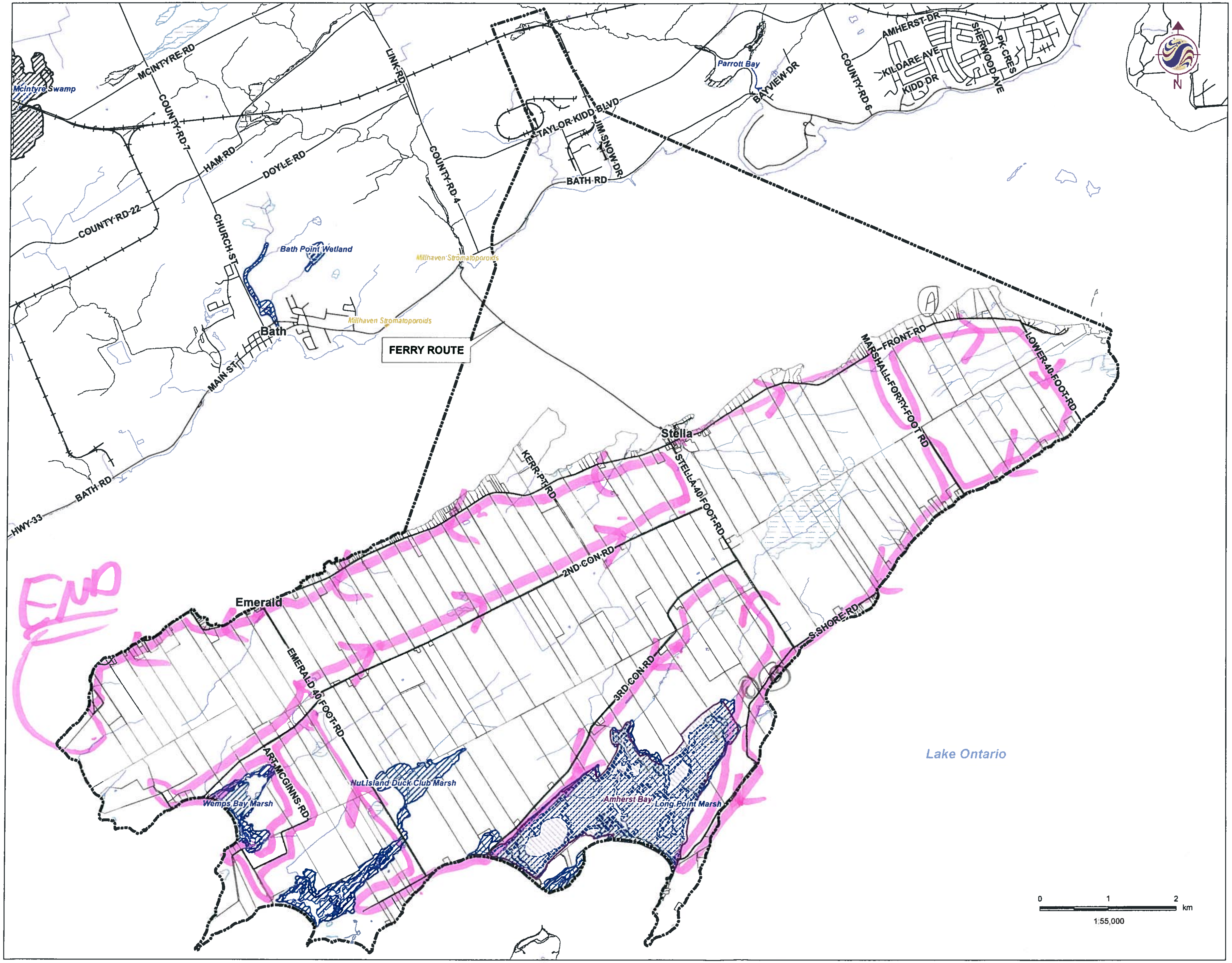
| | | | | | |
| | | | | | |
| | | | | | |

Quality Control: This form is complete ☑ & legible ☑.

Signature: 
(Field Personnel)

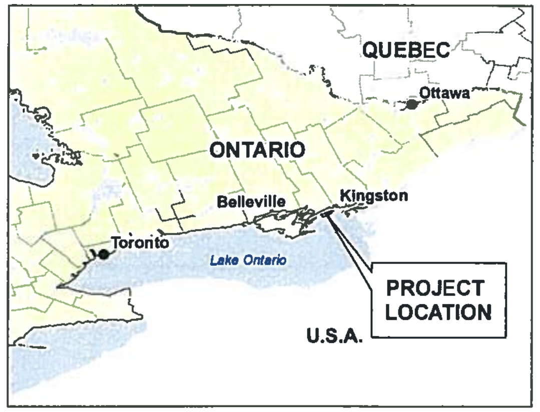
Signature: Kathrine
(Project Manager)

REV: 2011-05-18 / FORM 010-c



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ▭ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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Figure No.

1

Title

**Field Map - Waterfowl & Raptor Migration**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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1:30pm
4:30 pm

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Sep 15, 11

Field Personnel: B. Holden, M. Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (ºC): 19-17ºC | WIND: 4 NW | CLOUD: 40-80% | PPT: ✓ | PPT (in last 24 hrs): RAIN |

**Start Time:** 1:30

**End Time:** 4:30

**Total KM Driven:** 59km

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| Ⓐ | 151 | CAGO | 80 | on water | resting |
| Ⓑ | 220 | 11 | 110 | Hayfield | Feeding |
| Ⓒ | 224 | 11 | 90 | 11 | 11 |
| | | | | | |
| | | | | | |
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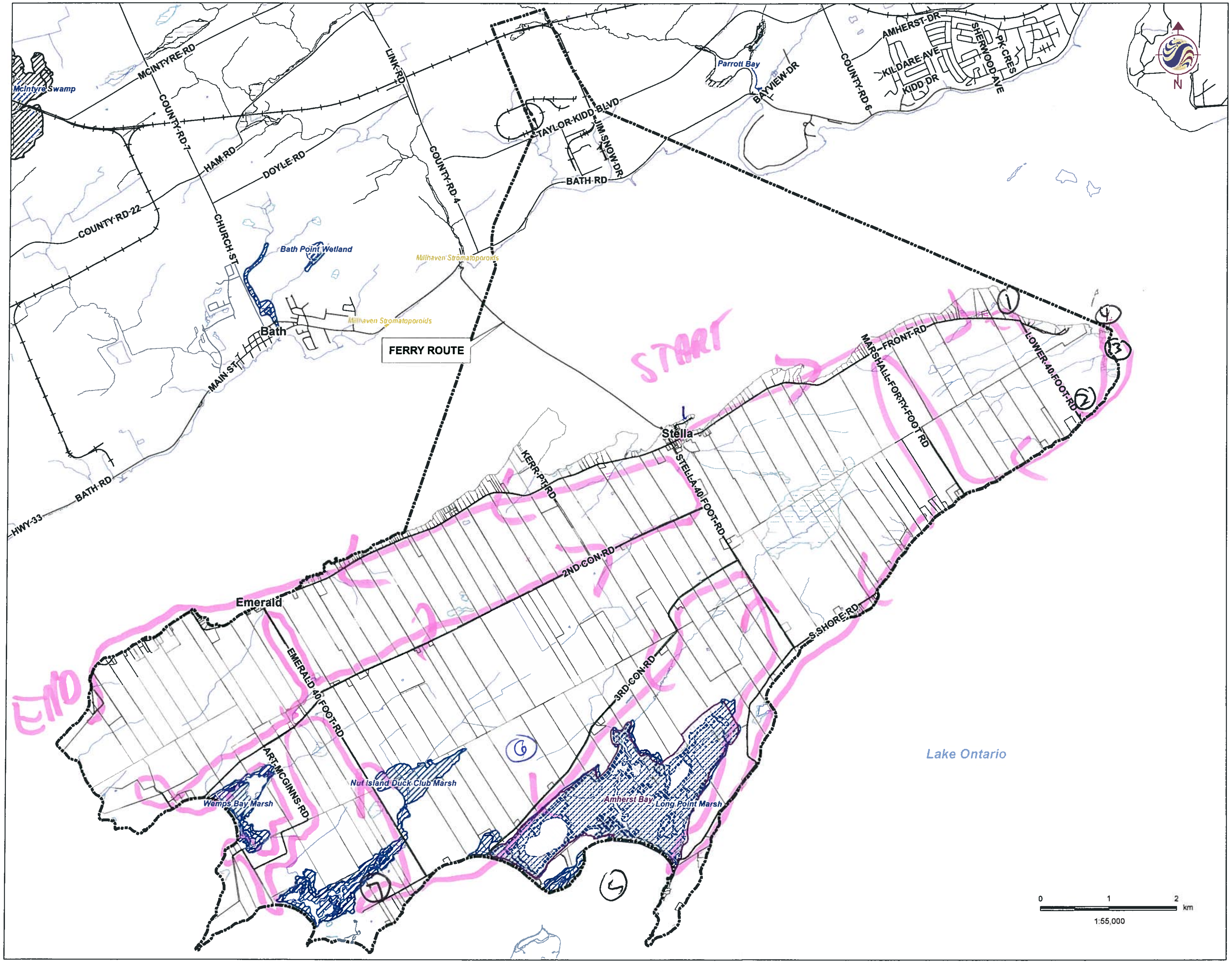
| | | | | | |
| | | | | | |
| | | | | | |

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

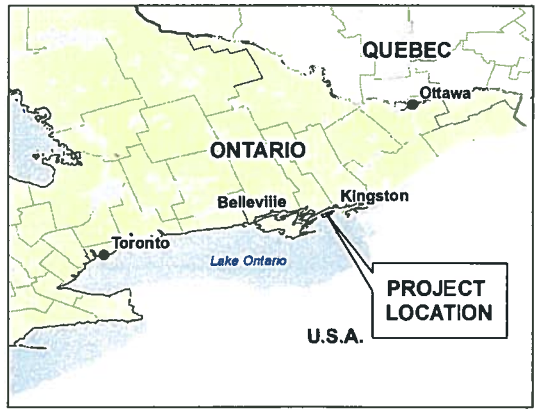
Signature: Kathrn Sh
(Project Manager)

REV: 2011-05-18 / FORM 010-c



## Legend

- ▭ Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- Property Boundaries
- Wooded Area



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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl & Raptor Migration**

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Revised on: 2011-08-22 By: pworsell

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# Waterfowl Migration Observation Form

**Project Number:** 160960595
**Project Name:** Amherst.
**Date:** Sep 22, 2011
**Field Personnel:** B. Holder J. Morrell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>19-23 | WIND:<br>3-52 | CLOUD:<br>20-90 | PPT:<br>/ | PPT (in last 24 hrs):<br>RAIN |

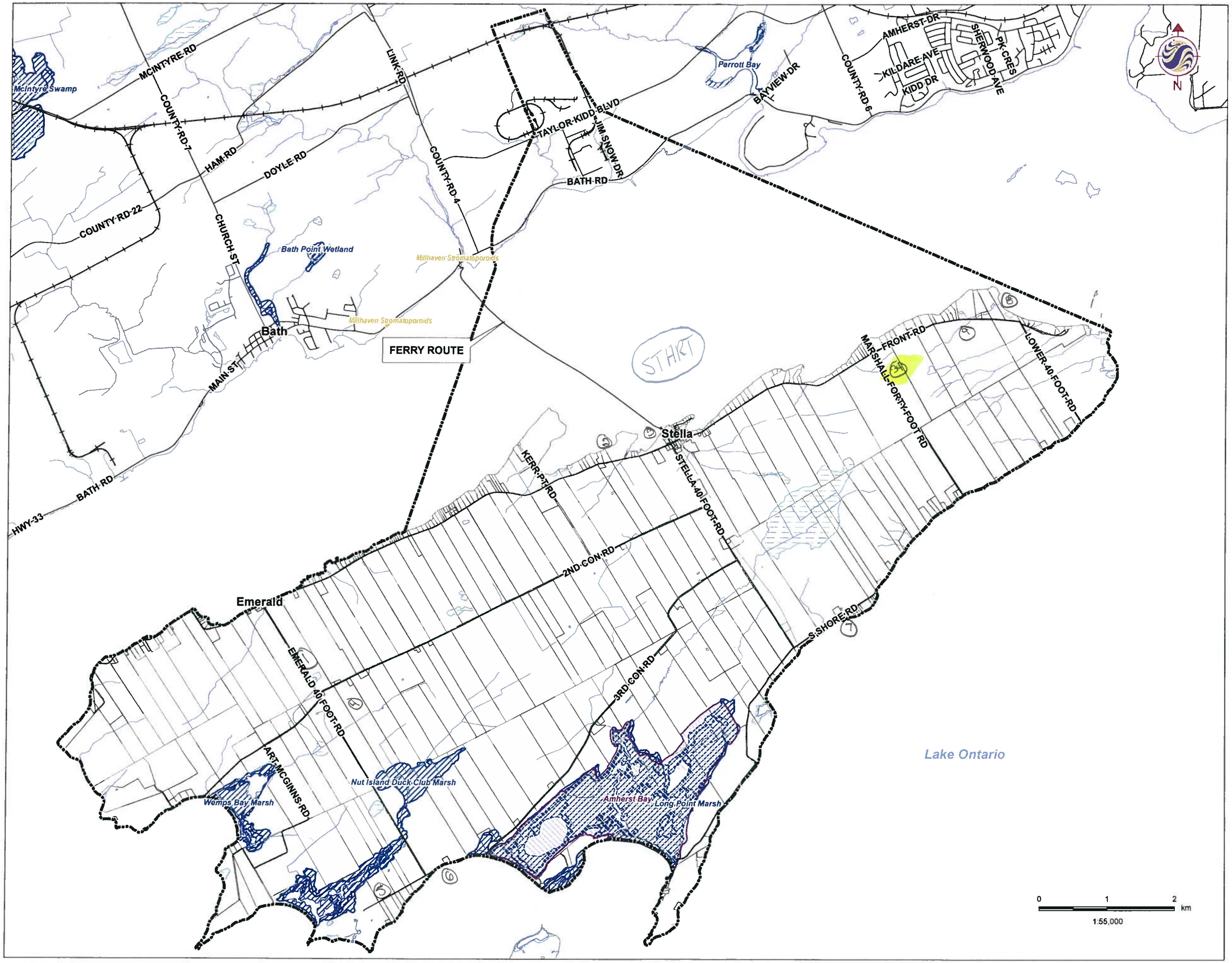
**Start Time:** 1pm
**End Time:** 630pm
**Total KM Driven:** 59km

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 1 | 138 | CAGO-25<br>MACC-5 | ) | feeding in bay | -Ø |
| 2 | 1:50 | CAGO | 75 | feeding | pasture. |
| 3 | 2:15 | MACC-20<br>CAGO-50 | ABDU<br>-4 | ) feeding | Marsh ; Shoreline. |
| 4 | 2:45 | Puddle duck - 40<br>Bay duck - 15 | | MUSW-1<br>CAGO-30 ) feeding | resting on gravel bar |
| 5 | 4:12 | CAGO - | 200 | - on bay | resting. |
| 6 | 441 | CAGO | 100 | - Agriculture | - feeding. |
| 7 | 502 | CAGO | 250 | - hay | - feeding |
| | | | | | |
| | | | | | |
| | | | | | |

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.
Signature:
(Project Manager)

REV: 2011-05-18 / FORM 010-c



## Legend

| | |
|---|---|
| ▭ | Project Study Area |
| — | Road |
| ┼ | Railway |
| — | Watercourse |
| ▭ | Waterbody |
| ▭ | Unevaluated Wetland |
| ▨ | Provincially Significant Wetland |
| ▭ | ANSI, Earth Science |
| ▨ | ANSI, Life Science |
| ▭ | Property Boundaries |
| | Wooded Area |

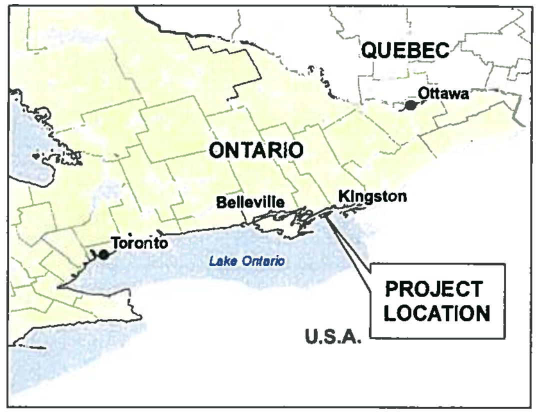


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Figure No.
1

Title

# Field Map - Waterfowl & Raptor Migration

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Revised on: 2011-08-22 By: pworsell

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# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: September 29/2011

Field Personnel: Josh Mansell

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 19 | 2 | 70% | | |

**Start Time:** 13:00

**End Time:** 16:00

**Total KM Driven:** 59

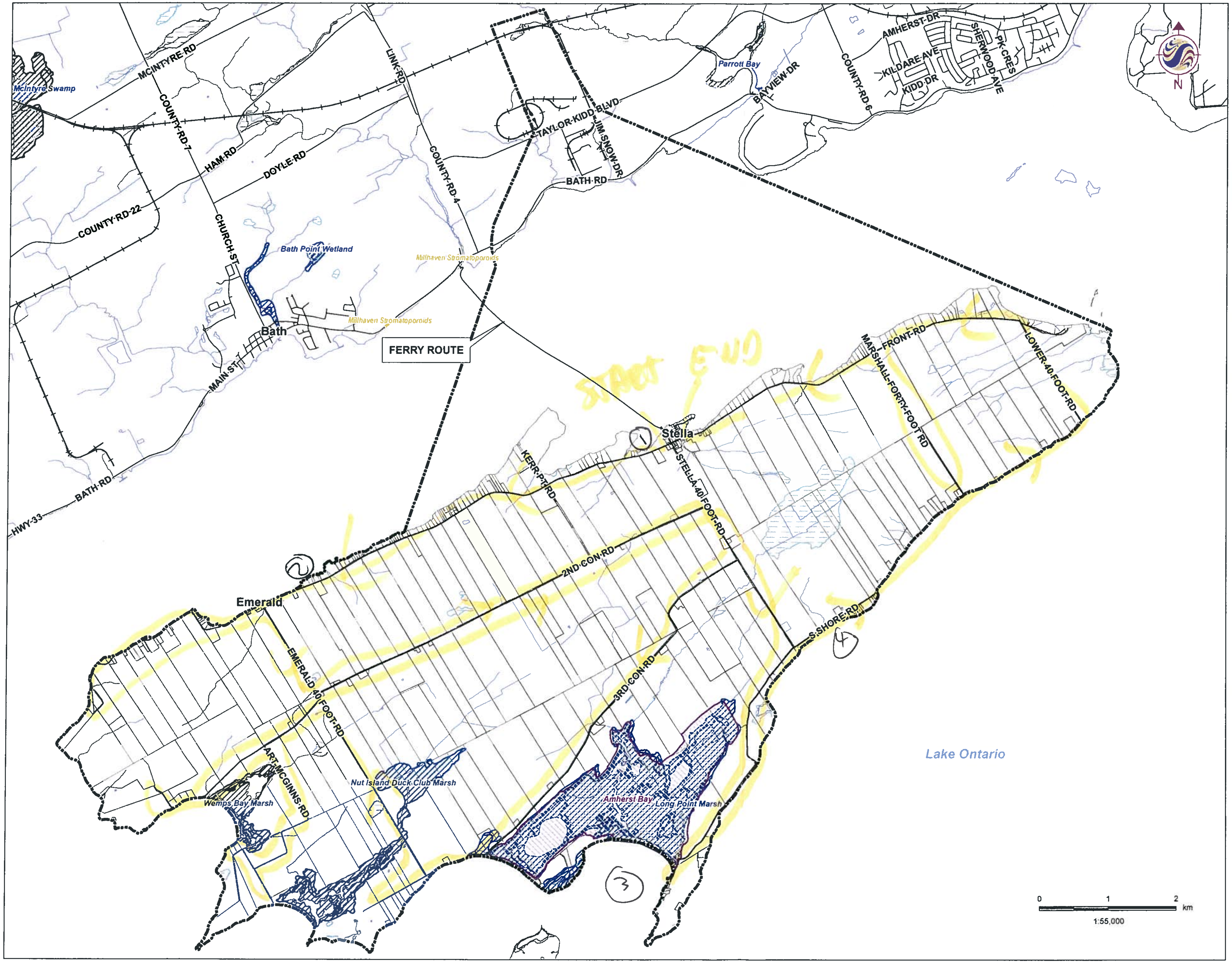
| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 1 | 13:28 | CAGO | 25 | ag. field | feeding |
| 2 | 13:42 | CAGO | 50 | lakeshore bay | loafing. |
| 3 | 1347 | MALL | 4 | lakeshore | loafing. |
| 4 | 1410 | CAGO | 12 | pasture | feeding. |
| 5 | 1446 | CAGO | 250 | hay field | feeding / loafing |
| 6 | 1450 | COME | 10 | lake | diving. |
| 7 | 1525 | MALL | 20 | lakeshore | loafing |
| 8 | 1537 | CAGO | 60 | lakeshore / bay | loafing / swimming |
| 9 | 1543 | CAGO | 50 | pasture | feeding |
| | | | | | |

Signature: ______ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kathleen ______ (Project Manager)

REV: 2011-05-18 / FORM 010-c



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area

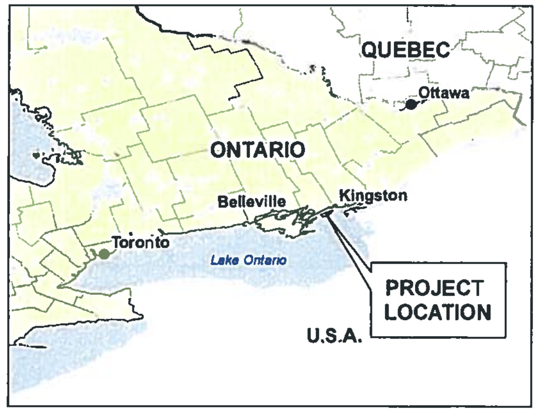


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Figure No.

1

Title

# Field Map - Waterfowl & Raptor Migration

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Revised on: 2011-08-22 By: pworsell

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# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Oct 6, 11

Field Personnel: B. Holden J Marcell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 10 – 17 | WIND: 0 – 3 | CLOUD: — | PPT: — | PPT (in last 24 hrs): — |

**Start Time:** 11:30 AM

**End Time:** 3:00 PM

**Total KM Driven:** 59

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| ① | 12:00 | RBME –<br>CAGO – | 2<br>5 | on shore | resting |
| ② | 1222 | CAGO | 60 | 〃 | 〃 |
| 3 | 1228 | 〃 | 100 | offshore | resting |
| 4 | 1236 | 〃 | 35 | 〃 | 〃 |
| | | | | | |
| | | | | | |
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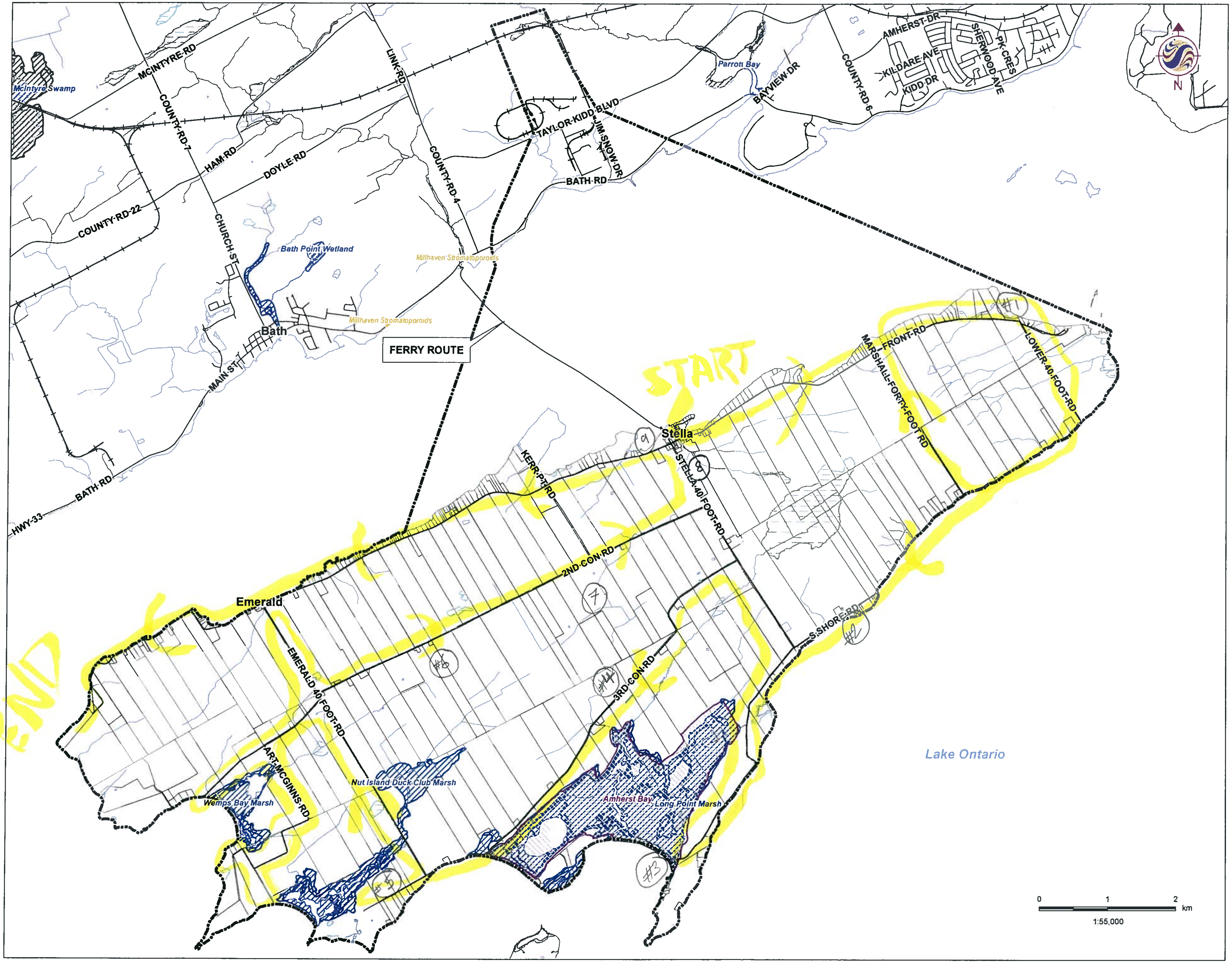
| | | | | | |
| | | | | | |
| | | | | | |

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

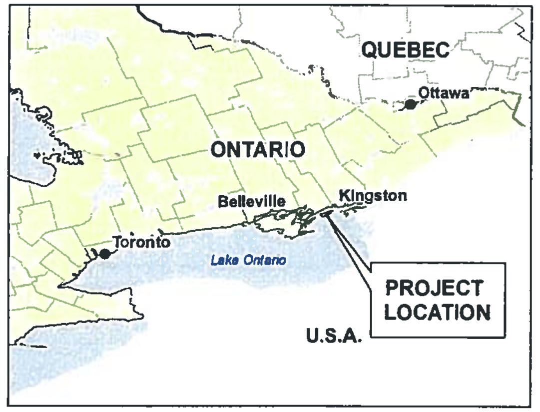
Signature: (Project Manager)

REV: 2011-05-18 / FORM 010-c



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ▨ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

# Field Map - Waterfowl & Raptor Migration

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Revised on: 2011-08-22 By: pworsell

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# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Oct. 12, 2011
Field Personnel: Brandon Holden ; Zoé Lebrun-Southcot

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16°C | 1-2 | 90% | none – moderate rain | none |

2:07 - light rain ; 2:48 - moderate rain ; 3:12 - light rain ; 3:41 - rain stopped ; 4:08 - light rain

Start Time: 1:27 pm
End Time: 4:29 pm

Total KM Driven: 81.3 km

522.0
603.3
81.3

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 1 | 1:39 | CAGO<br>MALL<br>ABDU | 25<br>4<br>4 | shoreline | feeding |
| 2 | 2:11 | MALL | 9 | shoreline | resting |
| 3 | 2:23 | CAGO<br>COME | 10<br>3 | shoreline | feeding |
| 4 | 2:44 | CAGO | 175 | agr. field | feeding |
| 5 | 2:55 | CAGO | 85 | agr. field | feeding |
| 6 | 3:43 | CAGO | 100 | agr. field | feeding |
| 7 | 3:58 | CAGO | 50 | agr. field | feeding |
| 8 | 4:09 | CAGO | 40 | pasture | feeding |
| 9 | 4:12 | CAGO<br>MALL<br>COME | 5<br>15<br>8 | shoreline<br>shoreline<br>shoreline | feeding<br>"<br>" |
| | | | | | |

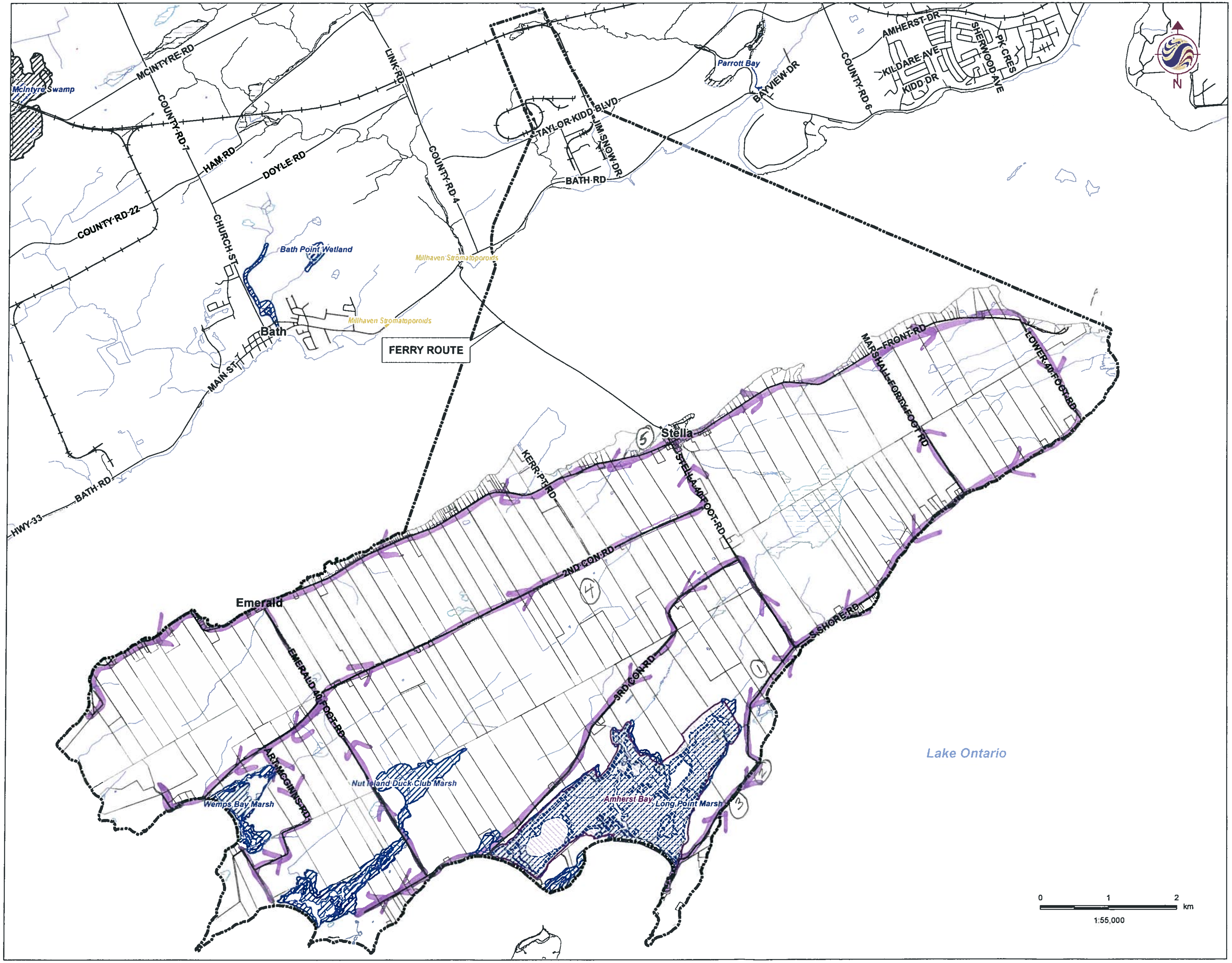
Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-18 / FORM 010-c

Page 1 of 1



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ▤ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▧ ANSI, Earth Science
- ▧ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area

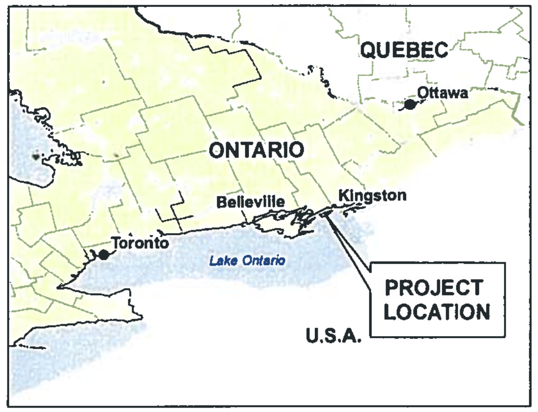


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Figure No.

1

Title

**Field Map - Waterfowl & Raptor Migration**

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# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Oct. 20/11

Field Personnel: Brandon Holden ; Z. Lebrun-Southcott

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 14°C | 3 | 90% | none | heavy rain |

**Start Time:** 1:47 pm

**End Time:** 5:02 pm

**Total KM Driven:** ~85 km

| Flock No. | Time | Species | No. of Individuals | Location (e.g. agr. field near puddle, shoreline, etc.) | Behaviour (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 1 | 2:31 | CAGO<br>MALL | 25<br>15 | - in pasture | - feeding |
| 2 | 2:37 | RBME | 1 | - shoreline | - flying SW |
| 3 | 2:50 | RBME | 2 | - shoreline | - feeding |
| 4 | 4:19 | CAGO | 110 | - in pasture | - feeding |
| 5 | 4:43 | MALL<br>RBME<br>GRSC | 6<br>3<br>1 | - shoreline | - feeding |
|  |  |  |  |  |  |
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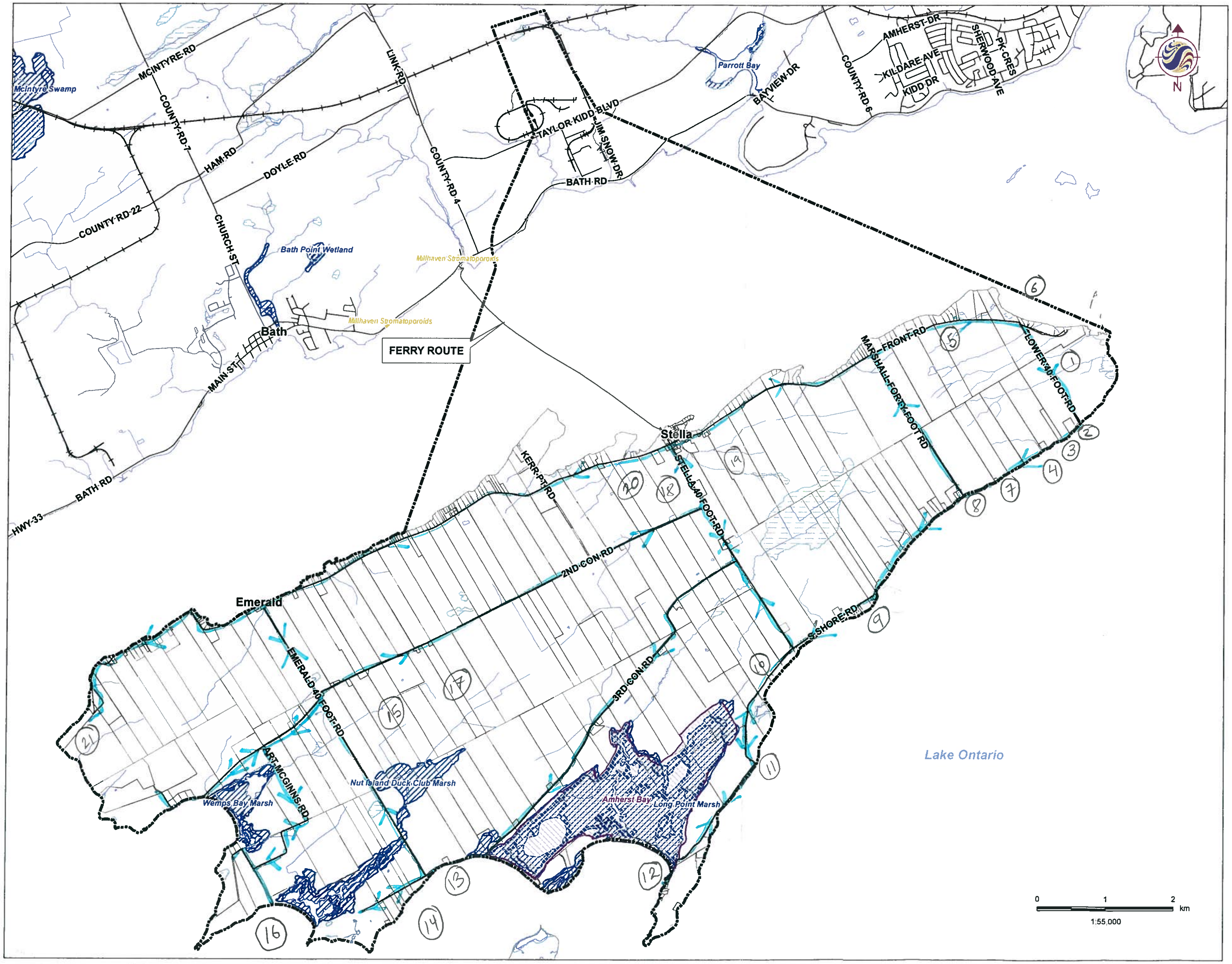
**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

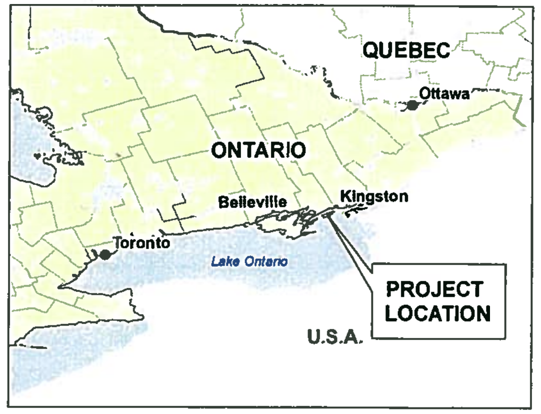
Page 1 of 1

REV: 2011-05-18 / FORM 010-c



## Legend

⬚ Project Study Area
— Road
┼ Railway
— Watercourse
▭ Waterbody
▭ Unevaluated Wetland
▨ Provincially Significant Wetland
▨ ANSI, Earth Science
▨ ANSI, Life Science
▭ Property Boundaries
Wooded Area



## Notes

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Figure No.
1

Title
## Field Map - Waterfowl & Raptor Migration

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Revised on: 2011-08-22 By: pworsell

①

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# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Oct. 27 / 11

Field Personnel: Josh Mansell + Zoé Lebrun-Southco

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 6°C | 4 | 85% | none | scattered showers |

Start Time: 12:03 pm

End Time: 4:25 pm

Total KM Driven: same route as previous week ~80 km ?? – see previous data sheets

| | Flock No. | Time | Species | No. of Individuals | Location (e.g. agr. field near puddle, shoreline, etc.) | Behaviour (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 40 | 1 | 12:16 | CAGO | 100 | pasture | – resting |
| 41 | 2 | 12:22 | CAGO<br>RBME | 100<br>1 | shoreline | – feeding (flock #1 joined up w/ flock #2) |
| 42 | 3 | 12:23 | GADW | 2 | shoreline | – flying E |
| 43 | 4 | 12:27 | RBME | 150 | shoreline | – feeding |
| 44 | 5 | 12:42 | CAGO | 40 | pasture | – flew from water to pasture |
| ⑥ | 6 | 12:46 | mixed flock divers + dabblers | 250 | shoreline | – feeding |
| 45 | 7 | 12:53 | HOGR | 3 | shoreline | – feeding |
| 46 | 8 | 12:56 | HOGR<br>RBME | 10<br>1 | shoreline | – feeding |
| 47 | 9 | 1:10 | RBME | 75 | shoreline | – feeding |
| 25 | 10 | 1:13 | CAGO | 70 | pasture | – feeding |

Quality Control: This form is complete ☑ & legible ☑.

Signature: _______ (Field Personnel)

Signature: Kathrine Shu (Project Manager)

Page 1 of 3

(2)

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Oct. 27/11

Field Personnel: Josh Mansell + Zoé Lebrun-Southcott

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 6°C | 4 | 85% | none | scattered showers |

**Start Time:** 12:03 pm

**End Time:** 4:25 pm

**Total KM Driven:**

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 48 | 11 | 1:18 | RBME | 18 | shoreline | feeding |
| 49 | 12 | 1:26 | RBME<br>CAGO<br>TUSW | 25<br>10<br>8 | shoreline | feeding |
| | 13 | 1:51 | BUFF<br>RBME | 50<br>40 | shoreline | feeding |
| 50 | 14 | 1:58 | RBME<br>COGO | 20<br>10 | shoreline | feeding |
| 5 | 15 | 2:11 | CAGO | 20 | pasture | feeding |
| 33 | 16 | 2:45 | BUFF | 30 | shoreline | feeding |
| 52 | 17 | 3:21 | CAGO | 50 | pasture | feeding |
| 36 | 18 | 3:39 | CAGO | 30 | pasture | feeding |
| 53 | 19 | 3:49 | CAGO | 10 | pasture | feeding |
| 3 | 20 | 3:51 | CAGO | 150 | pasture | feeding |

not 17 mute, peared o be TUSW
nt ould ot et very good iew ∴ not 00% rtain

Quality Control: This form is complete ☑ ~~& legible ☑.~~

Signature: (Field Personnel)

Signature: Kathryn [illegible] (Project Manager)

REV: 2011-05-18 / FORM 010-c

Page 2 of 3

(3)

***Other Bird Species***

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| Flock #/ Time | **Species** | **No. of Individuals** | **Location** (e.g. agr. field near puddle, shoreline, etc.) | **Behaviour** (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|
| 59<br>21 /<br>:14 | CAGO | 150 | - pasture | - feeding |
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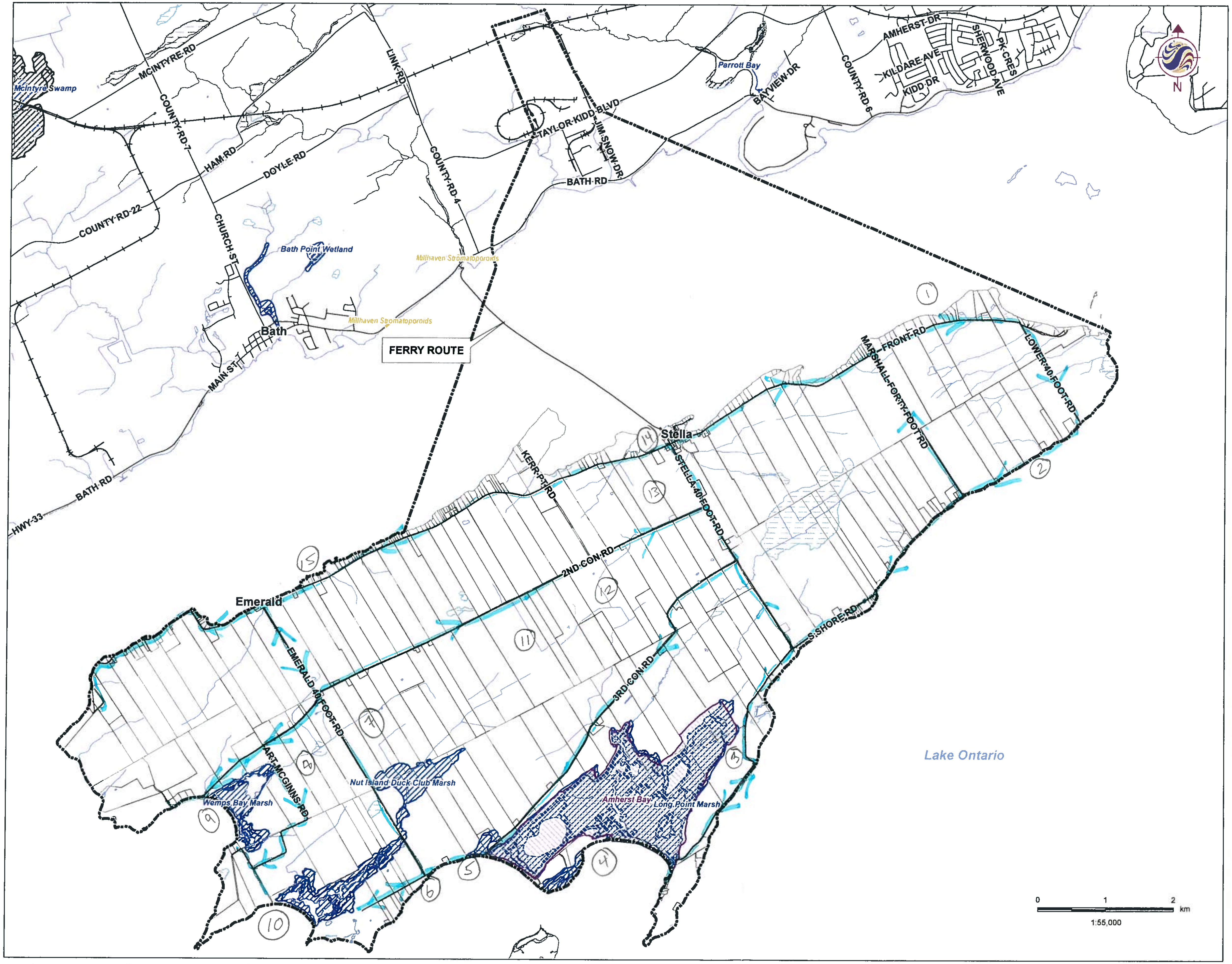
Page 3 of 3

Quality Control: This form is complete ☑ & legible ☑.

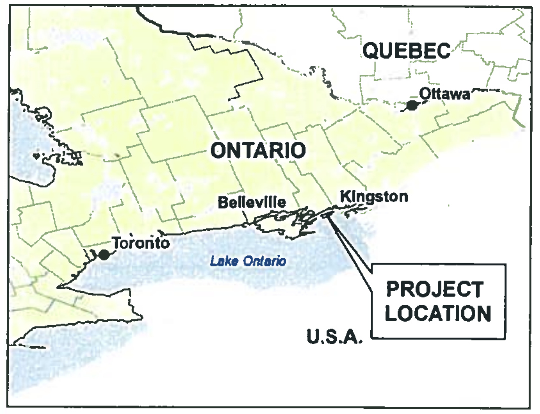
**Signature:** ______________________ (Field Personnel)

**Signature:** ______________________ (Project Manager)



## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ▭ Waterbody
- ▤ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ▭ Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
**Field Map - Waterfowl & Raptor Migration**

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Canada N1G 4P5
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Fax: (519) 836-2493

# Waterfowl Migration Observation Form

1

Project Number: 160960595

Project Name: Amherst Island

Date: Nov. 3/11

Field Personnel: J. Mansell & Z. Lebrun-Southcot

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10°C; down to 5°C by ≈2:00pm | 3-4 - wind picked up by 2:00pm | 20% - 100% ↳@ 2:00pm | none | none |

Start Time: 10:52 am

End Time: 3:33pm - conditions changed as cold weather system came in

Total KM Driven: - same route as previous weeks 80km

| | Flock No. | Time | Species | No. of Individuals | Location (e.g. agr. field near puddle, shoreline, etc.) | Behaviour (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 4 | 1 | 11:09 | BUFF<br>RBME | 15<br>30 | - shoreline<br>- shoreline | - flying SW, 10 m above water<br>- feeding |
| 55 | 2 | 11:20 | HOGR | 2 | - shoreline | - feeding |
| 56 | 3 | 11:53 | CAGO | 30 | - pasture | - resting |
| 10 | 4 | 12:05 | CAGO | 275 | - shoreline | - feeding |
| 57 | 5 | 12:45 | BUFF | 20 | - shoreline | - feeding |
| 58 | 6 | 12:52 | BUFF | 50 | - shoreline | - feeding |
| 59 | 7 | 1:12 | CAGO | 60 | - pasture | - feeding |
| 60 | 8 | 1:35 | CAGO | 25 | - flying over pasture | - flying SW, 100m above ground |
| 31 | 9 | 1:44 | CAGO<br>ABDU | 75<br>10 | - shoreline | - feeding<br>- ABDU flew N, low above water (5m) |
| 33 | 10 | 2:14 | BUFF<br>ABDU | 10<br>15 | - shoreline | - feeding |

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-18 / FORM 010-c

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②

# Waterfowl Migration Observation Form

Project Number: 160960595

Date: Nov. 3/11

Project Name: Amherst Island

Field Personnel: J. Mansell; Z. Lebrun-Southcott

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (ºC):<br>10°C – 5°C | WIND:<br>3–4 | CLOUD:<br>20–100% | PPT:<br>none | PPT (in last 24 hrs):<br>none |

– conditions changed as cold weather system came in

Start Time: 10:52 am

End Time: 3:33 pm

Total KM Driven:

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 61 | 11 | 2:56 | CAGO | 15 | – pasture | – feeding |
| 23 | 12 | 3:01 | CAGO | 30 | – pasture | – feeding |
| 62 | 13 | 3:05 | CAGO | 125 | – pasture | – feeding |
| 15 | 14 | 3:14 | MALL | 20 | – shoreline | – resting |
| 20 | 15 | 3:25 | RBME | 7 | – shoreline | – feeding |
| | | | | | | |
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Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kathrin Sh (Project Manager)

REV: 2011-05-18 / FORM 010-c

EAST -
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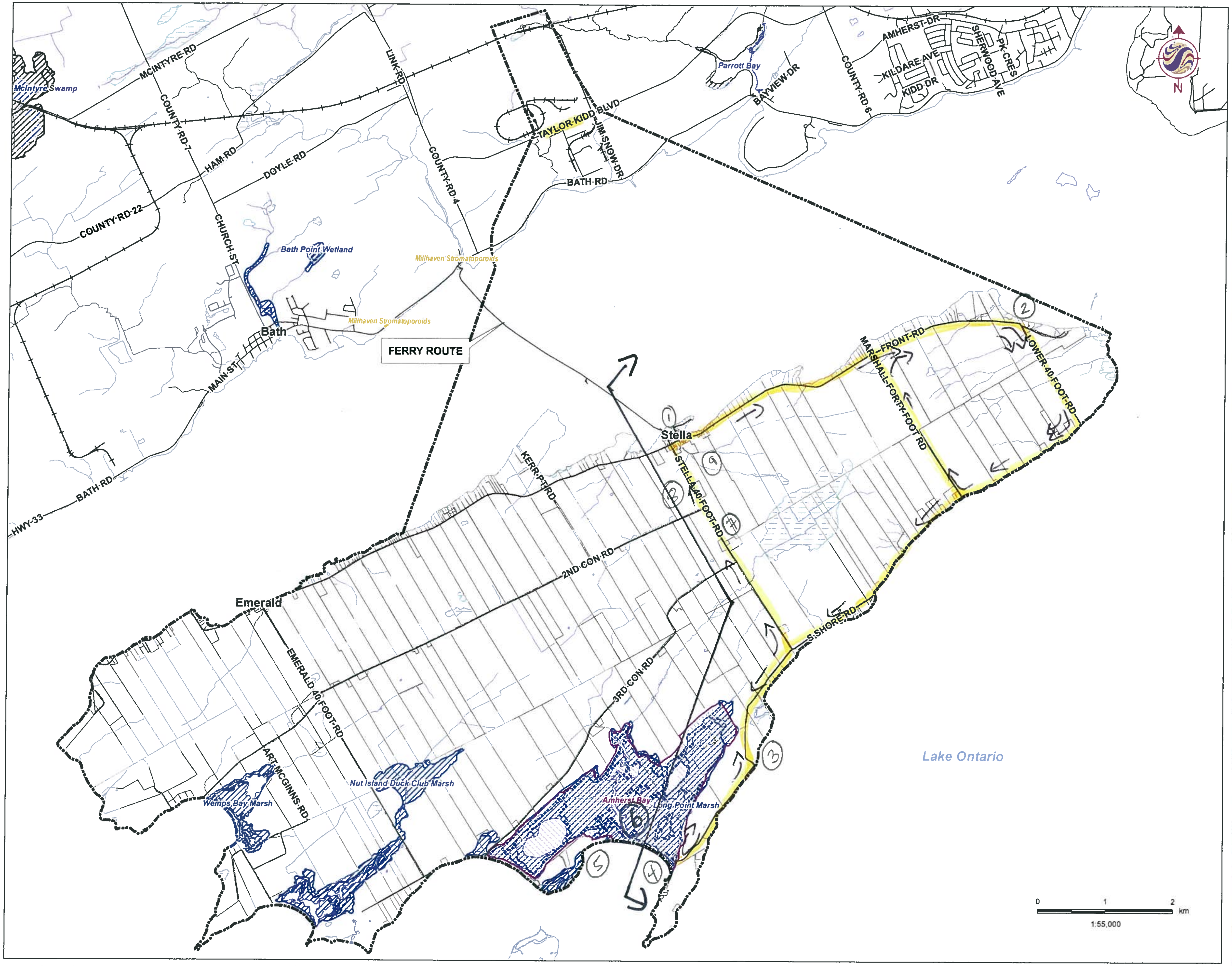
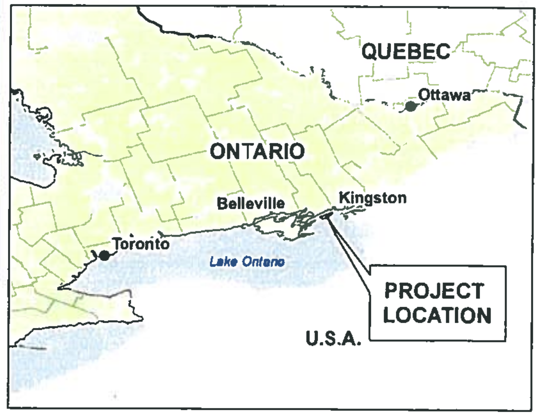


## Legend

Project Study Area
Road
Railway
Watercourse
Waterbody
Unevaluated Wetland
Provincially Significant Wetland
ANSI, Earth Science
ANSI, Life Science
Property Boundaries
Wooded Area



## Notes

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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
Field Map - ~~Waterfowl & Raptor Migration~~ Waterfowl, Winter Raptor & Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Nov. 9/11

Field Personnel: J. Mansell, Z. Lebrun-Southcott

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 15°C | WIND: 2, SW | CLOUD: 15% | PPT: none | PPT (in last 24 hrs): light rain |

**Start Time:** 1:08 pm

**End Time:** 3:49 pm

**Total KM Driven:** 33 km

22218 22251

0 aterfowl bserved on aylor-idd ^ rM rove road :03 8:12)

| | **Flock No.** | **Time** | **Species** | **No. of Individuals** | **Location** (e.g. agr. field near puddle, shoreline, etc.) | **Behaviour** (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 15 | 1 | 1:13 | MALL | 12 | - shoreline | - feeding |
| 53 | 2 | 1:34 | TUSW<br>BUFF<br>ABME | 40<br>3<br>3 | - shoreline | - feeding<br>- feeding<br>- flying SW |
| 48 | 3 | 2:53 | CAGO<br>BUFF<br>RBME | 4<br>10<br>1 | - shoreline | - feeding |
| 49 | 4 | 3:02 | BUFF<br>COME | 35<br>4 | - shoreline | - feeding |
| 63 | 5 | 3:02 | CAGO | 20 | - shoreline | - feeding |
| 64 | 6 | 3:04 | CAGO | 12 | - flying from inland island | - flying SW @ 150m |
| 65 | 7 | 3:32 | CAGO | 14 | - in pond | - resting |
| 66 | 8 | 3:37 | CAGO | 200 | - in pasture | - feeding |
| 24 | 9 | 3:40 | CAGO | 5 | - in pasture | - feeding |
| | | | | | | |

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

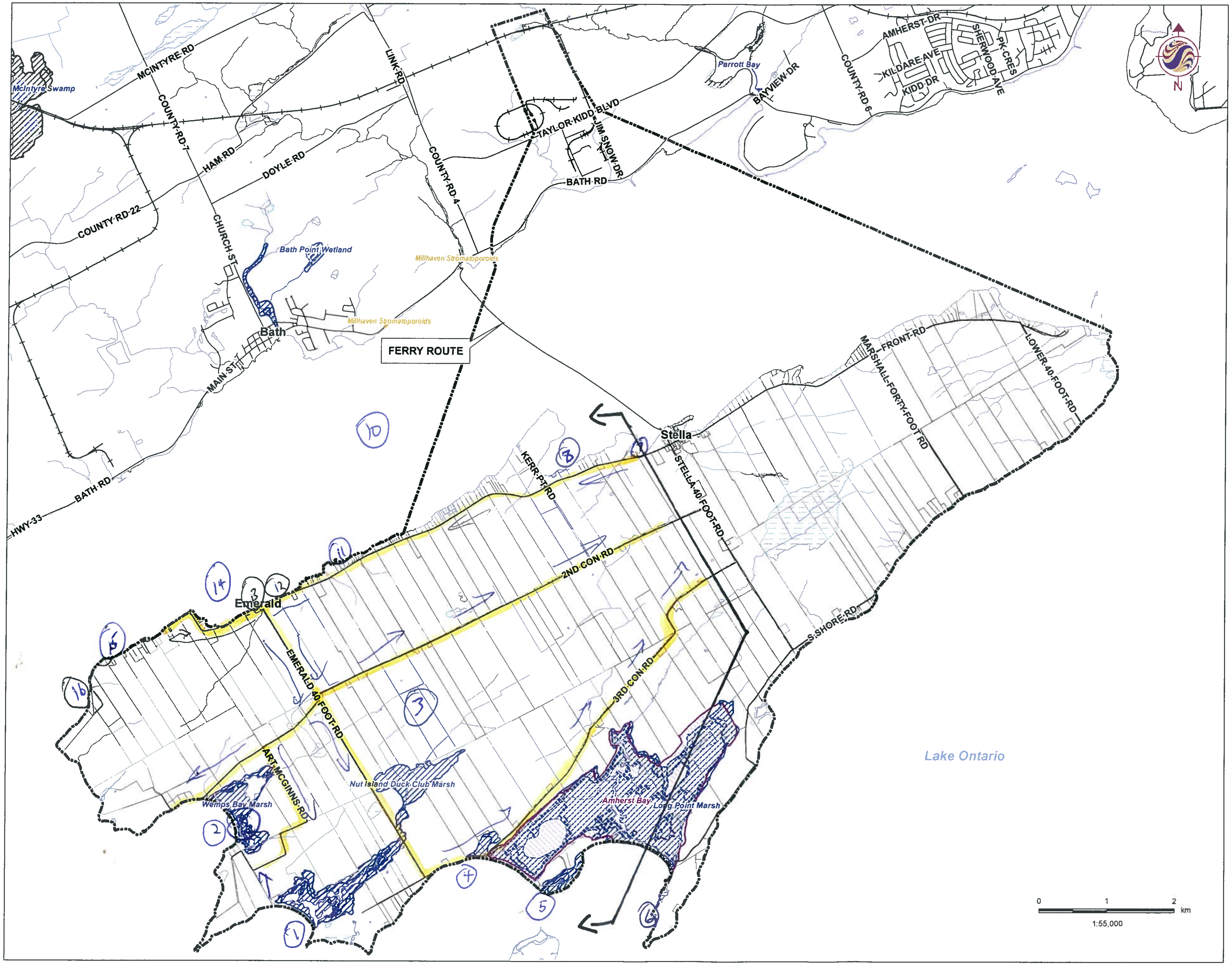
Signature: (Field Personnel)

Signature: Kathi Sh (Project Manager)

REV: 2011-05-18 / FORM 010-c

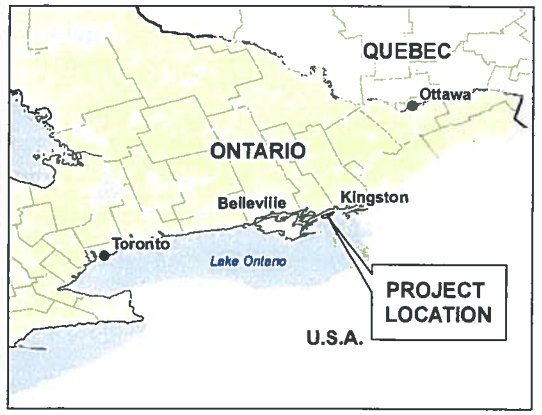
Page 1 of 1

WEST



## Legend

- ⬚ Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ANSI, Earth Science
- ANSI, Life Science
- Property Boundaries
- Wooded Area



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August 2011
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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

1

Title

**Field Map - Waterfowl, Winter & Raptor Migration** + Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Nov 9, 2011

Field Personnel: STAMV & HESLOP

| | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| **Weather Conditions:** | 15°C | SW 5km | 30% | 0 | LIGHT MIST |

33486

Start Time: 12:00

End Time: 4:30

Total KM Driven: 45 km

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 67 ① | 1200 | RBME<br>COGO<br>BUFF | 12<br>6<br>35 | SHORE OF BAY | FEEDING |
| 68 ② | 1230 | BUFF<br>RBME | 2<br>2 | " | " |
| 69 ③ | 1320 | CAGO | 120 | AGR. FIELD | FLYING S @ 30 to 60m |
| 17 ④ | 1342 | BUFF<br>RBME | 75<br>6 | IN BAY | FEEDING |
| 70 ⑤ | 1350 | CAGO | 60 | ON POINT | RESTING. |
| 71 ⑥ | " | CAGO | 25 | ON BEACH | " |
| 15 ⑦ | 1423 | CAGO<br>BUFF<br>MALL<br>COGO | 20<br>2<br>3<br>4 | NEAR SHORE | RESTING<br>"<br>FEEDING |
| 72 ⑧ | 1432 | RBME | 4 | " | " |
| not indicated on Map ⑨ | 1500 | CAGO | 4 | AG - FIELDS | FLYING E @ 40m |
| 73 ⑩ | 1505 | RBME | 20 | OPEN WATER - | FLYING W @ 1m |
| 74 ⑪ | 1510 | RBME | 34 | NEAR SHORE | FEEDING |
| 75 ⑫ | 1515 | RBME | 16 | " " | " |

Signature: Robert Slep
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: Kathie Shaw
(Project Manager)

REV: 2011-05-18 / FORM 010-c

P. 1 of 2

***Other Bird Species***
Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|
| 76 ⑬ RBME<br>MALL | 5<br>1 | ALONG SHORE | FEEDING |
| 77 ⑭ RBME<br>WWSC<br>MALL | 125<br>1<br>3 | 100m off shore<br>"<br>" | FEEDING<br>"<br>" |
| 78 ⑮ RBME<br>MALL | 14<br>2 | NEAR SHORE | FEEDING |
| 79 ⑯ RBME | 15 | " | " |
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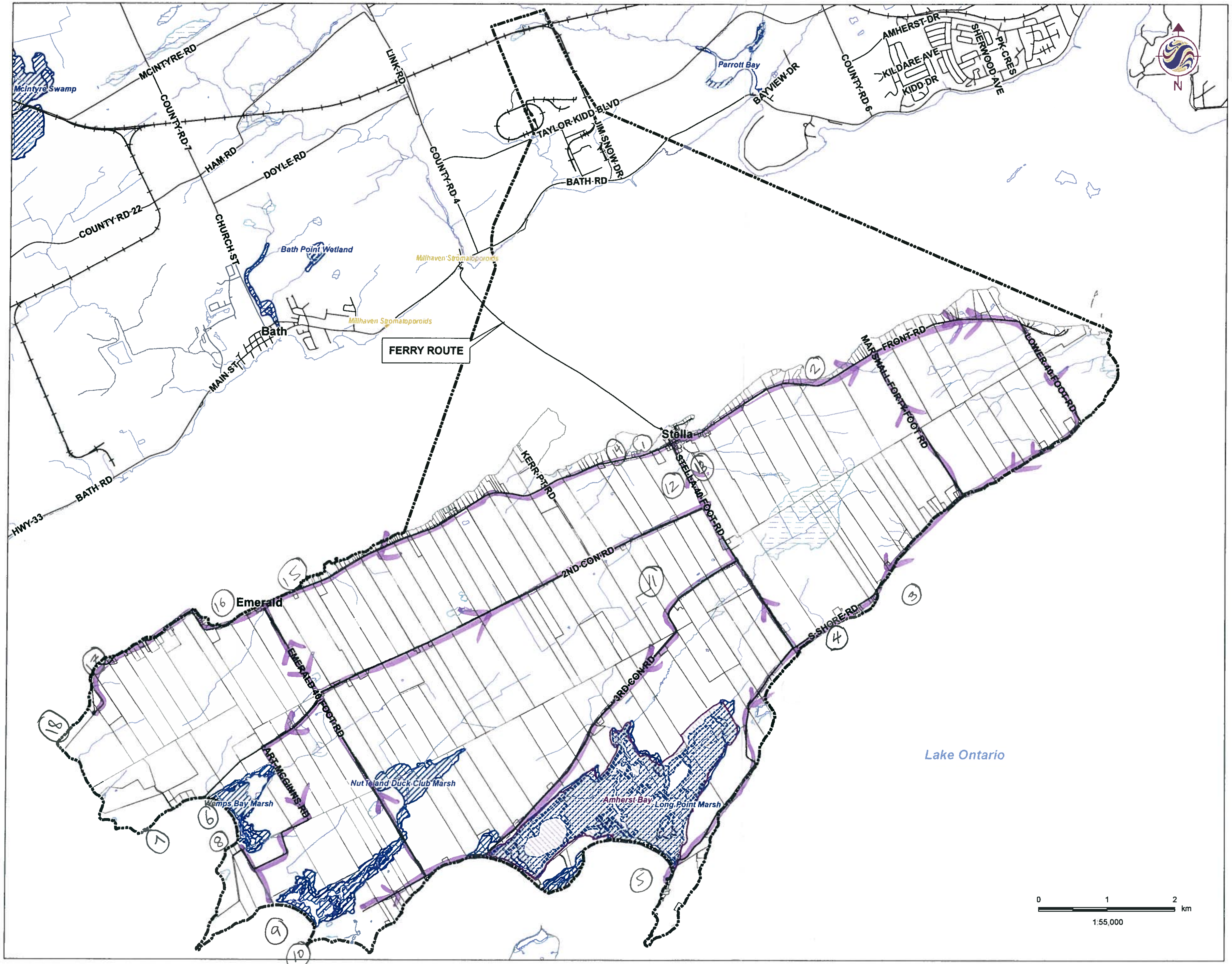
Quality Control: This form is complete ☐ & legible ☐.

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

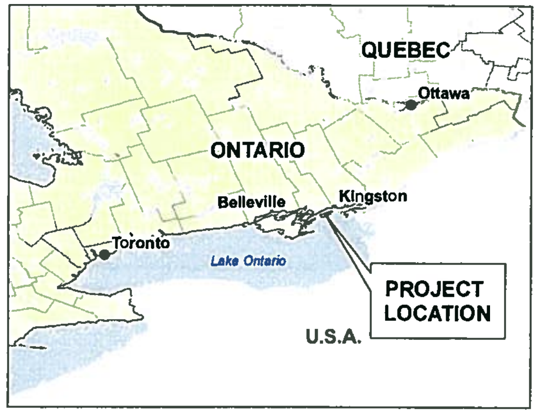
REV: 2011-05-18 / FORM 010-c

p. 2 of 2



## Legend

- ⬚ Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ANSI, Earth Science
- ANSI, Life Science
- Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

## Field Map - Waterfowl & Raptor Migration

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Nov. 17/11
Field Personnel: J. Mansell, Z. Lebrun-Southcott

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 2°C – 4°C | 3 – 4, NW | 50 – 75% | light flurries for 15 min @ 3:48 | none |

Start Time: 10:53
End Time: 4:12 (stopped @ owl woods for 20 min)
Total KM Driven: 80 km
10846 10926

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 15 | 1 | 10:53 | CAGO<br>BUFF<br>RBME<br>MALL<br>COGO | 150<br>20<br>10<br>5<br>30 | – in bay | – some flew up to field – la @ 15m<br>– others feeding |
| 39 | 2 | 11:06 | BUFF<br>RBME<br>COGO<br>MALL | 4<br>4<br>125<br>2 | – in bay | – feeding |
| 35 | 3 | 12:24 | BUFF | 30 | – near shore | – flying SW @ 10 m (20)<br>– feeding (10) |
| 18 | 4 | 12:31 | COGO | 25 | – near shore | – feeding |
| 10 | 5 | 12:42 | BUFF<br>(Scaup)<br>COGO | 15<br>2<br>2 | – in bay | – flew SW @ 2m<br>– feeding<br>– feeding |
| 31 | 6 | 1:54 | COME<br>RBME | 3<br>1 | – in bay | – feeding |
| 30 | 7 | 1:57 | COGO<br>BUFF | 100<br>25 | – near shore | – feeding |
| 32 | 8 | 2:16 | MALL<br>ABDU | 20<br>10 | – near shore | – flying W @ 2m above water |
| 33 | 9 | 2:24 | ABDU<br>BUFF<br>RBME | 20<br>3<br>2 | – in bay | – flying SW @ 20m<br>– feeding<br>– feeding |
| 34 | 10 | 2:26 | BUFF | 30 | – near point | – feeding |

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: Kathie [illegible] (Project Manager)

REV: 2011-05-18 / FORM 010-c

Page 1 of 2

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Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Nov. 17/11
Field Personnel: J. Mangell, Z. Lehman-Southcott.

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 2°c – 4°c | 3 – 4 | 50 – 75% | light flurries for 15min | none |

**Start Time:** 10:53
**End Time:** 4:12
**Total KM Driven:**

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 37 | 11 | 3:32 | CAGO | 20 | – flying over pastures | – flying N @ 100m over island |
| 36 | 12 | 3:35 | CAGO | 20 | – pasture | – feeding |
| 24 | 13 | 3:36 | CAGO | 30 | – pasture | – feeding |
| 14 | 14 | 3:39 | CAGO | 200 | – pasture | – feeding |
| 20 | 15 | 3:52 | COGO | 10 | – near shore | – feeding |
| 38 | 16 | 3:57 | RBME<br>WWSC | 15<br>2 | – near shore | – feeding |
| ite-winged oter 28 | 17 | 4:06 | MALL | 17 | – on shore | – resting |
| 29 | 18 | 4:08 | CAGO<br>(ducks) | 8<br>100 | – shoreline<br>– near shore | – flying NE @ 30m<br>– feeding |
| too far to ID | | | | | | |
| | | | | | | |

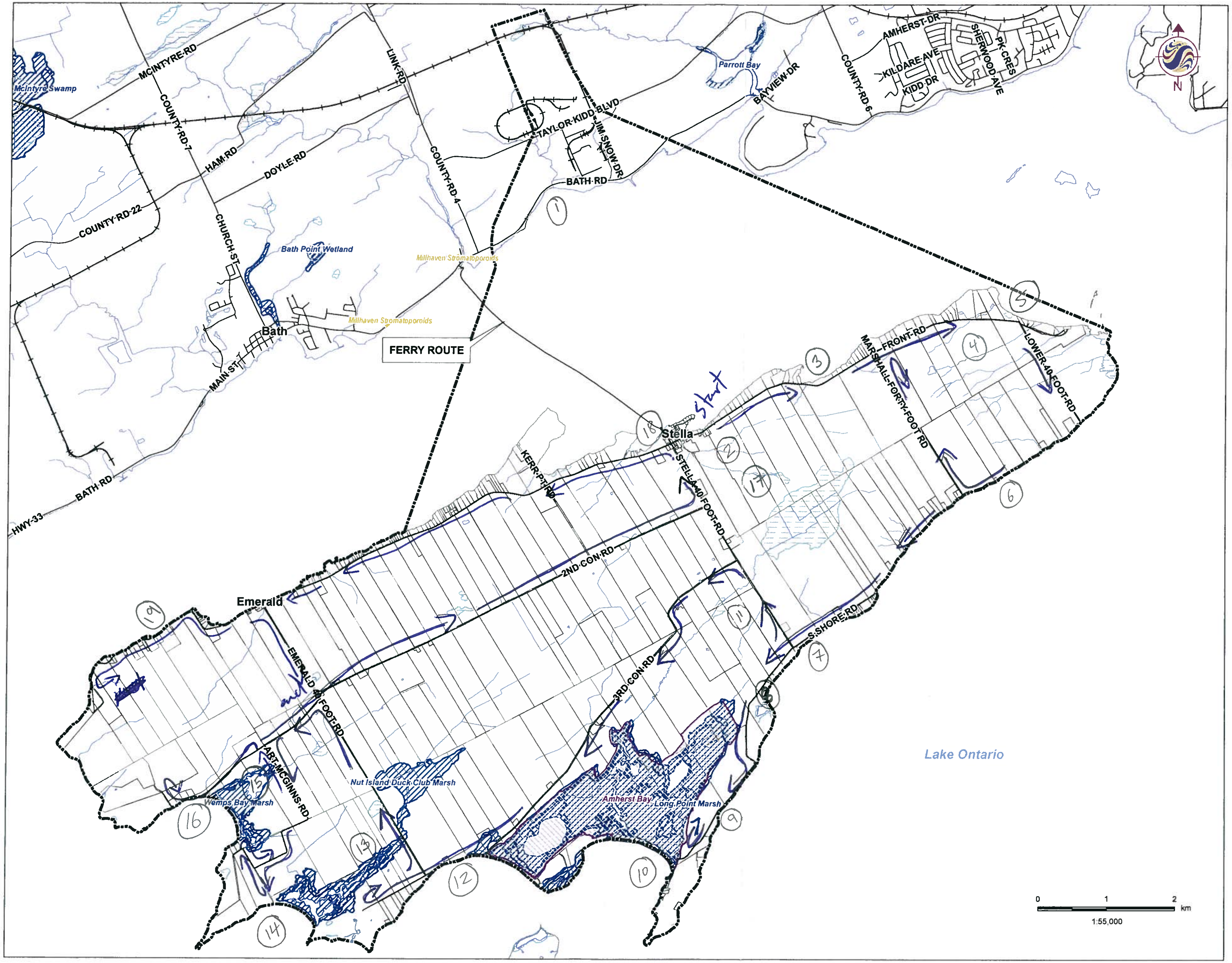
Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

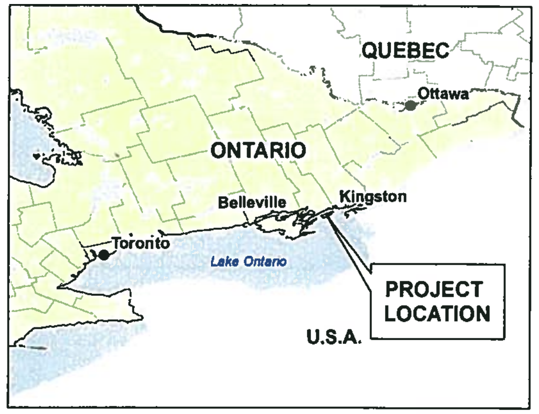
REV: 2011-05-18 / FORM 010-c

Page 2 of 2



## Legend

- ▭ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ▨ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

# Field Map - Waterfowl & Raptor Migration

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Nov. 24/11

Field Personnel: J. Heslop ; Z. Lebrun-Southcō

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | -1 - 5°C | 2-3 | 30-100% | none | none |

Start Time: 8:55am

End Time: 1:00pm

Total KM Driven: 72km

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| before ferry 80 | 1 | 8:10 | COGO | 6 | - bay | - feeding |
| 81 | 2 | 8:53 | CAGO | 20 | - agricultural field | - feeding |
| 39 | 3 | 8:57 | COGO<br>MALL<br>RBME | 30<br>2<br>1 | - bay | - feeding |
| 82 | 4 | 9:02 | CAGO | 100 | - agricultural field | - feeding |
| 6 | 5 | 9:06 | COGO<br>BUFF<br>CAGO<br>TUSW | 12<br>15<br>1<br>2 | - near shore (50-100m) | - feeding |
| 45 | 6 | 9:25 | RBME | 4 | - close to shore | - feeding |
| 83 | 7 | 9:54 | MALL | 20 | - close to shore | - " |
| 2 | 8 | 9:58 | MALL | 6 | - shoreline | - feeding |
| 27 | 9 | 10:04 | BUFF | 2 | - near shore (75m from shore) | - feeding |
| 49 | 10 | 10:11 | GRSC<br>BUFF<br>SNGO<br>CAGO | 15<br>2<br>1<br>250 | - bay | - feeding |

Quality Control: This form is complete ☑ & legible ☑.

Signature: _______ (Field Personnel)

Signature: Kathie Shaw (Project Manager)

REV: 2011-05-18 / FORM 010-c

Page 1 of 2

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Nov. 24/11

Field Personnel: J. Heslop ; Z. Lebrun-Southcott

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | -1 - 5°C | 2-3 | 30-100% | — | — |

Start Time: 8:55 am - 1:00pm

End Time:

Total KM Driven:

| | Flock No. | Time | Species | No. of Individuals | Location (e.g. agr. field near puddle, shoreline, etc.) | Behaviour (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 84 | 11 | 10:27 | MALL | 6 | - flying over field | - flying S @ 150m |
| 17 | 12 | 10:50 | COGO<br>RBME<br>BUFF | 28<br>2<br>1 | - near shore | - feeding |
| 85 | 13 | 11:00 | MALL | 17 | - flying over field | - flying NW @ 150m |
| 33 | 14 | 11:27 | BUFF<br>RBME | 30<br>6 | - near shore | - feeding |
| 86 | 15 | 12:01 | MALL<br>HOME | 6<br>2 | - flying over marsh<br>- marsh | - flying E @ 120m<br>- feeding |
| 31 | 16 | 12:04 | BUFF<br>COGO | 25<br>12 | - near shore<br>- " | - feeding |
| 87 | 17 | 12:36 | CAGO | 22 | - over field | - flying W @ 50m |
| 15 | 18 | 12:38 | CAGO<br>COGO<br>BUFF<br>RBME | 425<br>20<br>8<br>3 | - in bay | - feeding |
| | | | COME<br>MALL<br>SNGO | 1<br>1<br>1 | | |
| 88 | 19 | 12:57 | RBME<br>BUFF<br>MALL | 12<br>3<br>12 | - near shore<br>" | - feeding<br>" |

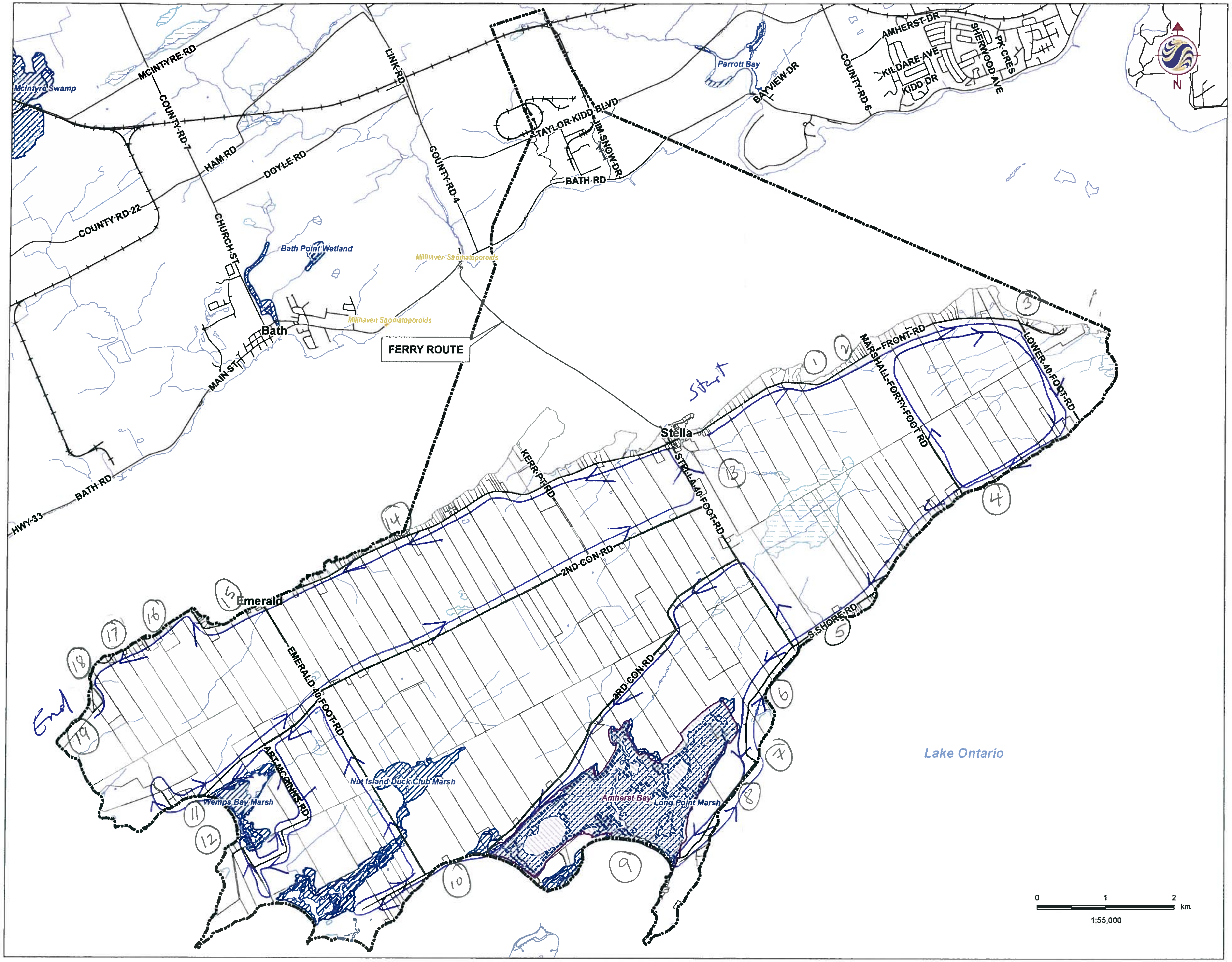
Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: Kathin S (Project Manager)

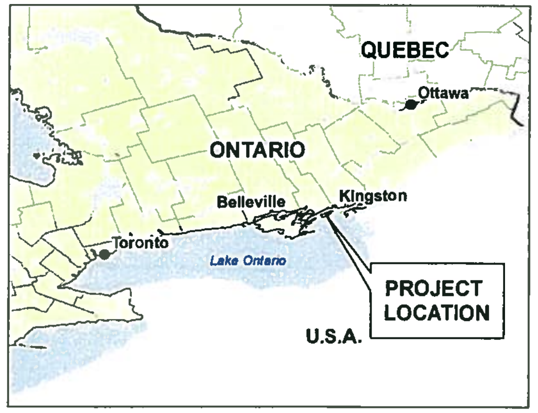
REV: 2011-05-18 / FORM 010-c

Page 2 of 2



## Legend

- Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- Provincially Significant Wetland
- ANSI, Earth Science
- ANSI, Life Science
- Property Boundaries
- Wooded Area



## Notes

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**Stantec**

August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

## Field Map - Waterfowl & Raptor Migration

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Dec. 1 / 11
Field Personnel: B. Holden + Z. Lebrun-Southcot

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 6°C | 1-2 | 60% | none | rain / snow |

Start Time: 11:59
End Time: 4:40 pm
Total KM Driven: 86 km

20
06

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 39 | 1 | 12:12 | MALL<br>RBME | 2<br>10 | – in bay | – feeding |
| 89 | 2 | 12:15 | COGO | 40 | – near shore | – feeding |
| 63 | 3 | 12:29 | THSW | 3 | – near shore | – resting |
| 90 | 4 | 1:10 | RBME | 3 | – near shore | – feeding |
| 18 | 5 | 1:17 | MALL<br>COGO<br>BUFF<br>CAGO | 1<br>30<br>1<br>20 | – near shore | – feeding |
| 91 | 6 | 1:22 | CAGO | 150 | – near shore | – feeding |
| 48 | 7 | 1:27 | RBME | 100 | – near shore | – flushed by boat |
| 27 | 8 | 1:29 | BUFF<br>CAGO<br>COGO | 20<br>80<br>25 | – near shore<br>– shoreline<br>– near shore | – feeding |
| 10 | 9 | 1:39 | CAGO<br>GRSC | 550<br>100 | – in bay + on shore | – feeding |
| 17 | 10 | 2:20 | COGO | 15 | – near shore | – feeding |

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-18 / FORM 010-c

Page 1 of 2

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Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Dec. 1 /11

Field Personnel: B. Holden + Z. Lebrun-Southcott

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (ºC):<br>6°C | WIND:<br>1 - 2 | CLOUD:<br>60% | PPT:<br>— | PPT (in last 24 hrs):<br>rain/snow |

**Start Time:** 11:59

**End Time:** 4:40 pm

**Total KM Driven:** 86 km

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 33 | 11 | 3:12 | COGO | 25 | - in bay | - feeding |
| 32 | 12 | 3:15 | CAGO<br>BUFF | 12<br>30 | - in bay | - feeding |
| 92 | 13 | 4:01 | CAGO | 27 | - flying SE across field | - flying SE @ 40m |
| 93 | 14 | 4:07 | COGO | 40 | - near shore | - feeding |
| 76 | 15 | 4:15 | COGO<br>RBME | 7<br>1 | - near shore | - feeding |
| 88 | 16 | 4:18 | COGO<br>RBME<br>MALL | 7<br>2<br>4 | - near shore | - feeding |
| 78 | 17 | 4:21 | BUFF | 4 | - near shore | - feeding |
| 28 | 18 | 4:23 | BUFF<br>COGO<br>MALL<br>RBME | 5<br>25<br>18<br>1 | - near shore | - feeding |
| 54 | 19 | 4:28 | CAGO | 700 | - agricultural field | - feeding |
| | | | | | | |

Signature:
(Field Personnel)

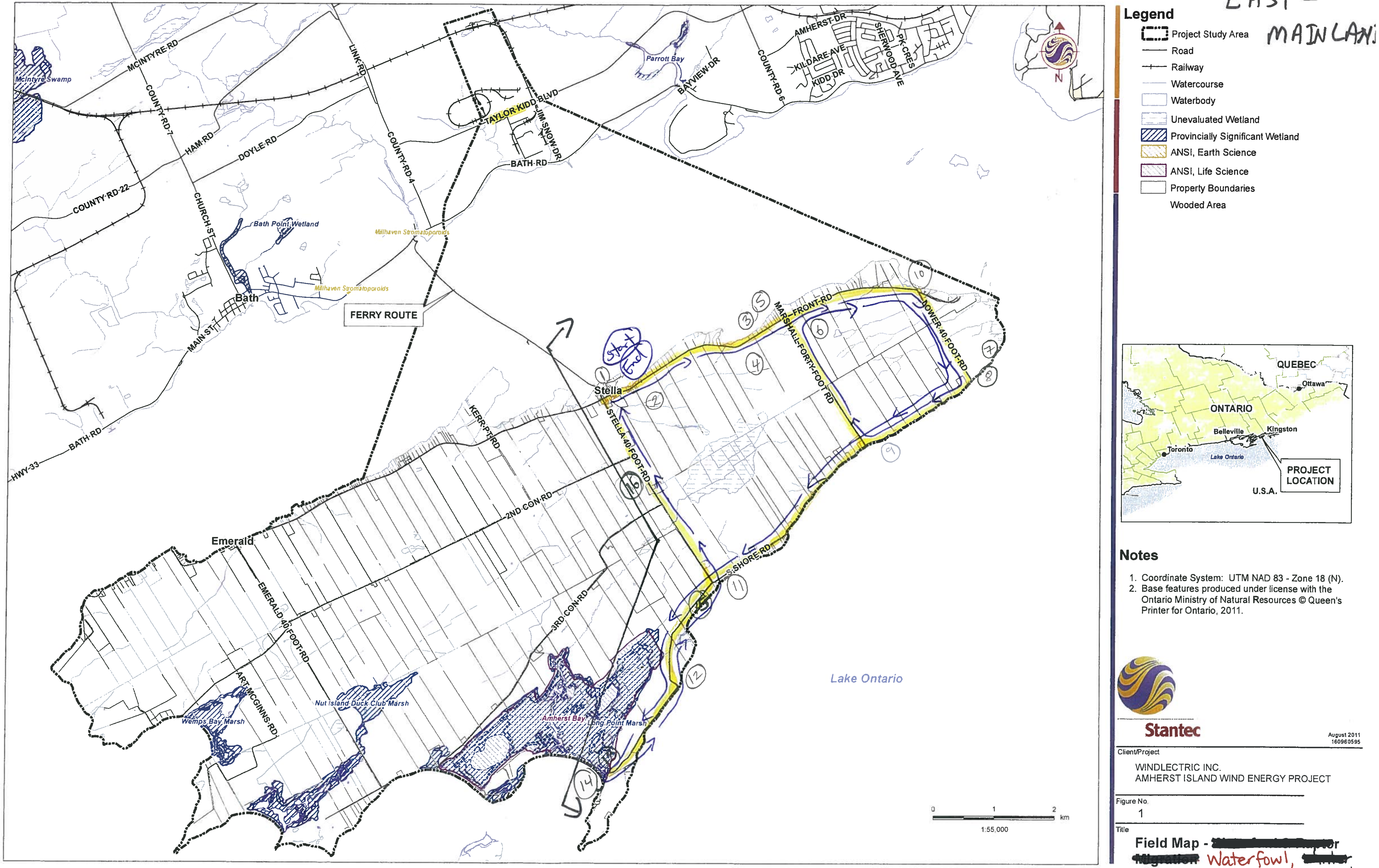
Quality Control: This form is complete ☑ & legible ☑.

Signature: Katherine S
(Project Manager)

Page 2 of 2

REV: 2011-05-18 / FORM 010-c

EAST -
MAINLAN



## Legend

- ⬚ Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- Property Boundaries
- Wooded Area

## Notes

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August 2011
160960595

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WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
**Field Map - [redacted]** Waterfowl, [redacted]

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: oworsell

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# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Dec. 7/11

Field Personnel: J. Mansell + Z. Lebrun-Southcot

| Weather Conditions: | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 1°C | 1 – 2 | 100% | none | none |

52009 –
52043

Start Time: 9:50

End Time: 12:20

Total KM Driven: 34 km

| | Flock No. | Time | Species | No. of Individuals | Location (e.g. agr. field near puddle, shoreline, etc.) | Behaviour (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 94 | 1 | 9:50 | COGO | 30 | bay | – feeding |
| 81 | 2 | 9:57 | CAGO | 125 | pasture | – feeding / resting |
| 95 | 3 | 10:03 | RBME | 12 | near shore (80m from shore) | – feeding |
| 96 | 4 | 10:07 | CAGO | 16 | pasture | – flying SW @ 20m |
| 89 | 5 | 10:10 | MALL<br>COGO | 12<br>5 | near shore (50m offshore)<br>" | – feeding<br>– flying SW @ 10m |
| 97 | 6 | 10:14 | CAGO | 75 | – pasture | – feeding |
| 98 | 7 | 10:37 | CAGO | 25 | pasture | – feeding |
| 99 | 8 | 10:41 | HOGR<br>BUFF<br>RBME<br>COME | 3<br>2<br>1<br>3 | shoreline<br>shoreline | feeding<br>– flying NE @ 25m |
| 90 | 9 | 10:51 | HOGR | 5 | 40m offshore | – feeding |
| 6 | 10 | 11:16 | COGO | 6 | – near shore (bay) | – feeding |

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: Kathin (Project Manager)

REV: 2011-05-18 / FORM 010-c

Pg. 1 of 2

***Other Bird Species***

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| | **Species** (time) | **No. of Individuals** | **Location**<br>(e.g. agr. field near puddle, shoreline, etc.) | **Behaviour**<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|
| 11 | COGO<br>(11:30) | 14 | shoreline | -feeding, then flew SW @ 8 |
| 12 | BUFF<br>(11:41) | 25 | bay | -feeding |
| 13 | CAGO<br>BUFF<br>MALL<br>(11:49) | 20<br>4<br>1 | marsh | -feeding |
| 14 | CAGO<br>Scaup<br>(11:55) | 25<br>100 | bay | -feeding/resting |
| 15 | CAGO<br>(12:05) | 8 | shore/pasture | -feeding |
| 16 | CAGO<br>(12:12) | 16 | -above agricultural field | -flying, circling @ 50m |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Pg. 2 of 2

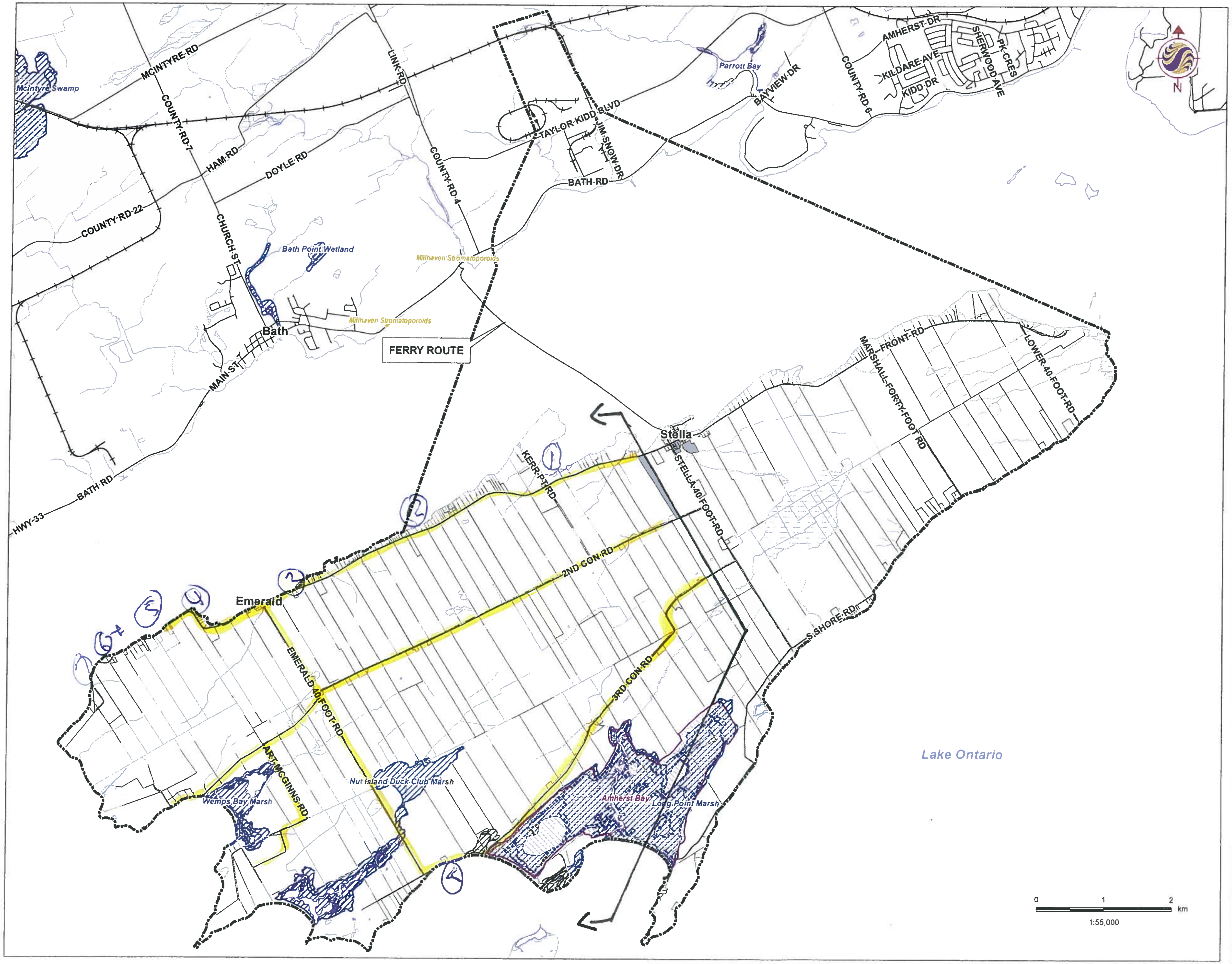
Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

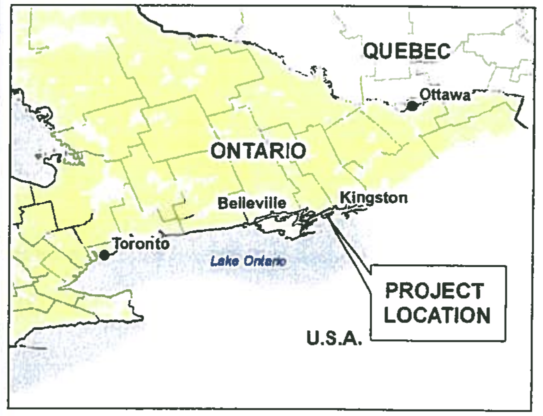
REV: 2011-05-18 / FORM 010-c

WEST



**Legend**

⬚ Project Study Area
— Road
┼ Railway
— Watercourse
▭ Waterbody
▭ Unevaluated Wetland
▨ Provincially Significant Wetland
▨ ANSI, Earth Science
▨ ANSI, Life Science
▭ Property Boundaries
Wooded Area



**Notes**

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.

1

Title

**Field Map - Waterfowl/**[redacted]

[redacted]

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst island

Date: Dec. 7, 2011

Field Personnel: C.Payette, B. Holden

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 0°C | / | 100 | None | light drizzle |

**Start Time:** 950

**End Time:**

**Total KM Driven:** 030 -

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 12 | ① | 9:50 | MALL | 10 | In Bay | |
| 12 | ⑪ | 9:51 | BUFF -<br>COGO - | 1<br>13 | / Feeding | - H - ⓧ |
| 93 | ② | 1012 | COGO | 140 | Feeding neer | shore |
| 20 | ③ | 1018 | " | 50 | " | Islnds |
| 102 | 4 | 1026 | COGO-30<br>MALL-4 | 7 | Feeding near shore | -X |
| 88 | 5 | 1029 | COGO | 17 | " | |
| 78 | 6 | 1036 | MALL-8<br>RBME-5 | - swimmy<br>- flew 5 | | - X |
| 28 | 7 | 1042 | COGO-150<br>MALL-40<br>BUFF-2 | RBME-5 | ) Feeding near | shore |
| 17 | 8 | 1200 | COGO-70<br>BUFF-25 | RBME<br>-5 | ) // | |
| | | | | | | |

Signature:

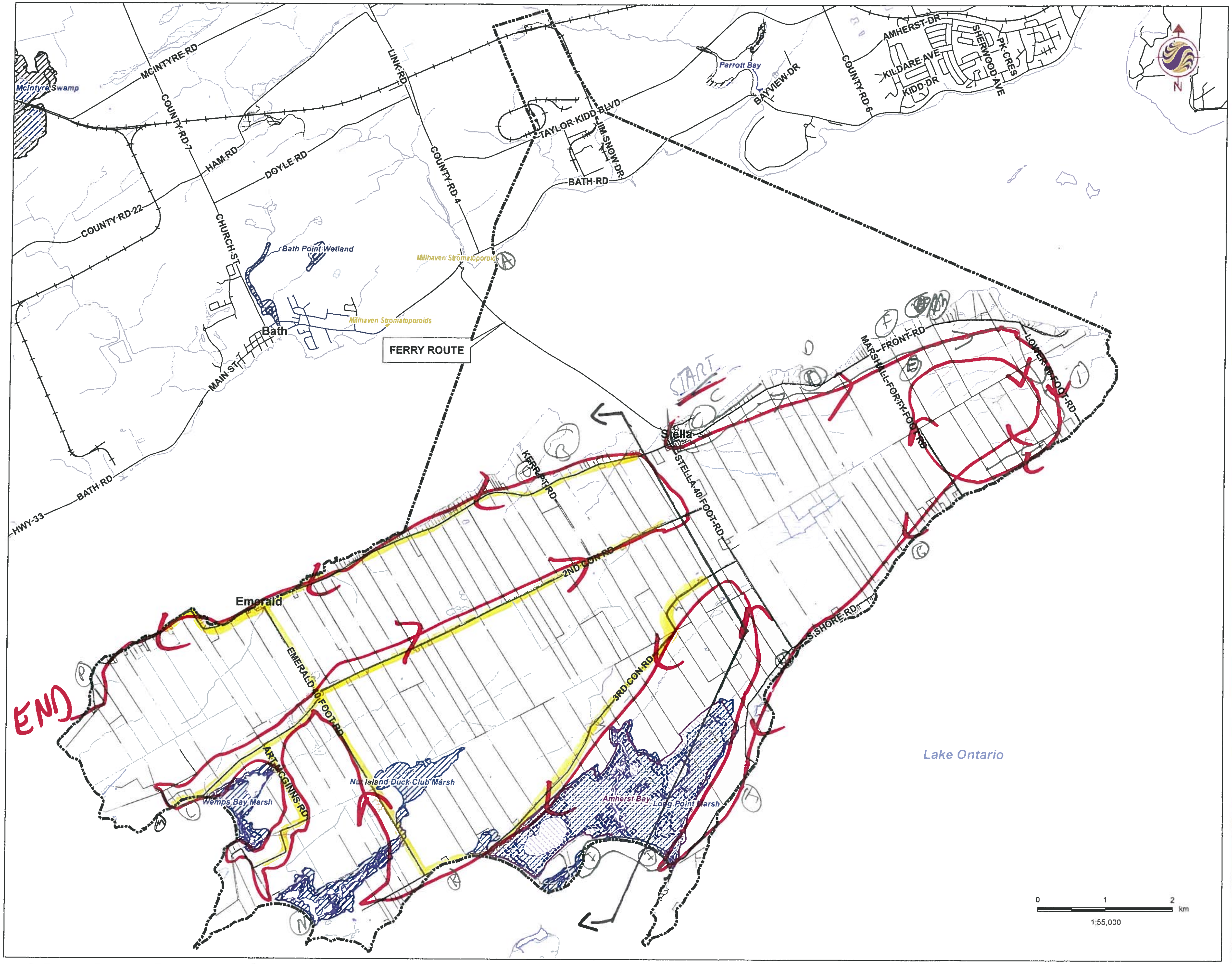
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katherine

(Project Manager)

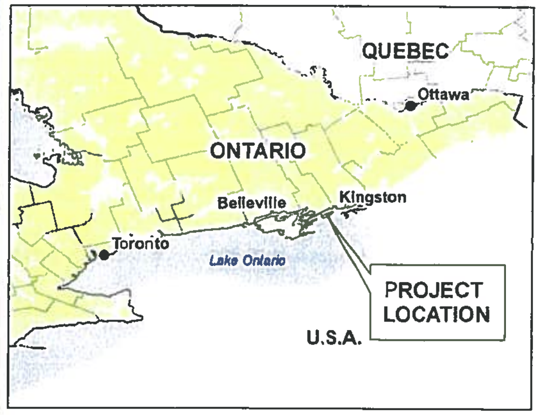
REV: 2011-05-18 / FORM 010-c



WEST

## Legend

- ⬚ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ☐ Waterbody
- ▨ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ☐ Property Boundaries
- Wooded Area



## Notes

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August 2011
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AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

[redacted]
**Field Map - Waterfowl, [redacted]**
[redacted]

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd

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Canada N1G 4P5
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Fax: (519) 836-2493

# Waterfowl Migration Observation Form

**Project Number:** 160960595

**Project Name:** Amherst

**Date:** Dec 16, 2011

**Field Personnel:** B. Holden, J. Mansell

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 3°C - | 4-5 - W | 70-90% | | RAIN |

**Start Time:** 1120

**End Time:** 1435

**Total KM Driven:** 2558 to 2633 // 75Km

| | Flock No. | Time | Species | No. of Individuals | Location (e.g. agr. field near puddle, shoreline, etc.) | Behaviour (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 5<br>5 | A | 1125 | COGO-70<br>MALL-20 | CAGO -50 | feeding near shore | |
| 72<br>72 | B | 1145 | CAGO-150<br>MALL-10 | COGO-30<br>LTDU-5 | RBME-10<br>BUFF-1 feeding | / resting in bay |
| 103 | C | 1152 | MALL-10 | — | feeding in bay | |
| 39<br>39 | D | 1155 | CAGO-50<br>MALL-20 | GADW 5<br>COGO-50 | BUFF-10 feeding | / resting in bay |
| 104 | E | 1201 | CAGO- 250 | | - feeding in pasture | |
| 105<br>105<br>105 | F | 1202 | TUSW - 15<br>CAGO- 15<br>MALL-10 | | - feeding / resting | in bay |
| X | D | 1210 | SNOW | 2 | - KFN pasture | |
| 106 | G | 1241 | BUFF-15 | | - feeding on shore | |
| 5 | H | 1246 | MALL-7 | | - feeding in pasture | |
| 49<br>63 | I | 1300 | GRSC-600<br>CAGO-500 | MALL-30<br>ABDU-30 | feeding / resting near of bay | and on shoreline |

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________________
(Field Personnel)

**Signature:** ____________________
(Project Manager)

REV: 2011-05-18 / FORM 010-c

***Other Bird Species***
Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| | **Species** | **No. of Individuals** | **Location** (e.g. agr. field near puddle, shoreline, etc.) | **Behaviour** (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|
| 7J | BUFF | 20 | feeding offshore | |
| K | COGO<br>BUFF | 100<br>40 | feeding offshore<br>RBME-20 | |
| 3<br>3L | BUFF<br>COGO | 20<br>20 | RBME-3 ] feeding offshore | |
| 07<br>07M<br>07 | BUFF -<br>COGO -<br>RBME - | 15<br>35<br>2 | feeding offshore | |
| 7N<br>7 | COGO-30<br>RBME-35 | | feeding offshore | |
| 8<br>O | CAGO. | 80 | feeding in Pastures | |
| 5<br>5 Ⓟ<br>8 | CAGO -<br>MALL -<br>ABDU - | 110<br>25<br>25 | resting nearshore | |
| | | | | |
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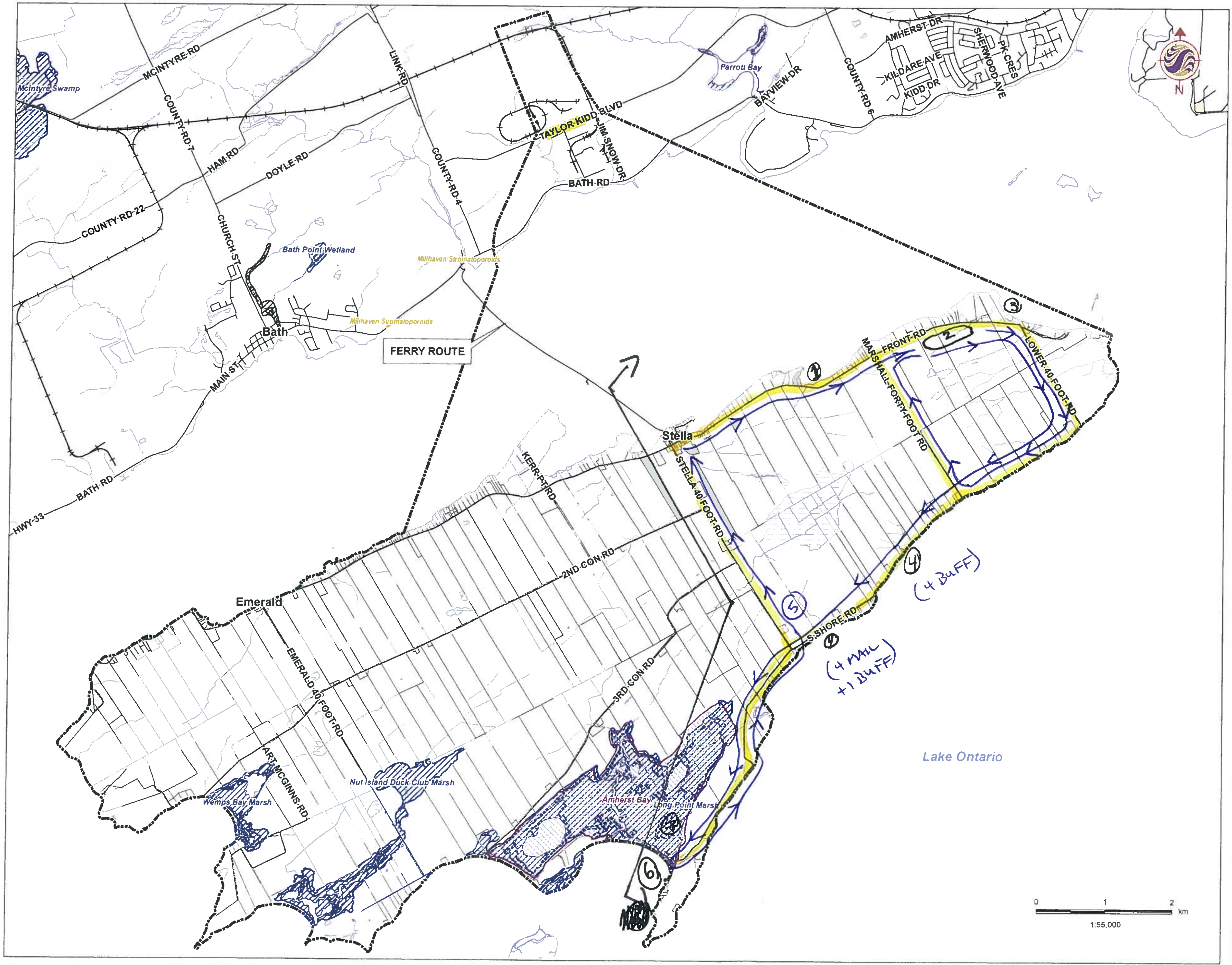
| | | | | |
| | | | | |
| | | | | |

Quality Control: This form is complete ☐ & legible ☐.

**Signature:** (Field Personnel)

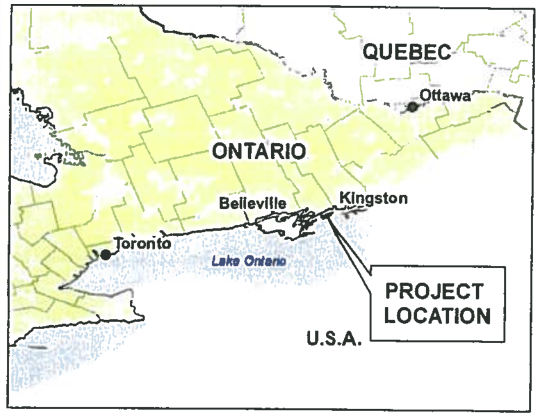
**Signature:** (Project Manager)

EAST-
MAINLAND



## Legend

| | |
|---|---|
| ⬚ | Project Study Area |
| — | Road |
| ┼ | Railway |
| — | Watercourse |
| ▭ | Waterbody |
| ▭ | Unevaluated Wetland |
| ▨ | Provincially Significant Wetland |
| ▨ | ANSI, Earth Science |
| ▨ | ANSI, Life Science |
| ▭ | Property Boundaries |
| | Wooded Area |



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
**Field Map - [redacted]**
**[redacted]** Waterfowl, [redacted]
[redacted]

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Dec 21, 2011
Field Personnel: C. Payette, Z. Lebrun-Southcott

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 4°C | 3 | 100 | light rain | rain |

**Start Time:** 10:04 12:15
**End Time:** 12:50
**Total KM Driven:** 529-563 = 34 Km

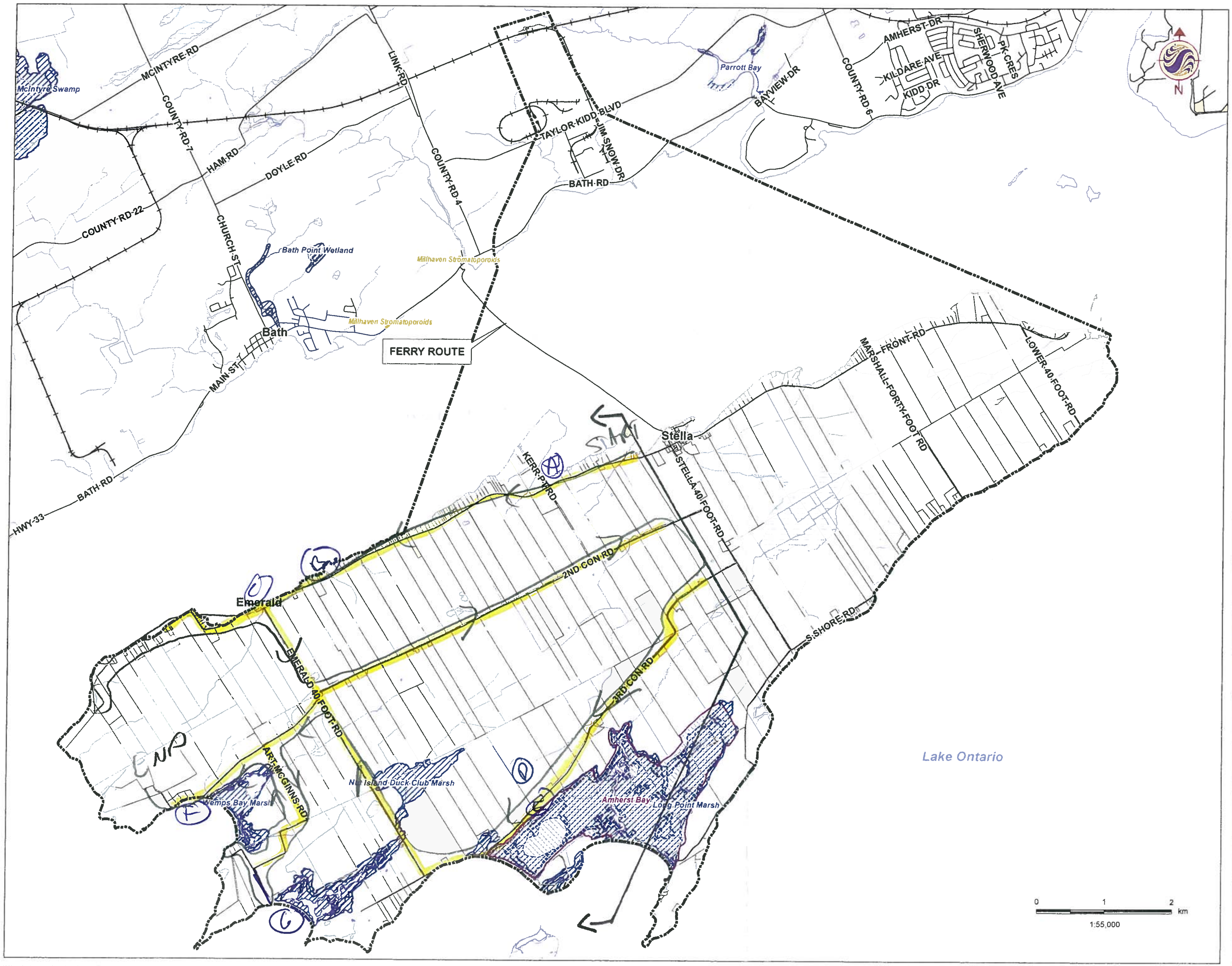
| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 39 | ① | 10:15 | COGO | 60 | Shoreline | Feeding |
| 39 | ① | 〃 | MALL | 8 | 〃 | 〃 |
| 41 | ② | 10:27 | CAGO | 250 | Pasture/Field | Feeding |
| 6 | ③ | 10:34 | BUFF | 4 | Shoreline | Feeding |
| 06 | ④ | 11:28 | BUFF | 5 | Shoreline | Feeding |
| 109 | ④ | 11:32 | MALL | 4 | Shoreline | feeding |
| 110 | ⑤ | 11:37 | BUFF | 15 | field near shoreline | flew from shoreline N over pasture. 20m |
| 49 | ⑥ | 11:58 | UNSC | 200 | shoreline/Bay | Feeding in Bay |
| 00 | ⑦ | 12:03 | MAll | 4 | long point marsh | Feeding. |
| | | | | | | |

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.
**Signature:** (Project Manager)

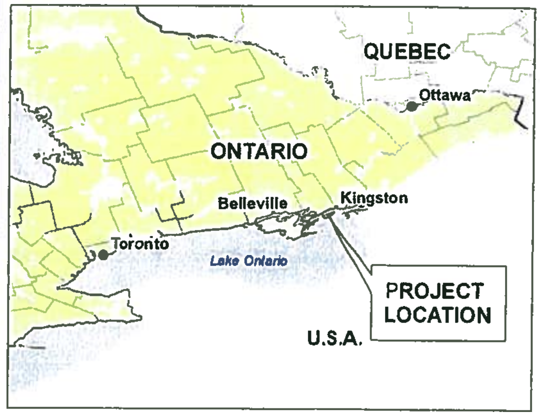
REV: 2011-05-18 / FORM 010-c

WEST



## Legend

- Project Study Area
- Road
- Railway
- Watercourse
- Waterbody
- Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ANSI, Earth Science
- ANSI, Life Science
- Property Boundaries
- Wooded Area



## Notes

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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

**Field Map - Waterfowl, [redacted]**
[redacted] + Short-eared Owl

W:\active\60960595\drawing\GIS\MXD\NHA\60960595_FieldMap_WaterfowlRaptorMigration_20110822.mxd
Revised on: 2011-08-22 By: pworsell

**Stantec**

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Dec 7 / 2011
Field Personnel: B. Holden N. Chalton

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 4-5°C | 2 | 100 | RAIN | RAIN |

**Start Time:** 1000
**End Time:** 1400
**Total KM Driven:** 30km

| | Flock No. | Time | Species | No. of Individuals | Location (e.g. agr. field near puddle, shoreline, etc.) | Behaviour (i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 72 | A | 1008 | TUSW-15 | — | On shore | feeding -X |
| 20 | B | 1025<br>TUSW-B | RBME-4<br>BUFF-10<br>COGO-150 | HOME-1<br>MALL-10 | } All feeding / | resting near shore |
| 76 | C | 1040 | COGO-100<br>HADU-1-4 | } | feeding 50 m offshore | |
| 11 | D | 1230 | CAGO-250 | } | feeding on winter | wheat -X |
| 111 | E | 1233 | CAGO-175 | } | feeding in corn | stubble -X |
| 112 | F | 1310 | COGO-100<br>BUFF-10 | } | feeding near | shore -X |
| 33 | G | 1324 | BUFF-30<br>ABDU-10 | } | feeding 35m offshore | -X |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Signature:** 
(Field Personnel)

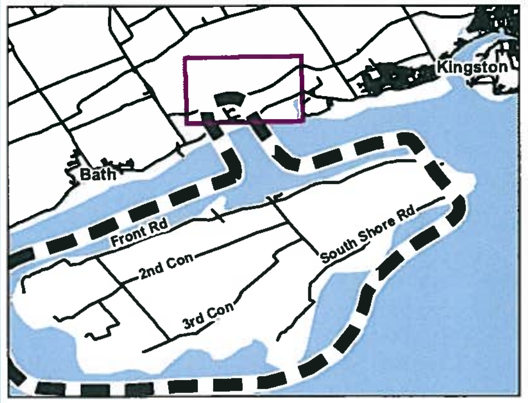
Quality Control: This form is complete ☑ & legible ☑.

**Signature:** 
(Project Manager)

REV: 2011-05-18 / FORM 010-c

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property



## Notes

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March 2011
160960595

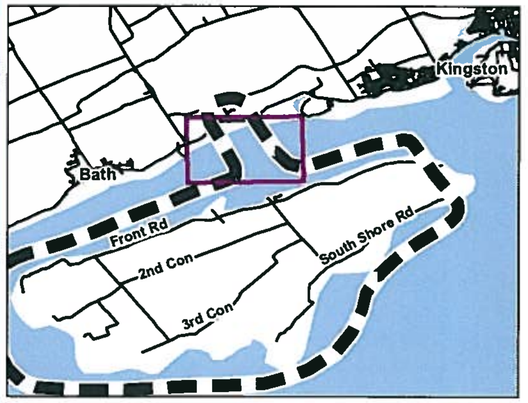
Client/Project
Client
Title
Project

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

## Legend

Study Area
Road
Watercourse
Property Boundaries
Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 2

Title
**FIELD MAPBOOK**

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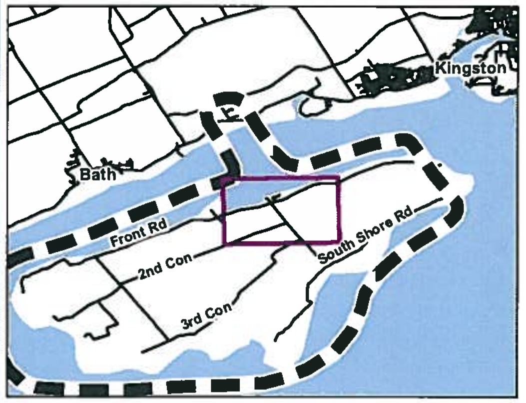
Revised on: 01-DD-2011 By: username

## Legend

Study Area
— Road
— Watercourse
🟥 Property Boundaries
🟩 Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

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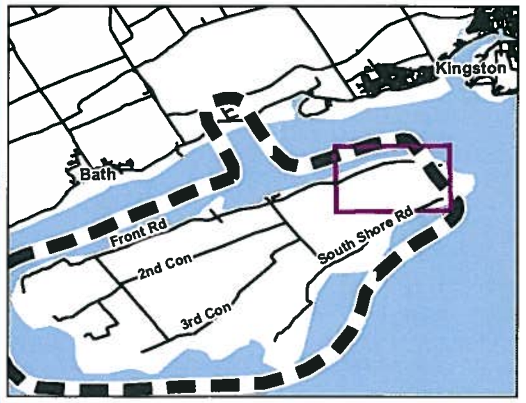
## Legend

- ▬ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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160960595

Client/Project
Client
Title
Project

Figure No.
Tile 4

Title
# FIELD MAPBOOK

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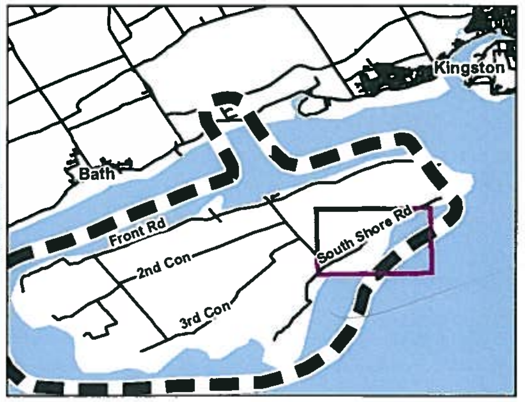
Revised on: 01-DD-2011 By: username

## Legend

- ▞ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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March 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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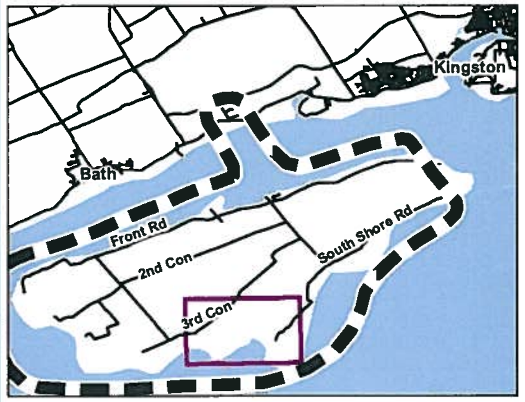
Revised on: 01-DD-2011 By: username

## Legend

- ▚ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 7

Title
**FIELD MAPBOOK**

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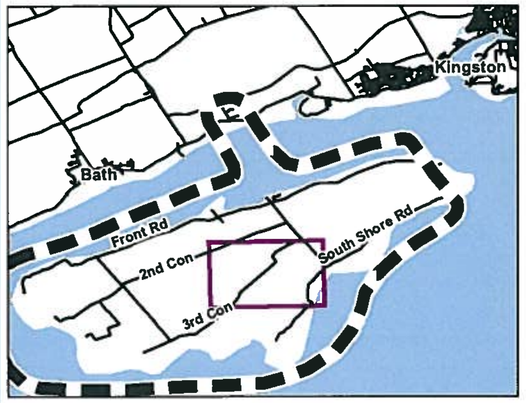
Revised on: 01-DD-2011 By: username

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 6

Title
FIELD MAPBOOK

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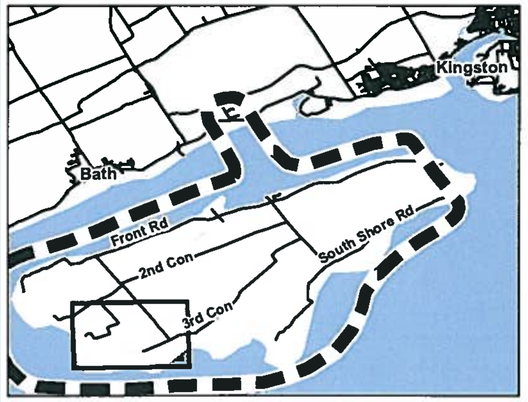
Revised on: 01-DD-2011 By: username

## Legend

- ▨ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

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Revised on: 01-DD-2011 By: username

## Legend

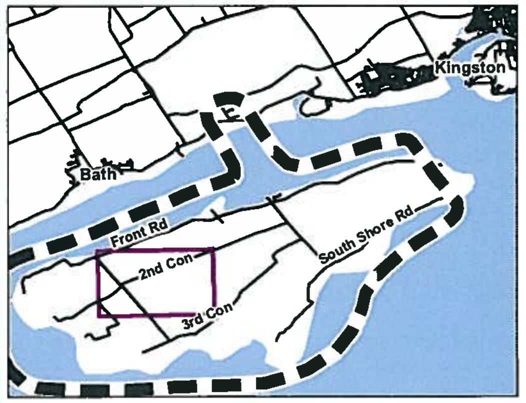
▚ Study Area

— Road

— Watercourse

🟥 Property Boundaries

🟩 Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 8

Title
**FIELD MAPBOOK**

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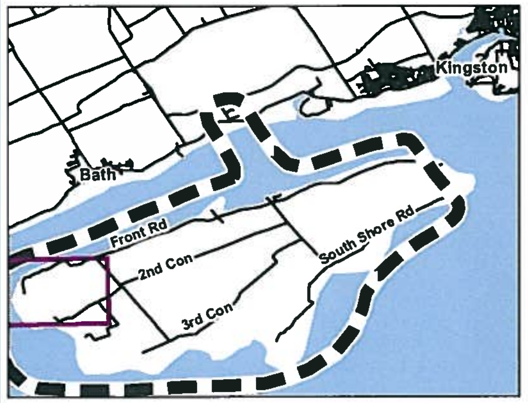
## Legend

- ▚ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 10

Title
**FIELD MAPBOOK**

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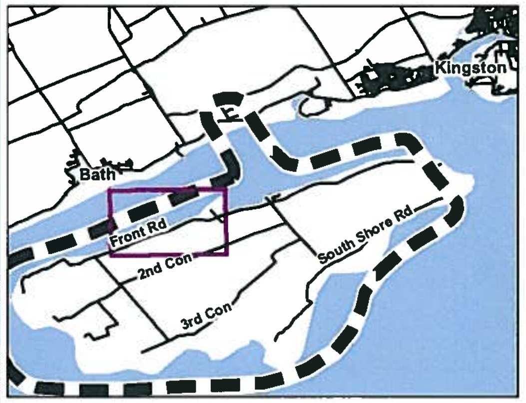
## Legend

- ▚ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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160960595

Client/Project
Client
Title
Project

Figure No.
Tile 11

Title
**FIELD MAPBOOK**

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Revised on: 01-DD-2011 By: username

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 16@960595
Project Name: Amherst
Date / Time: March 24, 2011 12:00-15:20
Field Personnel: A. Taylor N. Kopysh.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 3 °C | Wind: 1 | Cloud: 90% | PPT: — | PPT in last 24 hrs: — |

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 18 ① 12:15 | COGO<br>BUFF<br>AMBL (ABDU)<br>CAGO | x 55<br>x 10<br>x 4<br>x 2 | - 50-70m offshore | |
| 17 ② 12:26 | MALL<br>CAGO<br>COGO | x 4<br>x 25<br>x 40 | - 20-50m offshore | |
| 16 ③ 12:46 | COGO<br>CAGO<br>BUFF<br>MALL | x 35<br>x 6 + 4 + 1<br>x 3<br>x 2 | - 20-30m offshore. | |
| 16 ④ 12:49 | CAGO<br>COGO | x 2<br>x 15 | -30m offshore | |
| 12 ⑤ 12:58 | CAGO | x 4 | - foraging in pasture | |
| 11 ⑥ 13:04 | CAGO | x 5 | - foraging in pasture. | |
| 4 ⑦ 13:34 | CAGO | x 47 + 21 | - foraging in pasture | |
| 13 ⑧ 13:34 | COGO<br>BUFF<br>USCA | x 80<br>x 10<br>x 30 | - ~ 15-20m offshore. | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: _______ (Field Personnel)
Signature: _______ (Project Manager)

Page 1 of 3

REV: May, 07 Form 010

## Other Bird Species

Please record any flock behaviour (ie gulls, crows, blackbirds), raptors or any significant species.

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| Ⓐ | Herony | 12 nests observed | -no herons observed occupying nests | |

Quality Control: This form is complete (__) & legible (__).

Signature: ______________________ (Field Personnel)

Signature: ______________________ (Project Manager)

Page _____ of ______

REV: May, 07 Form 010

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number 160960595
Project Name: Amherst
Date / Time: March 24, 2011
Field Personnel: ART / NCA

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: See | Wind: | Cloud: page #1 | PPT: | PPT in last 24 hrs: |

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 13 ⑨ 13:37 | COGO | x25 | – ~ 40m offshore. | |
| 14 ⑩ 13:38 | CAGO | x16 + 25 | – foraging in pasture | |
| 15 ⑪ 13:41 | COGO<br>USCA | x 180<br>x 130 | – ~ 50-100m offshore | |
| 10 ⑫ 13:43 | COGO | x 80 | ~30-40m offshore | |
| 9 ⑬ 13:50 | COGO<br>USCA | x 30<br>x 40 | ~ 20-50m offshore | |
| 5 ⑭ 13:53 | COGO<br>BUFF | x 170<br>x 40 | ~ 60-100m offsh | |
| ( | ~~COGO~~<br>~~BUFF~~<br>MALL | ~~x 179~~<br>~~x 40~~<br>x 4 | | |
| 6 ⑮ 13:57 | COGO<br>BUFF<br>MALL | x 70<br>x 5<br>x 4 | 40-80m offshore | |

Quality Control: This form is complete ( ✓ ) & legible ( ✓ ).
Signature: (Field Personnel)
Signature: Kathin (Project Manager)

Page 2 of 3

REV: May, 07 Form 010

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70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number 160960595

Project Name: Amherst

Date / Time: March 24, 2011

Field Personnel: ART / NCK

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: See | Wind: page | Cloud: #1 | PPT: | PPT in last 24 hrs: |

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 7 ⑯ 14:02 | COGO<br>BUFF | x20<br>x5 | - foraging 50- | 100m offshore |
| 8 ⑰ 14:05 | COGO<br>BUFF | x30+50<br>x10 | - foraging 20m | offshore |
| 19 ⑱ 14:09 | COGO<br>LTDU | x45<br>x1 | foraging 30- | 40m offshore |
| 2 ⑲ 14:14 | COGO | x15 | - foraging 20m | offshore |
| 3 ⑳ 14:14 | CAGO | x6 | - foraging in | pasture |
| 1 ㉑ 15:08 | COGO | x4 | - resting | |

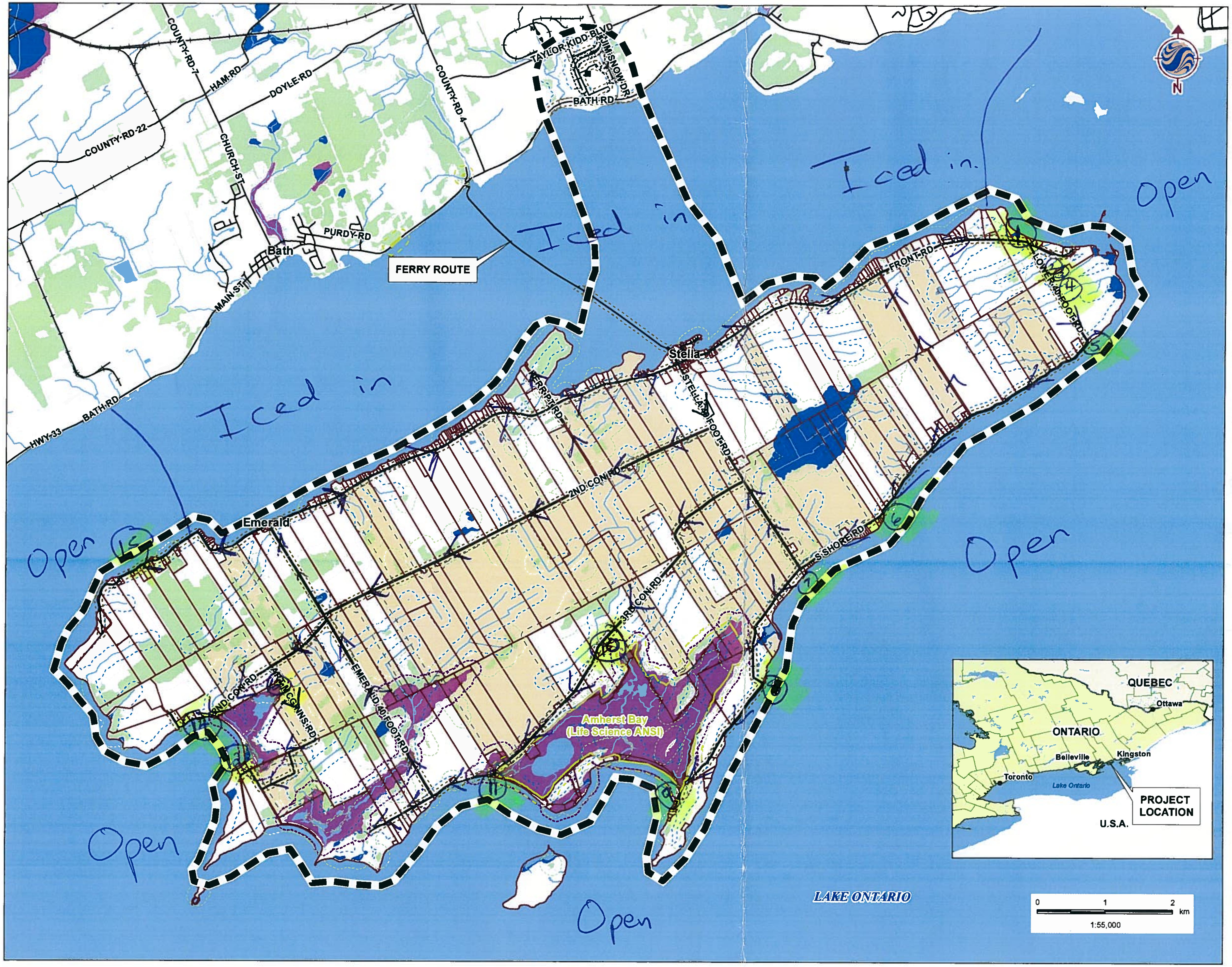
Quality Control: This form is complete (✓) & legible (✓).

Signature: (Field Personnel)

Signature: (Project Manager)

Page 3 of 3

REV: May, 07 Form 010



## Legend

- 🟫 Study Area
- Feederline
- ■ Substation
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟫 Optioned Property
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

**Project Setbacks (0-Reg-359/09)**

- ☐ Property Line Setback (80m)
- ☐ Road Setback (55m)
- ☐ Railway Setback (55m)
- ☐ Wooded Area Setback (120m)
- ☐ Provincially Significant ANSI (Life Science) Setback (120m)
- ☐ PSW Setback (120m)

## Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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March 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
STUDY AREA
~~[illegible]~~ Amherst Island

W:\active\60960595\drawing\GIS\MXD\160960595_ProjectLocation_20110323_DH.mxd - 3/25/2011 @ 12:20:44 PM
Revised on: 01-DD-2011 By: username

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 16096059S

Project Name: Amherst Island

Date / Time: March 29th 2011
9:00 - 12:30 , km=85

Field Personnel: Don Graham & Carla Korpijaakko

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | -1 to 4C | 2 | 70% | None | None |

| | Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| | Dock landing area – largely iced in 90% ice cover within 120m of shoreline. Waterfowl none. | | | | |
| | North shore ^ iced in 100%. Watefowl none | | | | |
| 2 | 1($9^{15}$) | MALL | 2 | Small pond by lake. | 0 Feeding, courting |
| | | PINT | 2 | | " |
| | | BUFF | 6 | | |
| | | RBME | 1 | | 1 Flying low over Lake Ontario |
| 20 | 2($9^{20}$) | CAGO | 10 | Agr. field. | 80 m Flying north |
| 20 | 3($9^{20}$) | CAGO | 12 | " | 0 m Feeding/resting |
| 20 | 4($9^{30}$) | CAGO | 6 | Agr. field | 5 m Flying south |
| 19 | 5 ($9^{30}$) | COGO | 40+10 | Lake Ontario | 0 m Resting then flew off |
| | | RBME | 5+2 | | |
| | | LTDU | 4+15 | | |
| | | ~~BUFF~~ | ~~7+6~~ | | |
| | | ~~RBME~~ | ~~2~~ | | |
| 6 | 6($9^{45}$) | COGO | 170+45+15+50 | Lake Ontario | 0 m Resting |
| | | BUFF | 25+5+15 | | |
| | | RBME | 2+5 | | |
| | | LTDU | 100 | | |
| | | LE~~GR~~SC | 10 | | |
| | | MALL | ~~4~~ 5+2 | | |
| | | COGO | 6+2+2 | | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham (Field Personnel)

Signature: (Project Manager)

Page _____ of ______

REV: May, 07 Form 010

**Other Bird Species**

Please record any flock behaviour (ie gulls, crows, blackbirds), raptors or any significant species.

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| N. Harrier | common | | |
| R.L. Hawk. | abundant | | |
| E. Meadowlark. | a few | | |
| RTHA | a few | | |
| Merlin | 1 | | |
| RN Pheasant | 1 | | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Dan Shanahan (Field Personnel)

Signature: ______ (Project Manager)

Page _____ of ______

REV: May, 07 Form 010

Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: Mar 29th 2011
9:00 - 12:30 km = 85

Field Personnel: Don Graham & Carla Korpijaakko

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | -1 to 4C | 2 | 70% | None | None |

| | Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 21 | 7(10<sup></sup>25) | COGO<br>BUFF<br>CAGO | 150+30<br>5<br>2+6 | Lake Ontario | On Feeding & resting |
| 15 | 8(1030) | COGO<br>BUFF<br>RBME | 1~~7~~0+50<br>5<br>2 | | |
| 9 | 9(1035) | Redhead (REDH)<br>LE~~GR~~SC | ~~40~~ 200<br>5 | L. Ontario | On Feeding & resting |
| 12 | 10(1050) | CAGO | 12 | Lawn. | On Resting |
| 22 | 11 (1100) | RBME<br>BUFF<br>MUSW<br>CAGO<br>COME<br>COGO<br>MALL | 2<br>10+10<br>2<br>2+6<br>40<br>80+80<br>~~4~~6 | L. Ontario | On Resting & Feeding |
| 23 | 12 (1125) | BUFE | 6 | L Ontario | On Resting & feeding |
| 24 | 13 (1135 | CAGO<br>AMWI<br>GADW | 20<br>5<br>5 | Shallow marsh | On Resting & feeding |
| 17 | 14 (1135) | LE~~GR~~SC<br>COGO<br>BUFF<br>RBME | 30<br>~~2~~30+50<br>30+5<br>2 | L. Ontario | ″ |

✓ Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham
(Field Personnel)

Signature:
(Project Manager)

Page _____ of _______

REV: May, 07 Form 010

**Other Bird Species**

Please record any flock behaviour (ie gulls, crows, blackbirds), raptors or any significant species.

25 1S (12$^{00}$)

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| BUFF | 80 | L. Ontario | On Feeding a Resting |
| COGO | 30 | | |
| RBME | 20 | | |
| LTDU | 40+30 | | |
| LE ~~G~~RSC | 30 | | |

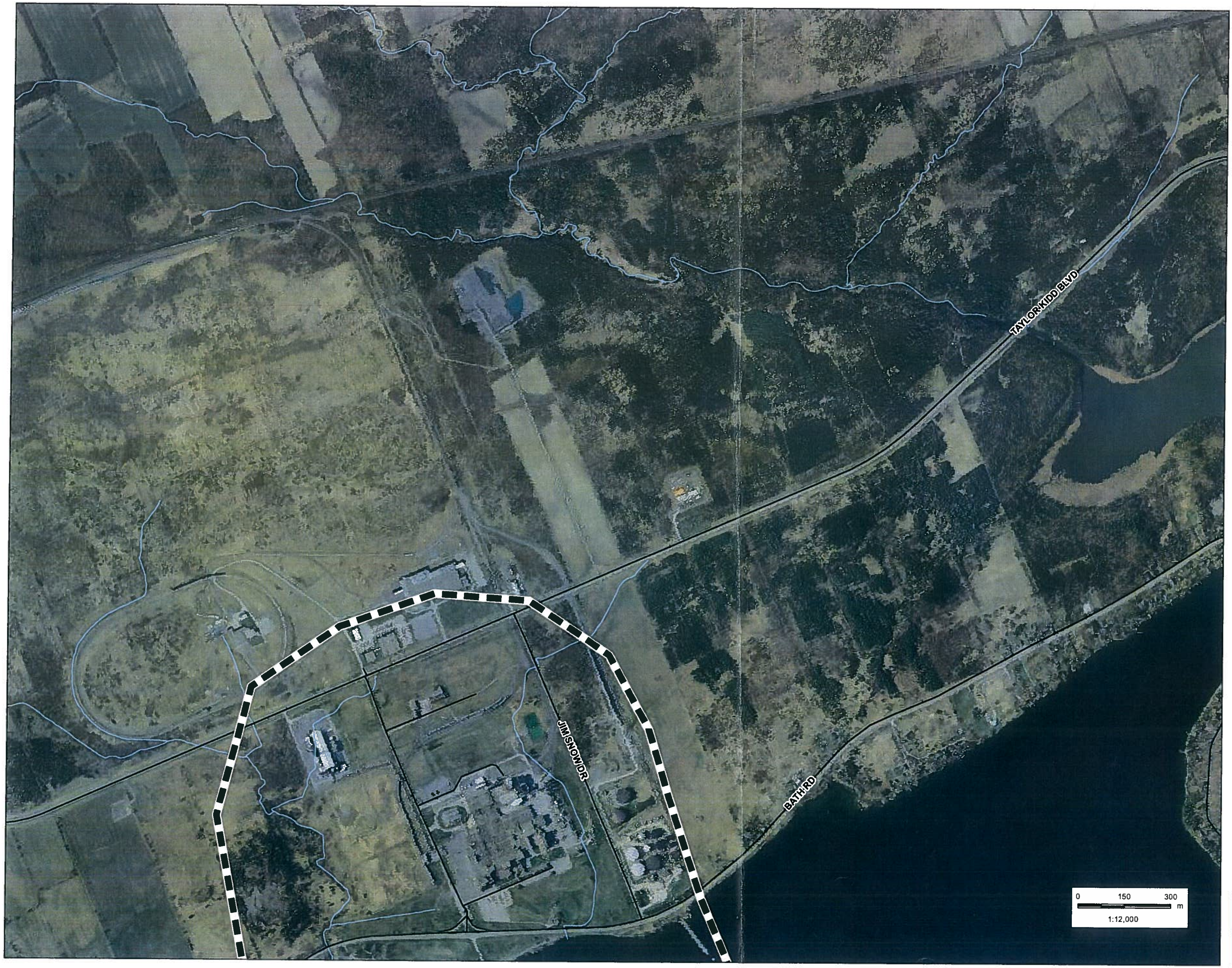
Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham
(Field Personnel)

Signature: Kathi
(Project Manager)

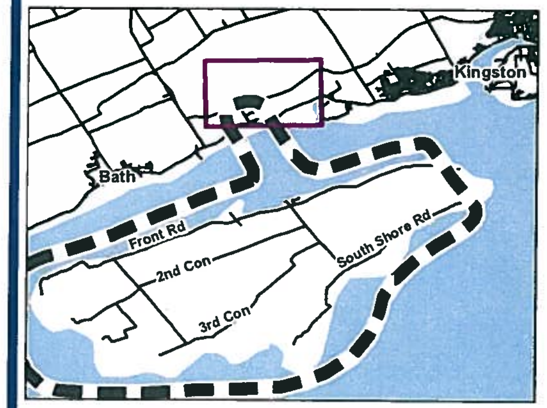
Page _____ of ______

REV: May, 07 Form 010



## Legend

▚ Study Area
— Road
— Watercourse
▭ Property Boundaries
▭ Signed Property



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Tile 1

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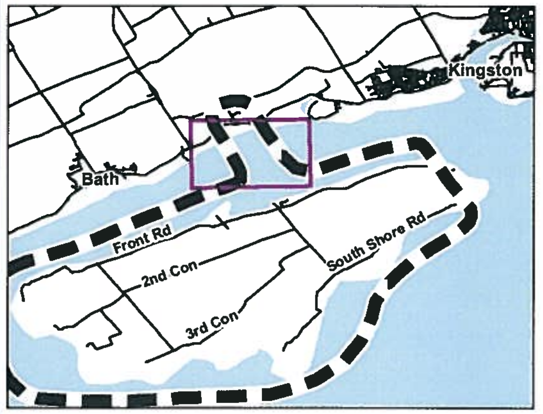
## Legend

- ▨ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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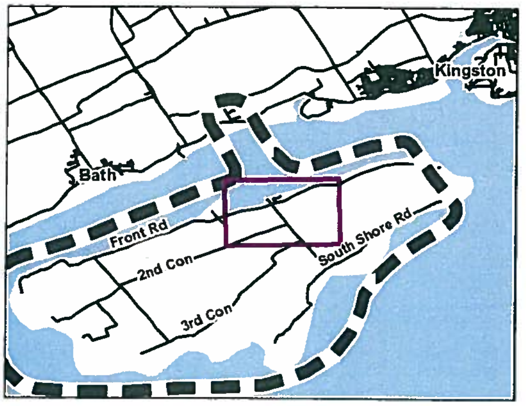
## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property



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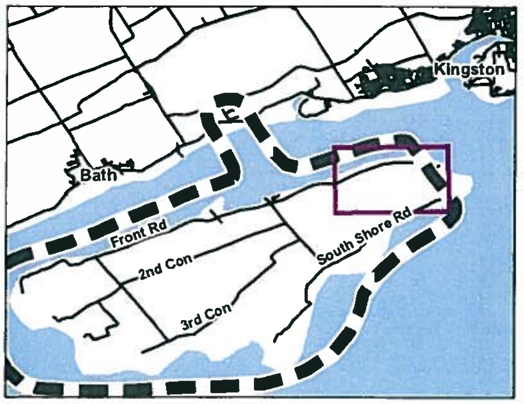
## Legend

Study Area
Road
Watercourse
🟥 Property Boundaries
🟩 Signed Property



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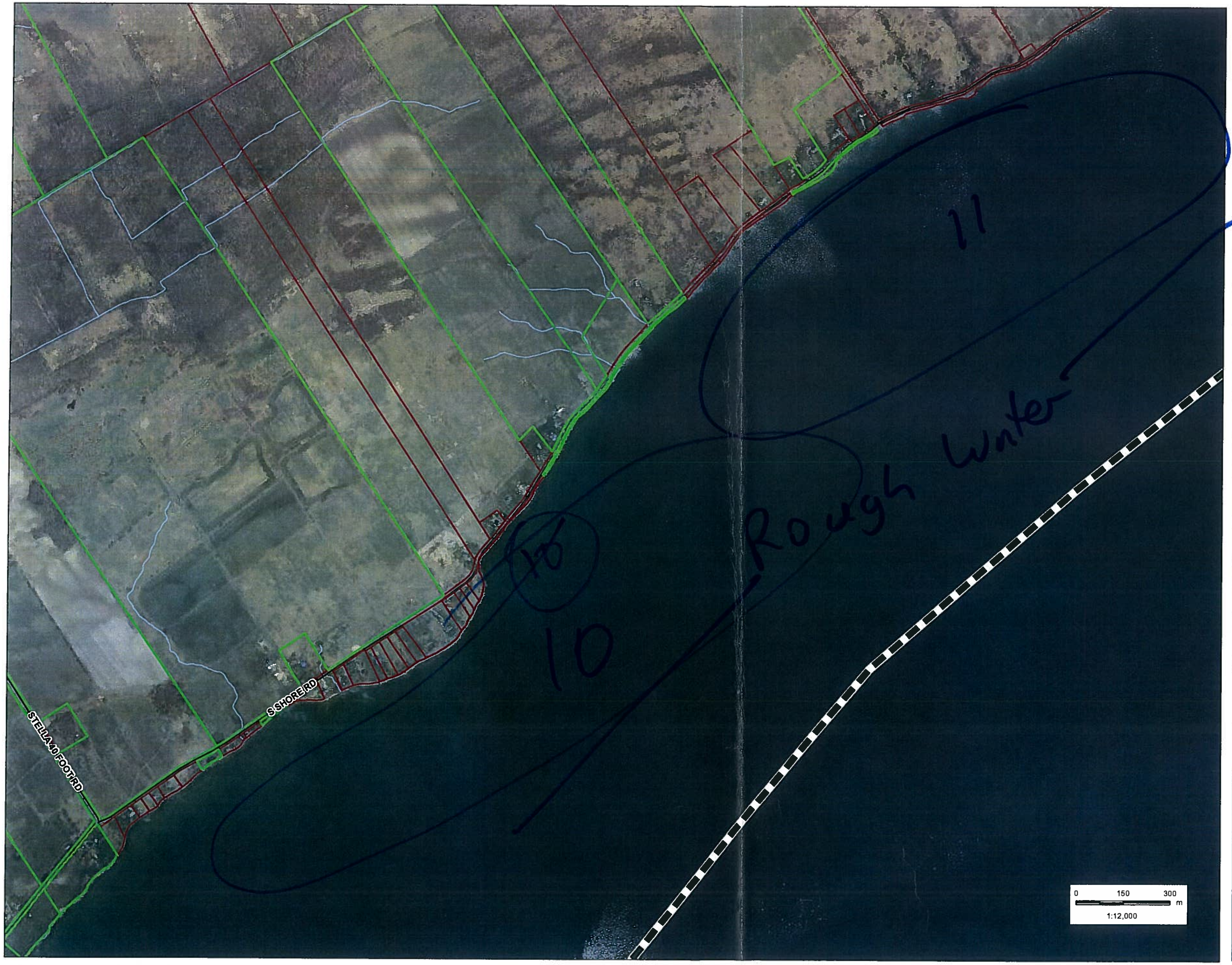
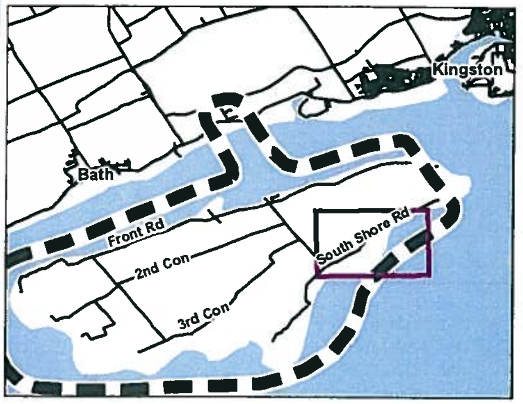


**Legend**

- ▚ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property



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Title
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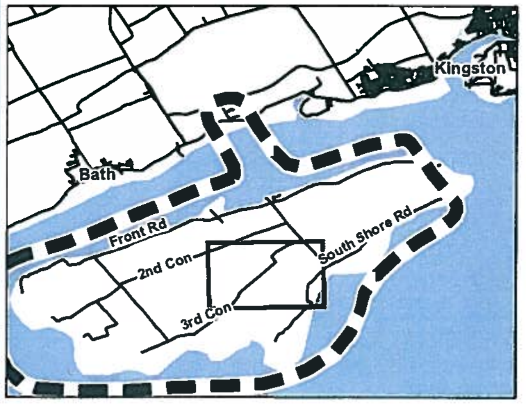
Tile 5

Title
**FIELD MAPBOOK**

## Legend

- ▚ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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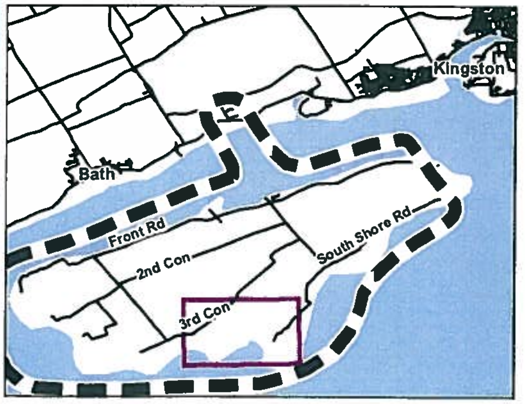
## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property



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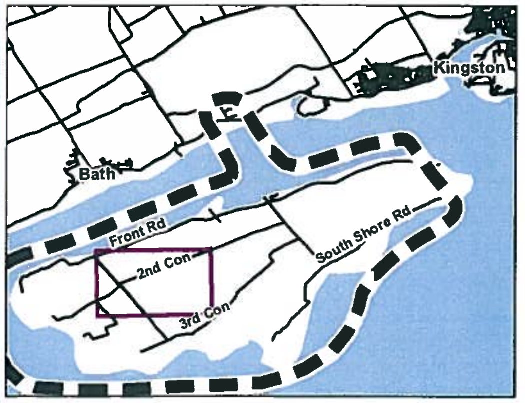
## Legend

- ▚ Study Area
- — Road
- — Watercourse
- ☐ Property Boundaries
- ☐ Signed Property



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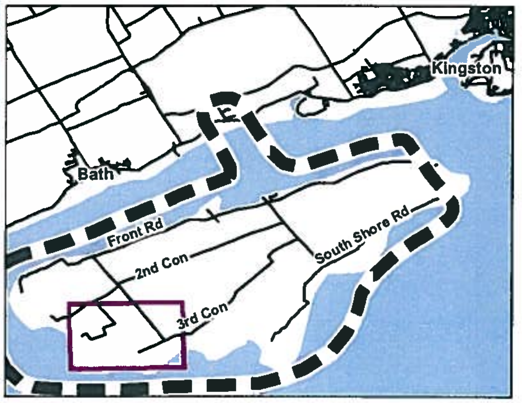
## Legend

- ▞ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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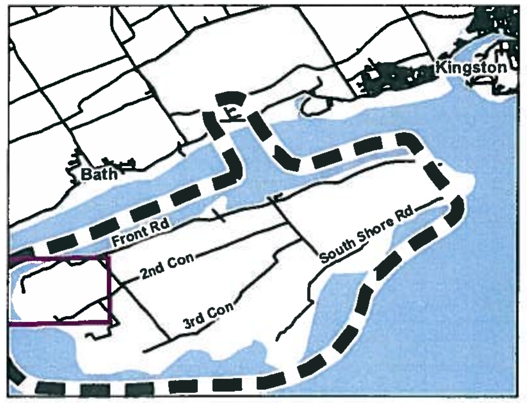
**Legend**

- ▣ Study Area
- — Road
- — Watercourse
- ☐ Property Boundaries
- 🟩 Signed Property



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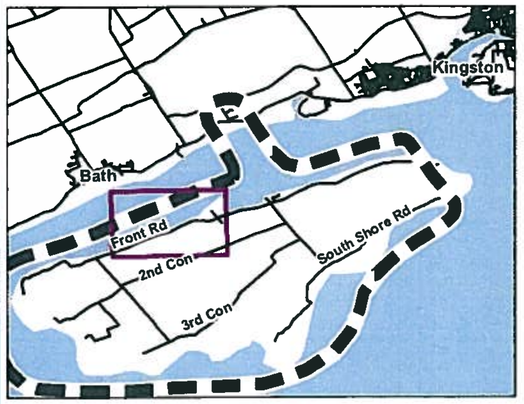
## Legend

▚ Study Area
— Road
— Watercourse
🟥 Property Boundaries
🟩 Signed Property



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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: April 4, 2011 11:30-14:30
Field Personnel: ART / NCK

| Weather Conditions: | Temp: 5°C | Wind: 3-4 | Cloud: 100% | PPT: light rain | PPT in last 24 hrs: — |
|---|---|---|---|---|---|

| | Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 27 | ① 11:57 | COGO | x10 | ~10-15m offshore | - foraging |
| 30 | ② 12:01 | COGO | x10+15+50<br>20+150 | ~10-30m offshore | - foraging |
| | | MALL | x15 | | |
| | | BUFF | 15 | | |
| | | COME | x20 | | |
| | | RBME | x5+10+25 | | |
| 29 | ③ 12:07 | BUFF | x5 | ~10-50m offshore | - foraging |
| | | COME | x8+10 | | |
| | | RBME | x50+15 | | |
| | | COGO | x4+15 | | |
| ~~27~~ 29 | ④ 12:10 | COGO | x35 | ~10-100m offshore | - foraging |
| | | RBME | x20 | | |
| 28 | ⑤ 12:36 | CAGO | x12 | - Hay field | foraging |

Quality Control: This form is complete (✓) & legible (✓).
Signature: ______ (Field Personnel)
Signature: ______ (Project Manager)
Page 1 of 3
REV: May, 07
Form 010

## Other Bird Species

Please record any flock behaviour (ie gulls, crows, blackbirds), raptors or any significant species.

Ⓐ

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| | | - Heronry - 12 nests present<br>- no heron present | |

Quality Control: This form is complete (__) & legible (__).

Signature: __________________________ (Field Personnel)

Signature: __________________________ (Project Manager)

Page _____ of ______

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst

Date / Time: April 4, 2011

Field Personnel: ART / NCK

**Weather Conditions:** Temp: See Wind: page #1 Cloud: PPT: PPT in last 24 hrs:

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 28 ⑥ 12:41 | CAGO | 12 | - Hay | - foraging |
| 12 ⑦ 12:47 | CAGO | 8+12 | - Hay | - foraging |
| 15 ⑧ 13:20 | RBME | x 40 | - 30-100m offshore | - foraging |
| | COGO | x 45 | | |
| 14 ⑨ 13:29 | CAGO | x 25+16 | - Hay | - foraging |
| 6 ⑩ 13:35 | COGO | x 35 | - 30-100m offshore | - foraging |
| | RBME | x 60 | | |
| 7 ⑪ 13:42 | RBME | x 30 | | |
| | COGO | x 16 | - 30-100m offshore | - foraging |
| | BUFF | x 10 | | |
| 19 ⑫ 13:47 | MALL | x 2 | | |
| | COGO | x 12 | - 50-70m offshore | - foraging |
| | RBME | x 6 | | |
| | LTDU | x 30 | | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____ (Field Personnel)

Signature: ____ (Project Manager)

Page 2 of 3

REV: May, 07 Form 010

**Stantec**

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: April 4, 2011

Field Personnel: ART / NCK

| **Weather Conditions:** | Temp: See | Wind: page #1 | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| NA ⑬ 14:02 | RBME | x6 | ~30-50m offshore | foraging |
| 26 ⑭ 14:27 | RBME<br>LTDU<br>COGO | x60x10<br>x10<br>x45 | -offshore | - foraging |

Quality Control: This form is complete (✓) & legible (✓).

Signature: (Field Personnel)

Signature: (Project Manager)

Page 3 of 3

REV: May, 07 Form 010

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property

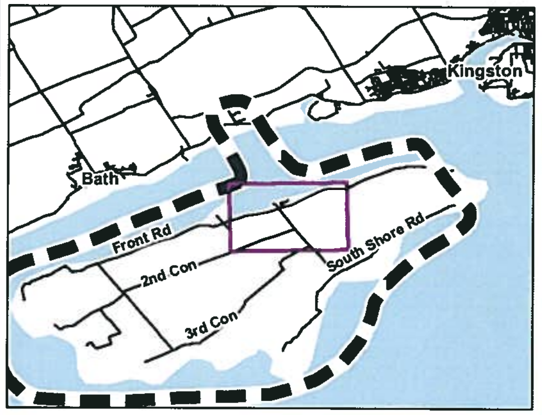

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Figure No.
Tile 3

Title
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## Legend

- ▚ Study Area
- — Road
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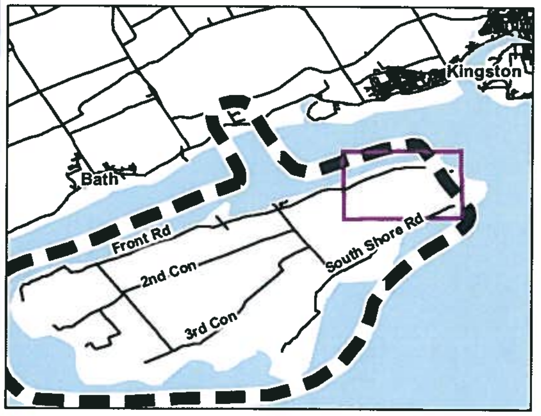

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Title
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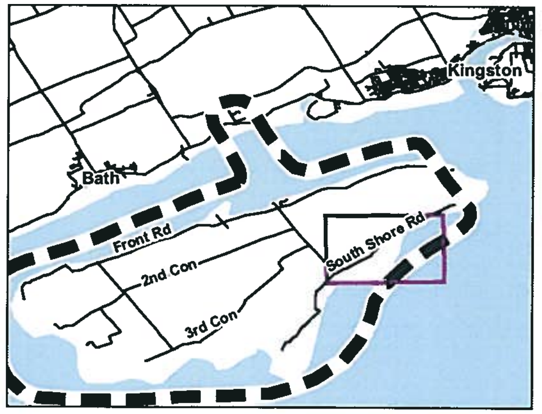
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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Tile 5

Title
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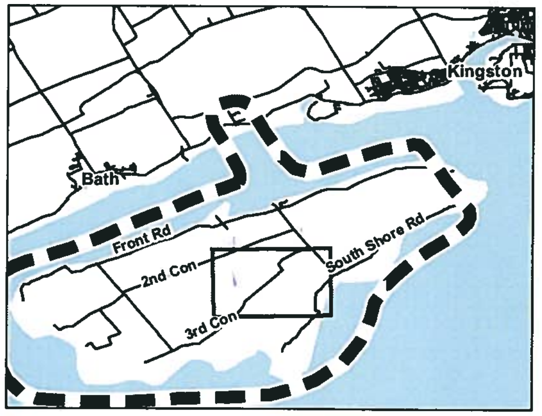
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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Title
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Tile 6

Title
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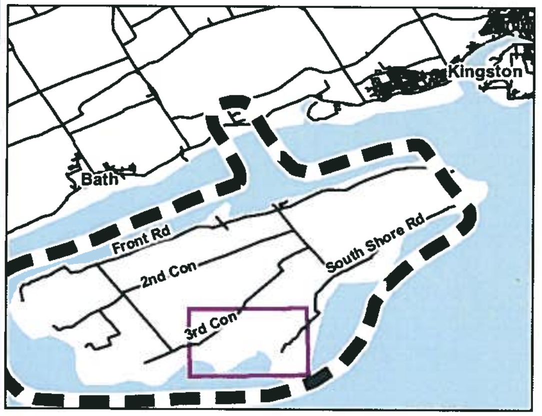
## Legend

- ▚ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- ▭ Signed Property



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Tile 7

Title
**FIELD MAPBOOK**

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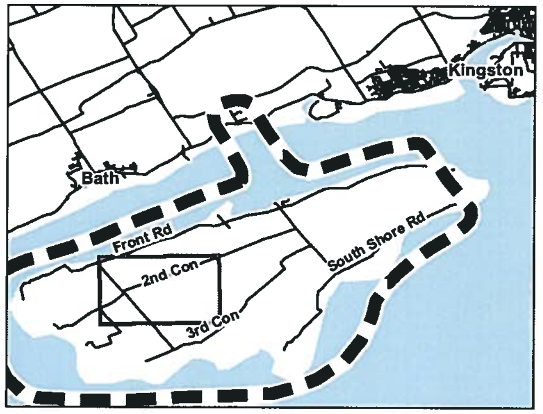
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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Title
**FIELD MAPBOOK**

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## Legend

- ▙▟ Study Area
- — Road
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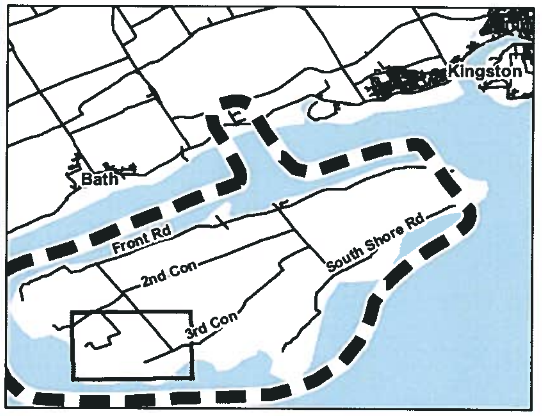
- 🟥 Property Boundaries
- 🟩 Signed Property



## Notes

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March 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

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Revised on: 01-DD-2011 By: username

## Legend

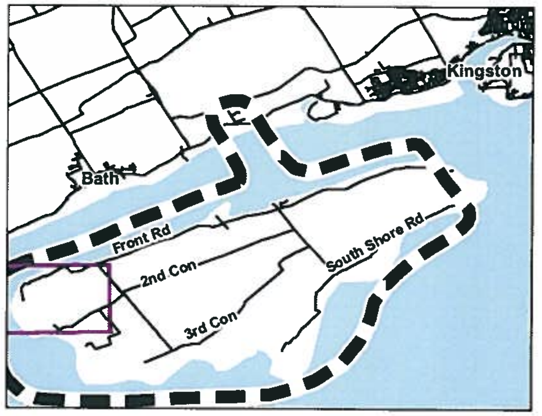
▚ Study Area

— Road

— Watercourse

🟥 Property Boundaries

🟩 Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 10

Title
**FIELD MAPBOOK**

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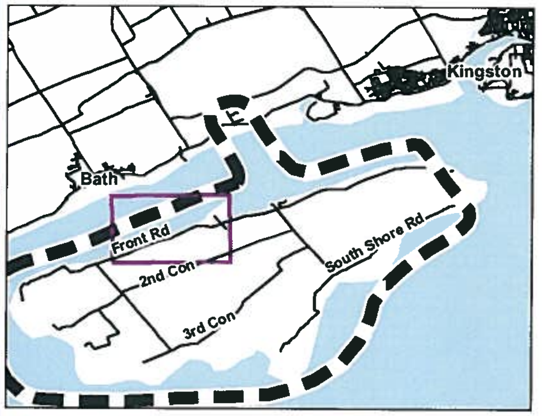
Revised on: 01-DD-2011 By: username

## Legend

- ▙ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property



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Client
Title
Project

Figure No.
Tile 11

Title
**FIELD MAPBOOK**

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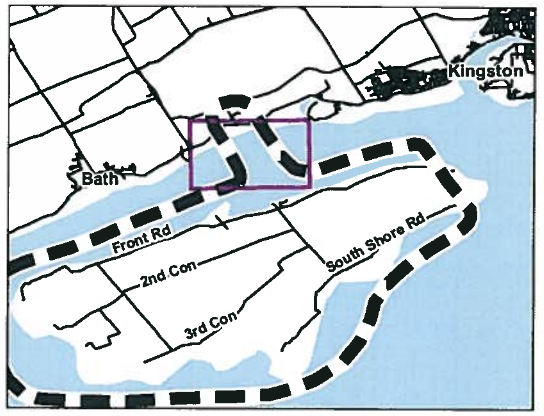
Revised on: 01-DD-2011 By: username

## Legend

- ▨ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property



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Client
Title
Project

Figure No.
Tile 2

Title
**FIELD MAPBOOK**

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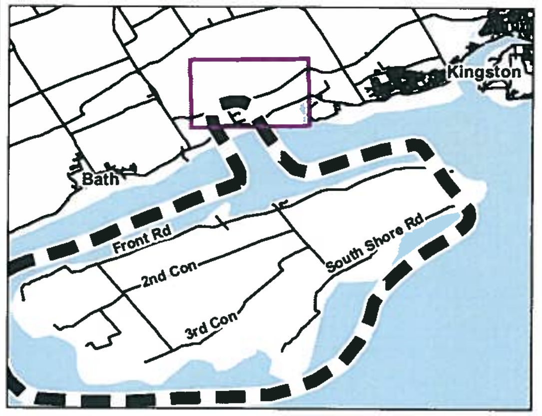
Revised on: 01-DD-2011 By: username

## Legend

- Study Area
- — Road
- — Watercourse
- ☐ Property Boundaries
- ☐ Signed Property



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Client/Project
Client
Title
Project

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

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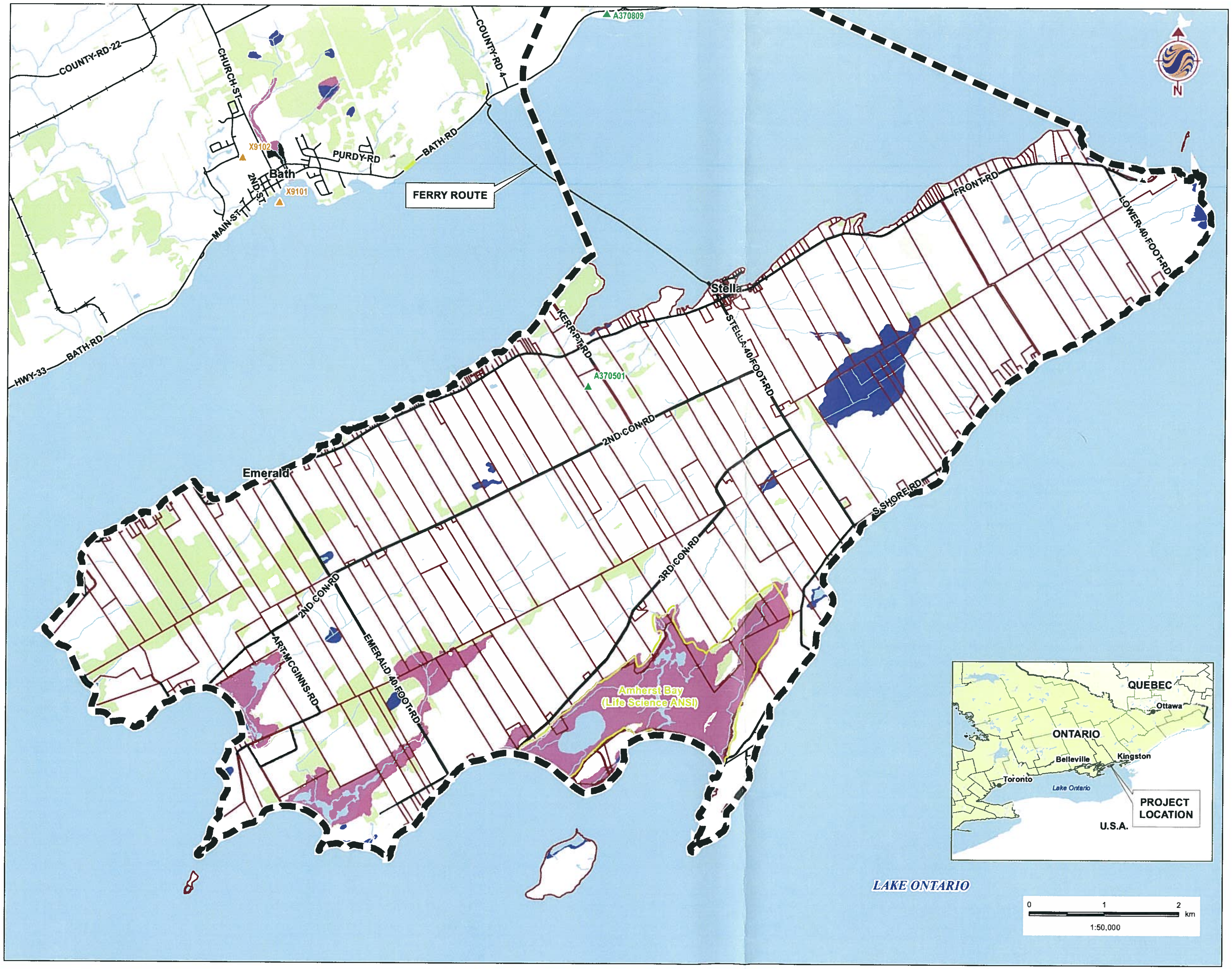
Revised on: 01-DD-2011 By: username



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

## Notes

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160960595.200

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Client/Project
Client
Title
Project AMHERST I.S. W.P.

Figure No.
DRAFT

Title
STUDY AREA

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Revised on: 2011-04-05 By: pworsell

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595.200

Project Name: AMHERST ISLAND W.P.

Date / Time: 14 APRIL/11 12:40 – 16:30

Field Personnel: BOB STAMP + JIM HESLOP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 10°C | Wind: E2 | Cloud: 60% | PPT: 0 | PPT in last 24 hrs: RAIN |

79 KM. (~~[illegible]~~)

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 24 ① ~~[illegible]~~ 12:43 | LTDU | 4 | OVER WATER | LOW OVER WATER FLYING NE |
| 26 ② ~~Colo~~ 12:45 | COLO | 2 | IN WATER | Feeding |
| 3 ③ 12:56 | ~~[illegible]~~ CAGO | 2 | Field | ✓ |
| 3 ④ 13:00 | ✓ | 2 | Edge of Pond | Resting |
| 3 ⑤ 13:05 | ✓ | 1 | ON NEST ON ISLAND | INCUBATING |
| 3 ⑥ 13:10 | ✓ | 2 | ON LAWN in Pond | Feeding |
| 20 ⑦ 13:12 | ✓ | 2 | ON Field | ✓ |
| 20 ⑧ 13:13 | MALL | 3 | IN STREAM | ✓ |
| 20 ⑨ 13:17 | ✓ | 2 | ✓ ✓ | Resting |
| 19 ⑩ 13:21 | ✓ | 2 | ON WATER | ✓ |
| ✓ | GADW | 2 | ✓ | ✓ |
| ✓ | BUFF | 2 | ✓ | ✓ |
| ✓ | | | ✓ | ✓ |
| 19 ⑪ 13:25 | RBME | ~~[illegible]~~ 13 | | |
| 7 ⑫ 13:27 | ✓ | 2 | ✓ | Feeding |
| ✓ | BUFF | 2 | ✓ | ✓ |
| ✓ | COGO | 2 | ✓ | FLOW W. LOW OVER WATER |
| 7 ⑬ 13:30 | RBME | 5 | ✓ | Resting |
| ✓ | BUFF | 2 | ✓ | ✓ |
| ✓ | COGO | 1 | ✓ | ✓ |
| 6 ⑭ 13:32 | MALL | 1 | ✓ | ✓ |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Heslop
(Field Personnel)

Signature: Kathi
(Project Manager)

Page 1 of 3

REV: May, 07 Form 010

|  |  |  | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|---|
|  |  |  |  |  | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 6 | 14 | 13:32 | BUFF | 2 | IN WATER | Feeding |
| 32 | 15 | 13:38 | CAGO | 2 | ON Field | ✓ |
| 32 | 16 | 13:40 | ✓ | 4 | ✓ | Resting |
|  | ✓ | ✓ | MALL | 2 | ON TEMP. Pond | ✓ |
| 32 | 17 | 13:44 | CAGO | ~~16~~ 18 | ON Field/PASTURE | Feeding |
| 33 | 18 | 13:46 | ✓ | 14 | ✓ | ✓ |
| 33 | 19 | 13:50 | ✓ | 18 | ✓ | ✓ |
| 33 | 20 | 13:53 | ✓ | 2 | ✓ | ✓ |
|  | ✓ | ✓ | MALL | 2 | ✓ | ♀ ON NEST |
| 3 | 21 | 13:56 | CAGO | 2 | ✓ | Resting |
| 4 | 22 | 13:58 | ✓ | 18 | ✓ | Feeding+Resting |
| 3 | 23 | 14:08 | BUFF | 6 | ON WATER | ✓ |
| 1 | 24 | 14:06 | MALL | 2 | ✓ | Resting |
| 11 | 25 | 14:13 | CAGO | 6 | ON PASTURE | Feeding |
| 2 | 26 | 14:19 | ✓ | 26 | ON ✓ | ✓ |
| 28 | 27 | 14:24 | ✓ | 1 | ON WATER | Resting |
| 28 | 28 | 14:27 | ✓ | 2 | ON Field | ✓ |
| 28 | 29 | 14:27 | ✓ | 11 | ✓ | Feeding |
| 34 | 30 | 14:39 | ✓ | 12 | ON WATER | ✓ |
| 17 | 31 | 14:46 | MALL | 4 | ✓ | Resting |
|  | ✓ | ✓ | GWTE | 4 | ✓ | ✓ |
|  | ✓ | ✓ | BUFF | 2 | ✓ | ✓ |
|  |  |  | ✓ | 8 | ✓ | ✓ |
| 7 | 32 | 14:48 | RBME | 6 | ✓ | ✓ |
| 29 | 33 | 14:54 | ✓ | 24 | ✓ | Feeding |
|  | ✓ | ✓ | CoGo | 12 | ✓ | ✓ |
| 8 | 34 | 14:58 | BUFF | 30 | ✓ | ✓ |
|  | ✓ | ✓ | RBME | 12 | ✓ | ✓ |
| 31 | 35 | 15:21 | MALL | 2 | ON TEMP. Pond | Resting |

Quality Control: This form is complete ( ✓ ) & legible ( ✓ ).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of 3

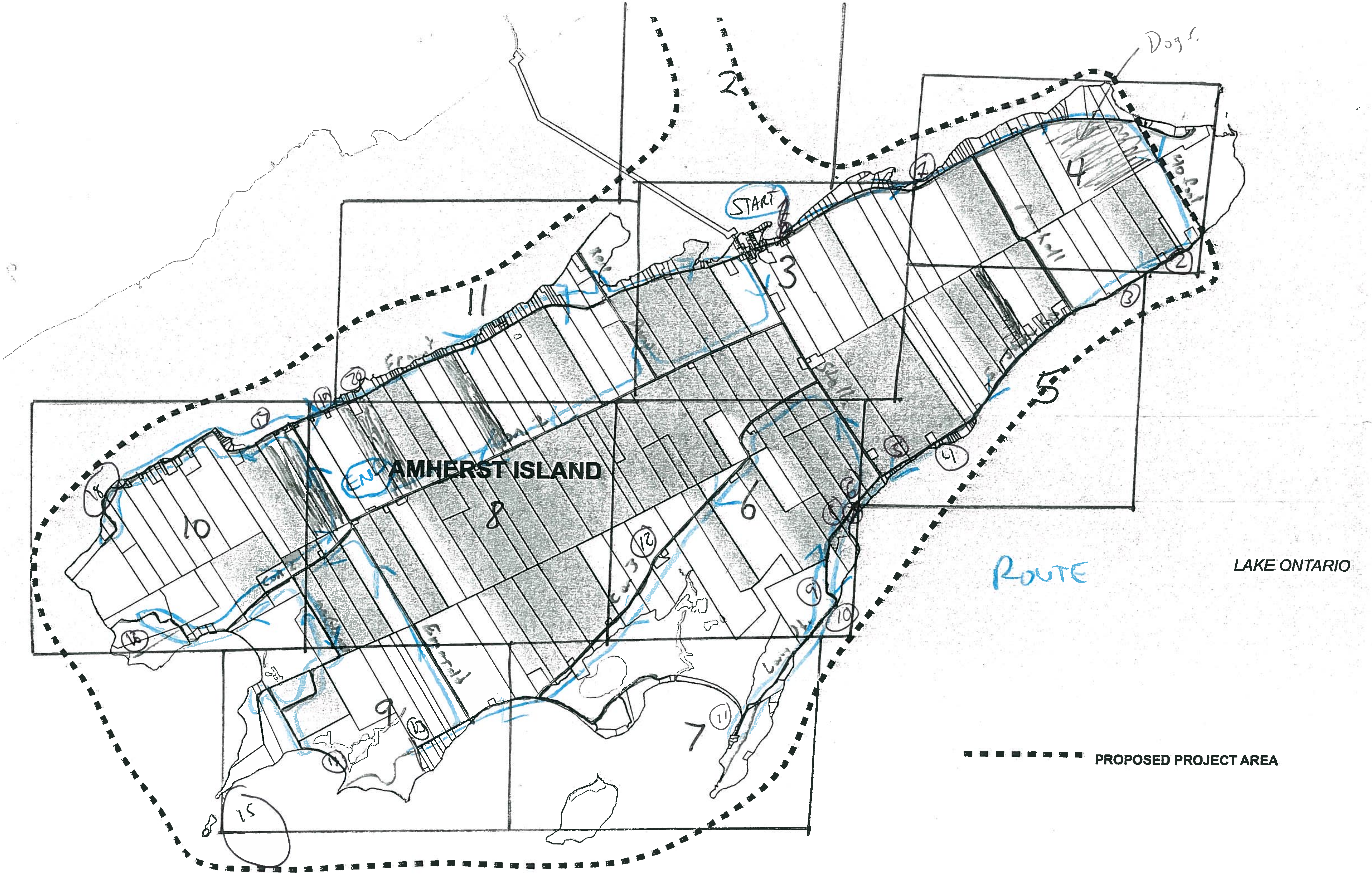
REV: May, 07 Form 010

April 14/11
B. Stamp & J. Heslop

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| NA (36) | 15:23 GADW | ~~GADW~~ 2 | ON WATER | Resting |
| ✓ | ✓ COLO | 1 | ✓ | Feeding |
| ✓ | ✓ RBME | 6 | ✓ | Resting |
| ✓ | ✓ COME | 4 | ✓ | ✓ |
| ✓ | ✓ MALL | 1 | ✓ | ✓ |
| 37 (37) | 15:33 CAGO | 2 | ON LAWN | ✓ |
| 30 (38) | 15:36 BUFF | 2 | ON WATER | ✓ |
| ✓ | ✓ RBME | 2 | ✓ | ✓ |
| 27 NA* (39) | 15:51 BUFF | 2 | ✓ | Feeding |
| 35 NA* (40) | 15:59 COGO | 7 | OVER WATER | FLYING EAST - LOW |
| 27 (39) | 16:03 RBME | 2 | ON WATER | Feeding |
| ✓ | ✓ COLO | 1 | ✓ | ✓ |
| 35 (40) | 16:25 RBME | 12 | ✓ | Resting |
| ✓ | ✓ COME | 2 | ✓ | ✓ |
| 35 (40) | ✓ BUFF | 1 | ✓ | ✓ |
| ✓ | ✓ CAGO | 2 | ✓ | ✓ |
| 35 (41) | ✓ ✓ | 2 | ON LAWN | Feeding |

Quality Control: This form is complete (✓) & legible (J).
Signature: ________________ (Field Personnel)
Page 3 of 3

Signature: Kathie ________________ (Project Manager)
REV: May, 07 Form 010


AMHERST ISLAND
LAKE ONTARIO
PROPOSED PROJECT AREA
START
END
ROUTE
Dogs
Front
Stella
Emerald
40 Foot
1
2
3
4
5
6
7
8
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20

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

11am-

# Waterfowl Migration Observation Form

Project Number: 160900595
Project Name: Amherst
Date / Time: Apr 19, 11
Field Personnel: B. Holden J. Heslop

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 6-8°C | Wind: 3-4 NE | Cloud: 50-90% | PPT: | PPT in last 24 hrs: Drizzle |

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| 35 ① RBME –<br>BUFF –<br>COGO – 12 | 3<br>4 ) on Water<br>11:20 | – feeding / displays. | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 9 ② RBME –<br>CTDU – | 25 BUFF-4<br>20 GADW-2 | ) 11:35<br>– on | water w/ BOGU's – | |
| 9 ③ GADW-2<br>MALL-~~2~~4 | ) 11:41 – on | water | feeding. | |
| 5 ④ BUFF-25<br>RBME-20 | GADW-2<br>COGO-4 | ) 12:05<br>on water | w/ 1000+ | BOGU |
| 5 ⑤ CAGO-5 | – 12:07 – in | pond | feeding | |
| 4 ⑥ HOME-4 | – 12:10 – on | pond – | | |
| 21 ⑦ CAGO-14 | 12:11 – | on pasture | feeding | |
| 4 ⑧ CAGO-18<br>MALL-2 | ) 12:13 – | on pasture | w/ puddles | feeding |
| 33 ⑨ CAGO-15 | ) 12:15 | On pasture | feeding. | |
| 13 ⑩ COGO-40 | RBME-40 – | BUFF-24 | ) 12:18 – on water — | MALL-2 |
| 9 ⑪ GWTE-15 | AMWI-20, MALL-6 | , WODU-2, | RBME-2, COME-2 | , BUFF-2 |
| All feeding | in | Bay – | 12:25 | |
| 12 12 CAGO | – 35 – 12:48 | – feeding | in Agr. | Field. |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 1 of 3

REV: May, 07 Form 010

**Other Bird Species**

Please record any flock behaviour (ie gulls, crows, blackbirds), raptors or any significant species.

| Species | # of Individuals | Location | Behaviour |
|---|---|---|---|
| | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| BAEA - | 1 | | |
| ROHA - | 卌 | | |
| RLHA - | 卌 \|\|\|\| | | |
| NOHA - | 卌 \|\|\| | | |
| AMKE - | 卌 \|\|\|\| | | |

TUVU's not counted.

Quality Control: This form is complete (✓) & legible (✓)

Signature: ____________ (Field Personnel)     Signature: Kath____________ (Project Manager)

Page 2 of 5     REV: May, 07     Form 010

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

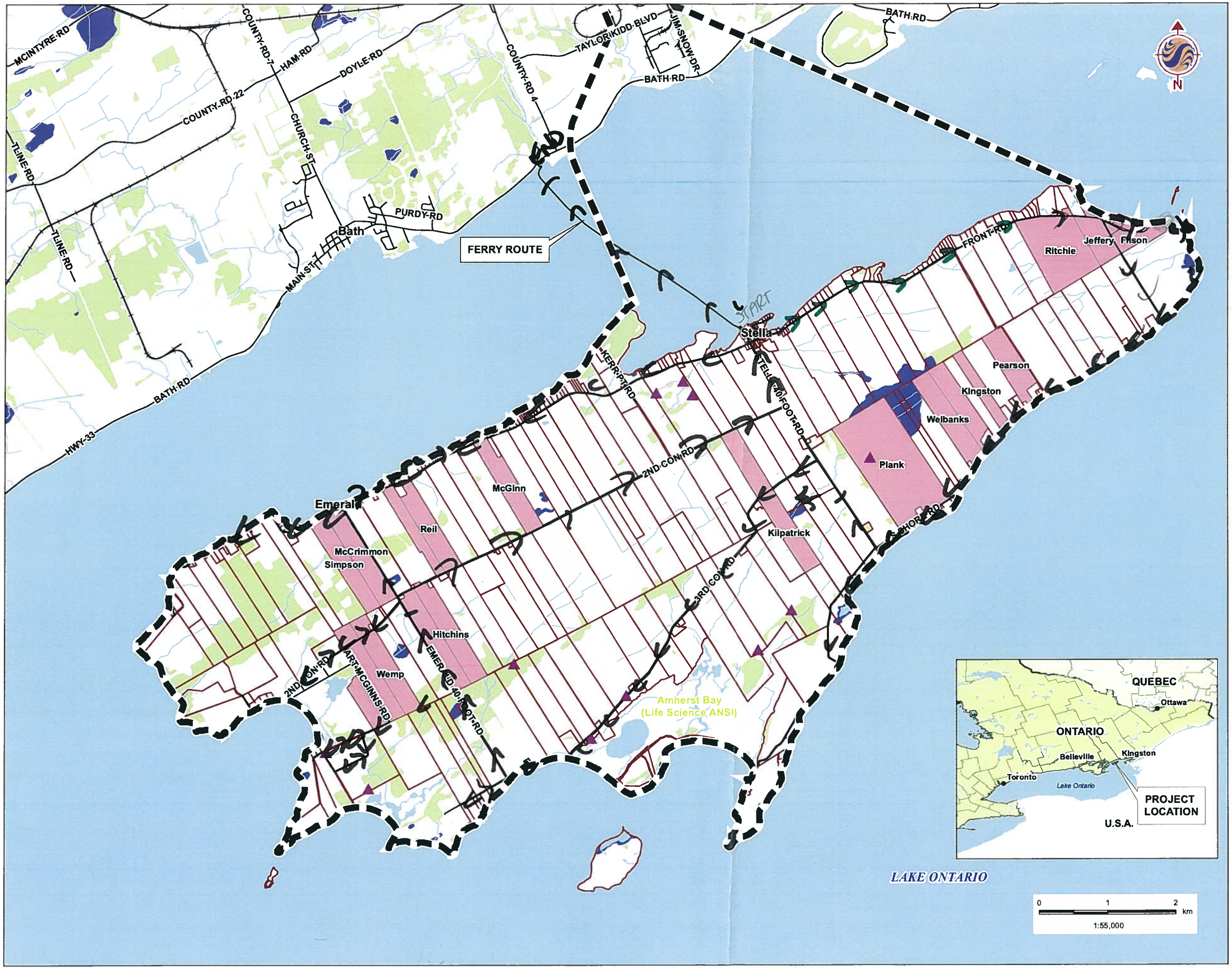
Project Number 595
Project Name: Amherst
Date / Time: Apr 19, 11
Field Personnel: BH JH

| **Weather Conditions:** | Temp: | Wind: [illegible] | Cloud: py | PPT: de | PPT in last 24 hrs: |
|---|---|---|---|---|---|

| Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 36 ⑬ CAGO- | 14 - 1:02 - | in field | - Agr. - feeding | |
| 37 ⑭ EUWI-1 | , AMWI- 8, ABDU-8 | , MALL-4 | , GWTE-10 - feeding on Beach - 1:31) | |
| 38 ⑮ COGO-100<br>LTDU-50 | BUFF-50<br>RBME-20 | ) 1:35 | - feeding on water<br>- very spread out with 1000+ BOGU | |
| 39 ⑯ -RNDU-4<br>BUFF-2 | -CAGO-6<br>MALL-4 | GWTE-4 ) | in marsh - feeding / Breeding | #: 8 |
| 40 ⑰ COGO-25<br>RBME-2 | LTDU-3<br>BUFF-2 ) | 2:03 - | on water. | |
| 8 ⑱ CAGO-25<br>RBME-150 | BUFF-70<br>COGO-30 | GRSC-20<br>MALL-4 | ) resting / feeding in sheltered water ) | 2:13 |
| 10 ⑲ COGO-10 | -BUFF-10 ) | on water 2:25 | | |
| 40 ⑳ BUFF-5<br>RBME-10 | COGO-30 ) | On water: 2:30 | | |

Quality Control: This form is complete ( ✓ ) & legible ( ✓ ).
Signature: (Field Personnel)
Signature: Kathie (Project Manager)

Page 3 of 3
REV: May, 07 Form 010



## Legend

- Study Area
- Road
- Railway
- Watercourse
- Property Boundaries
- Wooded Area
- Waterbody
- Unevaluated Wetland
- Tentive Access

## Notes

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Amherst Island

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Client
Title
Project

Figure No.
DRAFT

Title
LAND ACCESS

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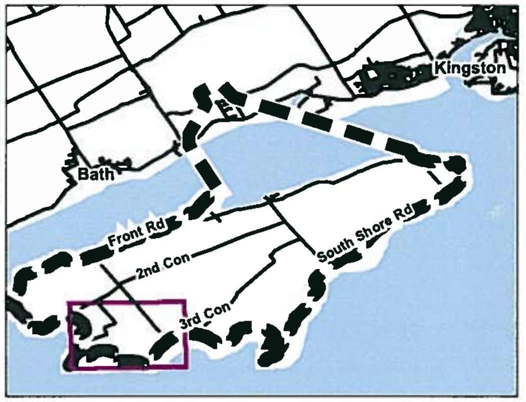
Revised on: 2011-04-05 By: pworsell

## Legend

- ▙ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- ○ Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

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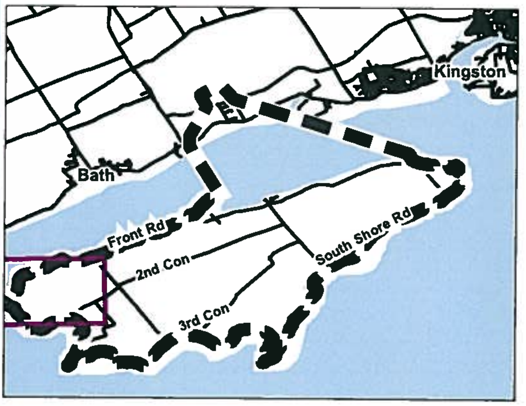
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 10

Title
## FIELD MAPBOOK

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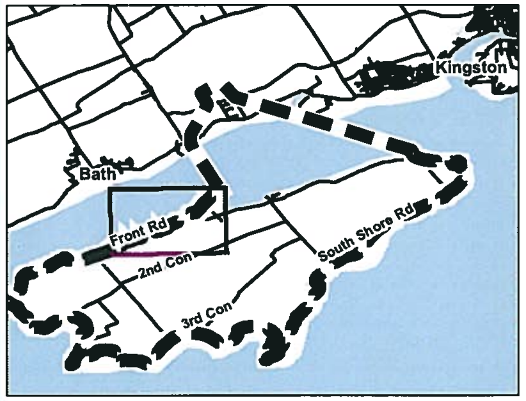
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 11

Title
**FIELD MAPBOOK**

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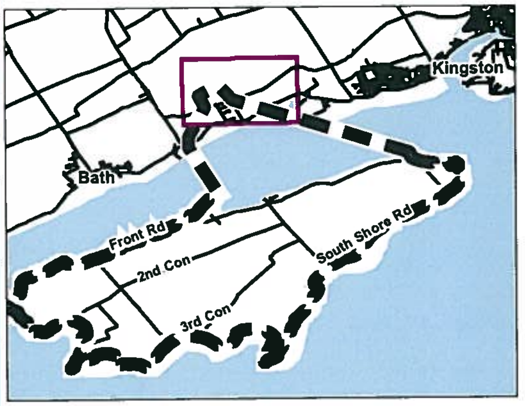
## Legend

- Study Area
- Road
- Watercourse
- ▭ Property Boundaries
- ○ Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 1

Title
# FIELD MAPBOOK

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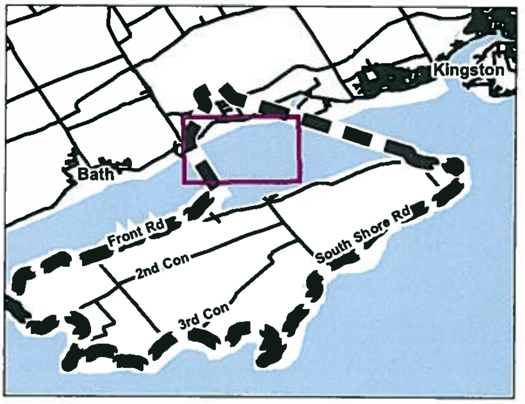
## Legend

- ▬ ▬ Study Area
- — Road
- — Watercourse
- ☐ Property Boundaries
- ○ Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 2

Title
FIELD MAPBOOK

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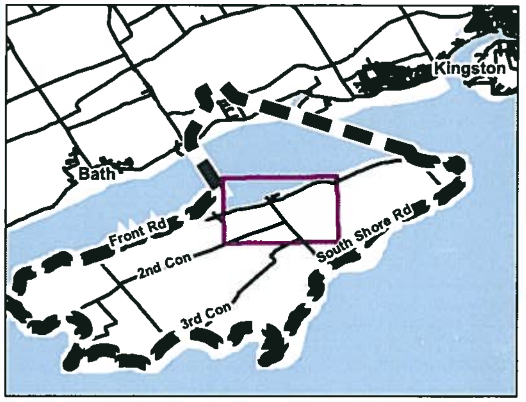
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

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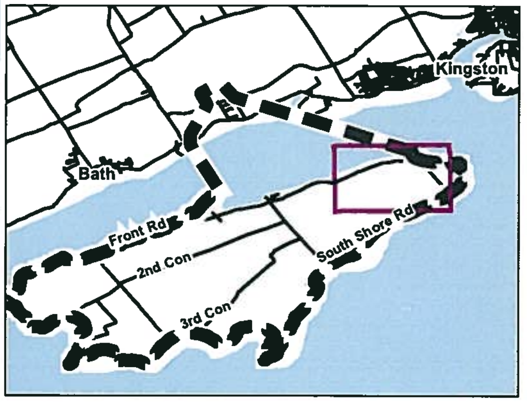
Revised on: 2011-04-15 By: pworsell

## Legend

- ▛▜ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- ○ Amphibian Station



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Client/Project
Client
Title
Project

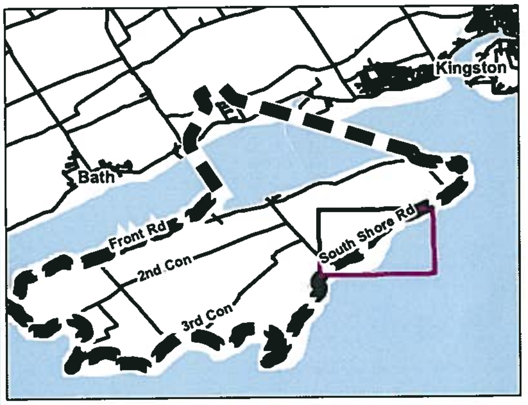
Figure No.
Tile 4

Title
**FIELD MAPBOOK**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\160960595_FieldMapbookNoProperties_20110425_DH.mxd
Revised on: 2011-04-15 By: pworsell

## Legend

- ▚ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- ○ Amphibian Station



## Notes

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Client/Project
Client
Title
Project

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- ▭ Property Boundaries
- ○ Amphibian Station

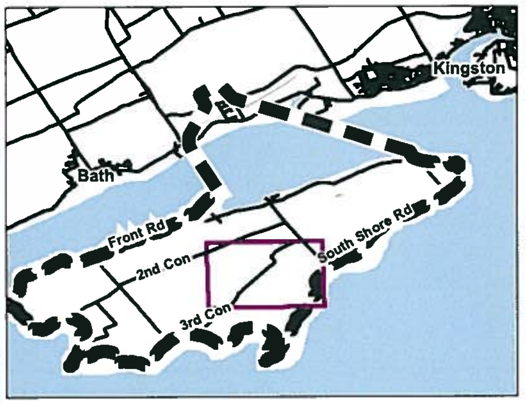

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Figure No.
Tile 6

Title
**FIELD MAPBOOK**

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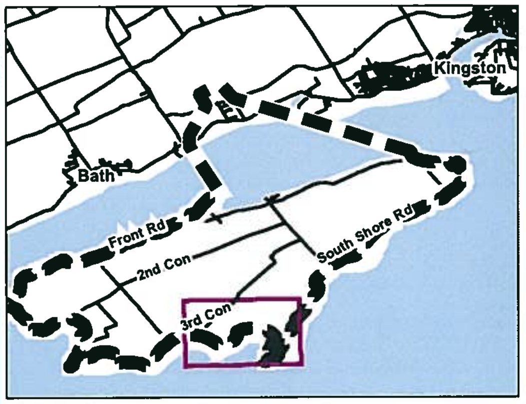
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Amphibian Station



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Tile 7

Title
**FIELD MAPBOOK**

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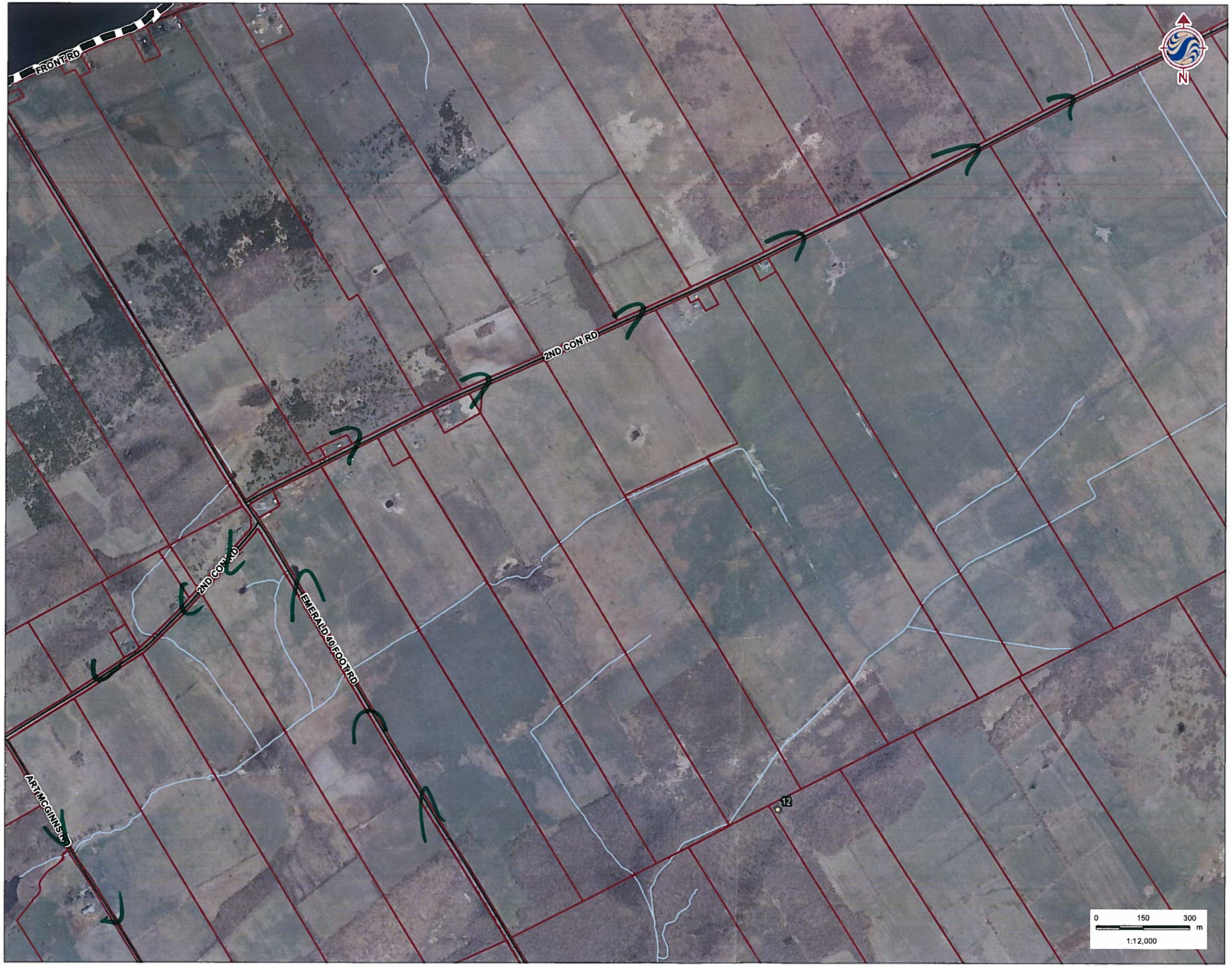
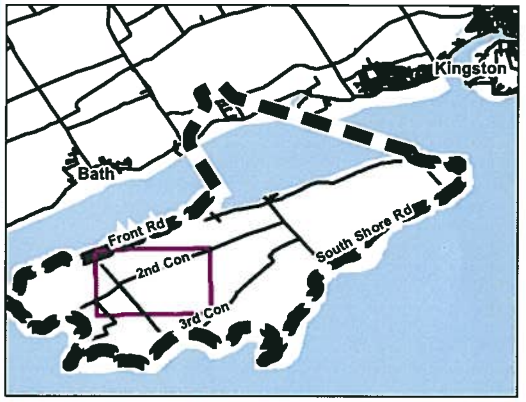
Revised on: 2011-04-15 By: pworsell



## Legend

- ▭ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- ○ Amphibian Station



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Client/Project
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Title
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Figure No.
Tile 8

Title
**FIELD MAPBOOK**

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Stantec

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

| | | | |
|---|---|---|---|
| Project Number 16096059S | | Project Name: Amherst Island | |
| Date / Time: 26-APR-2011<br>14:45 - 18:30 @ on ferry 9:00-9:15 | | Field Personnel: M. Ross + M. Straus | |

| **Weather Conditions:** | Temp: 11°C. | Wind: 4 | Cloud: 100%<br>-95% | PPT: none | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|
| | | | | Tstorm@18:00 | |

| Flock No. & Time | Species | # of Individuals | Location | Behaviour | Map Tile |
|---|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* | |
| 3 ① 15:06 ✓ | CAGO | 4 | Hay | Feeding On | 4 |
| 3 ② 15:06 ✓ | CAGO | 1 | Pond | Resting On | 4 |
| 2 ③ 15:13 | CAGO<br>BUFF ⚥<br>GWTE ⚥ | 3 - 1@nest<br>2<br>2 | Pond along Lake | Resting | 4 |
| ④ 15:15 | DCCO | 1 | Lake | Resting → flew @ 10m | 4 |
| ⑤ 15:19 | CAGO | 2 | cut hay | Resting On | 4 |
| 10 ⑥ 15:22 | MALL<br>CAGO | 4+1<br>4 | creekside + hay | Flying to land + vice versa 10m-0m | 4<br>4 |
| 9 ⑦ 15:30 | BUFF<br>GADW<br>LTDU<br>MALL ⚥ | 9<br>2 ⚥<br>4<br>2 | Lake | Resting | 4 |
| 3 ⑧ 15:38 | DCCO<br>BUFF<br>MALL<br>GADW<br>AMWIGEON<br>RBME<br>Goldeneye | 1+1+5<br>16+2+5+3+2+2+2+2+2<br>2<br>2♂+2+1+2<br>2<br>3+20+3+2+2+1+4+2 | Lake | Flying - 8m<br>Resting | ④+⑤ |

Quality ~~Control~~: This form is complete ( ) & legible (✓).
Signature: Melissa Straus. (Field Personnel)
Signature: Kathrin S (Project Manager)

Page 1 of 4

REV: May, 07 Form 010

|  | Species | # of Individuals | Location | Behaviour | Map Tile. |
|---|---|---|---|---|---|
|  |  |  | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |  |
| 32 ⑨ | CAGO<br>14:57 | 2 | Hay | Resting | 5 |
| 32 10 | CAGO<br>16:00 | 3 | Cattle Pasture. | Feeding | 5 |
| 4 ⑪ | CAGO<br>16:03 | 2 | Flooded hay | Resting | 5 |
| 4 ⑫ | CAGO<br>16:04<br>MALL<br>Shoveller | 4+1+2<br>1<br>3(2♀+1♂) | Pond in hay field/ lawn<br>Pasture | resting/feeding<br>" | 5<br>6 |
| 33 ⑬ | CAGO<br>16:07 | 25 | Pasture | " | 6 |
| 33 ⑭ | CAGO | 3 |  | " | 6 |
| 33 ⑮ | CAGO<br>16:12<br>Long-tail | 18+10+6<br>2 4♀+2 | "<br>Lake. | resting. | ⑥,⑦ |
| 15 ⑯ | BUFF<br>GADW<br>RBME | 2<br>2 |  | Feeding | 7 |
| ⑰ | CAGO | 2 | Pond/Lawn |  |  |
| ~~9~~14 ⑱ | CAGO | 1 | Road | Resting | 7 |
| 9 ⑲ | CAGO | 5 | Pasture | Feeding |  |
| 4 ⑳ | MALL<br>16:29 | 1 | Wet part of cut hay | Resting | 6 |
| 11 ㉑ | CAGO<br>16:33 | 2 | Barnyard. | Restin | 6<br>6 |
| 12 ㉒ | CAGO<br>16:38 | 2 | Cut Hay | " | 6 |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Melissa Strauss (Field Personnel)

Signature: Katrina S (Project Manager)

Page 2 of 4

REV: May, 07 Form 010

26 April 2011 M. Ross + M. Straus.

| | | Species | # of Individuals | Location | Behaviour | MapTile |
|---|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* | |
| 12 | ✓ ㉓ | CAGO<br>16:40 | 2 | wet pocket - flooded pasture | Resting/eating | 6 |
| 12 | ✓ ㉔ | CAGO<br>16:43 | 35 | Cut hay | Rest/eating | 7 |
| 12 | ✓ ㉕ | CAGO | 2+1 | Fallow/ploughed | " | 7 |
| 28 | ✓ ㉖ | CAGO | 5+3+3 | Pasture/Barnyard. | Resting/feedin | 7 |
| 28 | ✓ ㉗ | CAGO<br>16:50 | 2 | lawn | " | 7 |
| 22 | ✓ 28 | BUFF<br>CAGO<br>16:50 | 3+6<br>2 | Lake | Resting/feeding | 7 |
| 36 | ✓ ㉙ | CAGO | 3 | Cut hay | ' | 9 |
| 36 | ✓ ㉚ | "<br>16:56 | 10 | " | " | 9 |
| 23 | ✓ ㉛ | 17:10<br>MALL | 2 | Cut hay | " | 9 |
| 24 | ✓ 32 | CAGO<br>17:25 | 1 | Cut hay | " | 9 |
| 24 | ✓ ㉝ | 17:26<br>CAGO<br>MALL | 2+2<br>1 | River/channel | Resting | 9 |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Melissa Straus (Field Personnel)

Signature: Kathi (Project Manager)

Page 3 of 4

REV: May, 07 Form 010

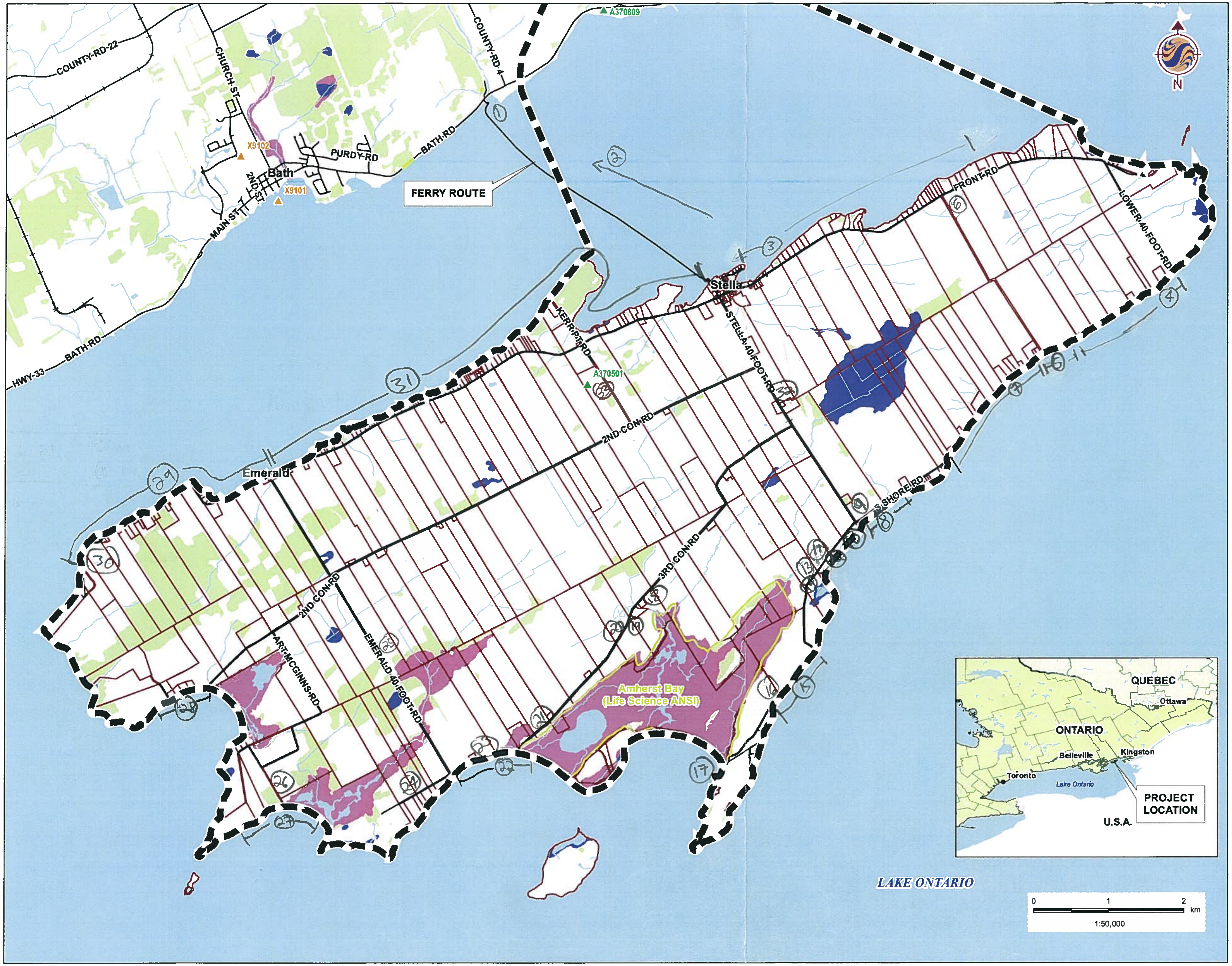
MapTi6

| | Species | # of Individuals | Location | Behaviour | |
|---|---|---|---|---|---|
| | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* | |
| 17✓ | ㉞ RBME | 7 | Lake | Rest → flew <10m. | ⑨ + |
| | BUFF | 7 | " | | |
| 27✓ | ㉟ MALL | 1 ♂ | grass edge of bay | Rest<br>Rest | ⑩ |
| | COLO | 1 | Lake | feeding | |
| | 17:46. | | | | |
| | DCCO | 1 | " | | ① |
| 25✓ | ㊱ 17:49 | | | | |
| | DCCO | 1+1+17 | Lake | feeding | |
| | RB MERGIES | 6+2+1+20+11+2+4+3+2+2+3 | Lake | Resting | ① + |
| | COME | 2+5+2 | " | " | ⑩ |
| | BUFF | 5+2+2+2+15 | | | |
| | MALL | 2 | | | |
| 25 | ㊲ CAGO | 3 | Pasture | Rest/Feeding | ⑩ |
| | MALL | 1 | | | |
| 27✓ | ㊳ 18:26 RBME | 3+3 | Lake | Resting | ① |
| | DCCO | 1+1 | | | |
| BREAK in SURVEY | | | | | |
| 35✓ | ㊴ 19:05 RBME | 1 | Lake | Resting | ① |

Quality Control: This form is complete (__) & legible (__).

Signature: Melissa Straus (Field Personnel) Signature: ______ (Project Manager)

Page 4 of 4 REV: May, 07 Form 010



## Legend

- ▙ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- ┼ Railway
- — Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

## Notes

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April 2011
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**STUDY AREA**

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Revised on: 2011-04-05 By: pworsell

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: May 3/11 2:07pm – 2:45pm
4:15pm – 7:47pm

Field Personnel: Matthew Ross + Don Graham

| **Weather Conditions:** | Temp: 8° | Wind: 3 | Cloud: 100% | PPT: Rain | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

| | Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 26 | ① 2:12 | RBME<br>LTDU | 2<br>3 | near ferry dock (Main land) | Om Rest |
| 26 | ② 2:40 | LTDU | 2 | Flying over bay | SM NW |
| 35 | ③ 4:19 | RBME | 8 | on bay | Om rest |
| 19 | ④ 4:29 | GADW<br>AMWI<br>RBME<br>BUFF<br>LTDU<br>MALL<br>BWTE<br>COLO | 4+2<br>2 +3<br>2+1+9<br>2+2<br>5+10+2+6+12<br>2<br>2<br>1 | on lake | Om Rest |
| 8 | ⑤ 4:39 | MALL<br>BUFF<br>RBME | 2<br>3<br>5+3+4 | on lake | Om Rest |
| 3 | ⑥ 4:49 | MALL | 2 | in fallow field | Om Rest. |
| 7 | ⑦ 4:56 | RBME<br>BUFF<br>COLO<br>COGO | 5 +14<br>4+7<br>1<br>1 | on lake | Om Feed |
| 5 | ⑧ 5:06 | BUFF<br>RBME | 5<br>7 | on lake | Om Rest |
| 4 | ⑨ 5:08 | CAGO | 4 | Pasture | Om Rest/Feed |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______ (Field Personnel)

Signature: Kathrin ______ (Project Manager)

Page 1 of 3

REV: May, 07 Form 010

## Other Bird Species

Please record any flock behaviour (ie gulls, crows, blackbirds), raptors or any significant species.

| | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|
| ⑩ 5:10<br>21 | CAGO<br>NOSH<br>MALL<br>BWTE | 4<br>1<br>1<br>2 | *In water, agr. field near puddle, mowed lawn etc.*<br>Pasture | *Height/direction of flight, feeding etc.*<br>On Rest |
| 3 ⑪ 5:13 | CAGO | 30 +3 | Pasture | On Rest |
| ⑫ 5:13<br>21 | CAGO<br>MALL | 2<br>1 | Residential | On Rest |
| 3 ⑬ 5:15 | CAGO | 45 | Pasture | On Rest |
| ⑭ 5:15 | CAGO | 6 | Pasture | On Rest |
| 15 5:18 | RBME<br>BUFF<br>LTDU | 40<br>17<br>2 | On lake | On Rest/Feed |
| 16 5:23 | CAGO | 15 | Pasture | On Rest |
| 17 5:26<br>9 | RBME | 1 | on Bay | On feed |
| 18 12 5:41 | CAGO | 6 +2 | pasture | On Rest |
| 9 12 5:43 | CAGO | 12 +2 | old Hay field | On Rest |
| 0 12 5:44 | CAGO | 55+5 | cut Hay | On Rest |
| 1 28 5:49 | CAGO | 6 | Pasture | On Rest |
| 2 5:51<br>2 | BUFF<br>RBME<br>COGO | 39<br>1<br>8 | On lake | On Rest |
| 23 5:56<br>36 | CAGO | 6 | fallow field | On Rest |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ____________ (Field Personnel)

Signature: ____________ (Project Manager)

Page 2 of 3

REV: May, 07 Form 010

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Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 16096059S

Project Name: Amherst Island

Date / Time: May 3/11 207 pm – 2:45pm
4:15 pm – 7:47 pm

Field Personnel: Matthew Ross + Don Br[illegible]

| **Weather Conditions:** | Temp: 8° | Wind: 3 | Cloud: 100% | PPT: Rain | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

| | Flock No. & Time | Species | # of Individuals | Location | Behaviour |
|---|---|---|---|---|---|
| | | | | *In water, agr. field near puddle, mowed lawn etc.* | *Height/direction of flight, feeding etc.* |
| 36 | ㉔ 6:00 | CAGO | 28 + 5 | Ag field | On Rest / feed |
| 41 | ㉕ 6:09 | CAGO<br>MALL | 4<br>1 | Pasture | On Rest |
| 42 | ㉖ 6:19 | CAGO | 6 | Pasture | On feed |
| 37 | ㉗ 6:21 | RBME<br>BUFF | 1<br>6 | on lake/bay | On Rest |
| 17 | ㉘ 6:35 | RBME<br>Buff<br>GADW<br>COGO | 7<br>4<br>1<br>7 | on bay | On Rest |
| 29 | ㉙ 6:46 | BUFF<br>RBME | 28<br>29 | on bay | On Rest |
| 18 | ㉚ 6:54 | CAGO<br>MALL | 160 + 80<br>1 | Pasture | On Rest |
| 30 | ㉛ ~~7~~:03 | BUFFE<br>RBME | 2<br>8 | on bay | On Rest |
| 31 | ㉜ 7:16 | CAGO<br>MALL | 2<br>2 | fallow field | On CAGO Nest on Mound in pond other CAGO chasing away the MALL's |
| 1 | ㉝ 7:40 | MALL | 2 | Ag Field/Puddle | On feed |

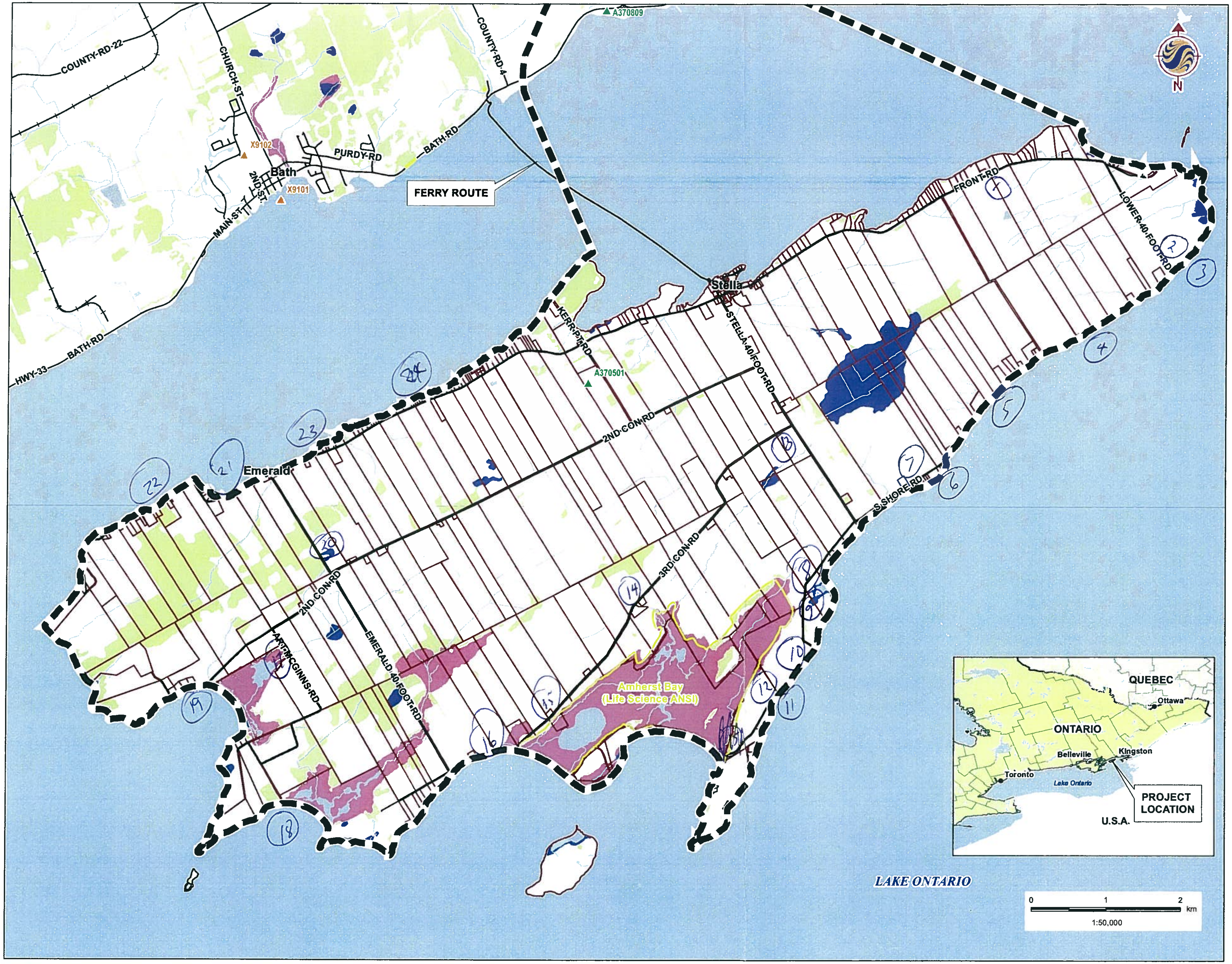
Quality Control: This form is complete ( ✓ ) & legible ( ✓ ).

Signature: Mat
(Field Personnel)

Signature: Kathi
(Project Manager)

Page 3 of 3

REV: May, 07 Form 010



## Legend

| | |
|---|---|
| ⌐ ⌐ | Study Area |
| ▲ | Active Landfill |
| ▲ | Closed Landfill |
| — | Road |
| ┼ | Railway |
| — | Watercourse |
| ☐ | Property Boundaries |
| 🟩 | Wooded Area |
| ▨ | Waterbody |
| ■ | Unevaluated Wetland |
| ■ | PSW |
| ☐ | ANSI Boundary |

## Notes

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## STUDY AREA

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Revised on: 2011-04-05 By: pworsell

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: AMHERST IS
Date: MAY 11, 2011
Field Personnel: STAMP & GRAHAM

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 20°C | E 1 | 0 | 0 | 0 |

| | Flock No. | Time | Species | No. of Individuals | Location (e.g. in water, agr. field near puddle, mowed lawn, etc.) | Behaviour (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|---|
| 3 | 1 | 331 | CAGO | 4 | AG. FIELD | WALKING WITH YOUNG |
| 20 | 2 | 338 | " | 4 | " " | WALKING. |
| 19 | 3 | 343 | LTDU<br>GADW<br>MALL<br>RBME | 10<br>2<br>3<br>11 | OFF SHORE | FEEDING |
| 8 | 4 | 351 | MALL<br>RBMR<br>GADW | 2<br>3<br>1 | " | " |
| 7 | 5 | 354 | BUFF<br>RBME<br>MALL | 8<br>10<br>2 | " | SWIMMING |
| 5 | 6 | 401 | MALL<br>GADW<br>RBMR | 6<br>2<br>8 | " | " |
| 32 | 7 | 405 | CAGO | 4 | AG. FIELD | WALKING. |
| 33 | 8 | 409 | " | 20 | ~~CAGO~~ " | GRAZING |
| 33 | 9 | 412 | "<br>MALL | 20<br>2 | " | RESTING |
| 14 | 10 | 415 | CAGO | 8 | " | " |

Signature: Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

## *Other Bird Species*

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

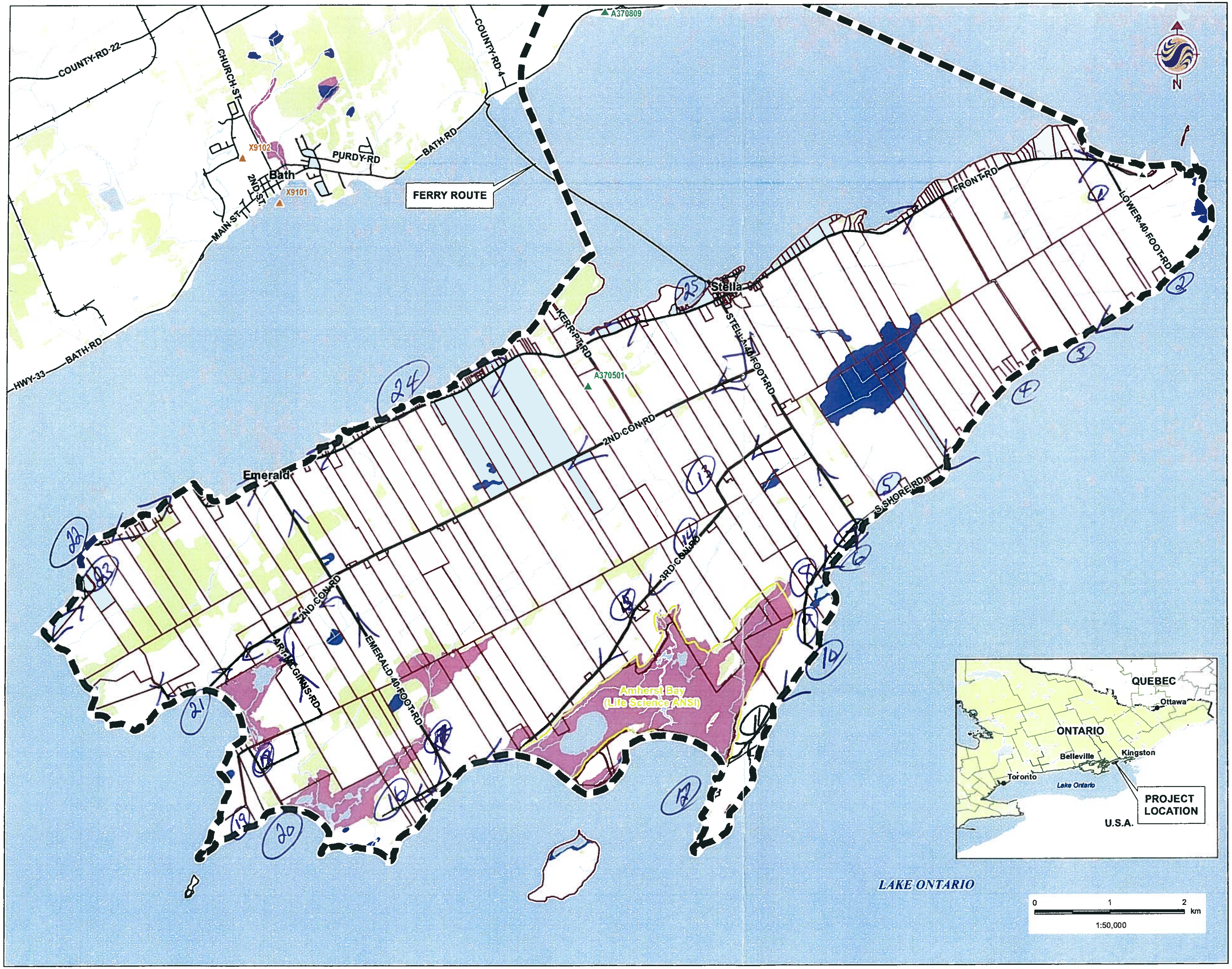
| | **Species** | **No. of Individuals** | **Location** (e.g. in water puddle, agr. field near puddle, mowed lawn, etc.) | **Behaviour** (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|
| 15 ⑪ | COGO<br>RBME<br>BUFF<br>GADW | ~~#~~ 7<br>~~3~~20<br>6<br>2 | OFFSHORE | SWIMMING. |
| 4 ⑫ | CAGO | 10 | LAWN + PASTURE | GRAZING |
| 1 ⑬ | CAGO. | 4 | AG. FIELD | RESTING |
| 12 ⑭ | CAGO | 14 | " " | GRAZING |
| ⑮ 28 | CAGO<br>MALL | 2<br>4 | "<br>" | GRAZING<br>FLYING – CHASING @ 0610m |
| ⑯ 16 | CAGO | ~~#8~~20 | " | RESTING |
| 4 ⑰ | CAGO | 8A<br>10 BABIES | STREAMSIDE | FEEDING. |
| 27 ⑱ | RBME | 3 | OFFSHORE | " |
| 7 ⑲ | RBME | ~~8~~15 | " | " |
| 41 ⑳ | CAGO | 2 | AG. FIELD | " |
| 9 ㉑ | RBME 551PM | 22 | OFFSHORE | " |
| ㉒ 5 | LTDU<br>RBME<br>COLO (600PM)<br>MALL | ~~#~~7<br>~~# #~~14<br>1<br>2 | " | " |
| ㉓ 40 | COME ~~2~~<br>RBME ~~4~~<br>MALL | 2<br>~~#~~11<br>~~2~~1 | "<br>" | "<br>" 608PM |
| 30 ㉔ | RBME | 14 | " | " |
| ㉕ NA | RBME<br>MALL | 3<br>3 | "<br>" | " |

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Field Personnel)

**Signature:** Kathie (Project Manager)

REV: 2011-05-05 / FORM 010b



## Legend

- ⌐ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- ┼ Railway
- — Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- ▨ Waterbody
- ■ Unevaluated Wetland
- ■ PSW
- ☐ ANSI Boundary

WATERFOWL MIGRATION

## Notes

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STUDY AREA

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Revised on: 2011-04-05 By: gworsell

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1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595
Project Name: AMHERST IS.
Date: MAY 17, 2011
Field Personnel: STAMP & HESLOP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 12°C | E - 4 | 95% | 0-2 | RAIN |

| | **Flock No.** | **Time** | **Species** | **No. of Individuals** | **Location** (e.g. in water, agr. field near puddle, mowed lawn, etc.) | **Behaviour** (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|---|
| 20 | ① | 14:40 | MALL | 2 | IN WATER IN PASTURE | Resting |
| 19 | ② | 14:42 | BUFF | 1 | IN WATER | " |
| 19 | ② | 14:43 | RBME | 2 | " | " |
| 19 | ② | " | LTDU | 1 | " | " |
| 8 | ③ | 14:49 | RBME | 3 | " | " |
| 8 | ③ | 14:50 | LTDU | 13 | " | " |
| 7 | ④ | 14:58 | RBME | 16 | " | Feeding |
| 7 | ④ | 14:59 | CAGO | 2 | AG. Field | FLYING E. |
| 7 | ④ | 14:60 | LTDU | 2 | ON WATER | RESTING |
| 4 | ⑤ | 15:05 | CAGO | 6 | AG. Field | Feeding |

Signature: Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.
Signature:
(Project Manager)

① of ④

REV: 2011-05-05 / FORM 010b

***Other Bird Species***

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| | **Species** | **No. of Individuals** | **Location**<br>(e.g. in water puddle, agr. field near puddle, mowed lawn, etc.) | **Behaviour**<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|
| ⑥ 21 | RBME 15:12 | ~~[illegible]~~ 8 | IN WATER | Feeding |
| ⑦ + | CAGO 〃 | 16 | IN PASTURE | ✓ |
| ⑦ | MALL 〃 | ~~[illegible]~~ 4 | IN WATER/POND | RESTING |
| ⑦ | NSHO 〃 | 2 | ✓ IN LAWN | ✓ |
| ⑧ 33 | CAGO 15:15 | 6 | IN FIELD/PASTURE | Feeding |
| ⑨ + | ✓ 15:18 | ~~[illegible]~~ 53 | 〃 〃 | ✓ (INCL. 12 YNG) |
| ⑨ 14 | MALL 〃 | 2 | 〃 〃 | ✓ |
| ⑨ 14 | SNGO ~~[illegible]~~ | 2 | 〃 〃 | ✓ |
| ⑩ 15 | RBME 15:22 | 3 | IN WATER | ✓ |
| ⑩ 15 | LTDU ✓ | 3 | ✓ | ✓ |
| ⑪ 10 | CAGO 15:25 | 4 | IN AG. FIELD | ✓ (INCL 2 YNG) |
| ⑫ 19 | RBME 15:29 | 8 | IN WATER | ✓ |
| ⑬ 1 | MALL 15:40 | 2 | OVER WOODLOT | FLYING WEST |
| ⑭ 12 | CAGO 15:44 | 6 | AG. FIELD | RESTING |

Signature: ______________________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______________________ (Project Manager)

② of ④

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name:

Date: 17 MAY/11

Field Personnel:

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| | | | 2 | |

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. in water, agr. field near puddle, mowed lawn, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|---|
| 12 | 15 | 15:45 | CAGO | 18 | AG Field | Feeding |
| 36 | 16 | 15:55 | ✓ | 50 | ✓ | ✓ |
| 41 | 17 | 15:57 | ✓ | 6 | ✓ | ✓ |
| 42 | 18 | 16:11 | ✓ | 2 | ✓ | ✓ |
| 37 | 19 | 16:13 | ✓ | 28 | ✓ | ✓ INCL 2 YNG |
| 37 | 20 | 16:18 | RBME | 51 | ON WATER | ✓ |
| 17 | 21 | 16:27 | ✓ | 8 | ✓ | ✓ |
| 18 | 22 | 16:40 | ✓ | 15 | ✓ | ✓ |
| 18 | 22 | ✓ | MALL | 1 | ✓ | ✓ |
| 18 | 22 | ✓ | BUFF | 1 | ✓ | ✓ |

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

3A 4

***Other Bird Species***

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| Species | No. of Individuals | Location<br>(e.g. in water puddle, agr. field near puddle, mowed lawn, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|
| 23 CAGO 16:42<br>28 | 6 | AG Field | Resting |
| 24 COGO 16:50<br>30 | 9 | ON WATER | ✓ |
| 25 RBME<br>27 | 7 | ✓ | ✓ |
| | | | |
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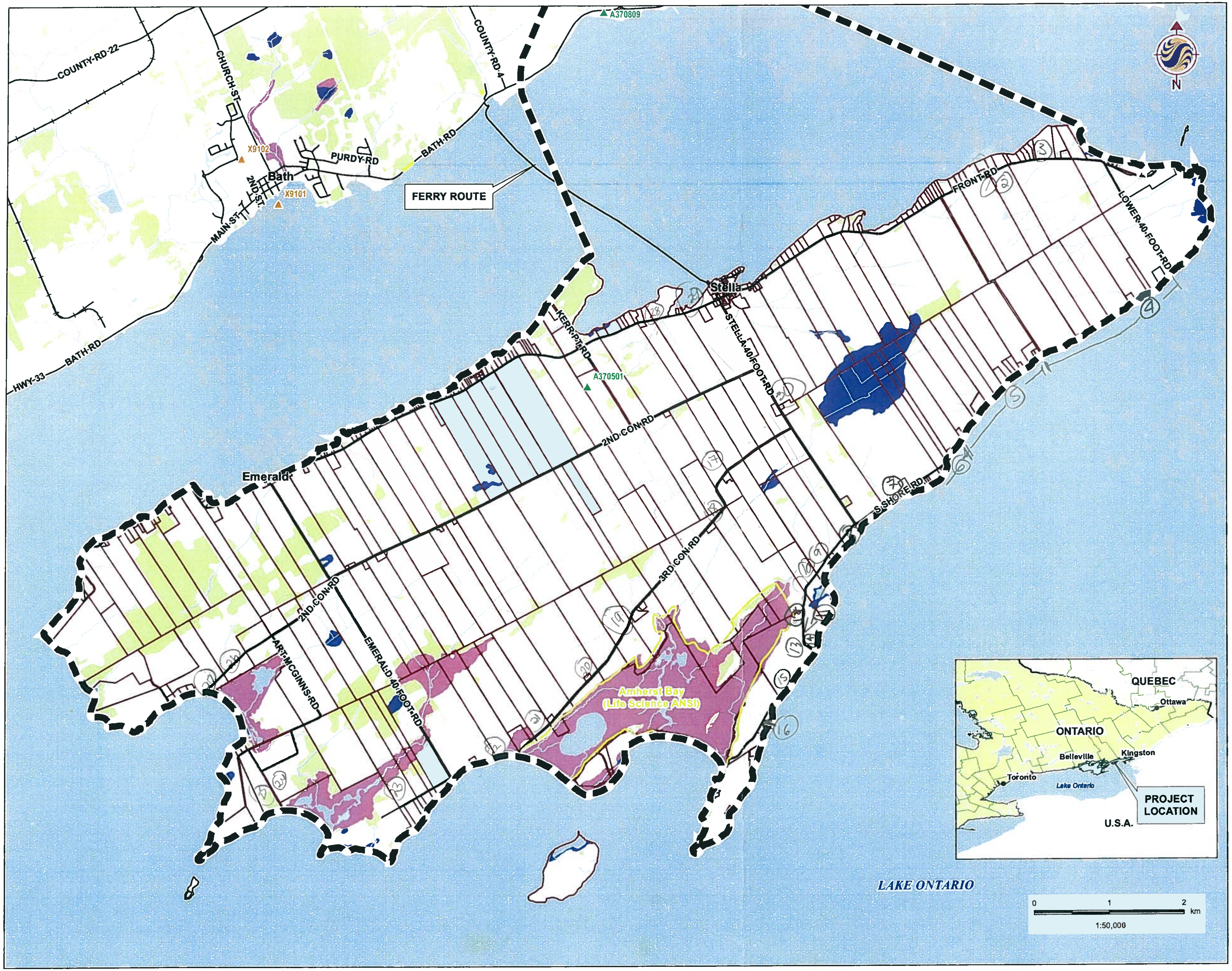
**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________
(Project Manager)

REV: 2011-05-05 / FORM 010b

(4) (4)



## Legend

- ▭ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- —+— Railway
- — Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- ▨ Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

Stantec

April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
## STUDY AREA

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595_FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell

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Fax: (519) 836-2493

# Waterfowl Migration Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 25/11

Field Personnel: Matthew Ross + Don Graham

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 20° | 3 | 5% | None | None |

**Start Time:** 11:35 am

**End Time:** 2:59

**Total KM Driven:**

| | Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|---|
| 3 | ① | 1144 | CAGO | 16 | Pasture | feed On |
| 3 | ② | 1146 | MALL | Pair | Pasture | feed On |
| 3 | ③ | 1148 | BLDU | 1 | Pond | Rest On |
| 19 | ④ | 1200 | MALL<br>GADW | 2<br>Pair | lake ON | Rest On |
| 78 | ⑤ | 1231 | GADW | Pair | " | Rest On |
| 6 | ⑥ | 1242 | CAGO | Pair w ~20 young | " | Rest On |
| 32 | ⑦ | 1246 | CAGO | 9 w 15 young | Pasture | Feed On |
| 4 | ⑧ | 1248 | CAGO<br>MALL | 7<br>2 | Pasture /Fallow | Feed /Rest On |
| 33 | ⑨ | 1250 | CAGO | 5 | Pasture /Fallow | Rest On |
| 33 | ⑩ | 1251 | MALL | Pair | Pasture | feed On |
| 13 | ⑪ | 1253 | CAGO | Pair | fly over Pasture | 10m SW |
| 14 | ⑫ | 1255 | CAGO | Pair | Pasture /fallow | On Feed |
| 14 | ⑬ | 1257 | CAGO | 18 | Pasture | On feed |
| 15 | ⑭ | 1257 | CAGO | 10 | | |
| 10 | ⑮ | 1:00 | CAGO | Pair w 1 young<br>Pair w 6 young | Res/lawn | On feed |
| 10 | ⑯ | 1:02 | CAGO | 12 | Cultural Meadow | On Rest |

1 of 3

Signature: ______ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: ______ (Project Manager)

REV: 2011-05-18 / FORM 010-c

***Other Bird Species***

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| | **Species** | **No. of Individuals** | **Location**<br>(e.g. agr. field near puddle, shoreline, etc.) | **Behaviour**<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|
| ⑰ 1:19 11 | CAGO | 6 | Pasture | On feed |
| ⑱ 1:25 1 | CAGO | 7 | Fallow field | On, resting |
| ⑲ 1:28 12 | CAGO | 12 | Fallow field | On, resting |
| ⑳ 1:31 28 | CAGO | 13 | Hay Field | Resting & feeding |
| ㉑ ~~28~~ 1:33 | CAGO | 2 | Hay field | Resting & feeding |
| ㉒ 16 1:35 | CAGO | 25 | Fallow field | Resting |
| ㉓ 1 39 36 | CAGO | 120 | Clover field | Resting |
| ㉓ 1 39 36 | MALL | 1 | " | Resting |
| 1 53 42 | CAGO | 10 | Pasture | Resting |
| ㉕ 1 54 42 | CAGO | 10 | Pasture | Resting |
| ㉖ 42 2 07 | MALL | 1 | Flying over fallow land From marsh to south | Flying e 10m up |
| ㉗ 7 2'' | WODU | 4 | Open water in marsh | Resting |
| ㉗ 7 2 11 | CAGO | 3 | Pasture & wetland. | Flying towards lake @ 8 m ↑ |
| ㉘ 17 2 37 | CAGO | 27 | Pasture | Feeding |
| | MALL | 3 | Lakeshore | Resting |
| ㉙ 2 40 27 | GADW | 2 | " | " |

Quality Control: This form is complete ☑ & legible ☑.

2 of 3 **Signature:** ____________________ (Field Personnel)

**Signature:** ____________________ (Project Manager)

REV: 2011-05-18 / FORM 010-c

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# Waterfowl Migration Observation Form

Project Number:

Project Name:

Date: May 25/2011 See Page ①

Field Personnel: M. Ross & D. Graham

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| | | | | |

**Start Time:**

**End Time:**

**Total KM Driven:**

31

| Flock No. | Time | Species | No. of Individuals | Location<br>(e.g. agr. field near puddle, shoreline, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, flock behaviour, etc.) |
|---|---|---|---|---|---|
| 30 | 245 | GADW | 2 | Dug pond | Resting |
| | | | | | |
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**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

Page 3 of 3

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# Migratory Bird Survey Observation Form

Project Number: 1060960595

Project Name: Amherst Island Wind Project

Date / Time: Apr 27/11 6:25

Field Personnel: Matthew Ross

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 10 °C | 3 | 95% | None | Rain |

Site ⑤

**Start Time:** 6:25

**End Time:** 6:38

**Start Point UTM:** 0369655 4893142

**End Point UTM:** 0369929 4892717

**Habitat:** Pasture / Alvar / Meadow Marsh

| **Species** | **Tally** |
|---|---|
| TRES | X 20 + 20 |
| RWBL | X 20 + 20 |
| BRTH | \| |
| COGR | 𝍸 𝍸 𝍸 𝍸 |
| SAVS | 𝍸 \| |
| AMRO | 𝍸 |
| SOSP | \| |
| AMCR | \|\| |
| WTSP | \| |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Matt
(Field Personnel)

Signature: Kathi
(Project Manager)

Page 1 of 1

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number 160960595

Project Name: Amherst Wind Project

Date / Time: Apr 27/11 11:06

Field Personnel: Matthew Ross

| **Weather Conditions:** | Temp: 15° | Wind: 3 | Cloud: 45% | PPT: None | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

Site ②

Start Time: 11:06

End Time: 11:32

Start Point UTM: 363002 4891599

End Point UTM: 362835 4891139

**Habitat:** Meadow Marsh / Oak-Maple woodlot

| Species | Tally |
|---|---|
| SOSP | \|\|\| |
| BRTH | \|\| |
| RWBL | ~~\|\|\|\|~~ ~~\|\|\|\|~~ |
| AMRO | \|\|\|\| |
| EAME | \| |
| AMCR | \|\| |
| WTSP | \|\|\| |
| FISP | \| |
| YEWA | \| |
| RCKI | \| |
| NOFL | \| |
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Quality Control: This form is complete (✓) & legible (✓).

Signature: (Field Personnel)

Signature: (Project Manager)

Page 1 of 1

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number 160960595

Project Name: Amherst Island Wind Project

Date / Time: Apr 27 /11 10:00

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15 | Wind: 3 | Cloud: 35 % | PPT: None | PPT in last 24 hrs: Rain |

Site ③

Start Time: 10:01

Start Point UTM: 365151 4890599

End Time: 10:25

End Point UTM: 365540 4890918

**Habitat:** Green Ash Swamp / Dogwood Thicket

| Species | Tally |
|---|---|
| EATO | \| |
| SOSP | \| |
| RCKI | \| |
| RWBL | ~~\|\|\|\|~~ |
| MYWA | \|\|\| |
| AMRO | \|\|\|\| |
| GCKI | \|\|\| |
| BHCO | \|\|\| |
| RCCH | \|\|\|\| |
| SWSP | \|\|\| |
| COYE | \| |
| WISN | NEST @ 0365495 4890871 |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________
(Field Personnel)

Signature: ______________________
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island Wind Project

Date / Time: Apr27/11 7:14 am

Field Personnel: Matthew Ross

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 10 | 3 | 80% | None | Rain |

Site ④

Start Time: 7:14

Start Point UTM: 0367997 4891945

End Time: 7035

End Point UTM: 0368272 4891526

Habitat: Pasture / Meadow marsh / Swamp thicket

| Species | Tally |
|---|---|
| SOSP | 𝍸 |
| TRES | 𝍸 |
| SWSP | \| |
| AMRO | 𝍸 \| |
| RWBL | 𝍸 𝍸 𝍸 |
| SAUS | \| |
| RCKI | \| |
| BHCO | \| |
| DEJU | 𝍸 |
| YEWA | \| |
| NOFL | \| |
| BRCR | \| |
| AMCR | \| |
| MYWA | 𝍸 \|\| |
| PUFI | \| |
| WTSP | \|\|\| |
| NOWA | \| |
| EUST | \| |
| MODO | \| |
| EATO | \| |
| FISP | \| |

Quality Control: This form is complete (✓) & legible (✓)

Signature: MR
(Field Personnel)

Signature:
(Project Manager)

Page 1 of 1

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# Migratory Bird Survey Observation Form

Project Number 160960595

Project Name: Amherst Isl. Wind Project

Date / Time: Apr 27/11 8:58

Field Personnel: Matthew Ross

| Weather Conditions: | Temp: 10 | Wind: 3 | Cloud: 50% | PPT: None | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

Site ⑦

Start Time: 8:58

Start Point UTM: 363211 4888886

End Time: 9:23

End Point UTM: 362990 4888452

**Habitat:** Maple / Ash woodlot / Swamp creek / drainage (could not get to N side of creek - too wide / Deep)

| Species | Tally |
|---|---|
| MYWA | 卌 卌 \|\| |
| RWBL | 卌 |
| BRTH | \|\| |
| BATO | \| |
| NAWA | \| |
| AMRO | 卌 \| |
| SOSP | \|\|\|\| |
| EUST | 卌 |
| BCCH | \|\|\| |
| BAWW | \| |
| WOTH | \|\| |
| RBWO | \| |
| WBNU | \| |
| BHCO | \|\| |
| SWSP | \| |
| TRES | 卌 \| |
| RCKI | \|\| |
| NOFL | \|\| |
| NOCA | \| |
| WTSP | \| |
| NOPA | \| |
| PIWA | \| |
| BRCR | \| |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Matthew (Field Personnel)

Signature: Kathie S (Project Manager)

Page 1 of 1

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Date / Time: Apr 27/11 8:04

Project Name: Amherst Island Wind Project

Field Personnel: Matthew Ross

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 10 | 3 | | None | Rain |

Site ⑧

Start Time: 8:04

Start Point UTM: 365038 4887960

End Time: 8:25

End Point UTM: 365002 488463

**Habitat:** Green ash / Silver maple swamp

| Species | Tally |
|---|---|
| RCKI | 𝍷𝍷 |
| MYWA | 𝍷𝍷 |
| AMRO | 𝍷𝍷𝍷𝍷 |
| RWBL | 𝍸 𝍸 𝍸 𝍸 +50 |
| AMGO | 𝍷𝍷 |
| BAWW | 𝍷 |
| NAWA | 𝍷 |
| TRES | 𝍸 𝍸 |
| SAVS | 𝍷 |
| SWSP | 𝍷𝍷𝍷 |
| RUBL | 𝍷𝍷 |
| DEJU | 𝍷𝍷 |
| EUST | 𝍷𝍷 |
| HAWO | 𝍷 |
| BRCR | 𝍷 |
| WTSP | 𝍸 |
| SOSP | 𝍷𝍷 |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________
(Field Personnel)

Signature: Kathi S
(Project Manager)

Page 1 of 1

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: ~~Dorland~~ Amherst Island

Date / Time: Apr. 28th.

Field Personnel: Don Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 14 | Wind: 3 | Cloud: 100% | PPT: Rain | PPT in last 24 hrs: Rain |

1
363012
4896604

Start Time: 7:04

Start Point UTM: 205

End Time: 7:21

End Point UTM: 206

362829
4897069

Habitat: SWT silkydogwood / ALT redcedar / CUM

| Species | Tally | | |
|---|---|---|---|
| RWBL | 𝍸 𝍸 | | |
| BHCO | \|\|\|\| | | |
| EUST | \|\|\|\| | | |
| EAME | \| | | |
| AMRO | \|\|\| | | |
| WTSP | \| | | |
| CHSP | \|\| | | |
| AMGO | \| | | |
| COGR | \|\|\| | | |
| SOSP | \|\| | | |
| MALL | 𝍸 | | |
| BRTH | \| | | |
| YEWA | \| | | |
| | | | |
| | | | |
| COME | 1 | 7:35 - 7:40 | 363353<br>4896114 |
| RBME | 5 | | |
| DCCO | 4 | | |
| RBGU | 3 | | |
| HEGU | 1 | | |
| CAGO | 1 | | |
| DCCO | 5 | | |
| DCCO | 4 | | |
| RBGU | 8 | | |

ff store
Jim
now Rd →

erryride →

erry landing →

Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham
(Field Personnel)

Signature: Kathi
(Project Manager)

Page _ of _

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 16096059 S

Project Name: Amherst Island

Date / Time: Apr. 27 2011

Field Personnel: Don Graham

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 12 | 1 | 80 | None | Rain |

#6
367789
4891047

Start Time: 6:27

Start Point UTM: 194

End Time: 6:57

End Point UTM: 195
367485
4891458

**Habitat:** CUT

| Species | Tally |
|---|---|
| HOWR | \| |
| SASD | 𝍸 𝍸 |
| BCCH | \|\|\| |
| CHSP | \|\| |
| RWBL | 𝍸 𝍸 𝍸 +10 +10 |
| EUST | 𝍸 \|\|\| |
| WTSP | 𝍸 \|\|\|\| +10 |
| TRSW | 𝍸 \|\| |
| BHCO | 𝍸 𝍸 |
| AMRO | 𝍸 |
| DEJU | 𝍸 \|\| |
| NOFL | 𝍸 \| |
| COLO | \| (flying over) |
| SOUI | \|\| |
| RCKI | 𝍸 𝍸 \|\| |
| YRWA | 𝍸 \| |
| AMCR | \| |
| GCKI | \| |
| YEWA | \|\| |
| RN Pheasant | \|\| |
| BRTH | \|\| |
| BRCR | \| |
| EATO | \| |
| CAYE | \| |
| HETH | \| |
| BEKI | \|\| |
| FISP | \| |
| COGR | \| |
| NRSW | \|\| |
| MODO | \|\|\| |

Quality Control. This form is complete (✓) & legible (__).

Signature: Don Graham
(Field Personnel)

Signature:
(Project Manager)

Page _ of _

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: Apr. 27, 2011
Field Personnel: D. Graham

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 12°c | 1 | 80 % | / | Rain |

#13
360099
4890398

Start Time: 8:02
Start Point UTM: 196

End Time: 8:21
End Point UTM: 197
360376
4889944

Habitat: SWT - silky dogwood dom to west of transect
pasture to east of transect

| Species | Tally |
|---|---|
| SOSP | 𝍸 \|\| |
| SWSP | \|\| |
| AMRO | 𝍸 |
| SASP | 𝍸 |
| EAME | 𝍸 |
| COSN | \|\| |
| AMCR | \|\|\|\| |
| BHCO | 𝍸 \| |
| RWBL | 𝍸 |
| MALL | 𝍸 |
| CHSP | \| |
| AMKE | \| |
| NOHA | \| |
| NOFL | \|\|\| |
| BRTH | \| |
| EUST | \| |
| CAGO | \|\|\| |
| FISP | \| |
| AMGO | \| |
| YEWA | \| |

Quality Control: This form is complete (✓) & legible (✓).
Signature: Don Graham
(Field Personnel)

Signature:
(Project Manager)

Page 2 of _

REV: May, 07 FORM 014

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: April 27, 2011

Field Personnel: D. Graham

| **Weather Conditions:** | Temp: 12°c | Wind: 1 | Cloud: 80% | PPT: / | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

9

358445
4889050

Start Time: 8:47

Start Point UTM: 197

End Time: 9:17

End Point UTM: 198

358713
4888587

**Habitat:** Red cedar treed alvars / green ash SWD

| Species | Tally |
|---|---|
| BRTH | \|\| |
| RCKI | \|\|\| |
| SOSP | \|\|\| |
| NOCA | \|\|\| |
| AMRO | \|\|\| |
| BCCH | \|\|\|\| |
| TRSW | \|\| |
| YRWA | \| |
| COSN | \|\| |
| BLJA | \| |
| AMCR | \|\|\|\| |
| FATO | \|\| |
| WTSP | \|\| |
| GBHE | \| |
| COGR | \|\|\|\|\| \|\| |
| SWSP | \| |
| CAGO | \|\| |
| RWBL | \|\|\|\|\| \|\|\|\|\| \|\|\|\|\| |
| BASW | \|\| |
| VIRA | \|\|\| |
| EAPH | \| |

SAM has potential for wetland birds & turtles ~3 ha cattail SAM with some open water. VIRA, SWSP, COSN heard.

2 Upland Sandpipers in field to South
Pekai's snake seen alive on road.

Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham
(Field Personnel)

Signature: Kentin Stromm
(Project Manager)

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: Apr. 27

Field Personnel: D. Graham

| **Weather Conditions:** | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 12 | 1 | 80 | / | Rain |

12
357786
4887691

Start Time: 11:05

End Time: 11:33

Start Point UTM: 201

End Point UTM: 202

357290
4887763

**Habitat:** SWD ash & SWT - silky dogwood

| Species | Tally |
|---|---|
| | |
| BRTH | \|\| |
| FISP | \|\|\| |
| YRWA | 𝍸 𝍸 \|\| |
| NOHA | \| |
| RCKI | \| |
| AMRO | \|\|\|\| |
| EATO | \|\|\|\| |
| SOSP | 𝍸 |
| BLJA | \|\|\| |
| COSN | \| |
| WBNU | \| |
| HAWO | \| |
| EUST | \|\| |
| PIWO | \| |
| TRSW | \|\| |
| BCCH | \| |
| BHCO | \| |
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Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham
(Field Personnel)

Signature:
(Project Manager)

Page _ of _

REV: May, 07

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# Migratory Bird Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: Apr 27, 2011

Field Personnel: D. Graham

| **Weather Conditions:** | Temp: 20 | Wind: 1 | Cloud: 50 | PPT: None | PPT in last 24 hrs: |
|---|---|---|---|---|---|

10
358490
4886422

Start Time: 11 59

End Time: 12 31

Start Point UTM: 203

End Point UTM: 204

358433
4885948

**Habitat:** SWD

| Species | Tally |
|---|---|
| AMRO | 𝍸 𝍸 |
| COSN | \|\| |
| SOSP | \|\|\|\| |
| YRWA | 𝍸 \|\|\| |
| WTSP | \| |
| YBSA | \|\| |
| BCCH | 𝍸 \|\| |
| RWBL | \| |
| NOFL | \|\|\| |
| BRCR | \|\|\| |
| BAWA | \| |
| HOWR | \| |
| EUST | 𝍸 |
| BLJA | \|\| |
| DOWO | \| |
| TRSW | \|\| |
| BHCO | \|\| |
| PAWA | \| |
| AMWO | \| |
| | 3 garter snakes |

Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham
(Field Personnel)

Signature: Kathie S
(Project Manager)

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: April 27, ~~2011~~ 2011

Field Personnel: D. Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 15 | Wind: 0 | Cloud: 20% | PPT: None | PPT in last 24 hrs: Rain |

#11
359633
4887086

Start Time: 9:41

End Time: 10:19

Start Point UTM: 199

End Point UTM: 200
359977
4887470

Habitat:

| Species | Tally |
|---|---|
| WBNU | \|\|\| |
| AMRO | 𝍸 𝍸 |
| SOSP | \|\|\|\| |
| COSN | \|\|\| |
| AMCR | \|\|\| |
| EUST | 𝍸 𝍸 \|\| |
| HAWO | \|\| |
| BCCH | 𝍸 |
| AMWO | \| |
| DOWO | \|\| |
| BAWA | \| |
| TRSW | \| |
| NOFL | \|\| |
| YBSA | \|\|\| |
| BRCR | \|\| |
| YRWA | \| |
| RWBL | \|\|\| |
| RTHA | \| |
| WODU | \|\|\|\| |
| RCKI | \| |
| GHOW | \| (on nest @ 359910 4887440 . In silver maple SWD 15 m from edge; 12 m ↑ in silver maple main crotch. |
| AMGO | \| |
| BLJA | \| |

Garter snake in field

Quality Control: This form is complete (✓) & legible (__).

Signature: D. Graham
(Field Personnel)

Signature: 
(Project Manager)

Page 4 of _

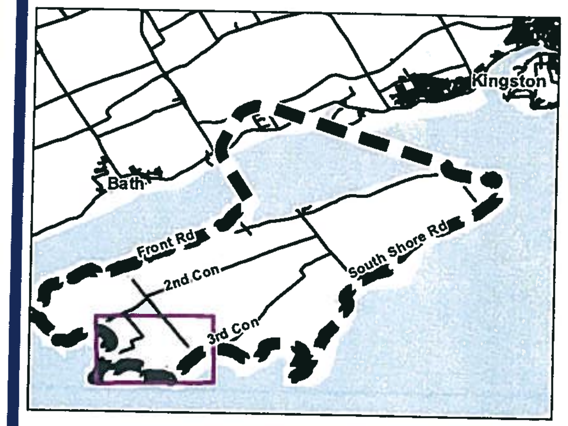
REV: May, 07 FORM 014

5 LEIE
in flooded Field.

W:\active\60960595\drawing\GIS\MXD\160960595_FieldMapbook_20110415_PW.mxd
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

## Legend

- ▚ Study Area
- — Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ∘ Amphibian Station

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Client/Project
Client
Title
Project

Figure No.
Tile 10

Title
**FIELD MAPBOOK**

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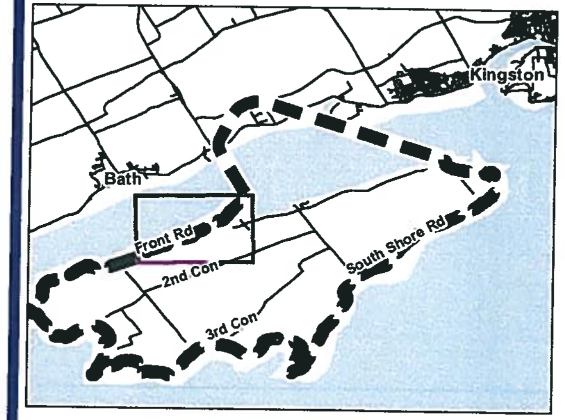
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 11

Title
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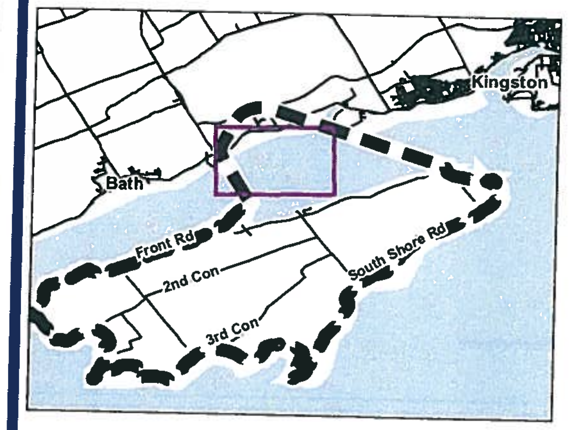
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 2

Title
**FIELD MAPBOOK**

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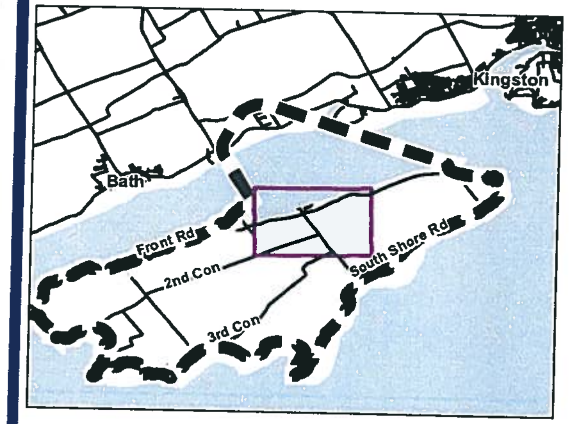
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

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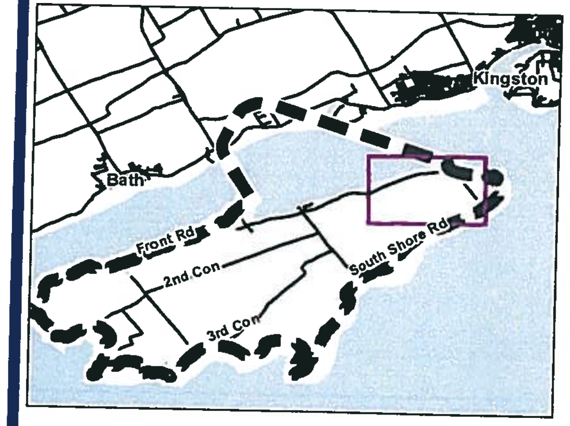
## Legend

- ▚ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 4

Title
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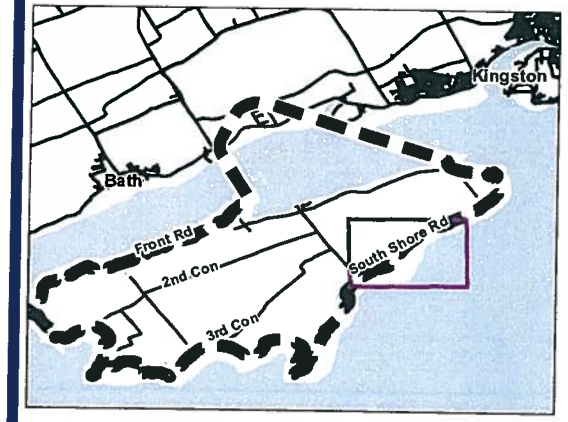
Revised on: 2011-04-15 By: pworsell

X- GH04 [illegible]

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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Revised on: 2011-04-15 By: pworsell

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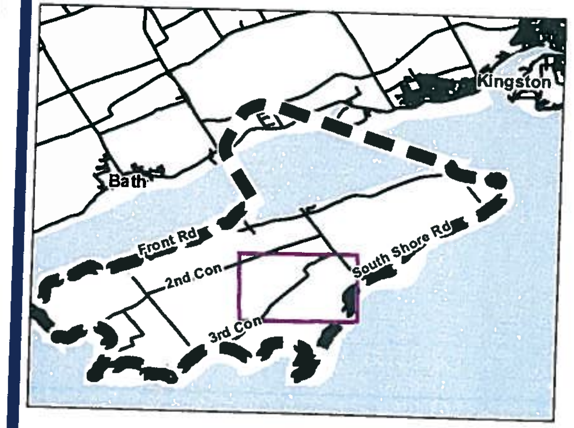
Revised on: 2011-04-15 By: pworsell

**Legend**

- ▟ Study Area
- — Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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April 2011
160960595

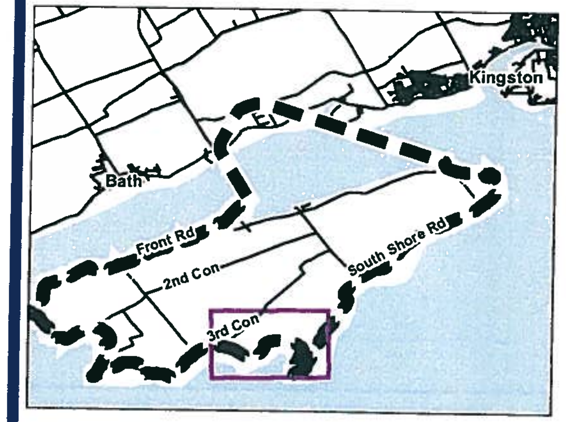
Client/Project
Client
Title
Project

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

## Legend

▨ Study Area
— Road
— Watercourse
🟥 Property Boundaries
🟩 Signed Property
● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 7

Title
**FIELD MAPBOOK**

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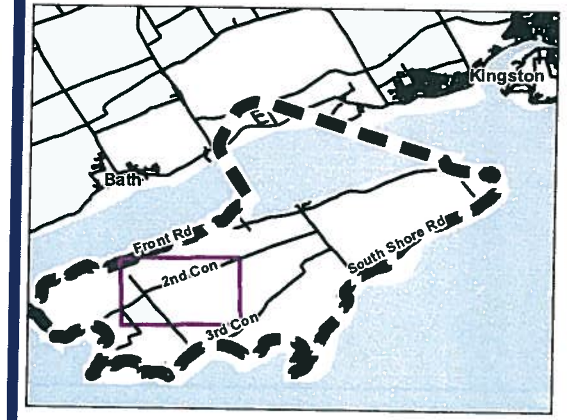
Revised on: 2011-04-15 By: pworsell

## Legend

- ▚ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- ▭ Signed Property
- ○ Amphibian Station



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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 8

Title
**FIELD MAPBOOK**

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date / Time: May 4, 2011
Field Personnel: D. Graham

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 6 | 0 | 100% | / | Rain |

11
359695
4887079

Start Time: 9³⁷
End Time: 10²⁹
Start Point UTM: 223
End Point UTM: 224
360024
4887468

Habitat: ____

| Species | Tally |
|---|---|
| AMRO | 𝍸 ||| |
| SOSP | || |
| BLJA | | |
| BCCH | | |
| AMCR | | |
| WBNU | |||| |
| TRSW | 𝍸 || |
| NOFL | ||| |
| YBSS | | |
| RBGR | || |
| HOWR | | |
| BRCR | |||| |
| WODU | | |
| EUST | |||| |
| GHOW | | (on nest) |
| SWSP | | |
| BASW | ||| |
| COYE | | |
| DOWO | | |
| PIMA | | |

Quality Control: This form is complete (✓) & legible (✓).
Signature: Don Graham (Field Personnel)
Signature: ____ (Project Manager)

Page _ of _
REV: May, 07
FORM 014

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: May 4, 2011 6:00 -

Field Personnel: Don Graham

| **Weather Conditions:** | Temp: 6 | Wind: 0 | Cloud: 100 | PPT: None | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

10.

Start Time: 6:00

End Time: 6:45

Start Point UTM: As before.

End Point UTM: As before

**Habitat:** SWD - green ash & Freeman's maple

| **Species** | **Tally** |
|---|---|
| HOWR | \|\| |
| AMRO | 卌 \|\| |
| SOSP | \|\| |
| RTHA | \| |
| DOWO | \|\|\| |
| BHCO | \|\| |
| EUST | 卌 卌 |
| BLJA | \|\|\| |
| RBGR | \| |
| BCCH | \|\|\|\| |
| WOTH | \|\|\| |
| AMCR | \| |
| WBNU | \|\| |
| NOFL | \|\|\|\| |
| TRSW | \| |
| PIWO | \| |
| RBWO | \| |
| YRWA | \|\| |
| BRTH | \| |
| WTSP | \| |
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Quality Control: This form is complete (✓) & legible (✓).

Signature: Don Graham (Field Personnel)

Signature: (Project Manager)

Page _ of _

REV: May, 07 FORM 014

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N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number 160960595
Project Name: Amherst Island
Date / Time: May 4, 2011
Field Personnel: D. Graham

| Weather Conditions: | Temp: | Wind: | Cloud: | PPT: | PPT in last 24 hrs: |
|---|---|---|---|---|---|
| | 6 | 0 | 100% | / | Rain |

12

Start Time: 7:26
End Time: 8:01
Start Point UTM: 219 357605 4887941
End Point UTM: 220 357113 4887825

Habitat: SWT - silky dogwood

| Species | Tally |
|---|---|
| AMRD | 卌 |
| BLJA | 卌 |
| DOWO | \| |
| WBNU | \| |
| EOST | 卌 \| |
| EATO | \|\|\|\| |
| RBGR | \| |
| NOFL | \| |
| BHCO | \|\|\| |
| BRTH | \|\| |
| SOSP | 卌 \| |
| RUBL | \|\| |
| COYE | \| |
| SWSP | \| |
| AMCR | \|\|\| |
| WTSP | \|\|\| |
| FISP | 卌 |
| RWBL | \|\| |
| BCCH | \|\|\| |

Quality Control: This form is complete (✓) & legible (✓).
Signature: Don Graham
(Field Personnel)

Signature:
(Project Manager)

Page _ of _

REV: May, 07 FORM 014

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N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: May 4, 2011

Field Personnel: D. Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 6 | Wind: 0 | Cloud: 100 | PPT: / | PPT in last 24 hrs: Rain |

9

Start Time: 8:30

End Time: 9:20

Start Point UTM: 221
358638, 4888606

End Point UTM: 222
358321
4889044

**Habitat:** SWD - green ash

| Species | Tally |
|---|---|
| SOSP | 卌 \| |
| EATO | \|\|\|\| |
| COSN | \|\| |
| RWBL | 卌 \|\| |
| BLJA | 卌 |
| BHCO | \|\|\| |
| TRSW | \| |
| AMRO | 卌 \| |
| NOCA | \|\|\| |
| COGR | \| |
| FISP | \|\| |
| BRTH | \|\|\| |
| BCCH | 卌 |
| CHSP | \|\| |
| RTHA | \| |
| BTGW | \|\| |
| WTSP | \|\|\| |
| AMCR | \|\|\| |
| NAWA | \| |
| HOWR | \| |
| RCKI | \|\|\| |
| MODO | \|\| |

Quality Control: This form is complete ( ✓ ) & legible ( ✓ ).

Signature: Don Graham
(Field Personnel)

Signature:
(Project Manager)

Page _ of _

REV: May, 07 FORM 014

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: May 4, 2011

Field Personnel: D. Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 6 | Wind: 0 | Cloud: 100% | PPT: / | PPT in last 24 hrs: Rain |

13

360108
4890 394

Start Time: 11:15 -

Start Point UTM: 225

End Time: 11 45

End Point UTM: 226

360380
4889927

**Habitat:** SwT-silky dogwood ° Spiraea

| Species | Tally |
|---|---|
| SOSP | 卌 III |
| COYE | I |
| RWBL | 卌 I |
| YEWA | 卌 I |
| AMGO | I |
| COSN | I |
| AMRO ! | II |
| CCSP ! | I |
| BHCO | II |
| | Bobolinks in grassy areas east ° north of transect. |

Quality Control: This form is complete (✓) & legible (✓).

Signature: David Graham
(Field Personnel)

Signature:
(Project Manager)

Page _ of _

REV: May, 07

FORM 014

Stantec Consulting Ltd.
70 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Stantec**

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: May 4, 2011 6:00 AM - 1:00 PM

Field Personnel: Don Graham

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 6 | Wind: 0 | Cloud: 100% | PPT: None | PPT in last 24 hrs: Rain |

6
367755
4891022

Start Time: 12:10

End Time: 12:53

Start Point UTM: 227

End Point UTM: 228

367498
4891457

**Habitat:** CUW - A. elm dominates

| Species | Tally |
|---|---|
| AMRO | 卌 \| |
| BHCO | 卌 \| |
| COGR | 卌 \|\| |
| AWBL | 卌 卌 卌 \|\| |
| EUST | \|\|\| |
| GRCA | \|\|\| |
| HOWR | \| |
| DOWO | \| |
| YEWA | 卌 \| |
| AMCR | \| |
| RNPH | \|\| |
| NOFL | \|\| |
| SOSP | 卌\| 卌 |
| BCCH | \|\| |
| Green Heron | \| |
| EATO | \|\| |
| EAKI | \|\| |
| COHA | \| |
| NOHA | \| |
| TRSW | 卌 \| |
| COSN | \|\| |
| COYE | \|\| |
| SWSP | \| |
| HAWO | \| |

Quality Control: This form is complete (✓) & legible (__).

Signature: Don Graham
(Field Personnel)

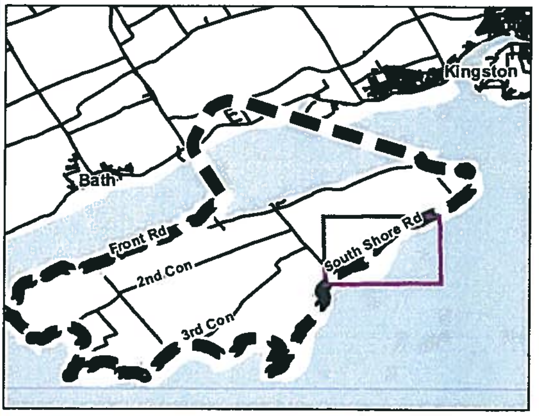
Signature: Kathrin S
(Project Manager)

Page _ of _

REV: May, 07 FORM 014

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station

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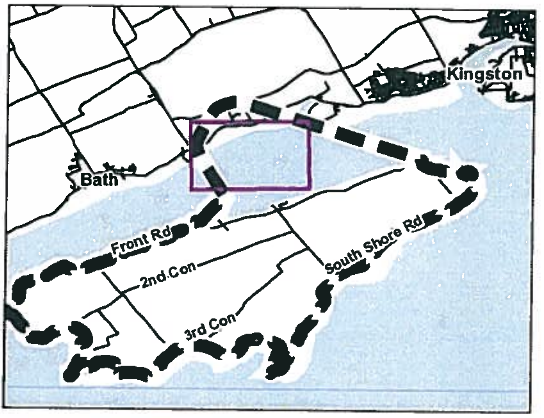
Client
Title
Project

Figure No.
Tile 10

Title
FIELD MAPBOOK

## Legend

- Study Area
- — Road
- Watercourse
- ▭ Property Boundaries
- ▭ Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 2

Title
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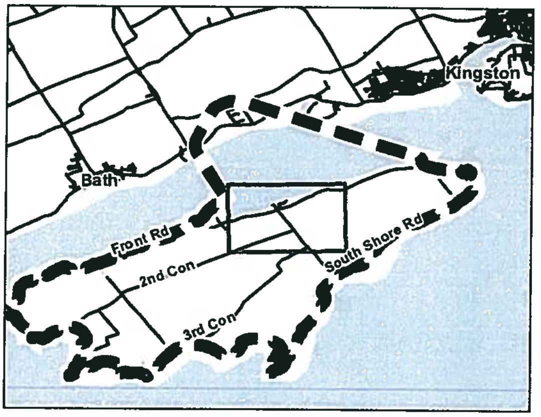
## Legend

- ▚ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- ▭ Signed Property
- ○ Amphibian Station



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Client
Title
Project

Figure No.
Tile 3

Title
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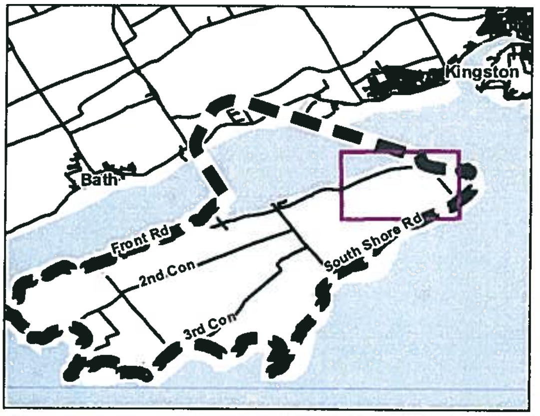
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 4

Title
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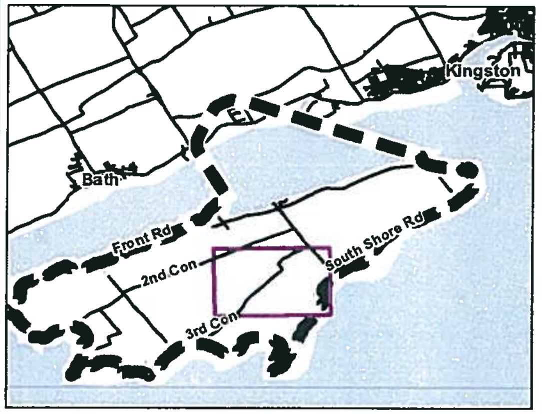
## Legend

- ▭ Study Area
- — Road
- — Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 6

Title
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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: May 4/11 7:10 am

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 6°C | Wind: 2 | Cloud: 100% | PPT: None | PPT in last 24 hrs: Rain |

Site ③

Start Time: 7:10am

Start Point UTM: 365151 4890599

End Time: 7:35

End Point UTM: 365540 4890918

**Habitat:** Ash Swamp/Dogwood thicket

| Species | Tally |
|---|---|
| EATO | \| |
| AMRO | \|\|\| |
| WOTH | \| |
| SOSP | \|\|\| |
| RWBL | 𝍸 𝍸 |
| HOWR | \|\| |
| DEJU | \| |
| BHCO | \| |
| NCFL | \| |
| TRES | \|\| |
| HAWO | \| |
| SWSP | \| |
| COYE | \|\| |
| BLJA | \| |
| RBGR | \| |
| AMGO | \| |
| MALL NEST @ 365428 4890853 (flushed ♀) | |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________ (Field Personnel)

Signature: ______________ (Project Manager)

Page 1 of 1

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number 160960595
Project Name: Amherst Island
Date / Time: May 4/11 8:36
Field Personnel: Matthew Ross

| **Weather Conditions:** | Temp: 7°C | Wind: 2 | Cloud: 100% | PPT: None | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

Site ⑦

Start Time: 8:36am
End Time: 9:00 am
Start Point UTM: 363211 4888886
End Point UTM: 362990 4888452

Habitat: Maple-Ash-Oak forest

*No crossing for 3m wide creek to access planned route/transect • walked along SOUTH bank of creek for Survey *

<table>
<tr><th>Species</th><th>Tally</th></tr>
<tr><td>SOSP</td><td>|||</td></tr>
<tr><td>AMRO</td><td>|||</td></tr>
<tr><td>BCCH</td><td>卌</td></tr>
<tr><td>NAWA</td><td>|</td></tr>
<tr><td>WOTH</td><td>||</td></tr>
<tr><td>RWBL</td><td>卌</td></tr>
<tr><td>BT Green Warbler</td><td>|</td></tr>
<tr><td>AMGO</td><td>|</td></tr>
<tr><td>TRES</td><td>卌 |</td></tr>
<tr><td>EUST</td><td>卌 |||</td></tr>
<tr><td>NOFL</td><td>||</td></tr>
<tr><td>WBNU</td><td>|</td></tr>
<tr><td>WTSP</td><td>|||</td></tr>
<tr><td>RCKI</td><td>|</td></tr>
<tr><td>MODO</td><td>|</td></tr>
<tr><td>NOCA</td><td>|</td></tr>
<tr><td>HOWR</td><td>|</td></tr>
</table>

Quality Control: This form is complete (✓) & legible (✓)

Signature: ______ (Field Personnel)

Signature: Kathie S (Project Manager)

Page 1 of 1

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: May 4/11 9:44

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 7° | Wind: 2 - upto 3 | Cloud: 100% | PPT: None than Rain | PPT in last 24 hrs: Rain |

Site ⑧

Start Time: 9:44 am

End Time: 10:08

Start Point UTM: 365038 4887960

End Point UTM: 365002 4888463

**Habitat:** Ash Swamp

| **Species** | **Tally** |
|---|---|
| SWSP | \| |
| SOSP | \|\| |
| TRES | ~~\|\|\|\|~~ ~~\|\|\|\|~~ \|\|\| |
| RWBL | ~~\|\|\|\|~~ ~~\|\|\|\|~~ ~~\|\|\|\|~~ ~~\|\|\|\|~~ ~~\|\|\|\|~~ ~~\|\|\|\|~~ |
| AMRO | \|\|\| |
| EUST | \| |
| RUBL | ~~\|\|\|\|~~ ~~\|\|\|\|~~ \|\| |
| BHCO | \|\| |
| YEWA | \| |
| AMGO | \| |
| COGR | \| |

Quality Control: This form is complete (✓) & legible (✓).

Signature: ______________________
(Field Personnel)

Signature: ______________________
(Project Manager)

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REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: May 4/11 10:45am

Field Personnel: Matthew Ross

| **Weather Conditions:** | Temp: 8° C | Wind: 2 | Cloud: 100% | PPT: Light Rain | PPT in last 24 hrs: Rain |
|---|---|---|---|---|---|

Site ④

Start Time: 10:45 am

End Time: 11:00am

Start Point UTM: 367997 4891945

End Point UTM: 368272 4891526

**Habitat:** Dogwood Thicket / Hedgerow / Meadow marsh

| Species | Tally |
|---|---|
| AMRO | 卌 |
| RUBL | 卌 卌 |
| SOSP | 卌 |
| SAVS | \| |
| AMCR | \| |
| EATO | \| |
| TRES | 卌 \|\| |
| BHCO | \|\| |
| AMGO | \| |
| RCKI | \| |
| MYWA | \|\|\| |
| YEWA | \| |
| BRTH | \| |
| GRCA | \| |
| MODO | \| |

Quality Control: This form is complete (✓) & legible (✓)

Signature: Matt (Field Personnel)

Signature: Kathy (Project Manager)

Page 1 of 1

REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: May 4/11 6:17 am

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 6° | Wind: 2 | Cloud: 100% | PPT: None | PPT in last 24 hrs: Rain |

Site ②

Start Time: 6:17 am

End Time: 6:33 am

Start Point UTM: 0363002 4891599

End Point UTM: 0362835 4891139

**Habitat:** Meadow Marsh / Maple -oak forest

| Species | Tally |
|---|---|
| AMRO | \|\|\|\| |
| AMCR | \|\| |
| RWBL | 卌 卌 \|\| |
| AMGO | \| |
| SOSP | \|\| |
| SAVS | \| |
| MODO | \| |
| EATO | \| |
| EAME | \|\| |
| FISP | \| |
| YEWA | \| |
| NOFL | \| |
| WOTH | \|\| |
| BCCH | \|\| |
| | |
| | |

Quality Control: This form is complete (✓) & legible (✓)

Signature: (Field Personnel)

Signature: (Project Manager)

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REV: May, 07 FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date / Time: May 5/11 6:30

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 5° | Wind: 2 | Cloud: 5% | PPT: None | PPT in last 24 hrs: Rain |

Site ①

Start Time: 6:30 am

Start Point UTM: 362838 4897016

End Time: 6:45

End Point UTM: 363047 4896562

**Habitat:** Dogwood Thicket / Ash Swamp

| Species | Tally |
|---|---|
| AMCR | \|\| |
| RWBL | 卌 卌 |
| SAVS | \| |
| SOSP | \|\|\| |
| EAME | \| |
| YEWA | \|\| |
| MYWA | 卌 \| |
| AMGO | \|\|\| |
| BRTH | \| |
| NOFL | \| |
| AMRO | \| |
| BHCO | \| |
| TRES | \|\| |
| EUST | \|\| |

Quality Control: This form is complete (✓) & legible (✓)

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

Page 1 of 1

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# Migratory Bird Survey Observation Form

Project Number 160960595

Project Name: Amherst Island

Date / Time: May 4/11 11:30 am

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 9 °C | Wind: 2 | Cloud: 100% | PPT: None | PPT in last 24 hrs: Rain |

Site ⑤

Start Time: 11:30 am

End Time: 11:45 am

Start Point UTM: 369655 4893142

End Point UTM: 369929 4892717

**Habitat:** Meadow Marsh/ white Pine Alvar/white Spruce Stand

| Species | Tally |
|---|---|
| TRES | 36 |
| RWBL | 16 |
| COGR | 20 |
| SAVS | 4 |
| YEWA | 1 |
| SOSD | 2 |
| HOSP | 1 |
| AMRO | 3 |
| AMGO | 1 |

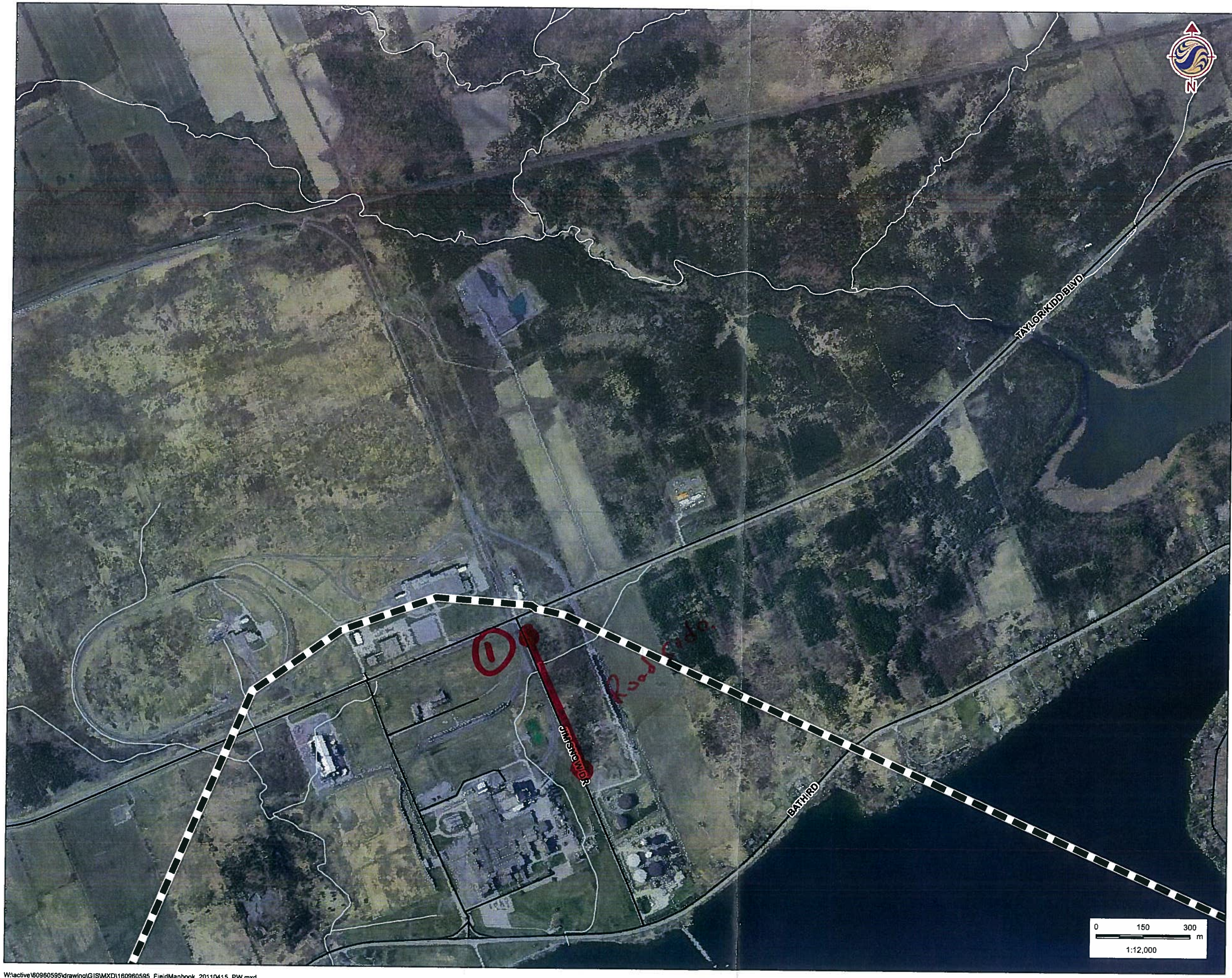
Quality Control: This form is complete (✓) & legible (✓)

Signature: ______ (Field Personnel)

Signature: ______ (Project Manager)

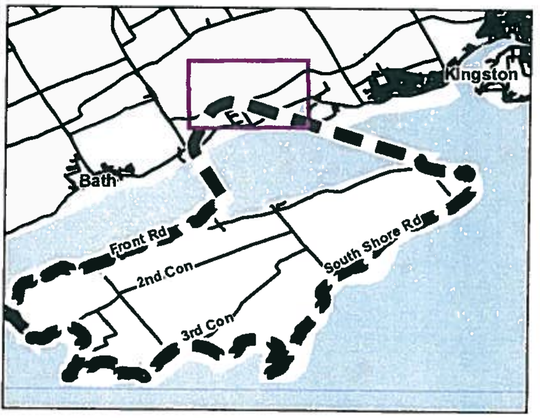
Page 1 of 1

REV: May, 07 FORM 014



## Legend

▨ Study Area
— Road
Watercourse
🟥 Property Boundaries
🟩 Signed Property
● Amphibian Station



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Client
Title
Project

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

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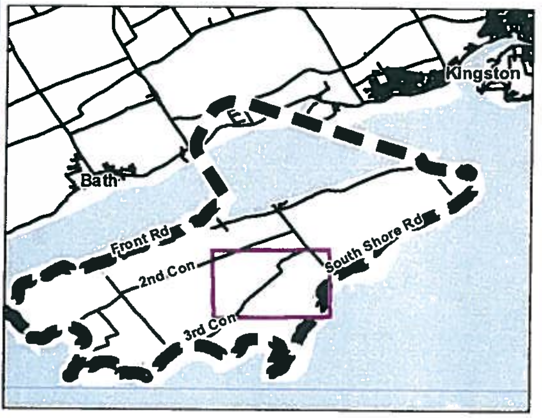
Revised on: 2011-04-15 By: pworsell

## Legend

- **▚** Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 6

Title
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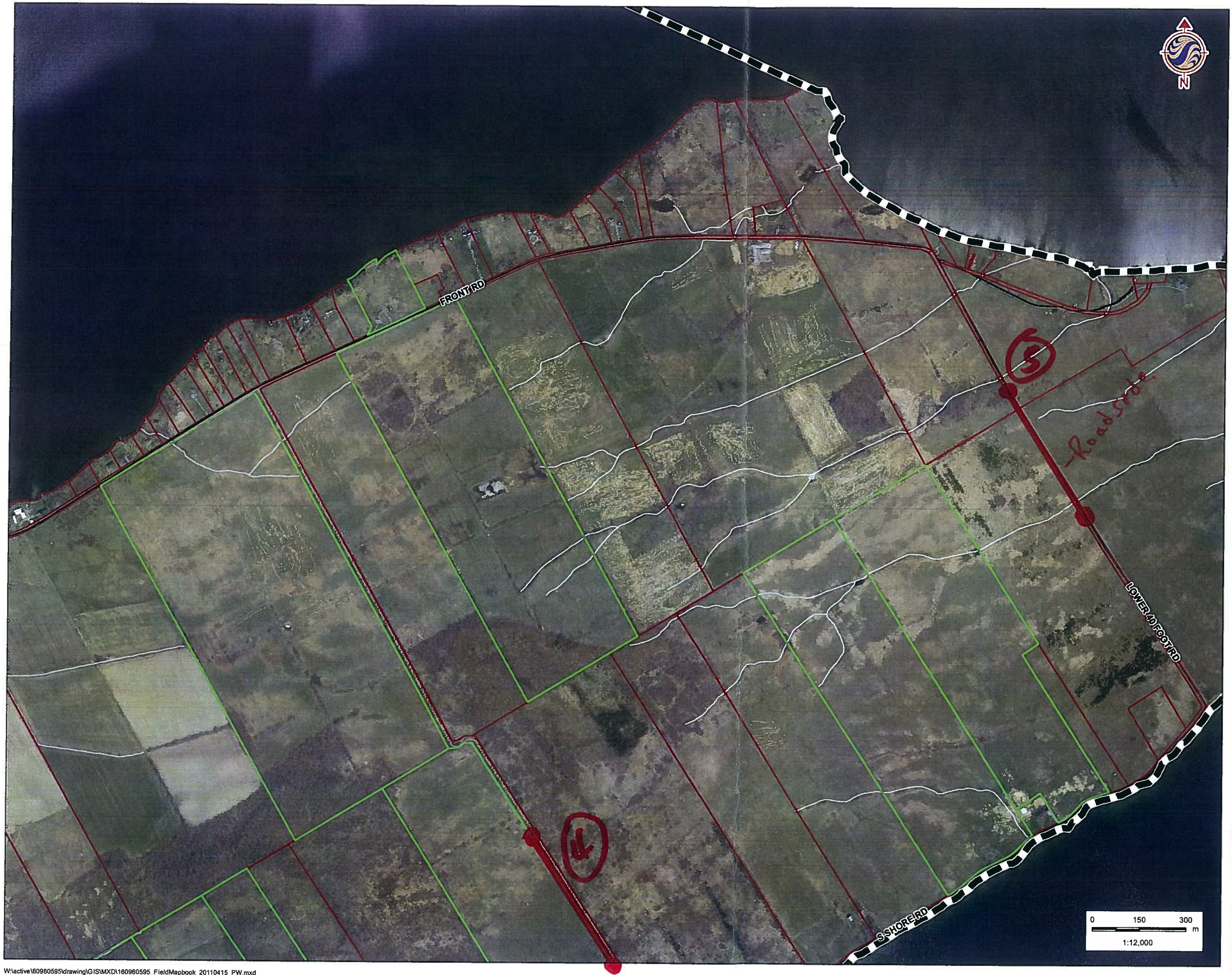
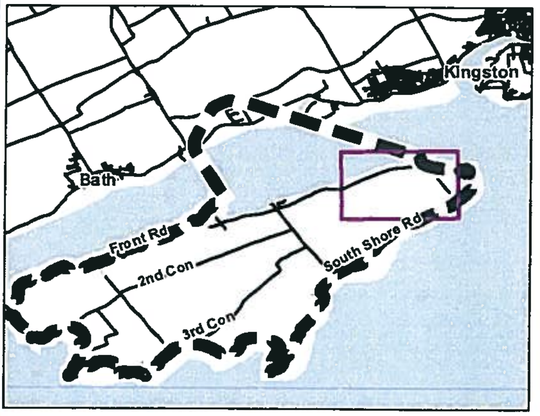


## Legend

▚ Study Area
— Road
Watercourse
🟥 Property Boundaries
🟩 Signed Property
● Amphibian Station



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Client
Title
Project

Figure No.
Tile 4

Title
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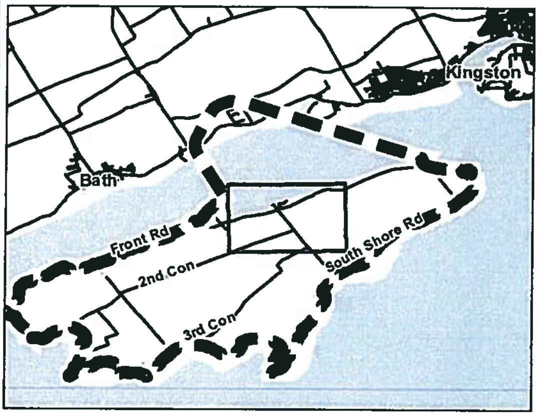
## Legend

▭ Study Area
— Road
Watercourse
▭ Property Boundaries
▭ Signed Property
● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

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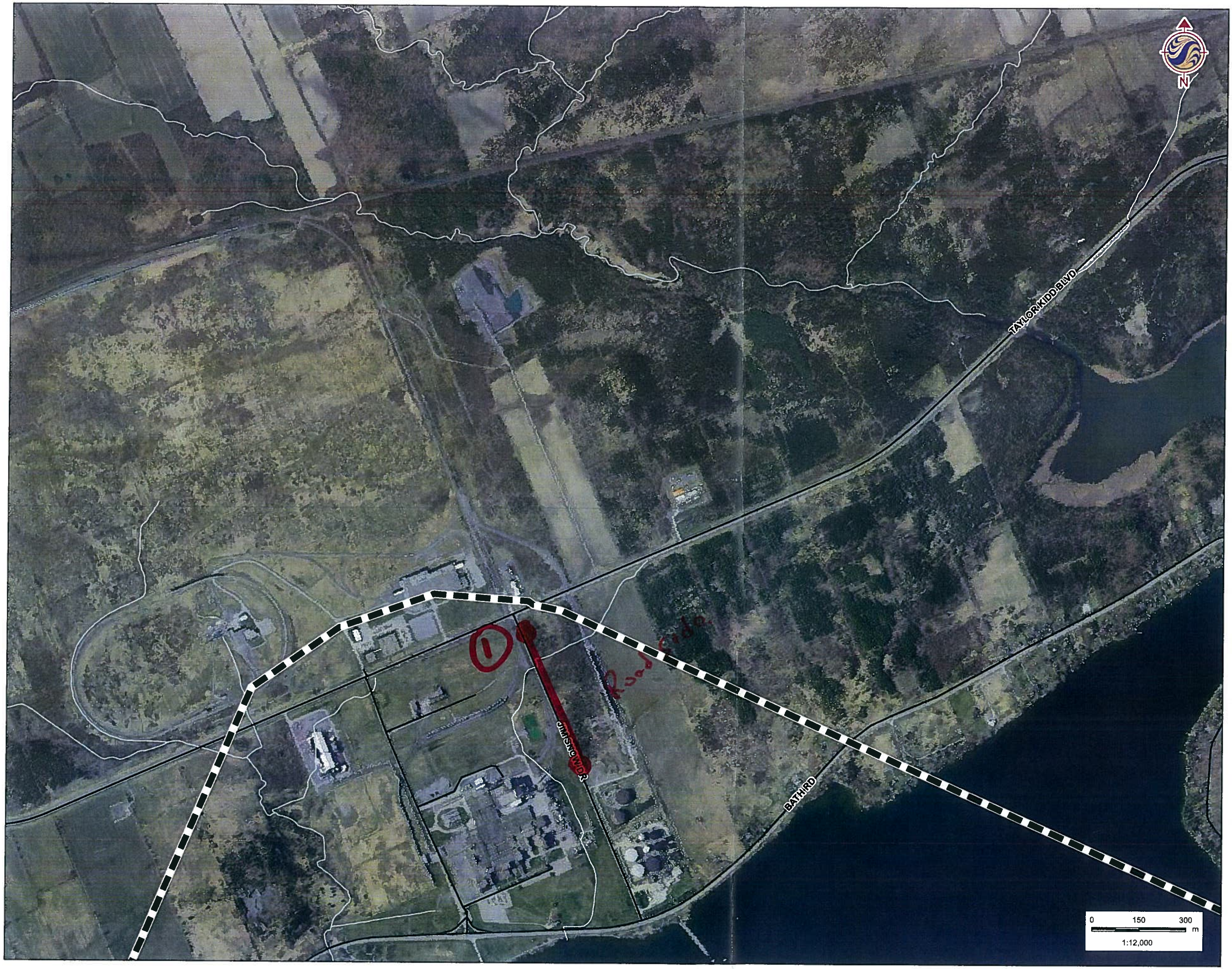
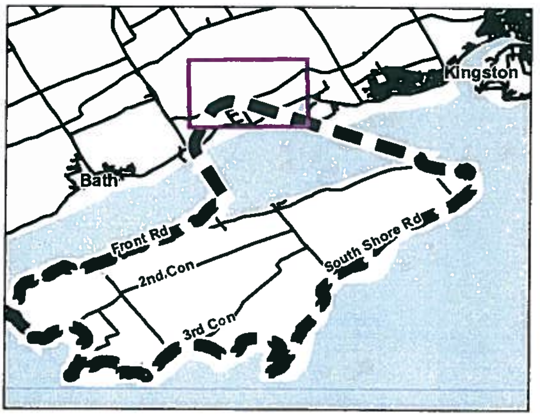


## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ○ Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

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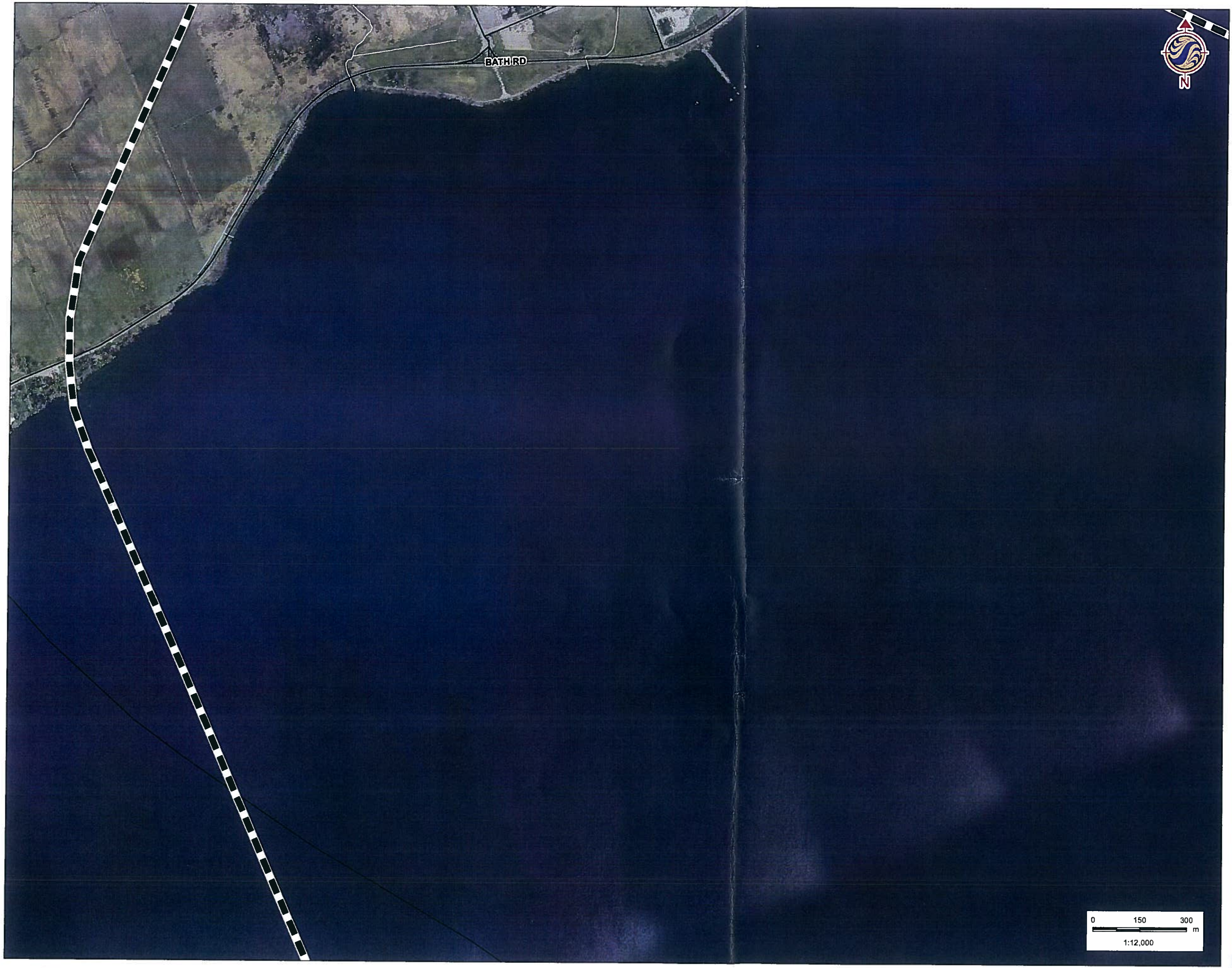
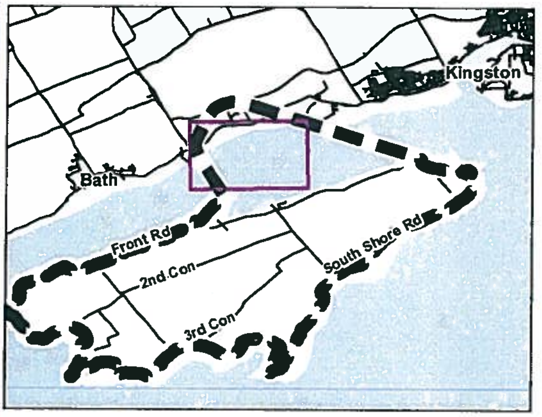


## Legend

▬ Study Area
— Road
Watercourse
▢ Property Boundaries
▢ Signed Property
● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 2

Title
**FIELD MAPBOOK**

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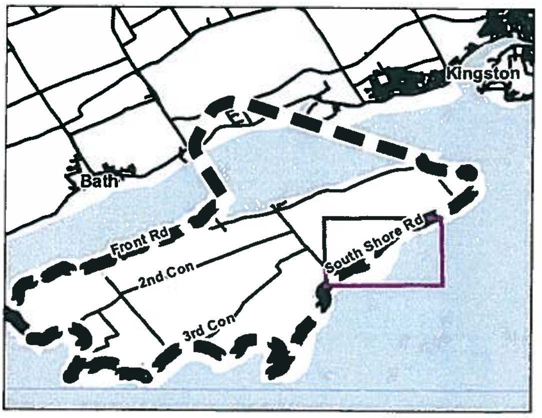
Revised on: 2011-04-15 By: pworsell

## Legend

▚ Study Area
— Road
┄ Watercourse
🟥 Property Boundaries
🟩 Signed Property
● Amphibian Station



## Notes

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2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
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April 2011
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Client/Project
Client
Title
Project

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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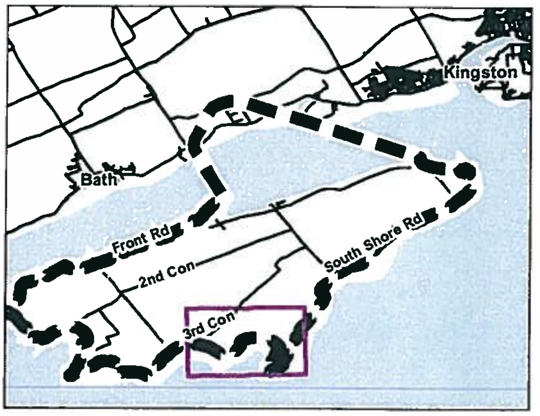
Revised on: 2011-04-15 By: pworsell

## Legend

▚ Study Area
— Road
Watercourse
🟥 Property Boundaries
🟩 Signed Property
○ Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 7

Title
**FIELD MAPBOOK**

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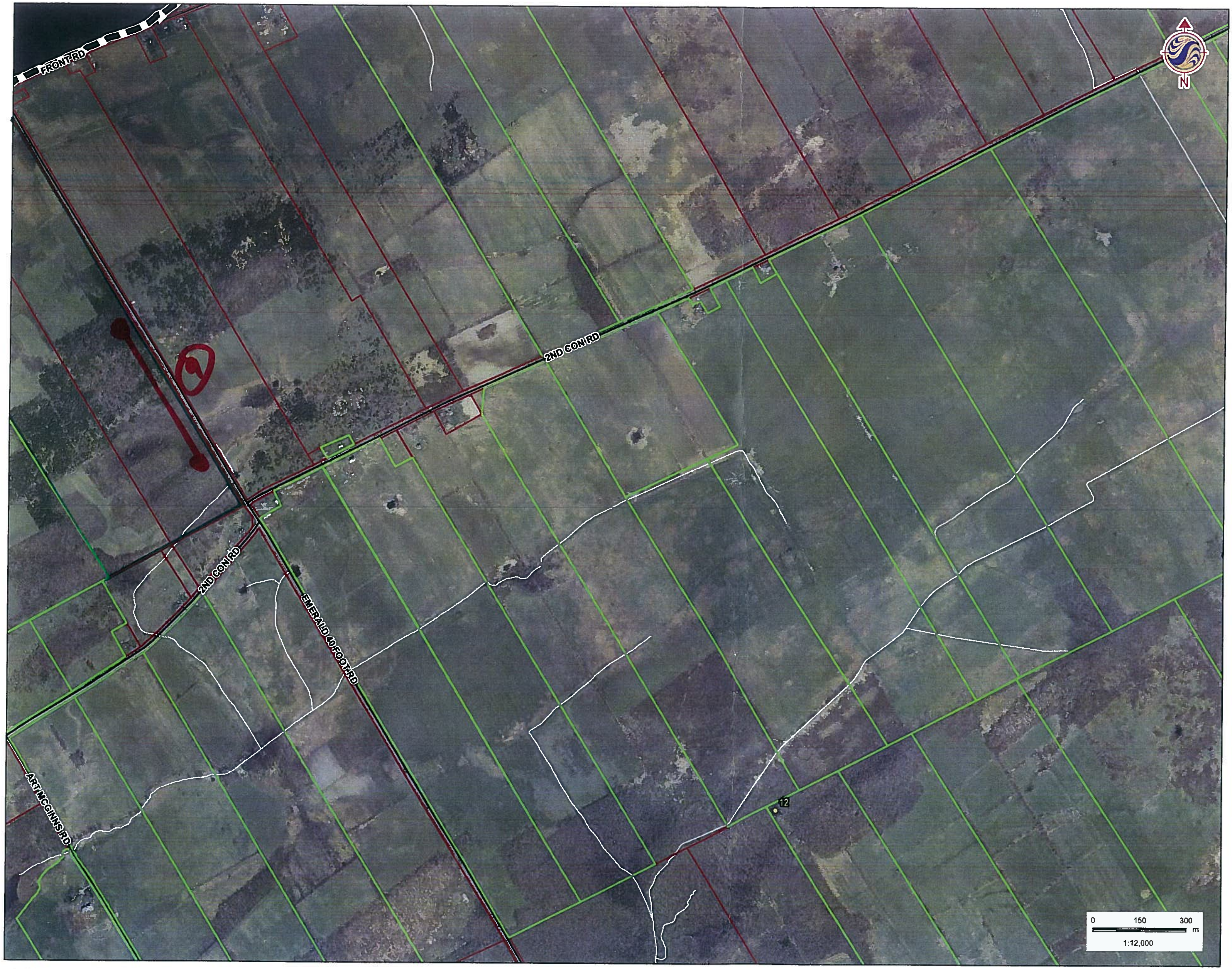
Revised on: 2011-04-15 By: pworsell



## Legend

Study Area
Road
Watercourse
▭ Property Boundaries
🟩 Signed Property
○ Amphibian Station

## Notes

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Client/Project
Client
Title
Project

Figure No.
Tile 8

Title
**FIELD MAPBOOK**

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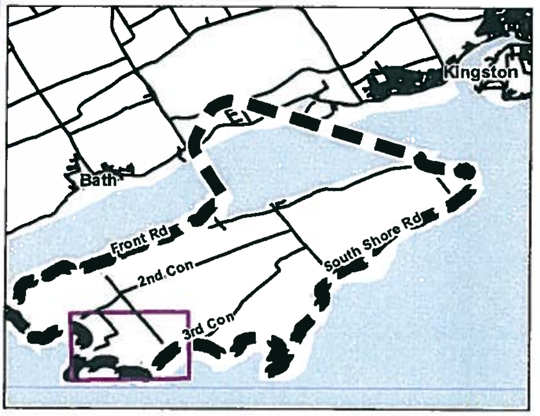
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property
- Amphibian Station



## Notes

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Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

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Revised on: 2011-04-15 By: pworsell

## Legend

- ▚ Study Area
- — Road
- Watercourse
- ▭ Property Boundaries
- ▭ Signed Property
- ● Amphibian Station

## Notes

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Client/Project
Client
Title
Project

Figure No.
Tile 10

Title
**FIELD MAPBOOK**

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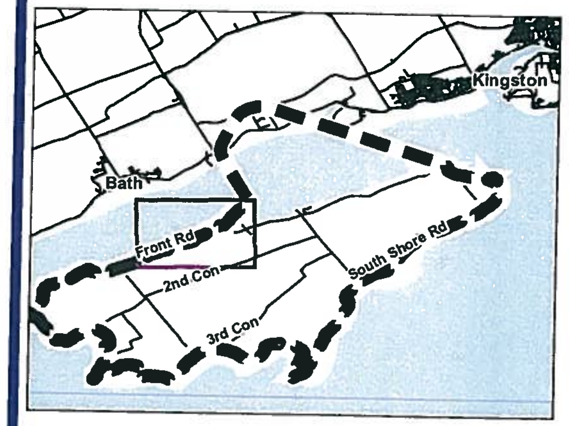
Revised on: 2011-04-15 By: pworsell

## Legend

▭ Study Area
— Road
Watercourse
▭ Property Boundaries
▭ Signed Property
● Amphibian Station



## Notes

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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 11

Title
**FIELD MAPBOOK**

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST IS.

Date: MAY 11, 2011

Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 5°C | E 4 | 10% | 0 | 0 |

**Start Time:** 650 wr 273

**End Time:** 714 277

**Start Point UTM:** 18T 0365117 4890699

**End Point UTM:** 18T 0365218 4890845

**Habitat:** SCRUB WOODLAND

**Transect:** #3

**Feature #:**

| Species | Tally |
|---|---|
| EATO | 1111 |
| RWBL | 1 |
| AMRO | 1111 |
| HOWR | 11 |
| WOTH | 111 |
| BAOR | 1 |
| YWAR | 1 |
| COYE | 111 |
| PAWA | 1 |
| WTSP | 111 |
| SOSP | 111 |
| WISN | 1 |
| CAWA | 1 |
| BLJA | 11 |
| OVEN | 1 |
| BCCH | 11 |
| LEFL ? EMPID | 1 |
| GRCA | 11 |
| | |
| | |
| | |

Pg. 1 of 1

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

**Stantec Consulting Ltd.**
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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS.
Date: MAY 11 2011
Field Personnel: BOB STAMP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>10°C | WIND:<br>E 4 | CLOUD:<br>5% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

wp 280
wp. 281

**Start Time:** 826
**End Time:** 850
**Start Point UTM:** 18T 0368207 4891623
**End Point UTM:** 18T 0367906 4892086
**Habitat:** GRAY DOGWOOD SCRUB + GRASSLAND SCATTERED SPRUCE
**Transect:** H4
**Feature #:**

| Species | Tally |
|---|---|
| RTHA | \|\| |
| AMCR | \|\|\| |
| YWAR | 卌 |
| GRCA | \| |
| RNPH | \|\| |
| TUVU | \|\|\|\| |
| TRES | \|\|\|\| |
| SOSP | 卌 \| |
| RWBL | 卌\| |
| EAME | \| |
| COYE | \|\|\|\| |
| BOBO | \|\| |
| HOWR | \|\| |
| BHCO | \|\|\|\| |
| DCCO | \| |
| AMGO | \| |
| EUST | \|\|\| |
| AMRO | \|\|\| |
| SAVS | \|\| |
| RCKI | \| |
| WTSP | \|\| |

Pg. 1 of 2

Signature: Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☑.~~

Signature: Kathrin
(Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| BLBW | I |
| EAKI | II |
| NOHA | I |
| YRWA | I |

Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS
Date: MAY 11, 2011
Field Personnel: BOB STAMP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15°C | E2 | 10% | 0 | 0 |

wp 284
Start Time: 1025
wp 285
End Time: 1045
Start Point UTM: 18T 0363294 4888960
End Point UTM: 18T 0363069 4888805
Habitat: WOODLAND, MATURE TO WEST.
Transect: #7
Feature #:

| Species | Tally |
|---|---|
| SCTA | / |
| YWAR | 𝍸 /// |
| AMRO | // |
| RBGR | //// |
| SOSP | //// |
| GRCA | /// |
| RCKI | / |
| NAWA | // |
| TRES | / |
| NOPA | // |
| WTSP | / |
| BAOR | // |
| AMGO | / |
| COYE | / |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☐~~.

Signature: (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST IS

Date: MAY 11, 2011

Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 12 | E 3 | 5% | 0 | 0 |

wp 282

wp 283

**Start Time:** 923

**End Time:** 952

**Start Point UTM:** 18T 0364848 4888422

**End Point UTM:** 18T 0364973 4887996

**Habitat:** WOODLAND SOME MATURE, SOME DEAD (FLOODED

**Transect:** #8

**Feature #:**

| Species | Tally |
|---|---|
| RWBL | 𝍸 \| |
| WBNU | \|\| |
| AMRO | \|\|\| |
| RBGR | \|\|\| |
| EUST | 𝍸 \|\| |
| TRES | 𝍸 \| |
| YRWA | 𝍸 \|\| |
| RCKI | \| |
| HOWR | \|\|\| |
| SCTA | \|\| |
| NAWA | \| |
| WOCO | \| |
| NOFL | \| |
| BAOR | \|\| |
| SWSP | \|\|\|\| |
| BHCO | \| |
| SOSP | \|\|\|\| |
| COYE | \|\| |
| CAGO | \|\|\|\| |
| AMGO | \| |
| LEFL | \| |
| WAVI | \| |

Pg. 1 of 1

**Signature:** Robt Stamp
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☑.~~

**Signature:**
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST
Date: MAY 11, 2011
Field Personnel: BOB STAMP

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 5°C | E 4 | 10% HAZY | 0 | 0 |

**Start Time:** 610 WP 267
**End Time:** 625 271
**Start Point UTM:** 18T 0362976 4891581
**End Point UTM:** 18T 0362999 4891276
**Habitat:** GRASSLAND & SCRUB.
**Transect:** #2
**Feature #:**

| Species | Tally |
|---|---|
| BAOR | / |
| MODO | / |
| EAKI | // |
| RWBL | ~~////~~ |
| YWAR | ~~////~~ / |
| MALL | // |
| CAGO | // |
| DCCO | /// |
| COYE | // |
| AMGO | / |
| EUST | / |
| GRCA | // |
| EATO | // |
| BRTH | // |
| AMRO | / |
| NOCA | / |
| BHCO | / |
| FISP | / |
| TUVU | / |
| SCTA | / |
| BOBO | / |

Pg. 1 of 1

Quality Control: This form is complete ~~☐ & legible ☐~~.

Signature: Robert Stamp
(Field Personnel)

Signature: Kevin
(Project Manager)

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595

**Project Name:** AMHERST IS.

**Date:** MAY 11, 2011

**Field Personnel:** BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 10°C | E 4 | 5% | 0 | 0 |

**Start Time:** 745 wp 278

**End Time:** 759 wp 279

**Start Point UTM:** 18T 0369415 4893532

**End Point UTM:** 18T 0369655 4893147

**Habitat:** GRASSLAND SCATTERED EVERGREENS TO WEST

**Transect:** #5

**Feature #:**

| Species | Tally |
|---|---|
| YWAR | 𝍸 \| |
| AMRO | \|\|\| |
| WAVI | \| |
| CAGO | \|\| |
| RWBL | 𝍸 \| |
| RBGR | \|\| |
| SOSP | 𝍸 \| |
| EAKI | \|\|\|\| |
| TRES | 𝍸 𝍸 𝍸 \| |
| CHSP | \| |
| SAUS | \|\|\|\| |
| BOBO | 𝍸 |
| HOSP | \|\| |
| AMCR | \|\| |
| EUST | \| |
| COGR | 𝍸 |
| WISN | \| |
| DCCO | \|\| |
| BHCO | \|\| |
| KILL | \|\| |
| NOHA | \| |
| EAME | \| |

Pg. 1 of 1

**Signature:** Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑

**Signature:**
(Project Manager)

REV: 2011-05-03 / FORM 014

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: May 12, 2011
Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 8 | 1 | 10 | / | / |

Start Time: 7 39
End Time: 9 19
Start Point UTM: 247 359691 4887072
End Point UTM: 248 360040 4887472
Habitat: SWD - ash & maple
Transect: 11
Feature #:

| Species | Tally | | | |
|---|---|---|---|---|
| BLWA | \| | | EUST | 卌 \|\|\| |
| BCCH | 卌 \| | | NOOR | \|\| |
| ~~AMRO~~ | ~~\|\|~~ | | RUBL | \|\|\|\| |
| SOSP | \|\|\| | | TRSW | 卌 \| |
| YRWA | 卌 卌 卌 卌 | | RBWO | \| |
| NAWA | \|\|\|\| | | BRCR | \| |
| WOTH | 卌 \| | | DOWO | \|\|\| |
| WBNU | \|\| | | GHOW | \| (on nest) |
| BAWA | \| | 359722 | RTHA | \|\| (nest) |
| HOWR | \|\|\| | 4887366 | | in bur oak @ 13m |
| PIWO | \| | | AMGO | \|\| |
| NOFL | \| | | PAWA | \|\|\| |
| BLJA | \|\|\|\| | | BTGW | \| |
| WTSP | \|\|\| | | LEFL | \| |
| RBGR | 卌 | | SWTH | \| |
| BHCO | \|\|\|\| | | AMRE | \| |
| CORA | \| | | NOCA | \|\| |
| AMRO | 卌 卌 \|\| | | HETH | \|\| |
| OVEN | \| | | EATO | \| |
| COGR | \| | | PAWA | \|\| |
| RCKI | \|\| | | | |

Pg. ___ of ___

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: May 12, 2011
Field Personnel: Don Graham

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 8C | 1 | 10% | None | None |

**Start Time:** 6 32
**End Time:** 6 53
**Start Point UTM:** 259 362832, 4897056
**End Point UTM:** 260 363027, 4896597
**Habitat:**
**Transect:** 1
**Feature #:**

| Species | Tally |
|---|---|
| YEWA | 𝍸 𝍸 \| |
| SOSP | \|\|\|\| |
| AMRO | \|\|\| |
| MODO | \|\|\|\| |
| RWBL | 𝍸 |
| COYE | \|\|\| |
| HOWR | \| |
| GRCA | \| |
| BACO | 𝍸 \|\| |
| EUST | 𝍸 |
| WTSP | \|\| |
| AMGO | \|\| |
| BCCH | \|\|\| |
| AMCR | \| |
| WCSP | \|\| |
| CMSP | \| |
| COGR | \|\| |
| NOOR | \| |
| | |
| | |
| | |

Pg. __ of __

Signature: Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: May 12, 2011
Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 8 | 1 | 10% | None | None |

#6

Start Time: 6:06
End Time: ~~3~~ 7:17
Start Point UTM: 245 367776 4891040
End Point UTM: 246 367501 4891463
Habitat: CUW
Transect: 6
Feature #:

| Species | Tally | | |
|---|---|---|---|
| YEWA | 卌 卌 | AMGO | \| |
| HOWR | \|\|\| | NAWA | \|\|\|\| |
| WCSP | 卌 | CEWA | \| |
| WTSP | 卌 卌 卌 | COYE | ~~卌~~ 卌 |
| RWBL | 卌 卌 | RCKI | \|\|\| |
| COGR | \|\| | BLWA | \|\| |
| EOST | 卌 | BCCH | \|\|\|\| |
| AMRO | 卌 \|\| | EATO | \|\|\| |
| TRSW | \|\| | SWSP | \| |
| BASW | \|\| | BLJA | \| |
| GRCA | \|\|\|\| | WAVI | \| |
| RBGR | 卌 \| | WOTH | \| |
| YRWA | 卌 卌 \|\|\| | FISP | \|\| |
| MODO | \|\|\| | RBWO | \| |
| SOSP | 卌 \|\|\| | BAWA | \| |
| BRTH | \|\|\|\| | EAKI | \| |
| BHCO | \|\| | | |
| NOOR | \|\| | | |
| NOFL | \|\| | | |
| BTBW | \| | | |
| AMCR | 卌 | | |

Pg. ___ of ___

Signature: Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 12, 2011

Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | 1 | 10% | None | None |

Start Time: 9:30

End Time: 10^37

Start Point UTM: 250 358488, 4886429

End Point UTM: 251 358495, 4885984

Habitat: SWD - ash + maple

Transect: 10

Feature #:

| Species | Tally | | |
|---|---|---|---|
| AMRO | 卌 \|\|\|\| | BLJA | \|\|\| |
| SOSP | \|\| | RUBL | 卌 |
| HOWR | \|\|\| | EUST | 卌 \|\|\|\| |
| COYE | \| | WBNU | \|\| |
| COGR | \|\|\|\| | GCFL | \| |
| RUBL | \| | RCKI | \|\| |
| BHCO | \| | CSWA | \| |
| YRWA | 卌 卌 卌 | AMRE | \| |
| WOTH | \|\|\| | TRSW | \|\| |
| LEFL | \|\|\| | NOOR | \| |
| NOFL | \|\| | RBWO | \| |
| BRCR | \| | BLWA | \| |
| WTSP | 卌 | GCFL | \| |
| BTBW | \|\| | | |
| RBGR | \|\|\| | | |
| GRCA | \| | | |
| YEWA | \|\| | | |
| DOWO | \|\|\|\| | | |
| YBSS | \|\|\| (nest seen) | | |
| BCCH | \|\|\| | | |
| NAWA | \| | | |

Pg. ___ of ___

Signature: Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: May 12, 2011
Field Personnel: D. Graham

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | 1 | 10 | / | / |

**Start Time:** 10 49
**End Time:** 11 13
**Start Point UTM:** 252 357664 4887960
**End Point UTM:** 253 357 181 4887813
**Habitat:**
**Transect:** 12
**Feature #:**

| Species | Tally |
|---|---|
| AMRO | \|\|\|\| |
| SOSP | 卌\| \|\|\|\| |
| NAWA | \|\| |
| BHCO | \|\| |
| RUBL | |
| COGR | \| |
| AMCR | \| |
| AMGO | \|\|\| |
| EATO | 卌 |
| BCCH | \| |
| GRCA | \| |
| BLJA | \|\| |
| NOCA | \| |
| COYE | \|\| |
| EAKI | \| |
| YEWA | \| |
| NOFL | \| |
| HOWR | \| |
| WBNU | \| |
| | |
| | |

Pg. ___ of ___

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Dan Graham
(Field Personnel)

**Signature:** Kathryn S
(Project Manager)

REV: 2011-05-03 / FORM 014

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 12, 2011

Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | 1 | 10 | / | / |

**Start Time:** $11^{25}$

**End Time:** $11^{46}$

**Start Point UTM:** 254 358688 4888625

**End Point UTM:** 255 358426 4889056

**Habitat:**

**Transect:** 9

**Feature #:**

| Species | Tally |
|---|---|
| COGR | //// |
| SOSP | //// |
| BCCH | \|\|\|\| |
| AMRO | // |
| COYE | / |
| TRSW | //// |
| FISP | / |
| BLJA | 𝍸 |
| EATO | \|\| |
| NOCA | \| |
| CHSP | \|\| |
| AMGO | \|\| |
| EAPH | \| |
| EAKI | \| |
| NOOR | \| |
| EUST | \|\| |
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Pg. ___ of ___

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-03 / FORM 014

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 12, 2011

Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15 | 1 | 10 | / | / |

**Start Time:** 11 57

**End Time:** 12 28

**Start Point UTM:** 256 360101 4890400

**End Point UTM:** 257 360359 4889972

**Habitat:** SWT - spiraea & silky dogwood

**Transect:** 13

**Feature #:**

| Species | Tally |
|---|---|
| SOSP | 𝍸 𝍸 \|\| |
| COYE | \|\|\| |
| YEWA | 𝍸 𝍸 𝍸 \|\|\| |
| YRWA | \| |
| EUST | \|\| |
| AMGO | \|\| |
| RWBL | 𝍸 \| |
| BACO | \|\|\|\| |
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Pg. ___ of ___

Quality Control: This form is complete ☑ ~~& legible~~ ☑

**Signature:** Don Graham
(Field Personnel)

**Signature:**
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Is
Date: 18 May/11
Field Personnel: J. Heslop

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C): 12°C | WIND: E 1S | CLOUD: 100% | PPT: -/ | PPT (in last 24 hrs): RAIN |

Start Time: 9:00
End Time: 9:55
Start Point UTM: ([illegible]) 18 · 359769E · 4887156N
End Point UTM: (Pt 66) 18 · 360033E · 4887428N
Habitat: Wet Woods
Transect: #11
Feature #:

| Species | Tally |
|---|---|
| GCFL | \| |
| BCCH | \|\| |
| HOWR | 𝍸 |
| AMRE | \| |
| AMRO | 𝍸 |
| AMCR | \|\| |
| DOWO | \|\| |
| RBGR | 𝍸 |
| COYE | \| |
| EAWP | \| |
| BTNW | \|\| |
| MODO | \| |
| WOTH | \|\| |
| AMGO | \| |
| EUST | \|\|\|\| |
| RWBL | \|\| |
| BAOR | \|\| |
| VEER | \|\| |
| WODU | \|\|\| |
| BTBW | \| |
| CSWA | \| |

Pg. 1 of 2

Signature: (Field Personnel)

Quality Control: This form is complete ☑ ~~& l~~egible ☑.

Signature: Kathin S (Project Manager)

| Species | Tally |
|---|---|
| SWTH | II |
| WBNU | I |
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Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 16096059~~5~~
Date: 18 MAY/11
Project Name: AMHERST IS.
Field Personnel: J. HESLOP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 11°C | E 10 | 95% | 1 – | RAIN |

Start Time: 6:30
End Time: 7:00
Start Point UTM: (Pol 810) 18·360100E. 4890404N
End Point UTM: 18.360360E. 4888978N
Habitat: AG. field Adjacent to wet SCRUB
Transect: #13
Feature #: ~~AG. field~~

| Species | Tally |
|---|---|
| EAME | III |
| BOBO | ~~IIII~~ ~~IIII~~ II |
| RWBL | I |
| SOSP | IIII |
| COYE | II |
| AMCR | II |
| LUSK | ~~IIII~~ ~~IIII~~ II |
| NOHA | II |
| AMRO | II |
| COGR | III |
| SASP | II |
| AMGO | II |
| YEWAR Yellow W. | I |
| BRTH | I |
| BARS | II |
| MODO | I |
| GRSP | I |
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Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST 6

Date: 18 MAY / 11

Field Personnel: J. HESLOP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 12°C | WIND: E 15 | CLOUD: 100% | PPT: 1 – | PPT (in last 24 hrs): RAIN |

**Start Time:** 7:15

**End Time:** 7:45

**Start Point UTM:** (Pt 192) 18 358432E - 4889056N

**End Point UTM:** (Pt 065) 18 358735E 4888553N

**Habitat:** Woodland

**Transect:** #9

**Feature #:**

| Species | Tally |
|---|---|
| KAID | III |
| BCCH | I |
| NOCA | II |
| SOSP | III |
| COGR | 𝍸 |
| AMGO | II |
| ~~COSN~~ WISN | I |
| BLJA | II |
| MAWA | I |
| AMCR | III |
| CHSP | I |
| BRTH | I |
| COYE | III |
| AMRO | IIII |
| FISP | III |
| MALL | I |
| TRES | I |
| RWBL | 𝍸 𝍸 II |
| EUST | III |
| WODU | III |
| SWSP | I |

Pg. 1 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathi (Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| YWAR | 1 |
| EAKI | 1 |
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Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Is

Date: 18 MAY /11

Field Personnel: J. Hoslay

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 12°C | E 15 | 100% | 1 – 2 | RAIN |

Start Time: 8:00

End Time: 8:40

Start Point UTM: (01064) 18-358442E 4886374N

End Point UTM: (01065) 18 358458E 4885939N

Habitat: Wet, Woods

Transect: #10

Feature #:

| Species | Tally |
|---|---|
| BTBW | \| (Black-Throated Blue Warbler) |
| BAOR | \|\|\|\| |
| HOWR | 卌 |
| AMCR | \|\|\| |
| AMRO | 卌 \|\| |
| COYE | \|\| |
| YWAR | \| |
| WOTH | \|\|\| |
| SOSP | \| |
| RBGR | \|\|\| |
| RWBL | \| |
| BARS | \|\|\| |
| COGR | \|\|\| |
| BHCO | \|\| |
| GCFL | \| |
| BLJA | \|\| |
| WBNU | \| |
| BCCH | \|\| |
| EUST | \|\| |
| KAME | \| (In Field To West) |
| BOBO | \| |

Pg. 1 of 2

Signature:

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Kathi Sm

(Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| RBWO | 1 |
| SOSP | 1 |
| PIWO | 1 |
| BTGW | 1 |
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Pg. 2 of 2

**Signature:** ______________________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathi ______________________________
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS.
Date: 18 MAY / 11
Field Personnel: J Heslop

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 13°C | L15 | 100% | 1 → 0 | RAIN |

**Start Time:** 10:25
**End Time:** 10:55
**Start Point UTM:** P01 068 18·357631E·4887948N
**End Point UTM:** P01 069 18·357195E·4887817N
**Habitat:** WET SCRUB
**Transect:** #12
**Feature #:**

| Species | Tally |
|---|---|
| ~~BLSA~~ | ~~I~~ |
| AMRO | IIII |
| AMCR | I |
| BCCH | IIII |
| BLJA | III |
| HOWR | I |
| COYE | III |
| GRCA | III |
| EUST | ~~IIII~~ |
| RWBL | ~~IIII~~ ~~IIII~~ ~~IIII~~ |
| EATO | IIII |
| AMGO | II |
| BHCO | III |
| RBGR | III |
| SOSP | III |
| BAOR | I |
| GCFL | I |
| FISP | II |
| COGR | III |
| | |
| | |

Pg. 1 of ___

Signature: J Heslop
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kathrin
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST ISLAND
Date: 18 MAY/11
Field Personnel: J. Heslop

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18°C | E 20 | 60% | Ø | RAIN |

**Start Time:** 14:30
**End Time:** 14:50
**Start Point UTM:** B1071 18·363049E·4896557N
**End Point UTM:** (B1072) 18·362868E·4896979N
**Habitat:** CEDAR SCRUB
**Transect:** #1
**Feature #:**

| Species | Tally |
|---|---|
| EUST | ~~\|\|\|\|~~ |
| BRTH | \| |
| RWBL | \| |
| EAME | \|\| |
| AMRO | \|\| |
| COGR | \|\|\| |
| RBGR | \|\| |
| EAKI | \| |
| SOSP | \|\|\| |
| COYE | \| |
| YWAR | ~~\|\|\|\|~~ ~~\|\|\|\|~~ |
| GRCA | \| |
| TRES | ~~\|\|\|\|~~ \| |
| SAVS | \| |
| BHCO | \|\| |
| BARS | \|\|\| |
| AMGO | ~~\|\|\|\|~~ |
| HOWR | \| |
| CORA | \| |
| ROPI | \| |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST IS.

Date: MAY 18, 2011

Field Personnel: BOB STAMP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 5°C | E-4 | 100% | 0 | RAIN |

Start Time: 625

End Time: 643

Start Point UTM: 18T 0363098 4891710

End Point UTM: 18T 0363011 4891298

Habitat: GRASSLAND

Transect: #2

Feature #:

| Species | Tally |
|---|---|
| BOBO | \|\|\|\| |
| BRTH | \|\| |
| BHCO | \| |
| RWBL | 卌 \| |
| AMCR | \| |
| CAGO | \| |
| EUST | \|\| |
| EAME | \| |
| EAKI | \|\| |
| WAVI | \| |
| BAOR | \|\|\| |
| YWAR | 卌 \|\|\| |
| AMRO | \| |
| COYE | \|\| |
| GRCA | \| |
| FISP | \| |
| SOSP | \|\|\|\| |
| FATO | \|\| |
| AMGO | \|\| |
| MODO | \| |
| COGR | \| |

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Pg. 1 of 1

Signature: Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960593

Project Name: AMHERST IS.

Date: MAY 18, 2011

Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 6°C | E-2- | 100% | LIGHT RAIN | RAIN |

**Start Time:** 758

**End Time:** 811

**Start Point UTM:** 18T 0369407 4893542

**End Point UTM:** 18T 0369645 4893160

**Habitat:** ROADSIDE GRASSLANDS + SCRUB

**Transect:** #5

**Feature #:**

| Species | Tally |
|---|---|
| WISN | \|\| |
| AMRO | 𝍸 |
| COGE | \| |
| RWBL | 𝍸 |
| YWAR | \|\|\| |
| EUST | \| |
| EAKI | \|\|\|\| |
| BOBO | \|\| |
| BAOK | \| |
| CHSP | \| |
| TRES | 𝍸 𝍸 |
| HOSP | \|\|\| |
| WOHA | \| |
| AMGO | \|\| |
| WAVI | \| |
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Pg. 1 of 1

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**

(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS
Date: MAY 18, 2011
Field Personnel: BOB STAMP

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 6°C | E - 4 | 100% | LIGHT RAIN | RAIN |

WP 323

**Start Time:** 920
**End Time:** 935
**Start Point UTM:** 18T 0367716 4890949
**End Point UTM:** 18T 0367486 4891395
**Habitat:** SCRUB GREY DOGWOOD / HAWTHORN
**Transect:** #6
**Feature #:**

| Species | Tally |
|---|---|
| YWAR | 卌 卌 卌 |
| RWBL | 卌 |
| EUST | \| |
| HOWR | \| \| |
| GRCA | \|\|\|\| |
| MODO | \|\| |
| COYE | \|\|\|\| |
| COGR. | \|\|\| |
| TRES | \| |
| AMCR | \| |
| BRTH | \|\| |
| SOSP | 卌 卌 |
| EATO | \| |
| NOHA | \|\| |
| BCCH | \| |
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Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑.

Signature: Robt Stamp
(Field Personnel)

Signature:
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960593
Project Name: AMHERST IS
Date: MAY 18, 2011
Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 5°C | E - 4 | 100% | LIGHT RAIN | RAIN |

**Start Time:** 711
**End Time:** 726
**Start Point UTM:** 18T 0365101 4890675
**End Point UTM:** 18T 0365215 4890843
**Habitat:** SCRUBBY WOODLAND WET
**Transect:** #3
**Feature #:**

| Species | Tally |
|---|---|
| COYE | \|\|\| |
| WCTH | \|\| |
| HOWR | \|\| |
| EATO | \|\| |
| AMRO | 𝍸 \| |
| BAOR | \| |
| EUST | \| |
| YWAR | \|\| |
| NAWA | \| |
| SOSP | \|\|\|\| |
| GRCA | \|\| |
| WISN | \| |
| BHCO | \| |
| RBGK | \|\|\| |
| WOCO | \| |
| CSWA | \| |
| ~~[illegible]~~ TEWA | \| |
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Pg. 1 of 1

**Signature:** Robt Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kath
(Project Manager)

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595

**Project Name:** AMHERST IS

**Date:** MAY 18, 2011

**Field Personnel:** BOB STAMP

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 5°C | E-2 | 100% | RAIN | RAIN |

**Start Time:** 836

**End Time:** ~~18T 0367925 4892057~~ 855

**Start Point UTM:** 18T 0368205 4891624

**End Point UTM:** 18T 0367925 4892057

**Habitat:** GRASSLAND / GREY DOGWOOD SCRUB / PATCHES OF SPRUCE

**Transect:** #4

**Feature #:**

| Species | Tally |
|---|---|
| COYE | ~~\|\|\|\|~~ |
| SOSP | ~~\|\|\|\|~~ |
| KNPH | \| |
| RWBL | ~~\|\|\|\|~~ |
| AMGO | ~~\|\|\|\|~~ \|\|\| |
| HOWR | \| |
| COGR | \|\| |
| YRWA | \|\|\|\| |
| LEFL | \|\| |
| BOBO | \| |
| CSWA | \|\| |
| GRCA | \|\| |
| NOHA | \| |
| WTSP | \|\| |
| SAVS | \|\| |
| EAME | \| |
| BRTH | \| |
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Pg. 1 of 1

**Signature:** ____________________
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☑~~.

**Signature:** ____________________
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS
Date: MAY 18, 2011
Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 7°C | E-4 | 100% | LIGHT RAIN | RAIN |

**Start Time:** 1052
**End Time:** 1116
**Start Point UTM:** 18T 0363290 4888957
**End Point UTM:** 18T0362996 4888750
**Habitat:** SCRUB + DEC. WOODLAND
**Transect:** #7
**Feature #:**

| Species | Tally |
|---|---|
| WOTH | \|\|\| |
| YWAR | \|\| |
| RWBL | \|\|\| |
| SOSP | \|\| |
| BOBO | \| |
| AMCR | \| |
| GRCA | \| |
| BEKI | \| |
| BTBW | \|\| |
| CSWA | \| |
| AMGO | \| |
| BCCH | \| |
NOWT | \| |
| EUST | \| |
| BAOR | \| |
| MAWA | \|\| |
| RCKI | \| |
| COGR | \| |
| AMRO | \| |
| WTSP | \|\| |
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Pg. 1 of 1

Signature: Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☐ ~~& legible ☐~~.

Signature:
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960597

Project Name: AMHERST IS

Date: MAY 18, 2011

Field Personnel: ROB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 6°C | E-4 | 100% | RAIN | RAIN |

**Start Time:** 1005

**End Time:** 1029

**Start Point UTM:** 18T 0364839 4888426

**End Point UTM:** 18T 0364979 4888003

**Habitat:** WET, WOODLAND

**Transect:** #8

**Feature #:**

| Species | Tally |
|---|---|
| LEFL | \|\| |
| YWAR | 𝍸 \| |
| AMRO | \|\|\|\| |
| RWBL | \|\|\| |
| NOFL | \| |
| RBGR | \|\| |
| HOWR | \| \|\|\| |
| TRES | 𝍸 𝍸 𝍸 |
| ~~BEGR~~ BTNW | \| |
| WISN | \| |
| BAOR | \| |
| EUST | \|\| |
| AMGO | \|\| |
| RTHA | \| |
| VEER | \|\| |
| BCCH | \| |
| WBNU | \| |
| SWSP | \|\|\| |
| COYE | \|\| |
| WTSP | \| |
| | |

Pg. 1 of 1

Signature: Robt Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katie
(Project Manager)

REV: 2011-05-03 / FORM 014

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST IS.

Date: 19 MAY/11

Field Personnel: J. HASLOP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 18°C | 0 | 10% | 0 | RAIN |

**Start Time:** 9:11

**End Time:** 9:46

**Start Point UTM:** 18-359769E. 4887156N

**End Point UTM:** (P01 066) 18.360033E. 4887428N

**Habitat:** Wet Woods

**Transect:** #11

**Feature #:**

| Species | Tally |
|---|---|
| COYE | 𝍷𝍷 |
| BAOR | 𝍷𝍷𝍷𝍷 |
| HOWR | 𝍸𝍷 |
| AMRO | 𝍸𝍷𝍷 |
| WOTH | 𝍷𝍷 |
| [illegible] | [illegible] |
| SOSP | 𝍷 |
| COGR | 𝍸𝍷𝍷 |
| RWBL | 𝍷𝍷𝍷𝍷 |
| WODU | 𝍷𝍷𝍷 |
| GCFL | 𝍷𝍷 |
| BNGR | 𝍷𝍷 BLACK THRTd GREEN W |
| AMRO | 𝍷 |
| AMRE | 𝍷𝍷 |
| RBGR | 𝍸𝍸 |
| DOWO | 𝍷𝍷 |
| BTBW | 𝍷 |
| WBNU | 𝍷𝍷 |
| REVI | 𝍷 |
| BLSA | 𝍷𝍷𝍷𝍷 |
| OVEN | 𝍷 |

Pg. 1 of 2

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kathi S
(Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| RBWO | II |
| BUST | IIII |
| WTSP | I |
| AMGO | I |
| NOFL | I |
| MAWA | I |
| AMCR | I |
| [illegible] | [illegible] |
| RTHA | I |

Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST IS.

Date: 19 MAY /11

Field Personnel: J. HESLOP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 12°C | WIND: E 5KM | CLOUD: 95 % | PPT: 0 | PPT (in last 24 hrs): RAIN |

**Start Time:** 6:40

**End Time:** 7:21

**Start Point UTM:** P01070 18·360100E · 4890404N

**End Point UTM:** (P01074) 18·360360E · 4889978N

**Habitat:** PASTURE (+Adjacent Wet Scrub)

**Transect:** #13

**Feature #:**

| Species | Tally |
|---|---|
| BOBO | 卌 卌 卌 \|\| |
| AMCR | \| |
| BLJA | \|\| |
| COYE | \|\|\| |
| SOSP | 卌 |
| GRSP | \|\|\|\| |
| RWBL | 卌 |
| CORA | \| |
| COGR | \|\|\|\| |
| SAVS | \|\| |
| MALL | 卌 \| |
| CHSP | \| |
| EUST | \|\|\|\| |
| BRTH | \| |
| YWAR | \|\|\| |
| GRCA | \| |
| CCSP | \|\| |
| AMGO | \|\|\| |
| *RHWO | \| ((P01075) 18·360272E 4890133N FLEW IN FROM SO. LANDED IN TALL TREE FOR ≃ 15 SEC + THEN FLEW TO THE NORTH) |
| MODO | \| |
| BARS | \| |

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| EAME | I |
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Pg. 2 of 2

**Signature:** ____________________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________________ (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Is.
Date: 19 MAY/11
Field Personnel: J. Heslop

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 13°C | WIND: 0 | CLOUD: 85% | PPT: 0 | PPT (in last 24 hrs): RAIN |

**Start Time:** 7:33
**End Time:** 8:03
**Start Point UTM:** (P01062) 18-358432E-4889056N
**End Point UTM:** (P01063) 18-358735E-4888553
**Habitat:** Woodland
**Transect:** #9
**Feature #:**

| Species | Tally |
|---|---|
| BCCH | 𝍸 |
| EATO | 𝍷𝍷 |
| GRCA | 𝍷 |
| NOCA | 𝍷𝍷𝍷 |
| WISN | 𝍷 |
| YWAR | 𝍸 |
| RWBL | 𝍸 𝍸 𝍸 𝍸 |
| MODO | 𝍷𝍷 |
| AMCR | 𝍷𝍷 |
| AMRO | 𝍷𝍷𝍷𝍷 |
| BLJA | 𝍸 |
| CHSP | 𝍷 |
| AMGO | 𝍷𝍷𝍷 |
| SOSP | 𝍷 |
| EUST | 𝍷𝍷𝍷𝍷 |
| BHCO | 𝍷 |
| COYE | 𝍷𝍷 |
| GCFL | 𝍷 |
| RBGB | 𝍷𝍷 |
| SNSP | 𝍷 |
| ~~[illegible]~~ BTNW | 𝍷𝍷 BLACK-THROATED GREEN W. |

Pg. 1 of 2

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature:
(Project Manager)

| Species | Tally |
|---|---|
| TRES | III |
| WODU | I |
| EAKI | IIII |
| BAOR | II |
| NOFL | I |
| REVI | II |
| BBWA | II |
| PHVI | I |
| 4 BLBW | III Blackburnian |
| KILL | II |
| BTBW | I BTBL |
| EAPH | I |
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Pg. 2 of 2

Signature: ______________________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: ______________________ (Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS.
Date: 19 MAY/11
Field Personnel: J. HESLOP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 18°C | E 5 Km | 50% | 0 | RAIN |

**Start Time:** 8:20
**End Time:** 8:52
**Start Point UTM:** (P0104) 18.358442E. 4886374N
**End Point UTM:** (P0105) 18.358458E. 4885959N
**Habitat:** WET Woods
**Transect:** #10
**Feature #:**

| Species | Tally |
|---|---|
| OSPR | 𝍷 |
| SSHA | 𝍷𝍷 |
| EUST | 𝍸 𝍸 𝍸 𝍸𝍸𝍸 |
| WISP | 𝍷𝍷 |
| COYE | 𝍸 |
| AMRO | 𝍷𝍷 |
| AMCR | 𝍷𝍷 |
| SOSP | 𝍸 |
| BCCH | 𝍷 |
| GRCA | 𝍷𝍷𝍷 |
| COGR | 𝍸 𝍸 𝍸 𝍷𝍷𝍷 |
| BAOR | 𝍷𝍷 |
| RWBL | 𝍷 |
| AMGO | 𝍸 𝍷 |
| EAVIO | 𝍷𝍷𝍷 |
| WISN | 𝍷𝍷 |
| NOFL | 𝍷 |
| BLJA | 𝍷 |
| FISP | 𝍷 |
| GRHE | 𝍷 |
| ALFL | 𝍷𝍷 |

Pg. 1 of 2

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| YWAR | \|\|\|\| |
| RBGR | \| |
| BWWA | \| |
| LEFL | \| |
| BRTH | \| |
| NAWA | \| |
| RBGR | \| |
| BHCO | \|\| |
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Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathi (Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Is.

Date: 19 May/11

Field Personnel: J. Heslop

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 19°C | 0 | 10% | 0 | Rain |

Start Time: 10:00

End Time: 10:30

Start Point UTM: (P01 068) 18.357631E. 4887948N

End Point UTM: 18.357195E . 4887817N

Habitat: Wet Scrub

Transect: #12

Feature #:

| Species | Tally |
|---|---|
| CSWA | \|\| |
| AMRO | \|\|\|\| |
| BAOR | \| |
| GCFL | \| |
| RBGR | 𝍸 \| |
| HOWR | 𝍸 |
| BLJA | \| |
| BCCH | \| |
| DOWO | \|\| |
| WBNU | \| |
| WOTH | \|\| |
| AMCR | \| |
| AMRE | \|\| |
| BTBW | \|\|\| |
| BHCO | \| |
| WODU | \|\| |
| RBWO | \| |
| RTHA | \| |
| AMCR | \| |
| MALL | \|\| |
| REVI | \| |

Pg. 1 of 2

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Kathi (Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| BBWA | I |
| MAWA | I |
| SWTH | III |
| CAWP | I |
| TEWA | I |
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Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst IS
Date: 19 MAY/11
Field Personnel: J. Heslop

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 20°C | 0 | 25% | 0 | RAIN |

**Start Time:** ~~10:30~~ 11:00
**End Time:** 11:30
**Start Point UTM:** 18·0367716·4890949N
**End Point UTM:** 18·0367486·4891395
**Habitat:** SCRUB-GREY DOGWOOD/HAWTHORN
**Transect:** #6
**Feature #:**

| Species | Tally | |
|---|---|---|
| BLPW | \| | BLACKPOLL W. |
| RWBL | \|\|\| | |
| AMRO | 卌 \|\|\| | |
| YWAR | 卌 卌 卌 卌 \| | |
| COGR | 卌 \| | |
| | | |
| BAOR | \|\| | |
| SOSP | 卌 \|\|\| | |
| GRCA | 卌 | |
| BTBW | \| | |
| HOWR | \| | |
| COYE | \|\|\|\| | |
| AMCR | \|\|\| | |
| BRTH | \|\| | |
| EATO | \|\|\| | |
| FISP | \|\| | |
| NOFL | \| | |
| SSHA | \| | |
| BARS | \| | |
| TRES | \|\| | |
| EAKI | \|\| | |

Pg. 1 of 2

Signature: J. Heslop
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑

Signature: Kathi
(Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| WAVI | \| |
| BCCH | \| |

Pg. 2 of 2

**Signature:** ______________________ (Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☐.

**Signature:** ______________________ (Project Manager)

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST IS.

Date: 19 MAY/11

Field Personnel: B STAMP & J. HESLOP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 21°C | WIND: 5 5KM | CLOUD: 15% | PPT: 0 | PPT (in last 24 hrs): RAIN |

**Start Time:** 12:28

**End Time:** 12:55

**Start Point UTM:**

**End Point UTM:** 18.0362874.4896960

**Habitat:** SCRUB

**Transect:** #1

**Feature #:**

| Species | Tally |
|---|---|
| YWAR | 𝍸 𝍸 |
| RWBL | \| |
| AMRO | \|\|\| |
| SOSP | \|\|\| |
| GRCA | \| |
| AMGO | \|\|\|\| |
| EUST | 𝍸 \|\|\|\| |
| BHCO | \|\| |
| AMKR | \|\| |
| BRTH | \| |
| RTHA | \| |
| COYE | \| |
| HOWR | \| |
| COGR | \| |
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Pg. 1 of 1

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS
Date: MAY 19, 2011
Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 16 °C | E 2 | 85% | 0 | 0 |

**Start Time:** 712
**End Time:** 735
**Start Point UTM:** 18T 0365101 4890675
**End Point UTM:** 18T 0365215 4890843
**Habitat:** SCRUBBY WOODLANDS
**Transect:** #3
**Feature #:**

| Species | Tally |
|---|---|
| WOTH | \|\| |
| LEFL | \|\| |
| YWAR | \|\|\|\| |
| EATO | \|\| |
| COYE | \|\|\| |
| MODO | \|\|\|\| |
| HOWR | \| |
| RBGR | \|\|\| |
| CORA | \| |
| ~~MOD~~ BHCO | \|\| |
| GRCA | \|\| |
| WIWA | \| |
| SOSP | \|\| |
| CSWA | \|\| |
| BLJA | \|\| |
| AMRO | \|\|\|\| |
| EUST | \|\| |
| COGR | \|\|\|\| |
| BLBW | \| |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS
Date: MAY 19, 2011
Field Personnel: BOB STAMP

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 16°C | WIND: E-2 | CLOUD: 70% | PPT: 0 | PPT (in last 24 hrs): RAIN |

**Start Time:** 835
**End Time:** 851
**Start Point UTM:** 18T 0368205 4891624
**End Point UTM:** 18T 0367925 4892057
**Habitat:** GRASSLANDS WITH SHRUBS
**Transect:** #4
**Feature #:**

| Species | Tally |
|---|---|
| COYE | \|\|\| |
| TRES | \|\|\|\| |
| SOSP | 𝍸 |
| RWBL | 𝍸 \| |
| GRCA | \|\|\| |
| YWAR | 𝍸 \|\|\| |
| FUST | \| |
| LEFL | \|\| |
| AMRO | \|\| |
| COGR | \|\|\|\| |
| AMCR | \| |
| MAWA | \|\| |
| ALFL | \| |
| BCCH | \| |
| BOBO | 𝍸 \| |
| EAME | \| |
| WISN | \| |
| SAVS | \|\| |
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Pg. 1 of 1

Signature: Robert Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST Is

Date: MAY 19 2011

Field Personnel: BOB STAMP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18°C | E-2 | 20% | 0 | RAIN |

**Start Time:** 920

**End Time:** 1006

**Start Point UTM:** 18T 0363290 4888957

**End Point UTM:** 18T 0362996 4888750

**Habitat:** WOODLAND

**Transect:** 47

**Feature #:**

| Species | Tally |
|---|---|
| MAWA | 卌 卌 卌 |
| NAWA | III |
| BRTH | I |
| TEWA | III |
| BPWA | I |
| YRWA | 卌 卌 II |
| LISP | II |
| BTBW | II |
| RBNU | I |
| YWAR | II |
| SOSP | III |
| BHCO | II |
| HOWR | I |
| RBGR | II |
| AMRO | III |
| BLBW | II |
| RWBL | II~~I~~ |
| NOWA | I |
| WAVI | I |
| WOTH | I |
| AMGO | II |

Pg. 1 of 2

**Signature:** ______ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______ (Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| LEFL | \|\|\| |
| COGR | \|\| |
| REVI | \|\| |
| COYE | \| |
| GRCA | \|H |
| BHVI | \| |
| WOCO | \| |
| CSWA | \|\|\| |
| BAWW | \| |
| EUST | \|\| |
| CAWA | \|\| |
| RCKI | \| |
| BBWA | \|\| |
| BTNW | \| |
| GCFL | \| |
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Pg. 2 of 2

**Signature:** ____________________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________________ (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: AMHERST IS.
Date: MAY 19, 2011
Field Personnel: BOB STAMP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18°C | E-2 | 50% | 0 | RAIN |

Start Time: 1035
End Time: 1058
Start Point UTM: 18T 0364839 4888426
End Point UTM: 18T 0364979 4888003
Habitat: WOODLAND
Transect: #8
Feature #:

| Species | Tally |
|---|---|
| #SCTA | 1 |
| LEFL | 11 |
| RWBL | 卌 1 |
| HOWR | 11 |
| SOSP | 卌 1 |
| WAVI | 11 |
| TRES | 卌 |
| COYE | 11 |
| BAOR | 11 |
| EUST | 1 |
| YWAR | 1111 |
| EAWP | 1 |
| CSWA | 11 |
| MAWA | 111 |
| AMRO | 卌 1 |
| YRWA | 1 |
| RBGR | 1 |
| NAWA | 1 |
| BHVI | 1 |
| BTNW | 11 |
| AMRE | 1 |

Pg. 1 of 2

Signature: Robt Stamp
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.
Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| BCCH | \| |
| COGR | \|\| |
| WISN | \| |
| BHCO | \|\| |
| SWSP | \| |
| RBNU | \|\| |
| LISP | \| |
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Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014

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1 – 70 Southgate Drive
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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960575
Project Name: AMHERST IS
Date: MAY 19, 2011
Field Personnel: BOB STAMP

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 15°C | CALM | 99% | 0 | RAIN |

**Start Time:** 630
**End Time:** 655
**Start Point UTM:** 18T 0363098 4891710
**End Point UTM:** 18T 0363011 4891298
**Habitat:** GRASSLAND with shrubs
**Transect:** #2
**Feature #:**

| Species | Tally |
|---|---|
| BOBO | ~~\|\|\|\|~~ \| |
| EAKI | \|\|\|\| |
| YWAR | ~~\|\|\|\|~~ ~~\|\|\|\|~~ |
| RWBL | \|\|\|\| |
| MODO | \| |
| AMCR | \| |
| GRCA | \|\| |
| COYE | \|\| |
| BRTH | \| |
| SOSP | \|\|\|\| |
| BAOR | \| |
| COGR | ~~\|\|\|\|~~ \| |
| NOCA | \| |
| EATO | \| |
| FISP | \| |
| AMRO | \|\|\|\| |
| LISP | \| |
| CORA | \| |
| BACO | \|\| |
| AMGO | \|\| |
| | |

Pg. 1 of ___

Quality Control: This form is complete ☑ & legible ☑.

Signature: Robert Stamp
(Field Personnel)

Signature: Katie
(Project Manager)

REV: 2011-05-03 / FORM 014

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: AMHERST IS

Date: MAY 19, 2011

Field Personnel: BOB STAMP

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 15°C | E-2 | 60% | 0 | RAIN |

Start Time: 757

End Time: 824

Start Point UTM: 18T 0369407 4893542

End Point UTM: 18T 0369645 4893160

Habitat: GRASSLAND

Transect: #5

Feature #:

| Species | Tally |
|---|---|
| BLBW | \|\|\|\| |
| BTNW | \|\| |
| AMCR | \| |
| SOSP | \|\| |
| YWAR | \|\|\|\| |
| AMRO | \|\|\|\| |
| EAME | \| |
| CSWA | \| |
| WISN | \|\| |
| HOWR | \| |
| EAKI | \| |
| BAOR | \| |
| MAWA | \| |
| TRES | 𝍸 𝍸 \| |
| REVI | \|\| |
| GRCA | \| |
| RBGR | \| |
| CMWA | \|\| |
| COYE | \| |
| WAVI | \|\| |
| YRWA | \| |

Pg. 1 of 2

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| PAWA | / |
| BBWA | / |
| NOWA | / |
| BCCH | / |
| MAWA | / |
| YEWA | / |
| BRTH | // |
| MODO | / |
| HOSP | // |
| SAVS | // |
| BOBO | / |
| RWBL | //// |
| 2← AMCR | / |
| PUFI | // |
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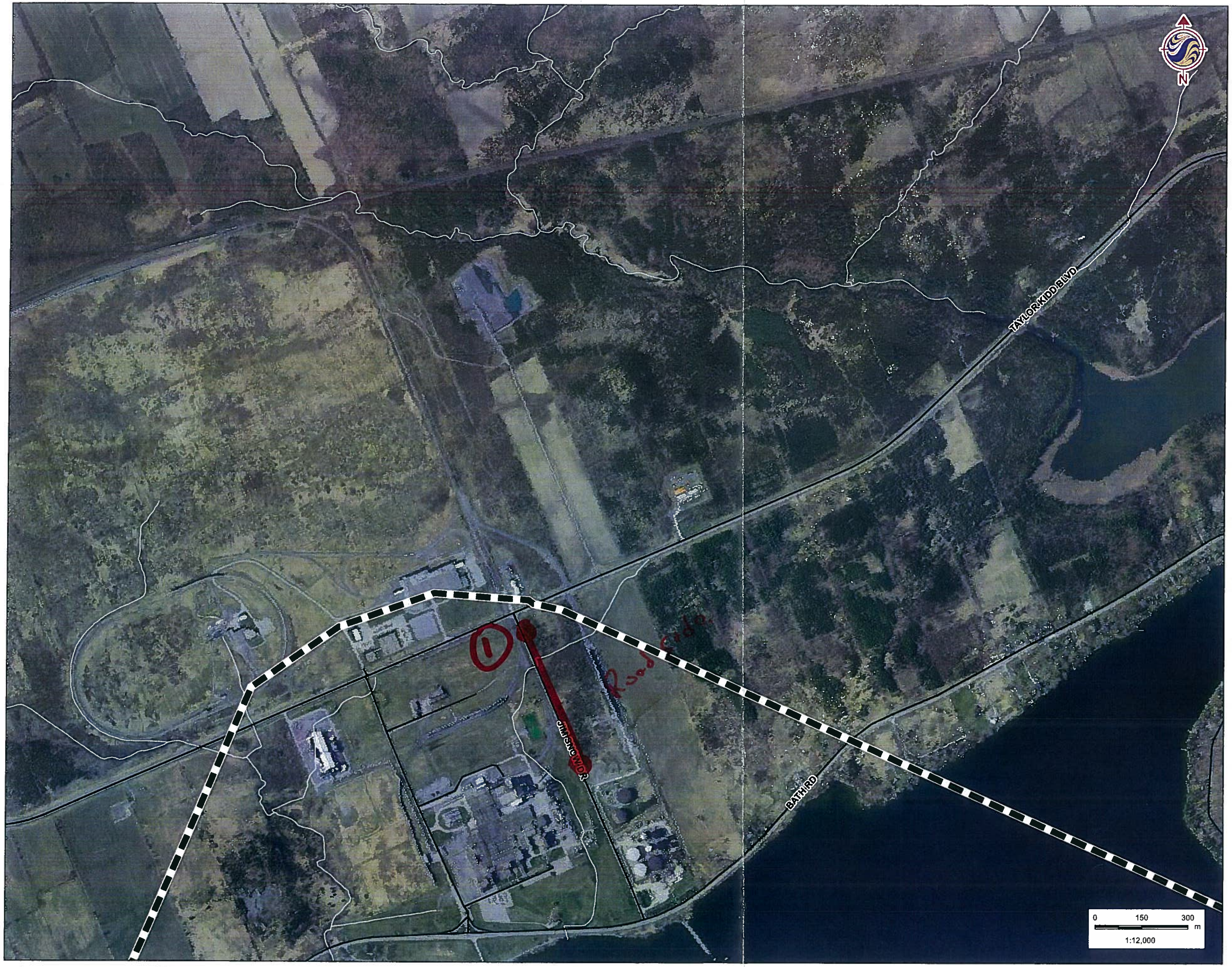
Pg. 2 of 2

Quality Control: This form is complete ☑ ~~& legible ☐~~.

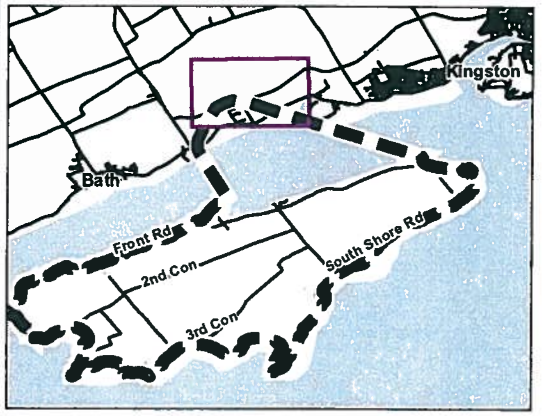
**Signature:** (Field Personnel)

**Signature:** (Project Manager)



## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property
- Amphibian Station



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Client
Title
Project

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

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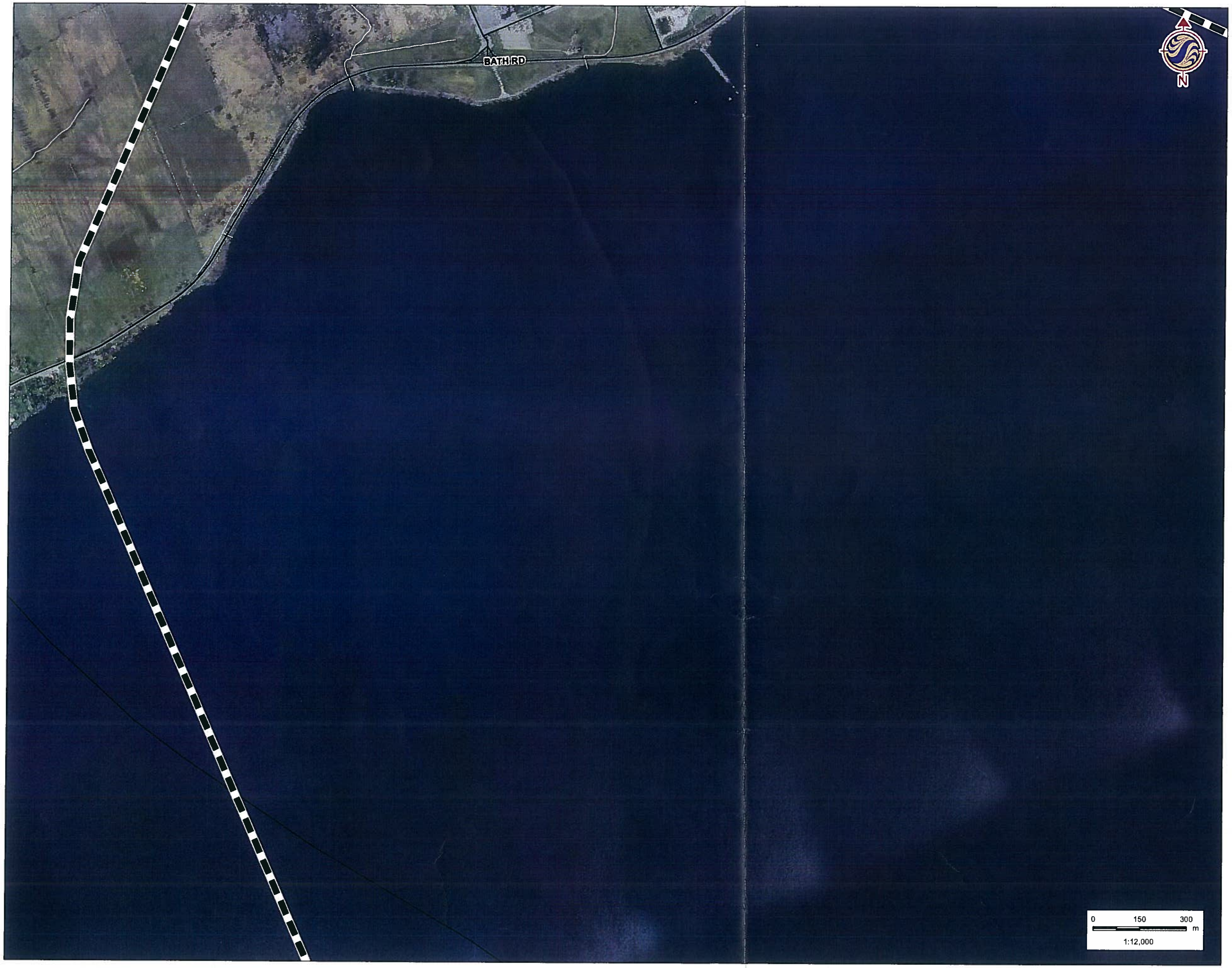
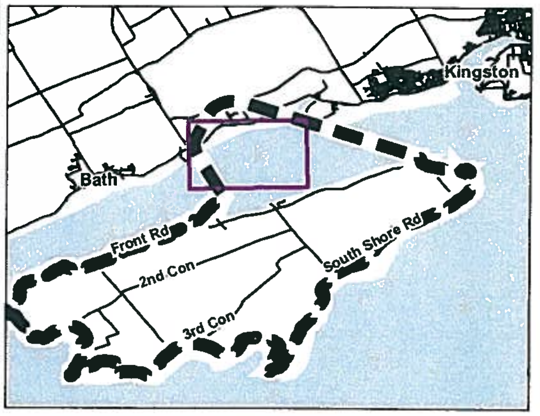
Revised on: 2011-04-15 By: pworsell



## Legend

- ▭ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
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Figure No.
Tile 2

Title
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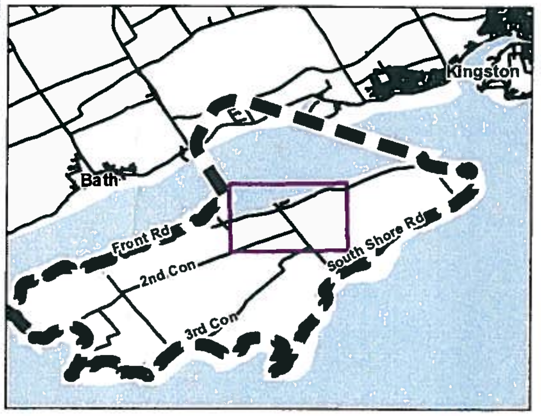
## Legend

- ▙ Study Area
- — Road
- Watercourse
- ☐ Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 3

Title
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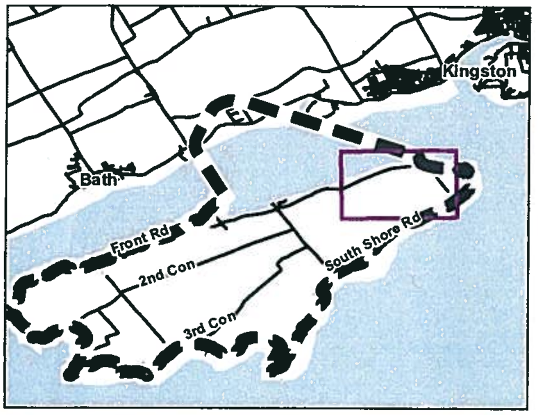
Revised on: 2011-04-15 By: pworsell

## Legend

▙ Study Area
— Road
— Watercourse
▭ Property Boundaries
🟩 Signed Property
○ Amphibian Station



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Title
Project

Figure No.
Tile 4

Title
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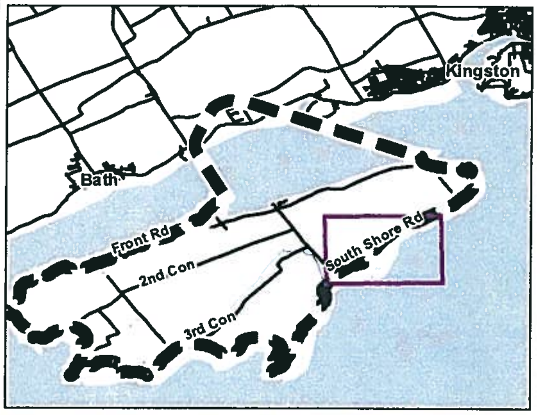
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 5

Title
**FIELD MAPBOOK**

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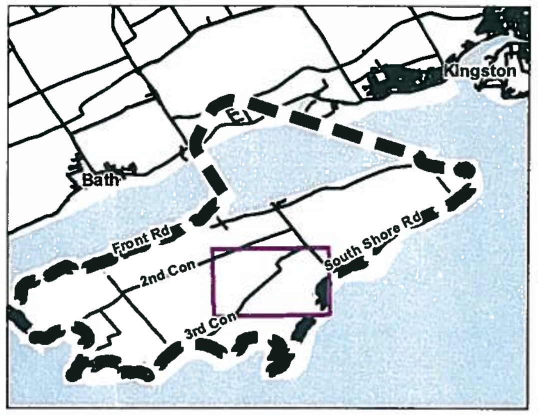
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client
Title
Project

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

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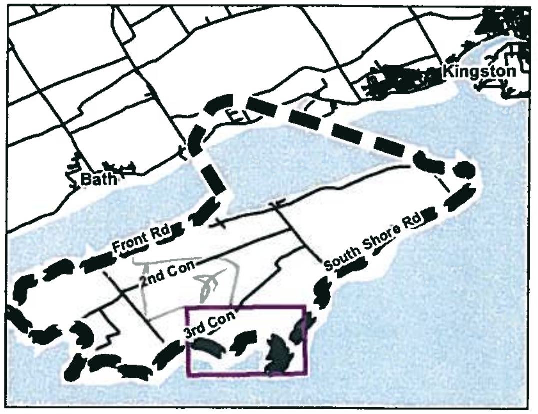
Revised on: 2011-04-15 By: pworsell

## Legend

- ▚ Study Area
- — Road
- — Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property
- ○ Amphibian Station



## Notes

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Client
Title
Project

Figure No.
Tile 7

Title
**FIELD MAPBOOK**

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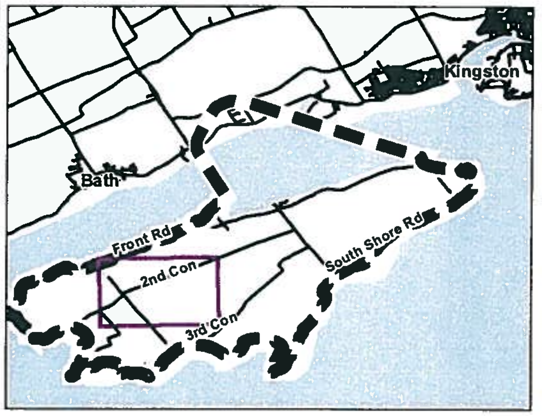
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 8

Title
**FIELD MAPBOOK**

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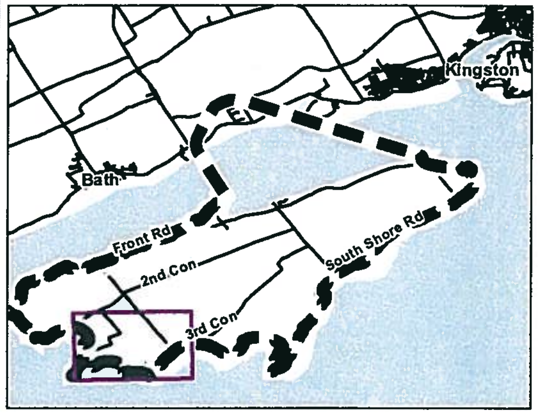
Revised on: 2011-04-15 By: pwernell

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



## Notes

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Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

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## Legend

- ▟ Study Area
- — Road
- Watercourse
- ▭ Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station

## Notes

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Client/Project
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Title
Project

Figure No.
Tile 10

Title
FIELD MAPBOOK

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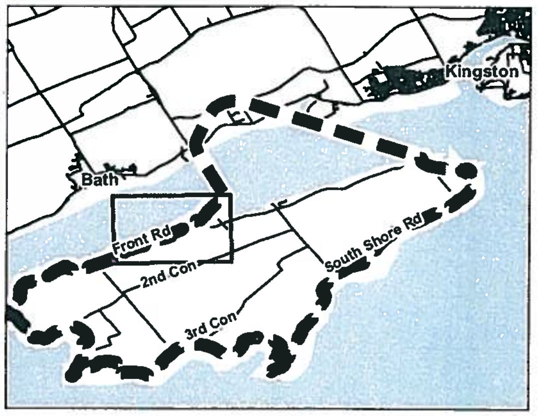
Revised on: 2011-04-15 By:

## Legend

- Study Area
- Road
- Watercourse
- Property Boundaries
- Signed Property
- Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 11

Title
FIELD MAPBOOK

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26/11

Field Personnel: Matthew Ross

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 15° | 2 | 100 % | None | Rain |

**Start Time:** 11:52

**End Time:** 12:27

**Start Point UTM:** 365038 4887960

**End Point UTM:** 365002 4888463

**Habitat:** Ash Swamp

**Transect:** 8

**Feature #:**

| Species | Tally |
|---|---|
| YEWA | 卌 卌 卌 |
| WAVI | \|\| |
| RWBL | 卌 |
| EAWP | \| |
| CAWA | \| |
| SOSP | \|\|\|\| |
| TRES | 卌 \|\| |
| AMCR | \| |
| SWSP | \|\| |
| WBNU | \| |
| COYE | \| |
| AMRO | \|\|\|\| |
| AMGO | \|\| |
| | |
| COGR | \|\| |
| EUST | \|\| |
| REVI | \| |
| MAWA | \| |
| BTGW | \| |
| BPWA | \| |
| HOWR | \| |

Pg. 1 of 2

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katrin S
(Project Manager)

REV: 2011-05-03 / FORM 014

| Species | Tally |
|---|---|
| BOAR | 11 |
| LEFL | 11 |
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Pg. 2 of 2

Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________
(Project Manager)

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26/11

Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
|  | 14° | 2 | 85% | None | Rain |

Start Time: 8:03

End Time: 9:21

Start Point UTM: 359714 4887186

End Point UTM: 360025 4887526

Habitat: Ash lowland

Transect: 11

Feature #:

| Species | Tally |
|---|---|
| RBGR | \| |
| WOTH | \| |
| EAWP | \| |
| AMRO | ~~\|\|\|\|~~ \| |
| HOWR | \|\| |
| GCFL | \| |
| BTGW | \| |
| SOSP | \| |
| COYE | \|\| |
| RWBL | \|\|\|\| |
| AMCR | ~~\|\|\|\|~~ \| (mobbing a raptor) |
| BLJA | \| |
| BCCH | \| |
| EUST | \|\|\| |
| REVI | \| |
| YEWA | \|\|\| |
| AMRE | \| |
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Pg. 1 of 1

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☑~~.

Signature:
(Project Manager)

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May, 26/11

Field Personnel: Matthew Ross

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 14° | 2 | 75% | None | Rain |

**Start Time:** 6:36

**End Time:** 6:54

**Start Point UTM:** 358458 4886409

**End Point UTM:** 358460 4885954

**Habitat:** Ash lowland

**Transect:** 10

**Feature #:**

| Species | Tally |
|---|---|
| GCFL | \|\| |
| BOAR | \| |
| SOSP | \|\|\| |
| AMRO | \|\|\|\| |
| YEWA | \|\|\| |
| HOWR | \|\| |
| COYE | \|\| |
| RBGR | \|\|\| |
| BCCH | \|\| |
| EAWP | \| |
| REVI | \| |
| WOTH | \| |
| EUST | \|\| |
| RBWO | \| |
| AMCR | \| |
| RWBL | \|\|\| |
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Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26/11

Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14° | 2 | 75% | None | Rain |

**Start Time:** 7:20

**End Time:** 7:35

**Start Point UTM:** 357648 4857954

**End Point UTM:** 357165 4887817

**Habitat:** Swamp Thicket / Ash Lowland / Red Cedar Con. Forest

**Transect:** 12

**Feature #:**

| Species | Tally |
|---|---|
| YEWA | \|\|\|\| |
| ALFL | \|\|\|\| |
| AMRO | ~~\|\|\|\|~~ |
| EATO | \|\|\|\| |
| SOSP | ~~\|\|\|\|~~ \| |
| AMCR | \|\| |
| AMGO | \|\| |
| RBGR | \|\| |
| NOCA | 1 |
| COYE | \|\|\| |
| BLJA | \|\| |
| WOTH | \| |
| WBNU | \| |
| ~~GC~~ GCFL | \| |
| GRCA | \| |
| FISP | \| |
| BCCH | \|\| |
| COGR | \| |
| CEDW | \|\|\|\| |
| EUST | \| |
| | |

Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595
**Project Name:** Amherst Island
**Date:** May 26/11
**Field Personnel:** Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>14° | WIND:<br>2 | CLOUD:<br>100% | PPT:<br>Light Rain | PPT (in last 24 hrs):<br>Rain |

**Start Time:** 8:43
**End Time:** 8:55
**Start Point UTM:** 358748 4888546
**End Point UTM:** 358415 4888930
**Habitat:** Ash lowland/thicket/Red Cedar Forest
**Transect:** 9
**Feature #:**

| Species | Tally |
|---|---|
| YEWA | I |
| SWSP | I |
| SOSP | II |
| COYE | I |
| MODO | I |
| AMGO | II |
| RWBL | 𝍸 |
| AMRO | II |
| TRES | II |
| BLJA | I |
| FISP | I |
| BRTH | I |
| EATO | I |
| NAWA | I |
| BOAR | I |
| BCCH | II |
| | |
| | |
| | |
| | |
| | |

Pg. 1 of 1
**Signature:** 
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑
**Signature:** Katie
(Project Manager)

REV: 2011-05-03 / FORM 014

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26, 2011

Field Personnel: Matthew Ross

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 14° | WIND: 2 | CLOUD: 100% | PPT: None | PPT (in last 24 hrs): Rain |

**Start Time:** 9:34

**End Time:** 9:49

**Start Point UTM:** 360099 4890403

**End Point UTM:** 360355 4889975

**Habitat:** Dogwood Thicket

**Transect:** 13

**Feature #:**

| Species | Tally |
|---|---|
| BOBO | 𝍷𝍷𝍷 |
| YEWA | 𝍸 𝍸 𝍷 |
| COYE | 𝍷𝍷 |
| WIFL | 𝍷𝍷𝍷 |
| SAVS | 𝍷𝍷𝍷 |
| SOSP | 𝍸 |
| AMRO | 𝍷𝍷 |
| EAME | 𝍷 |
| COGR | 𝍷𝍷 |
| TRES | 𝍷 |
| | |
| | |
| BHCO | 𝍷𝍷𝍷 |
| BRTH | 𝍷 |
| CCSP | 𝍷 |
| GRCA | 𝍷𝍷 |
| | |
| (GHSP in adjacent field) | |
| NOHA in snag within survey area to W | |
| | |
| | |
| | |

Pg. 1 of 1

Signature:

(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature: Katie

(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26/11

Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16° | 2 | 100 | None | Rain |

Start Time: 10:45

End Time: 11:02

Start Point UTM: 367682 4890933

End Point UTM: 367427 4891329

Habitat: Hawthorn/dogwood thicket

Transect: 6

Feature #:

| Species | Tally |
|---|---|
| WAVI | \| |
| SOSP | 𝍸 \|\| |
| YEWA | 𝍸 𝍸 𝍸 |
| AMRO | \|\|\| |
| REVI | \| |
| RWBL | 𝍸 |
| BPWA | \| |
| BCCH | \|\| |
| COGR | \|\| |
| WIFL | \|\|\| |
| COYE | \|\| |
| GRCA | \|\| |
| WIWA | \| |
| BHCO | \| |
| HOWR | \| |
| EATO | \| |
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| | |
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| | |

Pg. 1 of 1

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☐✓

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26/11

Field Personnel: Matthew Ross + Do. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16° | 2 | 85% | None | Rain |

**Start Time:** 2:25

**End Time:** 2:40

**Start Point UTM:** 362838 4897016

**End Point UTM:** 363047 4896562

**Habitat:** Ash lowland/Dogwood thicket/Red cedar

**Transect:** 1

**Feature #:**

| Species | Tally |
|---|---|
| COYE | \|\|\|\| |
| YEWA | 𝍸 \|\|\| |
| RWBL | 𝍸 |
| SOSP | 𝍸 \|\|\| |
| AMGO | \|\|\|\| |
| MODO | \|\| |
| NOOR | \| |
| COGR | \|\|\| |
| AMRO | \|\|\|\| |
| HOFI | \| |
| HOWR | \|\| |
| AMCR | \| |
| BCCH | \| |
| TRSW | \|\|\|\| |
| EAKI | \| |
| EUST | 𝍸 |
| EAME | \| |
| BHCO | \|\|\| |
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| | |

Pg. 1 of 1

Signature: _______________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: _______________
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: May 26
Field Personnel: D. Graham

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 14 | / | 80% | / | Rain |

**Start Time:** 7:13
**End Time:** 7 58
**Start Point UTM:** 298 365066, 4890713
**End Point UTM:** 299 365567, 4890662
**Habitat:** FOD - lowland ash / SWT
**Transect:** 3
**Feature #:**

| Species | Tally | | |
|---|---|---|---|
| HOWR | \|\|\| | SWSP | \| |
| WOTH | \|\|\|\| | SOSP | \| |
| BLWA | \|\| | GCFL | \| |
| WBNU | \| | NOFL | \| |
| REVI | \|\|\|\| | | |
| EWPE | \|\| | | |
| AMRO | 𝍸 | | |
| AMRE | \|\|\| | | |
| CSWA | \| | | |
| COYE | \|\|\|\| | | |
| EATO | \| | | |
| RBGR | 𝍸 | | |
| BHCO | 𝍸 | | |
| YEWA | \|\|\|\| | | |
| MODO | \|\|\|\| | | |
| RWBL | \| | | |
| EATO | \| | | |
| EUST | \|\|\| | | |
| GRCA | \|\| | | |
| AMWO | \| | | |
| AMCR | \| | | |

Pg. 1 of 1

Signature: Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26, 2011

Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 | 1 | 100% | Rain | Rain |

**Start Time:** 8$^{40}$

**End Time:** 9:15

**Start Point UTM:** 300 368127, 4891747

**End Point UTM:** 301 367858, 4892170

**Habitat:** SWT - grey dogwood • spiraea

**Transect:** 4

**Feature #:**

| Species | Tally |
|---|---|
| REVI | \| |
| SOSP | 卌 \|\|\| |
| YEWA | 卌 \|\|\| |
| WIFL | \|\|\|\| |
| BLJA | \| |
| NOFL | \| |
| MOWA | \| |
| TRSW | \| |
| EATO | \|\| |
| COGR | \| |
| RWBL | \| |
| EAKI | \|\|\| |
| AMCR | \|\| |
| ALFL | \| |
| GRCA | \| |
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| | |

Pg. 1 of 1

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: May 26, 2011

Field Personnel: D. Graham

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 | 1 | 100% | None | Rain |

**Start Time:** 11<sup></sup>59

**End Time:** 12:37

**Start Point UTM:** 304 363296, 4888955

**End Point UTM:** 305 363041, 4888494

**Habitat:** SWD - bur oak / shagbark hickory dom.

**Transect:** 7

**Feature #:**

| Species | Tally | | |
|---|---|---|---|
| YEWA | 卌 \|\|\|\| | WBNU | \| |
| SOSP | \|\|\|\| | AMRE | \| |
| BLWA | \|\| | | |
| GRCA | 卌 | | |
| WOTH | -\|\|\|\| | | |
| HOWR | \| | | |
| RWBL | \| | | |
| COYE | \|\|\| | | |
| LEFL | \| | | |
| AMRO | 卌 \|\| | | |
| RBGR | \|\|\|\| | | |
| REVI | \|\|\| | | |
| AMGO | \|\| | | |
| CEWA | \| | | |
| BHCO | \|\| | | |
| NOWA | \| | | |
| NOOR | \|\|\| | | |
| TRSW | \| | | |
| BTBW | \| | | |
| EUST | \|\|\|\| | | |
| NOFL | \| | | |

Pg. 1 of 1

Signature: Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature:
(Project Manager)

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595
**Project Name:** Amherst Island
**Date:** May 26, 2011
**Field Personnel:** Don Graham

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 C | 1 | 80% | None | Rain |

**Start Time:** $6^{20}$
**End Time:** $6^{54}$
**Start Point UTM:** 296 362972, 4891627
**End Point UTM:** 297 362805, 4891202
**Habitat:** CUM/ CUT- grey dogwood dom.
**Transect:** 2.
**Feature #:**

| Species | Tally | | | |
|---|---|---|---|---|
| Orchard Oriole | \| | 2nd yr male | CEWA | 15 |
| SOSP | \|\|\| | | FISP | \|\|\| |
| EAKI | \|\|\| | | AMGO | \|\| |
| RWBL | 卌 | | AMCR | 卌 \| |
| COYE | \|\|\|\| | | RBGR | \|\| |
| AMRO | \|\|\| | | PAWA | \| |
| WIFL | \|\|\|\| | | | |
| YEWA | 卌 \|\| | | | |
| WAVI | \| | | | |
| CORA | \| | | | |
| GRSP | \| | | | |
| EATO | \|\|\| | | | |
| GRCA | \|\|\|\| | | | |
| BLWA | \|\| | | | |
| NOOR | \|\|\|\| | | | |
| COGR | \| | | | |
| BCCH | \|\| | | | |
| BHCO | \|\|\|\| | | | |
| WOTH | \|\| | | | |
| NOCA | \|\| | | | |
| CSWA | \| | | | |

Pg. 1 of 1

**Signature:** Don Graham
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☐.~~

**Signature:**
(Project Manager)

REV: 2011-05-03 / FORM 014

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: May 26, 2011
Field Personnel: D. Graham

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 14 | 1 | 100% | None | Rain |

**Start Time:** 10$^{51}$
**End Time:** 11:45
**Start Point UTM:** 302 369661, 4893144
**End Point UTM:** 303 369391, 4893574
**Habitat:** CUW - white pines on north side of road.
**Transect:** 5
**Feature #:**

| Species | Tally |
|---|---|
| Grassland is the predominant habitat along transect a grassland birds such as BOBO, SASP are not recorded | |
| CHSP | \| |
| TRSW | \|\|\| |
| WIFL | \|\|\|\| |
| RWBL | ~~\|\|\|\|~~ \|\| |
| AMGO | \| |
| YEWA | ~~\|\|\|\|~~ \| |
| SWSP | \| |
| AMRO | \|\|\|\| |
| EAKI | \|\| |
| AMGo | ~~\|\|\|\|~~ \|\| |
| BHCO | / |
| WAVI | \|\| |
| HOSP | \|\| |
| EUST | \| |
| EWPE | \| |
| BLWA | \| |
| GRCA | \| |
| | |
| | |

Pg. 1 of 1

**Signature:** Don Graham
(Field Personnel)

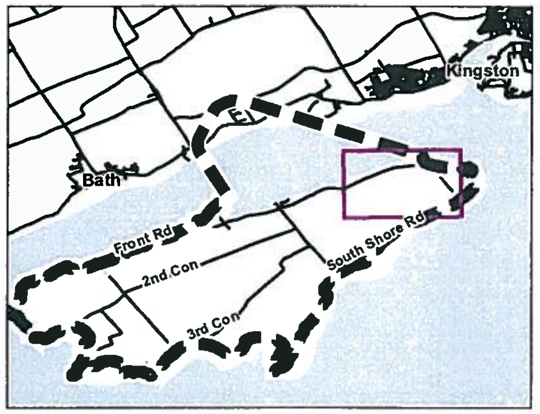
Quality Control: This form is complete ☑ & legible ☑

**Signature:**
(Project Manager)

REV: 2011-05-03 / FORM 014

## Legend

- ▭ Study Area
- — Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ○ Amphibian Station



## Notes

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Client/Project
Client
Title
Project

Figure No.
Tile 4

Title
**FIELD MAPBOOK**

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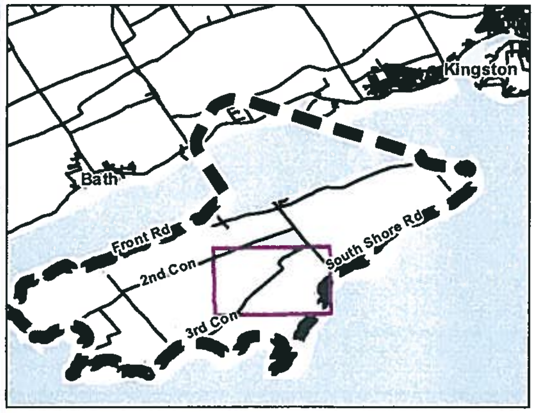
Revised on: 2011-04-15 By: pworsell

## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 6

Title
**FIELD MAPBOOK**

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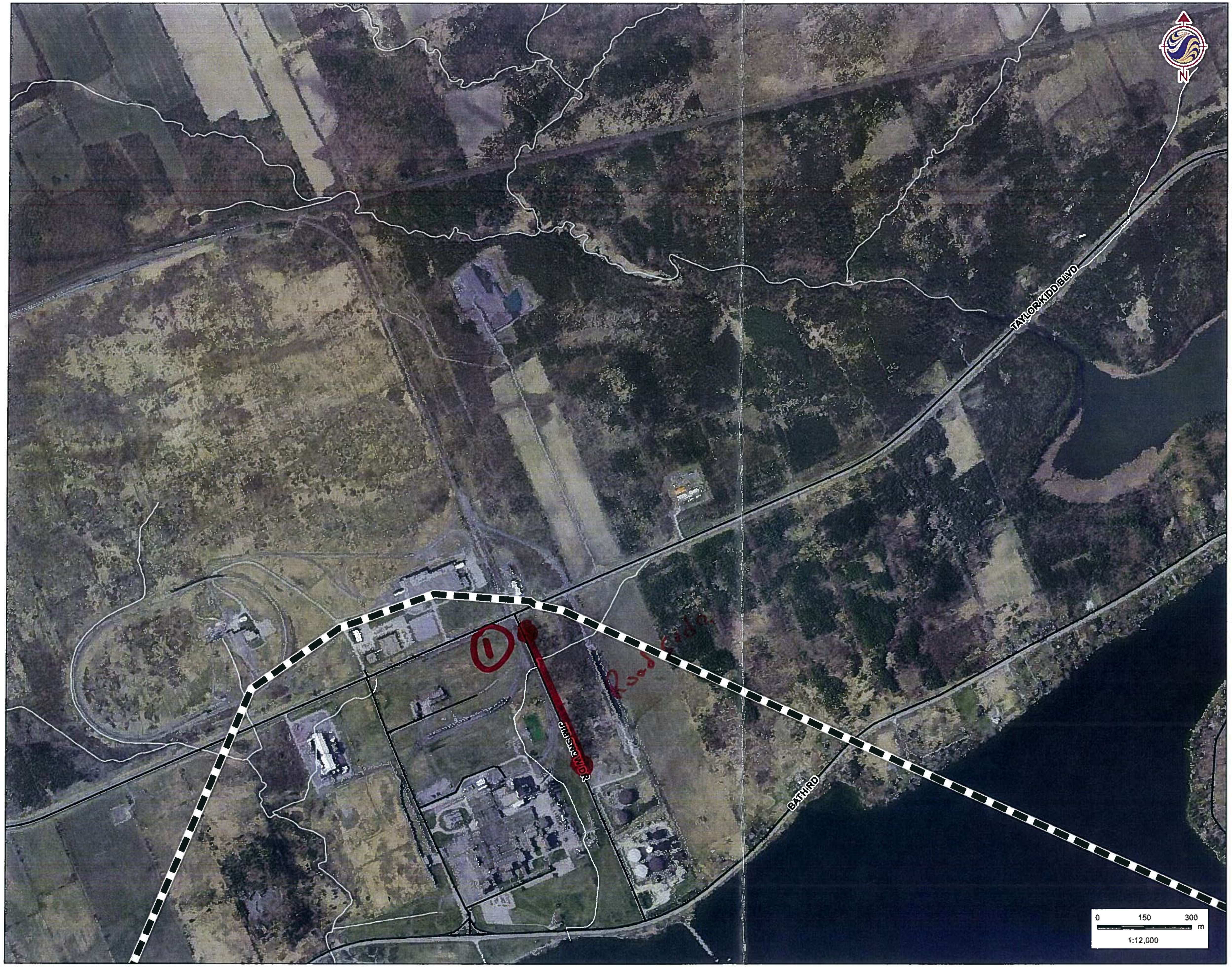
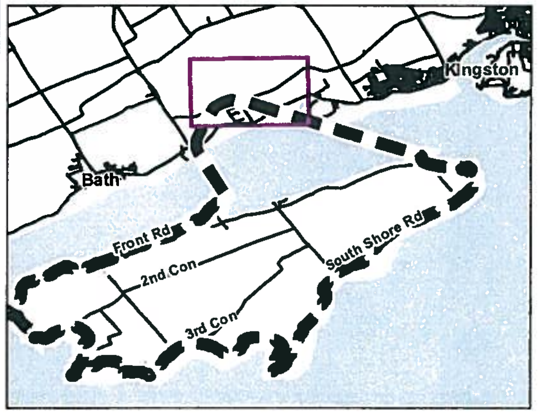


**Legend**

Study Area
Road
Watercourse
Property Boundaries
Signed Property
Amphibian Station

Fall Migratory Passerine Transects

13 Transects



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Sept. 2, 2011

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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
Tile 1

Title
**FIELD MAPBOOK**

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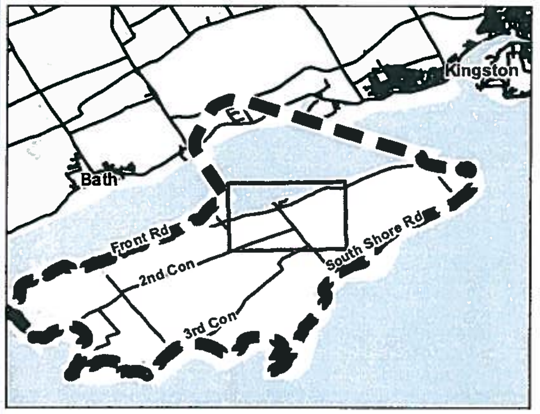
Revised on: 2011-04-15 By: pworsell

## Legend

▙ Study Area
— Road
Watercourse
▭ Property Boundaries
🟩 Signed Property
○ Amphibian Station

Sept. 2, 2011
Alan Wormington



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Client/Project
Client
Title
Project

Figure No.
Tile 3

Title
**FIELD MAPBOOK**

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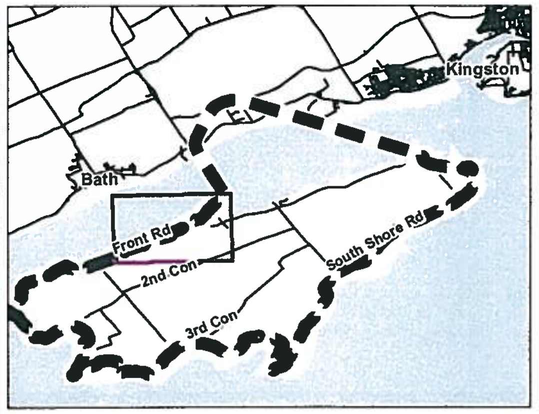
## Legend

- Study Area
- — Road
- Watercourse
- ▭ Property Boundaries
- ▭ Signed Property
- ○ Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 11

Title
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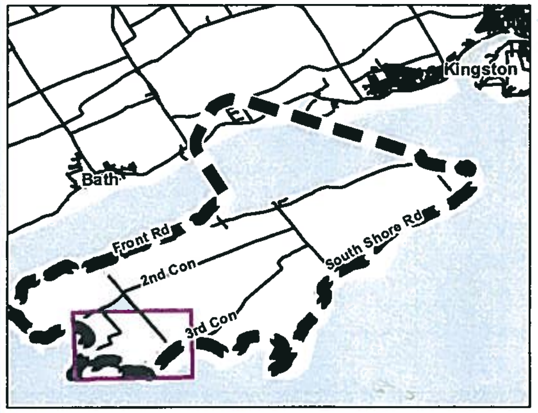
## Legend

- Study Area
- Road
- Watercourse
- 🟥 Property Boundaries
- 🟩 Signed Property
- ● Amphibian Station



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Client/Project
Client
Title
Project

Figure No.
Tile 9

Title
**FIELD MAPBOOK**

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## Legend

Study Area
Road
Watercourse
Property Boundaries
Signed Property
Amphibian Station

## Notes

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Client
Title
Project

Figure No.
Tile 10

Title
**FIELD MAPBOOK**

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sep 1, 2011
Field Personnel: R Holden

**Weather Conditions:**

| TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| ~18 | 2-3 E | 80 | — | LIGHT |

**Start Time:** 0635
**End Time:** 0655
**Start Point UTM:** 003
**End Point UTM:** 004
**Habitat:** Grassland w/ some trees.
**Transect:** 5
**Feature #:** Transect 5

| Species | Tally |
|---|---|
| DCCO - | 卌 卌 \| |
| BOBO - | 卌 \|\|\|\| |
| SASP - | \| |
| CAGO - | 10, |
| OSPR - | \| |
| YWAR - | \| |
| AMGO - | \| |
| GBHE - | \| |
| EUST - | \|\|\|\| |
| COME - | \|\| |
| NOHA - | \| |
| BCSA - | \| |
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Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature: Katherine Stames
(Project Manager)

REV: 2011-05-03 / FORM 014a

| **Species** | **Tally** |
|---|---|
| TRANSECT 4 | UTM: ~~TIME~~ START 005 END: 006 — HABITAT: SCRUB/Grassland |
| TIME ~~[illegible]~~ START 0715 | |
| END 0736 | |
| BOBU | 𝍸 |
| GRCA - | \|\| |
| CEFC - | \| |
| BCCH - | \|\|\|\| |
| EATO - | \| |
| YWAR - | \|\|\|\| |
| MAWA - | \| |
| COYE - | \|\|\| |
| WIWA - | \| |
| AMRO - | \| |
| AMGO - | \|\|\|\| |
| REVI - | \|\|\|\| |
| BCPW - | \| |
| BAOR - | \| |
| BCBU - | 1 — BCSA-1 |
| AMRE - | \| — AMCR-1 |
| SCSP - | \|\|\|\|\| — NOCA-1 |
| HOWR - | \| — CAGO-II |
| AMKE - | \| — EUST-1 |

Pg. 2 of 4

**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine Stames
(Project Manager)

REV: 2011-05-03 / FORM 014a

als w:\resource\internal info and teams\field forms\birds\windfarm birding\form_014-a_migratory-passerine-survey_2-sided.docx

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Sep 1, 2011

Field Personnel: B. Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 19 | WIND: 3-4 SSE | CLOUD: 95% | PPT: | PPT (in last 24 hrs): Drizzle |

**Start Time:** 0801

**End Time:** 0821

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Woods

**Transect:** 6

**Feature #:**

| Species | Tally |
|---|---|
| MODO MODO - | III |
| HEGU - | I |
| NOFL - | I |
| SOSP - | II |
| COYE - | II |
| HOWR - | I |
| RWBL - | I |
| | |
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Pg. 3 of 4

Signature:

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katherine Sm

(Project Manager)

REV: 2011-05-03 / FORM 014a

B.H. Amherst Sep 1, 2011

| Species | Tally |
|---|---|
| | START: 0847 END: 0913 |
| TRANSECT #9 | UTM: Start: End: |
| | HABITAT: Young Woods, Grass, Marsh |
| | |
| | |
| BLJA - | 卌卌 \|\| |
| NOFL - | \| |
| AMKE - | \|\|\|\| |
| RUBL - | \|\| |
| SWSP - | \| |
| CEDW - | \|\|\|\| |
| AMCR - | 卌 \| |
| AMGO - | \| |
| AMRO - | \| |
| SSHA - | \| |
| TRES - | \|\| |
| BARS - | \| |
| NOCA - | \| |
| HOWR - | \|\| |
| EATO - | \| |
| COYE - | \| |
| BCCH - | 卌 \|\|\| |
| SOSP - | \| |
| REVI - | \|\| |
| BOBO - | \|\| |
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Pg. 4 of 4

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine Sh (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept. 1, 2011
Field Personnel: Alan Worrington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>2 | WIND:<br>calm | CLOUD:<br>90 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Start Time:** 0715
**End Time:** 0725
24 **Start Point UTM:** 0360104/4890392
**End Point UTM:** 0360296/4890077 25
**Habitat:** Field / Shrub edge
**Transect:** 13
**Feature #:**

| Species | Tally |
|---|---|
| CORA | 1 |
| AMCR | 1 |
| SAVS | 1 |
| COYE | 1 |
| SOSP | 1 |
| | |
| | |
| | |
| | Returning: |
| | |
| LISP | 1 |

Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☑~~.

**Signature:** Katherine (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept. 1, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>22 | WIND:<br>light SW | CLOUD:<br>90 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Start Time:** 0808
**End Time:** 0826
27 **Start Point UTM:** 0357170/4887706
**End Point UTM:** 0357172/4887709 28
**Habitat:** Old Fields
**Transect:** 12
**Feature #:**

| Species | Tally |
|---|---|
| EAKI | 1 |
| EATO | 1 |
| SOSP | 111 |
| BLJA | 11 |
| COYE | 11 |
| LISP | 1 |
| AMRO | 1 |
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Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrine (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept 1, 2011
Field Personnel: Alan Wormington

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>22 | WIND:<br>S ① | CLOUD:<br>100 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Start Time:** 0852
**End Time:** → 0920
30 **Start Point UTM:** 0357608/4887943
**End Point UTM:** 035~~[illegible]~~ 8475/4885907 ㉜
**Habitat:** Forest
**Transect:** 10
**Feature #:**

| **Species** | **Tally** |
|---|---|
| BLJA | 1 |
| WITU | 1 |
| sparrow | 1 |
| EAWP | 1 |
| Catharus thrush | 1 |
| ~~[illegible]~~ NOWA | 1 |

Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595
**Project Name:** Amherst
**Date:** Sep 2, 2011
**Field Personnel:** B. Holden

| Weather Conditions: | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 20-21 | 3-5 | 15%-5% | / | / |

**Start Time:** 0641
**End Time:** 0721
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Woodys / Edge.
**Transect:** 8
**Feature #:**

| Species | Tally |
|---|---|
| EAWP- | \| |
| AMGO | \|\|\|\| |
| BOBO - | ~~\|\|\|\|~~ \| (Flyovers) |
| RWBL- | ~~\|\|\|\|~~ |
| BCCH - | \|\| |
| SWSP- | \|\| |
| SOSP- | \|\|\| |
| COYE- | \| |
| EUST - | \|\|\|\|\| |
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Pg. 1 of 3

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine
(Project Manager)

REV: 2011-05-03 / FORM 014a

HABITAT:

| Species | Tally |
|---|---|
| | START      END |
| TRANSECT #7 | Time: 0755      TIME 0819 |
| Forest | UTM.      UTM |
| | |
| | |
| | |
| SOSP- | \|\|\| |
| UPSA   UBSA- | \|     (Flyover) |
| MODO- | \|\| |
| BLJA- | \|\|\|\|\| \| |
| GRCA- | \| |
| AMCR- | \|\| |
| AMGO | \|\| |

Long-tailed Jaegers

Pg. 2 of 3

Quality Control: This form is complete ☑ & legible ☑

**Signature:** ______________________ (Field Personnel)

**Signature:** Kathee St______________________ (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Sept. 1, 2011

Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 22 | WIND: S ② | CLOUD: 50 | PPT: 0 | PPT (in last 24 hrs): 0 |

**Start Time:** 0950

**End Time:** 1015

33 **Start Point UTM:** 0359713 / 4887102

**End Point UTM:** 0360077 / 4887450 35

**Habitat:** Forest

**Transect:** 11

**Feature #:**

| Species | Tally |
|---|---|
| BLJA | I |
| EAWP | II |

Giant Swallowtail 1 ragged
Buckeye 1 ragged

Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Sept. 2, 2011

Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 19 | S ① | 50 | 0 | 0 |

**Start Time:** 0702

**End Time:** 0730

37 **Start Point UTM:** 0365184/4890650

**End Point UTM:** 0365576/4891006 38

**Habitat:** Swamp

**Transect:** 3

**Feature #:**

| Species | Tally |
|---|---|
| No Birds! | |
| Dense Shrub Swamp! | |

Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept 2, 2011
Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 18 | S ② | 50 | 0 | 0 |

**Start Time:** 0929
**End Time:** 0944
39 **Start Point UTM:** 0362843/4897034
**End Point UTM:** 0363042/4896576 41
**Habitat:** roadway/overgrown field
**Transect:** 1
**Feature #:**

| Species | Tally |
|---|---|
| EUST | 𝍸 𝍸 𝍸 ll |
| C Waxwing | l |
| MODO | l |
| | |
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Pg. ___ of ___

**Signature:** ______ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine ______ (Project Manager)

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595
**Project Name:** Amherst
**Date:** Sep 2, 2011
**Field Personnel:** B. Holden

| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | See | | pg | one | |

**Start Time:** 0850
**End Time:** 0927
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Pasture/woods.
**Transect:** 2
**Feature #:**

| Species | Tally |
|---|---|
| BRTH - | \|\| |
| SOSP - | 𝍸𝍸\| |
| COYE - | \|\|\| |
| AMCR - | \|\| |
| TRES - | \|\|\|\| |
| SWSP - | \|\| |
| WTSP - | \| |
| EATO - | \|\| |
| TRFL - | \| |
| RWBL - | 𝍸\|\| |
| MODO | \|\| |
| AMGO - | \|\| |
| BHCO - | \| |
| CHSP - | \| |
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Pg. 2 of 2

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** B. Holden
(Field Personnel)

**Signature:** Kathleen Shaw
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sep 8, 2011
Field Personnel: B. Holden

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 18° | NE - 5 | 80-100% | / | Drizzle |

**Start Time:** 0638
**End Time:** 0706
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Woods/Edge.
**Transect:** 8
**Feature #:**

| Species | Tally |
|---|---|
| AMCR - | \|\| |
| AMGO - | \|\|\|\| |
| AMRE - | \| |
| NOFC - | \| |
| SOSP - | ~~\|\|\|\|~~ \|\| |
| COYE - | \|\|\|\| |
| SWSP - | \| |
| BCCH - | \|\|\| |
| HOWR - | \|\| |
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Pg. 1 of 3

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Field Personnel)

**Signature:** Katherine S (Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| | |
| TRANSECT # 7 | START 0739 END 0809 |
| [redacted] | Forest |
| | |
| | |
| RTHU- | I |
| AMCR- | III |
| COYE- | II |
| SOSP- | III |
| BLJA- | II |
| RBGR- | I |
| HOWR- | I |

Pg. 2 of 2

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**

(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595

**Project Name:** Amherst

**Date:** Sep 8, 2011

**Field Personnel:** BH

| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | See | pg | one | — | — |

**Start Time:** 0945

**End Time:** 0932

**Start Point UTM:**

**End Point UTM:**

**Habitat:** pasture/woods

**Transect:** 2

**Feature #:**

| **Species** | **Tally** |
|---|---|
| AMGO - | IIII |
| BOBO - | II - flyovers |
| NOFL - | I |
| GRCA - | I |
| COYE - | ~~IIII~~ |
| WIWA - | I |
| EAPH - | I |
| MAWA - | I |
| REVI - | I |
| LEFL - | I |
| MODO - | I |
| BRTH - | I |
| SOSP - | IIII |
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Pg. 3 of ___

**Signature:** ______ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

**Signature:** ______ (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Sept. 8, 2011

Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 16 | NE ① | 100 | 0 | trace? |

**Start Time:** 0753

**End Time:** 0815

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Forest

**Transect:** 10

**Feature #:**

| **Species** | **Tally** |
|---|---|
| OVEN | 11 |
| CORA | 1 |
| EAWP | 1 |
| REVI | 1 |
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Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrine (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept. 8, 2011
Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 16 | NE (2) | 100 | 0 | trace? |

**Start Time:** 0847
**End Time:** 0907
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Old fields.
**Transect:** 12
**Feature #:**

| **Species** | **Tally** |
|---|---|
| COYE | \|\|\| |
| ~~[illegible]~~ | |
| SOSP | \| |
| MAWA | 𝍸 𝍸 \|\| |
| TEWA | \| |
| NAWA | \|\| |
| AMRE | \|\|\| |
| BCCH | \|\|\| |
| Blthr Green WA | \| |
| EAWP | \| |
| WIWA | \| |
| un Warbler | 𝍸 𝍸 \|\| (warbler sp.) |
| REVI | \|\|\|\| |
| CSWA | \| |
| AMRO | \| |
| PAWA | \| |
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Pg. ___ of ___

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kathrine
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept. 8, 2011
Field Personnel: Alan Wormington

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 16 | WIND: NE ② | CLOUD: 100 | PPT: 0 | PPT (in last 24 hrs): trace? |

**Start Time:** 0939
**End Time:** 0958
24 **Start Point UTM:**
**End Point UTM:** 0360367/4889964 (42) *
**Habitat:** Field/Shrub Edge.
**Transect:** 13
**Feature #:**

| Species | Tally |
|---|---|
| EUST | ⑰ + ⑥ + (65) → flocks flying NE |
| AMCR | 1 |
| SOSP | 卌 |
| MAWA | 1 |

* new co-ordinates for end (south) point, since transect got short-changed during the first session (September 1). Way point is now #42

E Tailed-Blue 1 ex fresh ✓
C Buckeye 1 ex fresh ✓
Tawny-edged Skipper 1 ex fresh ✓

Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine S[illegible] (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Sept. 8, 2011

Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 16 | NE ① | 100 | 0 | trace ? |

**Start Time:** 0714

**End Time:** 0731

**Start Point UTM:**

**End Point UTM:** 35

**Habitat:** Forest

**Transect:** 11

**Feature #:**

| Species | Tally |
|---|---|
| BLJA | I |
| AMRO | 𝍸 II |
| EAWP | II |
| | |
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Pg. ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept. 9, 2011
Field Personnel: Alan Wormington

| Weather Conditions: | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | N ① | 20 | 0 | 0 |

**Start Time:** 0922
**End Time:** 0938
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Roadway/overgrown field
**Transect:** #1 (Mainland)
**Feature #:**

| Species | Tally |
|---|---|
| | |
| EUST | 𝍸 𝍸 𝍸 𝍸 \|\| |
| RWBB | \| |
| C.Waxwing | 𝍸 |
| AMKE | \|\| |
| AMGO | 𝍸 \|\|\|\| |
| SOSP | \| |
| BLJA | \|\| |
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Pg. ___ of ___

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sept. 9, 2011
Field Personnel: Alan Wormington

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 16 | 0 | 20 | 0 | 0 |

**Start Time:** 0720
**End Time:** 0750
37 **Start Point UTM:**
**End Point UTM:** 38
**Habitat:** Swamp
**Transect:** 3
**Feature #:**

| Species | Tally |
|---|---|
| PIWO | 1 ♀ |
| AMGO | 𝍸 |
| GRCA | II |
| AMCR | II |
| BLJA | 𝍸 |
| AMRO | II |
| AMWO | II |
| SOSP | I |
| HOWR | I |
| RBGR | I |
| | |
| | |
| | Returning (extras) |
| | |
| AMWO | II |
| BCCH | II |
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Pg. ___ of ___

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 595

Project Name: Amherst

Date: Sep 9, 11

Field Personnel: BH

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: [illegible] | CLOUD: [illegible] | PPT: [illegible] | PPT (in last 24 hrs): [illegible] |

**Start Time:** 0820

**End Time:** 0840

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Woods

**Transect:** 6

**Feature #:**

| Species | Tally |
|---|---|
| BCCH - | 卌 \| |
| SASP - | \| |
| EUST - | \|\| |
| SOSP - | \| |
| AMGO - | \| |
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Pg. 3 of 4

Quality Control: This form is complete ☑ & legible ☑

**Signature:**
(Field Personnel)

**Signature:** Katherine
(Project Manager)

| Species | Tally |
|---|---|
| | |
| Habitat Young | Woods, Grass, Marsh. |
| TRANSECT #9 | START 0802 END 0926 |
| | |
| BCCH - | 卌 |
| BCSA - | 卌 \|\|\|\| |
| AMGO - | \|\| |
| AMRO - | \| |
| HOWR - | \|\| |
| SOSP - | \|\|\| |
| COYE - | \| |
| MAWA - | \| |
| GRCA - | \| |
| SSHA - | \| |
| AMRE - | \|\| |
| WILA - | \| |
| OVEN - | \| |
| EATO - | \| |

Pg. 4 of 4

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**

(Project Manager)

REV: 2011-05-03 / FORM 014a

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sep 9, 2011
Field Personnel: B Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 18-23 °C | WIND: 1-2 NE | CLOUD: 10 | PPT: ~~~~ | PPT (in last 24 hrs): ~~~~ |

**Start Time:** 0635
**End Time:**
**Start Point UTM:**
**End Point UTM:**
**Habitat:** grassland w̄ some trees.
**Transect:** 5
**Feature #:**

| Species | Tally |
|---|---|
| – AMRO | \| |
| AMCR – | \|\| |
| SOSP – | \| |
| COYE – | \| |
| BTNW – | \| |
| YWAR – | \| |
| AMRE – | \|\| |
| AMRE – | \| |
| BOBO | 卌\|\|\| – flyovers |
| NOHA – | \| |
| AMGO – | \| |
| WIWA – | \| |
| REVI – | \|\| |
| GRCA – | \| |
| BAWW – | \| |
| CEDW – | \|\| |
| – AMRO | \|\|\|\| |
| SASP – | \|\|\|\| |
| EAME – | \|\|\| |
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flyover warbler sp's – 卌\|\|

Pg. 1 of 4

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Kathen
(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally | | |
|---|---|---|---|
| | | | Habitat: Scrub/Grassland |
| TRANSECT # | 4? | START | END |
| AMCR- | \|\| | | |
| BCCH - | 𝍸 | | |
| EATO- | \| | | |
| AMRO- | \|\| | | |
| NOFL- | \| | | |
| HOWR- | \|\| | | |
| SOSP- | 𝍸 | | |
| BOBO- | \|\|\| | | |
| NOHA- | \| | | |
| GRCA- | \| | | |
| EUST- | 10, \| | | |
| AMGO- | \| | | |
| COYE- | \|\|\| | | |
| YBFC- | \| | | |

Pg. 3 of 4

**Signature:** ____________________
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** Kathleen
(Project Manager)

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Sept 15/11

Field Personnel: Matthew Ross

| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 9–12 | 2–3 | 95 | very light drizzle (intermittent) | rain |

**Start Time:** 7:34

**End Time:** 8:00

**Start Point UTM:** 357648 4887954

**End Point UTM:** 357165 4887817

**Habitat:** Scrub / Thicket

**Transect:** 12

**Feature #:**

| Species | Tally |
|---|---|
| SOSP | I |
| COYE | III |
| BLJA | ~~IIII~~ |
| BCCH | ~~IIII~~ I |
| PAWA | I |
| AMCR | I |
| CAGO | II (Fly over) |
| AMRO | II |
| GRCA | II |
| HOWR | I |
| MAWA | I |
| REVI | I |
| HAWO | I |
| AMGO | I |
| | |
| | |
| Incidental: | White Tailed Deer |
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Pg. 1 of 3

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathein

(Project Manager)

REV: 2011-05-03 / FORM 014a

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

**Project Number:** 160960595

**Project Name:** Amherst Island

**Date:** Sept 15/11

**Field Personnel:** Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 9 - 12 | 2 - 3 | 95 | Intermittent light drizzle | Rain |

**Start Time:** 8:35

**End Time:** 9:05

**Start Point UTM:** 358458 4886409

**End Point UTM:** 358460 4885954

**Habitat:** Green Ash lowland

**Transect:** 10

**Feature #:**

| Species | Tally |
|---|---|
| NOFL | \| |
| EAWP | \| |
| BLJA | \|\|\| |
| WBNU | \| |
| EUST | \| |
| Empidonax Sp. | \| |
| REVI | \| |
| Several Warbler Sp | foraging in canopy |
| BCCH | \| |
| CSWA | \| |
| AMRE | \| |
| BAWW | \| |
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Pg. 2 of 3

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine Sh
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Sept 15/11
Field Personnel: Matthew Ross

| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 9 -12 | 2-3 | 95 | None | light rain |

**Start Time:** 9:48
**End Time:** 10:17
**Start Point UTM:** 360099 4890403
**End Point UTM:** 360355 4889975
**Habitat:** Scrub
**Transect:** 13
**Feature #:**

| **Species** | **Tally** |
|---|---|
| AMRO | \| |
| EUST | 𝍸 \|\|\|\| +50 (Flyover) |
| GRCA | \|\| |
| SOSP | \|\|\| |
| COYE | \|\|\| |
| AMCR | \|\|\| |
| NOHA | \| |
| SWSP | \| |
| SAVS | \| |
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Pg. 3 of 3

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑

Signature: Kathrin
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 595

Project Name: Amherst

Date: Sep 15, 11

Field Personnel: 3H

**Weather Conditions:** TEMP (ºC): WIND: CLOUD: PPT: PPT (in last 24 hrs):

**Start Time:** 0819

**End Time:** 0850

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Woods

**Transect:** 6

**Feature #:**

| Species | Tally |
|---|---|
| SOSP | 11 |
| EUST- | 1 |
| BLPW- | 11 |
| BAWW | 1 |
| WIWA- | 1 |
| BCCH- | 1 |
| REVI- | 1 |
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Pg. 3 of 4

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| young | woods/grass/marsh |
| TRANSECT: 9 | START 0912 END 0929 |
| [redacted] | |
| | |
| | |
| AMRO- | \| |
| BLJA- | 𝍸\| |
| BTBW- | \| |
| CEDW- | 𝍸𝍸\|\| |
| NOCA- | \|\| |
| GRCA- | \| |
| NOFL - | \| |
| SOSP- | 𝍸\|\| |
| CHSP- | \|\| |
| FISP- | 𝍸𝍸\|\|\|\| |
| VTSP- | \|\| |
| BCCH- | \|\| |
| MAWA- | \| |
| HOWR- | \| |
| NOHA- | \| |
| SSHA- | \| |
| NAWA- | \| |
| EATO- | \| |
| MODO- | \| |
| BTNW- | \| |
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Pg. 4 of 4

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Sep 15, 2011
Field Personnel: B. Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 9°C - | WIND: | CLOUD: 100 | PPT: Drizzle | PPT (in last 24 hrs): Rain |

**Start Time:** 0651
**End Time:** 0716
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Grassland w̄ some trees
**Transect:** 5
**Feature #:**

| Species | Tally |
|---|---|
| BCSA - | \|\|\| |
| CAGO - | \| Warbler sp - \|\| |
| BCCH - | \|\| |
| CORA - | \| |
| NAWA - | \|\|\|\| |
| COYE - | \|\| |
| AMGO - | \| |
| WAVI - | \| |
| DOWO - | \| |
| GRCA - | \| |
| SSHA - | \| |
| AMCR - | \|\| |
| AMPI - | \| |
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Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Field Personnel)

**Signature:** Katherine
(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| | |
| TRANSECT: 4 | START: 0731 END: 0754 |
| | Scrub / Grassland |
| | |
| | |
| NOFC - | \|\| |
| SOSP - | ~~\|\|\|\|~~ \| |
| COME - | ~~\|\|\|\|~~ \|\| |
| GRCA - | \|\| |
| AMRO - | \|\|\| |
| BCCH - | ~~\|\|\|\|~~ \| |
| EATO - | \| |
| WTSP - | \|\|\|\| |
| EUST - | \| |
| AMRE - | \|\|\| |
| SWTH - | \|\| |
| HOWR - | \| |
| MERL - | \| |
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Pg. 2 of 4

**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Katherine R
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: Amherst

Project Name: 160960595

Date: Sep 16, 2011

Field Personnel: B Holden

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 4°C - 7°C | 3-4-NW | — | — | — |

**Start Time:** 0720

**End Time:** 0748

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Pasture/woods

**Transect:** 2 [illegible]

**Feature #:**

| Species | Tally |
|---|---|
| RWBL - | 卌 卌 \|\|\|\| |
| BCJA - | \|\| |
| GRCA - | \|\|\| |
| COYE - | \|\|\| |
| BRTH - | \|\|\| |
| RBGR - | \| |
| EAPH - | \| |
| EUST - | \| |
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Pg. 1 of 3

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ________________ (Field Personnel)

**Signature:** Kathein ________________ (Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| Wood/Edge. | |
| TRANSECT #8 | START 0812 , END: 0834 |
| [redacted] | |
| | |
| | |
| NOFL- | 1 |
| AMGO- | 1 |
| EUST- | 1 |
| SOSP- | 卌11 |
| NAWA- | 1 |
| COYE- | 1 |
| BRCR- | 1 |
| HOWR- | 11 |
| AMRE- | 1 |
| WBNU- | 11 |
| SCTA- | 1 |
| REVI- | 1 |
| WTSP- | 1 |
| MAWA- | 1 |
| EAWP- | 1 |
| BCJA- | 11 |
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Pg. 2 of 3

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 595

Project Name: Amherst

Date: Sep 16, 11

Field Personnel: BH

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|

**Start Time:** 0855

**End Time:** 0919

**Start Point UTM:**

**End Point UTM:**

**Habitat:** FOD

**Transect:** 7

**Feature #:**

| Species | Tally |
|---|---|
| BCCH - | \|\|\| |
| BLJA - | 𝍸 |
| RTHA - | \| |
| SOSP - | \|\|\| |
| EAWP - | \|\| |
| BTNW - | \| |
| PHVI - | \| |
| MAWA - | \| |
| BHVI - | \|\|\|\| |
| HOWA - | \| |
| REVI - | \| |
| BLPW - | \| |
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Pg. 3 of 7

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Sept 16/11

Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 7°-10° | 3 -4 | 0 -15% | None | None |

**Start Time:** 8:10

**End Time:** 8:52

**Start Point UTM:** 365151 4890599

**End Point UTM:** 365495 4890871

**Habitat:** Green ash lowland

**Transect:** 3

**Feature #:**

| Species | Tally |
|---|---|
| WTSP | I |
| SOSP | I |
| COYE | III |
| CORA | I |
| DOWO | I |
| BLJA | 卌 卌 卌 |
| GRCA | II |
| EUST | IIII |
| AMRO | I |
| NOFL | II |
| AMGO | 卌 III |
| BCCH | I |
| Warbler sp Flyover | IIII |
| BLBW | I |
| WISN | I |
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Pg. 1 of 2

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Sept 16/11
Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 7° - 10° | 3 - 4 | 0 - 15% | None | None |

**Start Time:** 10:29
**End Time:** 10:43
**Start Point UTM:** 362838 4897016
**End Point UTM:** 363047 4896562
**Habitat:** Ash lowland / Thicket
**Transect:** 1
**Feature #:**

| Species | Tally |
|---|---|
| NOHA | 1 (flyover) |
| EUST | ~~卌~~ 1 |
| BCCH | ||| |
| SOSP | 1 |
| RBGU | 1 (flyover) |
| AMGO | 1 |
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Pg. 2 of 2

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathleen (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**
Project Name: **AMHERST ISLAND**
Date: Sep 22, 2011
Field Personnel: B. Holden

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 19- | SW 3 | 100- | | RAIN |

**Start Time:** 0706
**End Time:** 0733
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Scrub/Grassland
**Transect:** 04
**Feature #:**

| **Species** | **Tally** |
|---|---|
| COYE- | 1 |
| SASP- | 1 |
| NOFL- | 111 |
| BLJA- | 1 |
| HOWR- | 1 |
| BBWA- | 1 |
| AMKE- | 1 |
| EUST- | 1 |
| AMRO- | 1 |
| EAME - | 1 |
| SOSP- | 1 |
| NOHA - | 1 |
| WPWA - | 1 |
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| | Coyote-1 |
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Pg. 1 of 4
**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.
**Signature:** (Project Manager)

REV: 2011-09-15 / FORM 014a

| Species | Tally |
|---|---|
| | |
| Habitat : Grassland. | |
| TRANSECT 5 | START : 750 END:0820 |
| SOSP - | \|\|\| |
| BCCH - | \|\|\| |
| AMRO - | 卌 卌 卌 \|\|\| |
| EAPH - | \| |
| MODO - | \| |
| WIWA - | \| |
| BHVI - | \| |
| WTSP - | \|\|\|\| |
| COYE - | \|\|\| |
| REVI - | \|\| |
| WPWA - | \|\| |
| RBGR - | \| |
| GRCA - | \|\|\|\| |
| ~~R~~ RCKI - | \| |
| EUST - | \| |
| EAWP - | \| |
| EATO - | \| |
| HOWR - | \|\| |
| MYWA - | \| |
| SCTA - | \| |

~400 Monarchs in 3 clusters.

Pg. 2 of 4

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Kathie (Project Manager)

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Stantec

# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 22, 11

Field Personnel: D. H.

| | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| **Weather Conditions:** | | | | | |

**Start Time:** 0834

**End Time:** 0859

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Woods

**Transect:** 06

**Feature #:**

| Species | Tally |
|---|---|
| COYE- | \|\| |
| SOSP- | \|\| |
| BRTH- | \| |
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Pg. 3 of 4

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature:
(Project Manager)

| Species | Tally |
|---|---|
| Young woods/grass/marsh | |
| TRANSECT 9 | START 0926 END 0950 |
| BCJA - | 𝍸 𝍸 \|\|\|\| |
| EAPH - | \| |
| COGR - | \|\| |
| AMCR - | \|\| |
| BEKI - | \| |
| BCPW - | \| |
| AMRO - | 𝍸 𝍸 𝍸 |
| MODO - | \|\|\|\| |
| EATO - | \| |
| WPWA - | \| |
| CEDW - | 𝍸 𝍸 𝍸 𝍸 |
| EUST - | 𝍸 𝍸 |
| BCCH - | \|\| |
| SOSP - | 𝍸 |
| KILL - | \|\| |
| FISP - | \|\| |
| NOCA - | \|\| |

Pg. 4 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________
(Field Personnel)

**Signature:** Kathrine ______________________
(Project Manager)

REV: 2011-09-15 / FORM 014a

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept. 22/2011

Field Personnel: Josh Mansell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>17 | WIND:<br>15 km/h | CLOUD:<br>40% | PPT:<br>0 | PPT (in last 24 hrs):<br>~2mm. |

**Start Time:** 8:00

**End Time:** 9:00

**Start Point UTM:** 0357170 / 4887706

**End Point UTM:** 0357172 / 4887709

**Habitat:** Scrub/Woodland

**Transect:** 12

**Feature #:**

| **Species** | **Tally** |
|---|---|
| BLJA | ⑦ |
| EAPH | ① |
| NAWA | ① |
| SSHA | ① |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept. 27/2011

Field Personnel: Josh Mansell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>18 | WIND:<br>20km/h | CLOUD:<br>30% | PPT:<br>0 | PPT (in last 24 hrs):<br>~2mm. |

**Start Time:**

**End Time:**

**Start Point UTM:** 0360104 / 4890392

**End Point UTM:** 0360296 / 4890077

**Habitat:** Hay Field / Scrub

**Transect:** 13

**Feature #:**

| Species | Tally |
|---|---|
| BLJA | • ① |
| SASP | ∷ ④ |
| ANGO | • ① |
| GRCA | • • ② |
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Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Field Personnel)

**Signature:** Kathleen
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept. 22/2011

Field Personnel: Josh Mansell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 17 | WIND: 13 Km/h | CLOUD: 30% | PPT: 0 | PPT (in last 24 hrs): ~2mm. |

**Start Time:** 9:00

**End Time:** 9:40

**Start Point UTM:** 0359713 / 4887102

**End Point UTM:** 0360077 / 4887450

**Habitat:** Woodland

**Transect:** 11

**Feature #:**

| Species | Tally |
|---|---|
| BLJA | ⁙ ⑤ |
| Thrush Spp. | ∷ ④ |
| EUST | ☒ · · ② |
| Woodpecker Spp. | · ① |
| EAWP | · · ② |
| BCCH | ⁙ ⑥ |
| WBNU | · ① |
| AMRE | ∴ ③ |
| REVI | · · ② |
| MAWA | · · ② |
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Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 23, 2011

Field Personnel: B Holden

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18-20°C | 2-3 | 90-100 | — | — |

**Start Time:** 0715

**End Time:** ~~0784~~ 0749

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Pasture / Woods

**Transect:** 02

**Feature #:**

| Species | Tally |
|---|---|
| AMRO - | 卌 II |
| GRCA - | II |
| EUST - | 卌 I |
| CEDW - | IIII |
| AMCR - | I |
| WTSP - | I |
| AMGO | 卌 卌 |
| BRTH - | I |
| SOSP - | I |
| BCJA - | II |
| EAPH - | I |
| COYE - | IIII |
| WIWA - | I |
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Pg. 1 of 3

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-09-15 / FORM 014a

| Species | Tally |
|---|---|
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| TRANSECT # 7 | Start 0823  End 0847 |
| | FOD |
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| | |
| BCCH - | \|\|\|\| |
| Sesc - | \|\| |
| BLJA - | ~~\|\|\|\|~~ |
| EAPH - | \| |
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Pg. 2 of 3

**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathe ______________________
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 23,11

Field Personnel: BH

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| | | | | |

**Start Time:** 0912

**End Time:** 0934

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Woods/Edge.

**Transect:** 08

**Feature #:**

| Species | Tally |
|---|---|
| SOSP - | 卌 \| |
| BHVI - | \| |
| SWSP | \| |
| AMRO - | \|\| |
| COYE - | \| |
| WBNU - | \| |
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Pg. 3 of 3

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**

(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept.23/2011

Field Personnel: Josh Morrell

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>14 | WIND:<br>1 | CLOUD:<br>10% | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Start Time:** 7:30

**End Time:** 8:30

**Start Point UTM:** 0365184 / 4890650

**End Point UTM:** 0365576 / 4891006

**Habitat:** Woodland / Scrub

**Transect:** 03

**Feature #:**

| Species | Tally |
|---|---|
| AMGO | • ① |
| BLJA | • • ② |
| GRCA | • • • ③ |
| RWBB | • ┐ • ⑥ |
| COGR | • • • ③ |
| BCCH | • ① |
| BHVI | • ① |
| DOWO | • ① |
| Unidentified Woodpecker | • ① |
| PAWA | • ① |
| SOSP | • • • • ④ |
| EUST | • • • ③ |
| SWSP | • ① |
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Pg. 1 of 1

**Signature:** ____________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________________
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**
Project Name: **AMHERST ISLAND**
Date: September 28/2011
Field Personnel: Josh Mansell

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 | 20 km/h | 80% | Trace | ~2mm. |

**Start Time:** 7:00
**End Time:** 8:00
**Start Point UTM:** 0357608 / 4887943
**End Point UTM:** 0358475 / 4885907
**Habitat:** Woodland
**Transect:** 10
**Feature #:**

| **Species** | **Tally** |
|---|---|
| NOFL | ••• ③ |
| SOSP | •• ② |
| BLJA | •••• ④ |
| AMKE | ••• ③ |
| WBNU | • ① |
| BAWW | • ① |
| Vireo Spp. | • ① |
| BCCH | •••• ④ |
| AMRO | • ① |
| EUST | •••• ④ |
| MODO | •• ② |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine (Project Manager)

REV: 2011-09-15 / FORM 014a

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**Stantec**

# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept.23/2011

Field Personnel: Josh Mansell.

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 16 | 5km/h | 80% | 0 | 0 |

**Start Time:** 9:30

**End Time:** 10:30

**Start Point UTM:** 0362843 / 4897034

**End Point UTM:** 0363042 / 4896576

**Habitat:** Woodland/Scrubland

**Transect:** 01

**Feature #:**

| **Species** | **Tally** |
|---|---|
| EUST | ☒ ☒ ☐ (28) |
| AMGO | ☒ (10) |
| AMKE | • (1) |
| SHHA | • (1) |
| BLJA | ☒ • (11) |
| CEWA | • (1) |
| AMRO | • • (2) |
| SOSP | • • (2) |
| WBNU | • (1) |
| Unidentified Sparrow | • • • (3) |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin Fu (Project Manager)

REV: 2011-09-15 / FORM 014a

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 29, 11

Field Personnel: B. Holden

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 18 °C | 0 | 30 – 100% | Rain ⑤ | RAIN |

**Start Time:** 0710

**End Time:** end 0733

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Grassland w̄ trees

**Transect:** 05

**Feature #:**

| Species | Tally |
|---|---|
| RWBL – | III |
| AMRO – | I Clqover |
| AMGO – | II Warbler Sp – III |
| AMKE – | III |
| EAPH – | I |
| BLSA – | II |
| NOFL – | I |
| REVI – | I |
| AMRE – | I |
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Pg. 1 of 2

Signature: _______________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: _______________ (Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 29/11

Field Personnel: B.H.

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| — | — | — | — | — |

**Start Time:** 0715

**End Time:** 0820

**Start Point UTM:**

**End Point UTM:**

**Habitat:** scrub/grassland

**Transect:** 04

**Feature #:**

| Species | Tally |
|---|---|
| BCJA - | III |
| AMGO - | 卌 |
| SOSP - | 卌 卌卌 卌 III |
| RWBL - | 25 |
| AMRO - | IIII |
| VTSP - | 卌 卌 卌 |
| – NOFL - | I |
| CdYG - | 卌 II |
| NOHA - | I |
| SWSP - | II |
| GRCA - | III |
| WCSP - | IIII |
| ^WPWA - | IIII |
| NAWA - | II |
| CHSP - | I |
| EATO - | II |
| AMCR - | I |
| HAWO - | I |
| PCWO | I |
| – NOFL - | II |
| BRTH - | I |

Pg. 2 of 3

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 29.11

Field Personnel: BH

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | | | | | |

**Start Time:** 0900

**End Time:** 0927

**Start Point UTM:**

**End Point UTM:**

**Habitat:** woods

**Transect:** 06

**Feature #:**

| Species | Tally |
|---|---|
| BCPW- | 𝍸 |
| BLJA- | 𝍷𝍷 Sparrow sp - 𝍸 |
| AMGO- | 𝍷𝍷𝍷 |
| COYE- | 𝍷 |
| MYWA- | 𝍷𝍷 |
| EUST- | 𝍷𝍷𝍷 |
| EAPH- | 𝍷 |
| AMRO- | 𝍷𝍷 |
| SOSP- | 𝍷𝍷𝍷 |
| SWSP- | 𝍷 |

Pg. 2 of 2

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept. 29/2011

Field Personnel: Josh Mansell

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
|  | 1 | 100% |  |  |

**Start Time:** 9:25

**End Time:** 10:00

**Start Point UTM:** 0359713 / 4887102

**End Point UTM:** 0360077 / 4887450

**Habitat:** Woodland / Forest

**Transect:** 11

**Feature #:**

| Species | Tally |
|---|---|
| BLPW | • ① |
| Unidentified Warbler | ⁘ ④ |
| EUST | ⊐ ⑦ |
| COGR | ☒ ☐ ⑱ |
| BLJA | • • ② |
| AMRO | • • |

Pg. 1 of 1

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**

(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept 29/2011

Field Personnel: Josh Marshall

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | | | | | |

**Start Time:** 10:00

**End Time:** 10:25

**Start Point UTM:** 0360104 / 4890392

**End Point UTM:** 0360296 / 4890077

**Habitat:** Agriculture / Hay

**Transect:** 13

**Feature #:**

| Species | Tally | |
|---|---|---|
| SASP | ∷ | ④ |
| SOSP | | ⑦ |
| BLJA | ·· | ② |
| CAGO | ·· | ② |
| AMGO | · | ① |
| EUST | ☒ ☒ | ㉕ |
| GRCA | ·· | ② |
| AMRO | ·· | ② |

Pg. 1 of 1

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept. 29/2011

Field Personnel: Josh Mansell.

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|

**Start Time:** 8:25

**End Time:** 9:15

**Start Point UTM:** 0357170 / 4887706

**End Point UTM:** 0357172 / 4887709

**Habitat:** Wetland / Scrub

**Transect:** 12

**Feature #:**

| **Species** | **Tally** |
|---|---|
| EUST | ☒ · · ⑫ |
| BLJA | ∷ – ⑤ |
| AMRO | · · ② |
| AMCR | · ① |
| BCCH | · · · ③ |
| GRCA | · · ② |
| DOWO | · ① |
| MODO | · ① |
| Unidentified Spp | · ① |
| CAGO | ∷ – ⑤ |
| RWBB | · ① |
| SOSP | · · ② |
| NOCA | · ① |
| EAPH | · ① |
| Unidentified Warbler | · ① |
| Unidentified Sparrow | · ① |
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Pg. 1 of 1

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sept 29/2011

Field Personnel: Josh Mansell

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| | 1 | 100% | | |

**Start Time:** 7:15

**End Time:** 8:15

**Start Point UTM:** 0357608 / 4887943

**End Point UTM:** 0358475 / 4885907

**Habitat:** Woodland

**Transect:** 10

**Feature #:**

| Species | Tally |
|---|---|
| SOSP | ③ |
| BLJA | ⑥ |
| AMRO | ⑬ |
| NOFL | ③ |
| WBNU | ① |
| CAGO | ② |
| EUST | ⑭ |
| YBSA | ② |
| WTSP | ① |
| GRCA | ② |
| AMKE | ① |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: September 30, 2011

Field Personnel: Josh Mansell

| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 16 | 2 | 20% | | |

**Start Time:** 7:15

**End Time:** 8:30

**Start Point UTM:** ~~0362843 / 4897034~~

**End Point UTM:** ~~0363042 / 4896576~~

**Habitat:** Wetland / Scrub

**Transect:** 03

**Feature #:**

| **Species** | **Tally** |
|---|---|
| BLJA | ⑦ |
| AMRO | ㊿ |
| RWBB | · ① |
| EAPH | · ① |
| NAWA | · · · ③ |
| MYWA | · · · · ④ |
| SOSP | · ① |
| ~~NOWA~~ NOFL | ㊵ |
| SWSP | · · ② |
| CEWA | · · · · ④ |
| GRCA | · · ② |
| WTSP | ☒ ☒ ☐ ㉘ |
| RCKI | · · ② |
| GCKI | ⑦ |
| MAWA | · ① |
| BLPW | · · · · ④ |
| COGR | · ① |
| BTBW | · ① |
| HOWR | · · ② |
| | |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** (Project Manager)

REV: 2011-09-15 / FORM 014a

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Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: September 30, 2011

Field Personnel: Josh Mansell.

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 18 | 3 | 30% | | |

**Start Time:**

**End Time:**

**Start Point UTM:** ~~0365184 / 4890650~~

**End Point UTM:** ~~0365576 / 4891006~~

**Habitat:** Roadside / Scrub / Meadow.

**Transect:** ~~04~~ 01

**Feature #:**

| Species | Tally |
|---|---|
| SOSP | ⑤ |
| EUST | (60) |
| AMRO | ③ |
| AMCR | ③ |
| MODO | ② |
| EAME | ⑤ |
| RCPI | ① |
| MALL | ② |
| AMGO | ⑤ |
| RBGU | ① |
| RWBB | ⑦ |
| BLJA | ① |
| MYWA | ② |
| AMKE | ② |
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Pg. 1 of 1

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 30 11

Field Personnel: B. H

**Weather Conditions:**

| TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| | | | | |

**Start Time:** 0950

**End Time:** 1018

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Young woods, Grass, Marsh

**Transect:** 09

**Feature #:**

| Species | Tally |
|---|---|
| BLJA - | 卌 卌 卌 卌 卌 卌 |
| CEDW - | 卌 卌 \|\| |
| HOWR - | \|\| |
| CHSP - | \| |
| FISP - | \|\|\| |
| SUSP - | 卌 |
| WTSP - | 卌 卌 卌 |
| WCSP | 卌 卌 |
| BRTH | \| |
| NOCA - | \|\| |
| NAWA - | \|\|\|\| |
| MYWA - | \|\|\|\| |
| BLBW - | \| |
| BLPW - | \|\|\| |
| BCCH - | 卌 \| <br> COYE - \|\|\| |
| REVI - | \| <br> AMRE - \| |
| NOFL - | \| <br> BHCO - \| |
| RWBL - | \|\|\|\| <br> RBNU - \| |
| NOHA - | \| <br> PHVI \| |
| EATO - | \| <br> DOWO \| |
| AMGO - | \|\|\| <br> RCKI \|\|\| |

Pg. 4 of 4

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** Kathm

(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 30, 2011

Field Personnel: B. Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 14°C | WIND: 4-5 WSW | CLOUD: 30-100% | PPT: — | PPT (in last 24 hrs): RAIN |

**Start Time:** 0713

**End Time:** 0740

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Pasture/woods

**Transect:** 02

**Feature #:**

| Species | Tally |
|---|---|
| NAWA | \| |
| COYE- | \| |
| BCSA- | \|\|\|\| |
| SOSP- | \|\| |
| WTSP- | 𝍸 𝍸 |
| GRCA- | \| |
| BCCH- | \|\| |
| RCKI- | \| |
| EATO- | \| |
| FISP- | \|\| |
| HOWR- | \| |
| BCPW- | \| |
| WCSP- | \|\| |
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Pg. 1 of 4

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**

(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 30, 11

Field Personnel: BH

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| – | – | – | – | – |

**Start Time:** 0811

**End Time:** 0829

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Wood

**Transect:** 08

**Feature #:**

| Species | Tally |
|---|---|
| EAPH - | \| |
| BHVI - | \| |
| SOSP - | 𝍸\| |
| DOWO - | \| |
| EUST - | \|\| |
| AMRO - | 𝍸𝍸 |
| NOFL - | \|\|\| |
| EAWP - | \| |
| RTHA - | \| |
| AMCR - | \|\| |
| NAWA - | \|\|\| |
| BLPW - | \|\| |
| MYWA - | \| |
| MAWA - | \| |
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Pg. 7 of 4

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Sep 30, 11

Field Personnel: BH

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |

**Start Time:** 0854

**End Time:** 0920

**Start Point UTM:**

**End Point UTM:**

**Habitat:** FOD

**Transect:** 07

**Feature #:**

| Species | Tally |
|---|---|
| WTSP - | 卌卌||| |
| SOSP - | |||| |
| SWSP - | | |
| WCSP - | 卌 |
| REVI - | | |
| HAWR - | | |
| BCJA - | 10, 25, |
| BCPW - | ||| |
| MYWA - | || |
| NOPA - | | |
| AMRO - | || |
| CWHE - | ||| |
| NAWA - | | |
| SSHA - | | |
| RUBL - | |||| |
| LISP - | | |
| AMGO - | 卌| |
| YBSA - | | |
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Pg. 3 of 4

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Keith C
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Oct 6, 2011

Field Personnel: B Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 3°C- 6°C | WIND: 2-3 N | CLOUD: — | PPT: — | PPT (in last 24 hrs): — |

**Start Time:** 0714

**End Time:** 0736

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Grassland w̄ some trees.

**Transect:** 05

**Feature #:**

| Species | Tally |
|---|---|
| AMRO - | 𝍸 𝍸 𝍸 𝍸 \| |
| MYWA - | 𝍸 𝍸 \|\|\| |
| RWBL - | 𝍸 \|\|\| |
| AMCR - | \| |
| EAME - | \|\| |
| WCSP - | \|\|\| |
| EUST - | \|\| |
| PISI | 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |
| SOSP - | 𝍸 |
| GRCA - | \|\| |
| RUBL - | \|\| |
| SWSP - | \| |
| WTSP - | \|\|\| |
| EAPH - | \| |
| RCKI - | \|\| |
| BLJA - | \| |
| RTHA - | \| |
| AMGO - | \| |
| HETH - | \| |
| POWO - | \| |
| | |

Pg. 1 of 4

Signature: _______ (Field Personnel)

Quality Control: This form is complete ☑ ~~& legible ☐.~~

Signature: Kathr... (Project Manager)

| Species | Tally |
|---|---|
| | |
| TRANSECT 4 | START 0750 END 0818 |
| | scrubs/grassland. |
| | |
| AMCR - | II |
| SOSP | 𝍸 𝍸 IIII |
| WCSP - | 𝍸 𝍸 𝍸 𝍸 𝍸 |
| PISI | 𝍸 𝍸 |
| BCJA - | II |
| AMRO - | III |
| BCCH - | II |
| GCKI - | III |
| EAPH - | I |
| EATO - | I |
| AMGO - | III |
| NOFL - | I |
| EUST - | I |
| BCPW - | II |
| RBNU - | I |
| OCWA - | I |
| WTSP - | II |
| SWSP - | I |
| RWBL - | II |
| MUWA - | I |
| RUBL - | 20 |
| RCKI - | 7 |
| | |
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Pg. 2 of 4

Quality Control: This form is complete ☐ ~~& legible ☐.~~

Signature: (Field Personnel)

Signature: (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Oct 6 11

Field Personnel: BH

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | | | | | |

Start Time: 0838

End Time: 0859

Start Point UTM:

End Point UTM:

Habitat: Woods.

Transect: 06

Feature #:

| Species | Tally |
|---|---|
| BLJA | \| |
| EUST | \| |
| NOHA | \| |
| MYWA | 卌\|\|\| |
| WCSP | 卌 卌\|\|\|\| |
| PISI | \|\|\|\|\| |
| SOSP- | 卌\| |
| WTSP. | 卌 |
| EAME- | \| |
| FISP- | \| |
| NAWA- | \| |
| RCKI- | \| |
| LISP- | \| |
| NOFL- | \| |
| BCCH - | \|\|\|\| |
| EAPH. | \| |
| MODO. | \| |
| HETH- | \| |
| | |
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| | |

Pg. 3 of 4

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Keith Ln (Project Manager)

| Species | Tally |
|---|---|
| Young woods/Grass/marsh. | |
| TRANSECT 9 | START 935 END: 1001 |
| RCKI - | \|\| |
| MUVA - | 𝍸 |
| AMCR | \|\| |
| RTHA - | \| |
| BLJA - | 𝍸 \|\|\|\| |
| - EATO - | \| |
| AMRO - | \|\|\| |
| BCCH - | 𝍸 |
| GCKI - | \|\|\| |
| SOSP - | \|\| |
| PISI - | 15, 10 |
| AMGO | 10 |
| KILL - | \| (flyover) |
| - EATO - | \| |
| NOFL - | \| |
| NOLA - | \|\| |
| AMPI - | \|\| ( " ) |

Pg. 4 of 4

**Signature:** ____________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathy ____________________
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: October 6/2011

Field Personnel: Josh Mansell

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 2 | 0 | 0 | 0 | 0 |

**Start Time:** 7:30

**End Time:** 8:30

**Start Point UTM:** 0357608 / 4887943

**End Point UTM:** 0358475 / 4885907

**Habitat:** Forest

**Transect:** 10

**Feature #:**

| Species | Tally |
|---|---|
| NAWA | • |
| RWBB | ☐ |
| WBNU | ⋅⌉ |
| GCKI | ‾ ‥ |
| SOSP | • |
| WTSP | ㊿ |
| DOWO | • • |
| MYWA | ☒ ☐ |
| CEWA | ∷ |
| GRCA | • |
| BLJA | ∴ |
| AMCR | • • |
| YBSA | • |
| BRCR | ‾ ‥ |
| EUST | ⑳ |
| WCSP | • |
| AMRO | • • |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: October 6/2011

Field Personnel: Josh Mansell.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |

**Start Time:** 8:30

**End Time:** 9:30

**Start Point UTM:** 0357170 / 4887706

**End Point UTM:** 0357172 / 4887709

**Habitat:** Woodland / Scrub / Field.

**Transect:** 12

**Feature #:**

| Species | Tally |
|---|---|
| HOWR | · · |
| BCCH | ☒ |
| WTSP | ㉚ |
| AMRO | ☒ ☐ |
| BLJA | · · · · |
| SOSP | ⑮ |
| PAWA | ☒ |
| EATO | · · |
| RLHA | · |
| MYWA | ㊿ |
| AMGO | · · · · |
| WCSP | · · · · |
| LISP | · · |
| NAWA | · · |
| SWSP | · · · · |
| COLO | · |
| FISP | · · |
| GCKI | · · · · |
| RCKI | · |
| NOFL | · |
| EUST | · · · · |

Pg. 1 of 2

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature:
(Project Manager)

on back →

REV: 2011-09-15 / FORM 014a

| Species | Tally |
|---|---|
| | |
| GRCA | • |
| SSHA | • |
| EAME | • |
| LEFL | • |
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Pg. 2 of 2

**Signature:** ______________________

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________

(Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: October 6/2011

Field Personnel: Josh Mansell.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
| | 16 | 0 | 0 | 0 | 0 |

**Start Time:** 10:25

**End Time:** 11:00

**Start Point UTM:** 0360104 / 4890392

**End Point UTM:** 0360296 / 4890077

**Habitat:** Hayfield / Scrub

**Transect:** 13

**Feature #:**

| Species | Tally |
|---|---|
| EAME | •—•<br>• • |
| AMGO | • |
| WTSP | 20 |
| WCSP | • •<br>• • |
| SOSP | • • |
| EUST | 200 |
| AMRO | • • |
| Unidentified Sparrow | • |
| BLJA | • • |
| MYWA | • • |

Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: October 6/2011

Field Personnel: Josh Mansell.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>10 | WIND:<br>0 | CLOUD:<br>0 | PPT:<br>0 | PPT (in last 24 hrs):<br>0 |

**Start Time:** 9:30

**End Time:** 10:15

**Start Point UTM:** 0359713 / 4887102

**End Point UTM:** 0360077 / 4887450

**Habitat:** Forest

**Transect:** 11

**Feature #:**

| Species | Tally |
|---|---|
| DOWO | • • |
| BCCH | • •<br>• • |
| WBNU | •⅂ |
| WTSP | • • |
| GCKI | • •<br>• • |
| BLJA | • |
| Unidentified Thrush | • |
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Pg. 1 of 1

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**
Project Name: **AMHERST ISLAND**
Date: Oct 7, 11
Field Personnel: B. Holdin

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 7°C - 12C | WIND: 2-3 S | CLOUD: — | PPT: — | PPT (in last 24 hrs): — |

**Start Time:** 0730
**End Time:** 0800
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Pasture/woods.
**Transect:** 02
**Feature #:**

| Species | Tally |
|---|---|
| SOSP- | 𝍸 ||||| |
| COYE- | | |
| RUBL- | |||| |
| RUBL- | 𝍸 |
| MYWA- | 𝍸 | |
| RCKI- | || |
| WTSP- | 𝍸 𝍸 𝍸 |||| |
| DEJU- | || |
| VESP- | 𝍸 | |
| SWSP- | | |
| AMRO | ||||| |
| LISP- | || |
| EAPH- | | |

Pg. 1 of 3

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin Fr
(Project Manager)

REV: 2011-09-15 / FORM 014a

| Species | Tally |
|---|---|
| Habitat<br>FOD | |
| TRANSECT 7 | START: 0829 END: 0858 |
| AMRO | IIII |
| EAPH | 1 |
| CEDW - | 10 |
| RCKI | 11 |
| BHVI - | 1 |
| BLJA | ~~IIII~~ II |
| COGR - | 11 |
| HETH | 1 |
| DOWO | 1 |

Pg. 2 of 3

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: Oct 7

Field Personnel: BH

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | | | | | |

**Start Time:** 0935

**End Time:** 1003

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Woods

**Transect:** 08

**Feature #:**

| Species | Tally |
|---|---|
| | |
| BCJA | 𝍸 III |
| NOCA | II |
| WTSP | - 𝍸 𝍸 I |
| WCSP | - 𝍸 𝍸 |
| RCKI - | II |
| NOFL - | I |
| EAPH - | I |
| BHU - | I |
| SWSP - | I |
| MYWA - | II |
| REVI - | I |
| RBNU - | I |
| | |
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Pg. 3 of 3

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathrin Sh

(Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: October 7 / 2011

Field Personnel: Josh Mansell

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 8 | \ | 0 | 0 | 0 |

**Start Time:** 7:30

**End Time:** 8:30

**Start Point UTM:** 0365184 / 4890650

**End Point UTM:** 0365576 / 4891006

**Habitat:** Scrub / Woodland.

**Transect:** 03

**Feature #:**

| **Species** | **Tally** |
|---|---|
| AMRO | ☒ · ⑪ |
| AMGO | · ① |
| RWBB | ☒ ∷ ⑭ |
| EATO | ∴ ③ |
| EUST | ㊵ |
| BLJA | · ① |
| MYWA | ☒ ∴ ⑬ |
| WTSP | ∴ ③ |
| SOSP | · ① |
| RCKI | ⊐ ⑦ |
| BCCH | · ① |
| WBNU | · ① |
| CEWA | ∴ ③ |
| Thrush Spp. | · ① |
| HETH | ·· ② |
| GCKI | ∷ ④ |
| AMWO | · ① |
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Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Kathrin Sh
(Project Manager)

REV: 2011-09-15 / FORM 014a

**Stantec Consulting Ltd.**
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: **160960595**

Project Name: **AMHERST ISLAND**

Date: October 7/2011

Field Personnel: Josh Mansell

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14 | 2 | 0 | 0 | 0 |

**Start Time:** 9:30

**End Time:** 10:15

**Start Point UTM:** 0362843 / 4897034

**End Point UTM:** 0363042 / 4896576

**Habitat:** Roadside / Scrub / Industrial

**Transect:** 01

**Feature #:**

| **Species** | **Tally** |
|---|---|
| EUST | ㊿ |
| SOSP | ∷ ④ |
| RBGU | ⁖ ③ |
| WCSP | ☒ ⑩ |
| AMRO | ☒ ☒ ‥ ㉒ |
| EAME | ⁖ ③ |
| MYWA | ☒ ⁖ ⑬ |
| BCCH | ∷ ④ |
| WTSP | ∷ ④ |
| CEWA | ⊐ ⑦ |
| LEFL | · ① |
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Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-09-15 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Oct 12, 11

Field Personnel: B. Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 13-16°C | WIND: 2-3 E | CLOUD: 100 | PPT: / | PPT (in last 24 hrs): / |

**Start Time:** 0725

**End Time:** 0744

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Grassland w some trees

**Transect:** 5

**Feature #:**

| Species | Tally |
|---|---|
| WTSP- | 卌 1 |
| HETH- | 1 |
| BCJA- | 1 |
| RCKI- | 1 |
| RCHA- | 1 |
| AMRO- | 1 |
| RTHA- | 1 |
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Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: Kathrine S (Project Manager)

| Species | Tally |
|---|---|
| | |
| | Habitat : ~~Scrb~~ Scrub |
| TRANSECT 4 | START 0758 END 0821 |
| | |
| | |
| | |
| AMCR - | \|\| |
| LAP - | \| |
| RCKI - | \| |
| BCCH - | \|\|\| |
| SOSP - | \|\| |
| WTSP - | \|\|\|\| |
| EATO - | \| |
| EUST - | \|\| |
| COGR - | \| |
| GCKI - | \| |
| SWSP - | \| |
| WCSP - | \|\|\| |
| MYWA - | \| |
| AMRO - | \| |
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Pg. 2 of 4

**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

**Project Number:** 595
**Project Name:** Amherst
**Date:** Oct 12, 11
**Field Personnel:** BH

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): — | WIND: — | CLOUD: — | PPT: — | PPT (in last 24 hrs): — |

**Start Time:** 0841
**End Time:** 0908
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Edge of woods.
**Transect:** 8
**Feature #:**

| Species | Tally |
|---|---|
| SWSP- | \|\| |
| WTSP- | 𝍸 \|\|\| |
| RCKI - | \|\| |
| RWBL - | 𝍸 |
| SOSP- | \|\|\| |
| WCSP- | 𝍸 𝍸 |
| AMRO - | \|\| |
| MYWA - | \|\|\| |
| NAWA- | \| |
| WBNU- | \| |
| CEDW- | \|\|\|\| |
| DEJU- | \|\| |
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Pg. 3 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** B
(Field Personnel)

**Signature:** Kathi Sa
(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| TRANSECT 7 | START: 0934 END: 1007 |
|  | HABITAT : FOD |
|  |  |
|  |  |
| SOSP - | \|\|\| |
| BCCH - | 𝍸 \|\| |
| RBNU - | \| |
| DOWO - | \| |
| PISI - | 𝍸 |
| AMGO - | 𝍸 |
| MYWA - | \| |
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Pg. 4 of 4

Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: ______________________
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Oct. 12, 2011
Field Personnel: Zoé Lebrun-Southcott

| Weather Conditions: | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 14°C | 1 | 45% | none | none |

Start Time: 8:35 am
End Time: 9:32 am
Start Point UTM: 0365121 / 4890634
End Point UTM: 0365481 / 4890997
Habitat: swamp.
Transect: 3
Feature #:

| Species | Tally |
|---|---|
| BLJA | \|\|\|\| |
| SOSP | \|\|\| |
| AMRO | 𝍸 \|\|\| |
| AMCR | \|\| |
| Blackbird Sp. | 𝍸 \|\|\|\| |
| BCCH | \|\|\| |
| WTSP | 𝍸 \|\| |
| RCKI | 𝍸 \| |
| HETH | \|\| |
| YSFL | \|\| |
| AMGO | \|\| |
| EUST | 40 |
| RWBL | \|\|\| |
| SWSP | \| |
| EAME | \| (in field bordering woods) |
| Warbler Sp. | \| (believe it was TEWA but not 100% sure) |
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Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature: Kathie (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Oct. 12, 2011

Field Personnel: Zoé Lebrun-Southcott

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 12°C | 2 | 80% | none | none |

**Start Time:** 7:21 am

**End Time:** 8:15 am

**Start Point UTM:** 0362995 / 4891474

**End Point UTM:** 0362519 / 4891297

**Habitat:** pasture / woods

**Transect:** [✓ 2]

**Feature #:**

| Species | Tally |
|---|---|
| BLJA | 卌 \| |
| BCCH | 卌 \|\|\| |
| SOSP | 卌 \|\|\|\| |
| AMRO | 卌 卌 \| |
| MYWA | \|\| |
| LISP | \| |
| GRCA | \| |
| Blackbird Sp. | 卌 卌 |
| RCKI | \|\|\|\| |
| WTSP | 卌 \|\| |
| GCKI | 卌 |
| FISP | \|\|\| |
| CEDW | \| |
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Other:

CAGO 95 (flyovers)

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Oct. 12, 2011

Field Personnel: Zoé Lebrun-Southcott

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>15°C | WIND:<br>2 | CLOUD:<br>15% | PPT:<br>none | PPT (in last 24 hrs):<br>none |

**Start Time:** 10:05 am

**End Time:** 10:42 am

**Start Point UTM:** 0367582 / 4890963

**End Point UTM:** 0367286 / 4891413

**Habitat:** Woods.

**Transect:** 6

**Feature #:**

| Species | Tally |
|---|---|
| EWCS | 𝍸 II |
| BLJA | II |
| SOSP | 𝍸 III |
| EUST | 𝍸 𝍸 (flyovers) |
| WTSP | 𝍸 I |
| MYWA | III |
| AMCR | III |
| WIWR | I |
| RCKI | I |
| EATO | I |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Oct. 13, 2011
Field Personnel: Zoé Lebrun-Southcott

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 13°C | 2-3 | 100% | none | rain |

**Start Time:** 7:20 am
**End Time:** 8:13 am
**Start Point UTM:** 0357138 / 4887672
**End Point UTM:** 0357602 / 4887997
**Habitat:** Scrub / forest
**Transect:** 12
**Feature #:**

| Species | Tally |
|---|---|
| WTSP | ~~\|\|\|\|~~ \|\|\| |
| EATO | \| |
| HOWR | \| |
| BLJA | \|\|\|\| |
| GCKI | \|\|\|\| |
| BCCH | ~~\|\|\|\|~~ ~~\|\|\|\|~~ \|\|\|\| |
| YSFL | \| |
| HAWO | \| |
| RCKI | ~~\|\|\|\|~~ ~~\|\|\|\|~~ \|\| |
| EAPH | \| |
| AMRO | \| |
| SOSP | \|\| |
| MYWA | \| |
| FISP | \| |
| EUST | \| |
| CORA | \| |
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Other:

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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Katrin (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Oct. 13, 2011
Field Personnel: Zoé Lebrun-Southcott

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 13°C | 1-2 | 100% | none | rain |

Start Time: 9:36 am
End Time: 10:31 am
Start Point UTM: 0362840/4897034
End Point UTM: 0363054/4896544
Habitat: scrub/woods on L; open pasture/grassland on R
Transect: 1
Feature #:

| Species | Tally |
|---|---|
| FAME | \| |
| SOSP | 𝍸 \|\| |
| EWCS | \|\|\| |
| MYWA | 𝍸 \| |
| Warbler Sp. | \| |
| EUST | flock of 45 |
| BLJA | \| |
| RCKI | \| |
| HOFI | \|\| |
| MODO | 𝍸 |
| AMRO | \| |
| AMCR | \|\|\| |

Other:
CAGO 7 (flyover)
RTHA 1

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Oct 13, 2011
Field Personnel: B. Holden

| Weather Conditions: | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 13-15°C | 3-4 SE | 100 | Drizzle | Rain |

**Start Time:** 0710
**End Time:** 0733
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Forest
**Transect:** 11
**Feature #:**

| **Species** | **Tally** |
|---|---|
| BLJA - | ~~\|\|\|\|~~ \| |
| AMCR - | \|\| |
| EAPH - | \| |
| AMRO - | \|\| |
| WTSP - | \|\|\|\| |
| RCKI - | \|\|\| |
| GCKI - | \|\|\| |
| RUBL - | \|\| |
| SOSP - | \| |
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Pg. 1 of 4

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| | |
| Transect 10 | Start: 0748 End: 0808 |
| | Forest |
| | |
| | |
| - NOFL | \|\| |
| - BLJA | 𝍸 |
| - WTSP | 𝍸 𝍸 𝍸 𝍸 |
| - HETH | \|\|\| |
| - RCKI | 𝍸 \|\| |
| - BCCH | 𝍸 \|\|\| |
| - RTHA | \| |
| - AMRO | 𝍸 |
| - SOSP | \|\| |
| - DOWO | \| |
| - YBSA | \| |
| - MYWA | \| |
| - HAWO | \| |
| - RWBL | 15 |
| - BRCR | \| |
| - WIWR | \| |
| WBNU | \| |
| - EUST | \|\| |
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Pg. 7 of 8

**Signature:**

(Field Personnel)

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

**Signature:** Kathie

(Project Manager)

REV: 2011-05-03 / FORM 014a

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**Stantec**

# Migratory Bird Survey Observation Form

Project Number: 595

Project Name: Amherst

Date: Oct 13, 11

Field Personnel: BH

| Weather Conditions: | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|

**Start Time:** 0909

**End Time:** 0936

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Field /shrub Edge.

**Transect:** 13

**Feature #:**

| Species | Tally |
|---|---|
| BLJA- | \|\| |
| SOSP- | ~~\|\|\|\|~~ |
| WTSP- | \|\|\|\| |
| WCSP- | \|\| |
| NOHA- | \| |
| EUST. | \|\|\|\|\| |
| GBHE- | \| |
| AMRO- | ~~\|\|\|\|~~ |
| MAJA- | \| |
| SASP- | \| |
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Pg. 3 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**

(Field Personnel)

**Signature:**

(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| | |
| TRANSECT 9 | START 0958 END 10:20 |
| | Young Woods/Grass/Marsh. |
| | |
| AMRO | 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |
| BLSA | ||| |
| RWBL | |||| |
| EUST | || |
| BCCH | 𝍸 || |
| RCKI | || |
| MYWA | 𝍸 ||| |
| FISP | 𝍸 𝍸 |
| BHVI | | |
| NOFL | | |
| CHSP | | |
| OCWA | | |
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Pg. 4 of 4

**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______________________
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960505

Project Name: Amherst

Date: Oct 20, 2011

Field Personnel: B. Holden

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 11-13°C | 5-6 E | 95-100% | Heavy Rain until 8am | RAIN |

**Start Time:** 0739

**End Time:** 0800

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Grassland & some trees

**Transect:** 5

**Feature #:**

| Species | Tally |
|---|---|
| CORA - | II |
| SOSP - | II |
| NOHA - | I |
| BLJA - | IIII |
| AMRO - | II |
| SWSP - | I |
| CAME - | I |
| EUST - | 卌 |
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Pg. 1 of 1

**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:**
(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| | |
| TRANSECT 4 | START 0810 END 0838 |
| | scrub/grassland. |
| | |
| WTSP | 卌 卌 卌 卌 卌 卌 卌 |
| WCSP | - 卌 卌 卌 卌 \| |
| SOSP | 卌 卌 卌 卌卌 \|\|\| |
| SASP | - \| |
| LISP | - \|\| |
| SWSP | - 卌 \|\|\|\| |
| PETU | - 卌 |
| BHVI | - \| |
| HETH | - 卌 \| |
| AMRO | - \|\| |
| - NOFL | - \|\| |
| BLJA | - 卌 \|\| |
| RCKI | - 卌 卌 卌 \|\| |
| MYWA | 卌 \|\|\| |
| NAWA | - \| |
| OCWA | - \| |
| COYE | - \| |
| - NOFL | - \| |
| BCCH | - 卌 卌 \|\|\| |
| WIWR | - \| |
| EUST | - 卌 |
| AMGO | - \|\| |
| CEDW | - 卌 |
| AMCR | - \| |
| EABL | - \|\| GAPH - \| |
| NOHA | - \| FISP - \| |
| WPWA | - \|\| AMPI - 卌 卌 |
| GCKI | - \|\|\|\| SSHA - \| |

Pg. 7 of 8

**Signature:** ______ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ______ (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Oct 20, 11
Field Personnel: BH

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| | | | | |

**Start Time:** 0907
**End Time:** 0931
**Start Point UTM:**
**End Point UTM:**
**Habitat:** Woods /Edge.
**Transect:** 8
**Feature #:**

| Species | Tally |
|---|---|
| CHSP- | \| |
| SOSP- | \|\|\|\| |
| WTSP- | 卌\| |
| RCKI- | \|\| |
| MYWA- | \| |
| NOHA- | \| |
| BRCR- | \| |
| FOSP- | \| |
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Pg. 2 of 4

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** 
(Field Personnel)

**Signature:** 
(Project Manager)

REV: 2011-05-03 / FORM 014a

| Species | Tally |
|---|---|
| | |
| TRANSECT 7 | START END |
| [redacted] | HABITAT : FOD |
| | ~~Young woods, Grass, Marsh.~~ 卌 |
| BLJA - | \|\|\|\| |
| DOWO - | \| |
| WBNU - | \| |
| BCCH - | 卌 \|\| |
| WTSP - | 卌 卌 |
| SOSP - | 卌 \|\|\| |
| WCSP - | \|卌 \|\|\| |
| RCKI - | \|\|\| |
| GCKI - | \|\|\|\| |
| MYWA - | \|\| |
| SWSP - | \| |
| CLPW - | \|\| |
| AMRO - | \|\|\|\| |
| RWBL - | \|\| |
| COHA - | \| |
| WIWR - | \| |
| NOFL - | \| |
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Pg. X of X

**Signature:** ______________________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathr ______________________ (Project Manager)

REV: 2011-05-03 / FORM 014a

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Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

**Project Number:** 160960595

**Project Name:** Amherst Island

**Date:** Oct. 20 2011

**Field Personnel:** Zoé Lebrun-Southcott

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10°C | 4 | 100% | none | heavy rain |

**Start Time:** 8:33 am

**End Time:** 9:25 am

**Start Point UTM:** 0365121 / 4890634

**End Point UTM:** 0365564 / 4890964

**Habitat:** Swamp

**Transect:** 3

**Feature #:**

| **Species** | **Tally** |
|---|---|
| RCKI | 𝍸 \| |
| YSFL | \|\| |
| WTSP | 𝍸 𝍸 𝍸 \| |
| AMRO | 𝍸 \|\|\| |
| DOWO | \|\| |
| BCCH | \|\|\| |
| HETH | \|\| |
| RWBL | 𝍸 \|\|\|\| |
| COGR | 𝍸 𝍸 \|\|\| |
| EUST | 𝍸 𝍸 \| |
| SOSP | \|\|\| |
| SWSP | 𝍸 \|\| |
| AMWO | \|\|\|\| (all flushed from ground) |
| BLJA | \| |
| WIWR | \|\| |
| HAWO | \|\| |
| EATO | \| |
| FOSP | \| |
| GCKI | \|\|\|\| |
| COSN | 𝍸 \| (flyovers) |
| COSN | \| (flushed from ground) |

Other:
CAGO 𝍸 |||
↳ flyovers

Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014a

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Canada N1G 4P5
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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Oct. 20, 2011
Field Personnel: Zoé Lebrun-Southcott

**Weather Conditions:**

| TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 10°c | 5 | 100% | scattered showers | heavy rain |

**Start Time:** 7:14 am
**End Time:** 8:12am
**Start Point UTM:** 0362907 / 4891631
**End Point UTM:** 0362776 / 4891151
**Habitat:** Pasture/Woods.
**Transect:** 2
**Feature #:**

| Species | Tally |
|---|---|
| WTSP | 𝍸 𝍸 \|\| |
| AMRO | 𝍸 𝍸 𝍸 𝍸 \|\| |
| BCCH | \|\|\|\| |
| GCKI | \|\|\|\| |
| RCKI | \|\|\|\| |
| NOCA | \| |
| FATO | \|\| |
| FOSP | \|\| |
| MYWA | 𝍸 𝍸 𝍸 \|\|\| |
| EUST | \|\|\|\| |
| CEDW | \|\|\| |
| EWCS | \| |
| RHVI | \| |
| | |
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Note: On way back to vehicle a NSHR was observed ~150m from start of transect

Other:
- NSWO 1
  - ↳ in cedar, being harassed by other birds.
- CAGO 20 (flyovers)
- NOHA 1
  - ↳ hunting right across transect

Pg. 1 of 1

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)

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# Migratory Bird Survey Observation Form

**Project Number:** 160960595

**Project Name:** Amherst Island

**Date:** Oct. 20, 2011

**Field Personnel:** Zoé Lebrun-Southcott

| **Weather Conditions:** | TEMP (ºC): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10°C | 4 | 90% | none | heavy rain |

**Start Time:** 9:58 am

**End Time:** 10:40 am

**Start Point UTM:** 0367582 / 4890963

**End Point UTM:** 0367286 / 4891413

**Habitat:** Woods.

**Transect:** (6)

**Feature #:**

| **Species** | **Tally** |
|---|---|
| BLJA | \|\| |
| SOSP | ~~\|\|\|\|~~ ~~\|\|\|\|~~ \|\| |
| EWCS | ~~\|\|\|\|~~ ~~\|\|\|\|~~ \| |
| WTSP | ~~\|\|\|\|~~ \| |
| SWSP | \|\|\| |
| HETH | \|\|\|\| |
| SCJU | \|\| |
| BCCH | ~~\|\|\|\|~~ |
| OCWA | \| |
| EAPH | \| |
| RCKI | \|\|\| |
| BRCR | \| |
| HAWO | \| |
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Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

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# Migratory Bird Survey Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Oct 21, 2011

Field Personnel: B. Holden

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C):<br>10-11°C | WIND:<br>4-W | CLOUD:<br>100% | PPT:<br>— | PPT (in last 24 hrs):<br>RAIN |

**Start Time:** 0720

**End Time:** 0745

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Field Shrub edge.

**Transect:** 13

**Feature #:**

| Species | Tally |
|---|---|
| WTSP | 𝍸 𝍸 |
| SOSP | 𝍸 ||| |
| RCKI | || |
| BCJA. | || |
| PWA- | | |
| RWBL- | 𝍸 𝍸 |||| |
| NSHR- | | |
| BCCH- | ||| |
| AMCR- | | |
| FISP- | || |
| CHSP- | | |
| HETH- | | |
| GCKI- | | |
| EAPH- | | |
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Pg. 1 of 3

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** ____________________
(Field Personnel)

**Signature:** ____________________
(Project Manager)

| Species | Tally |
|---|---|
| | |
| TRANSECT 10 | START 0812 END 0829 |
| [redacted] | |
| Forest | |
| RCKI | 卌 I |
| GCKI - | 卌 IIII |
| MYWA - | IIII |
| Rewo - | I |
| WTSP - | 卌 卌 |
| WCSP - | 卌 |
| NOFL - | I |
| SOSP - | IIII |
| SWSP - | I |
| BHVI - | I |
| FOSP - | I |
| WIWR - | II |
| YBSA - | I |
| BRCR - | I |
| RUBL - | IIII |
| RWBL - | 10 |
| COGR - | 50 |
| AMRO - | 卌 |
| DEJU - | 10 |
| | |
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Pg. 2 of 3

**Signature:** ______________________

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Kathie

(Project Manager)

REV: 2011-05-03 / FORM 014a

als w:\resource\internal info and teams\field forms\birds\windfarm birding\form_014-a_migratory-passerine-survey_2-sided.docx

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# Migratory Bird Survey Observation Form

Project Number: 595

Project Name: Amherst

Date: Oct 21, 11

Field Personnel: BH

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|

**Start Time:** 0904

**End Time:** 0937

**Start Point UTM:**

**End Point UTM:**

**Habitat:** Field / Shrub Edge

**Transect:** 1

**Feature #:**

| Species | Tally |
|---|---|
| | |
| AMCR- | 11 Cold |
| CAGO- | 25 (Flyovers) + |
| AMRO- | 11 Windy |
| EUST- | 20 |
| SOSP- | 1 |

Pg. 3 of 3

Quality Control: This form is complete ☑ ~~& legible ☑~~.

**Signature:** (Field Personnel)

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Oct. 21 /11
Field Personnel: Zoé Lebrun-Southcott

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 8°c | 3 | 90% | none | rain |

Start Time: 7:21 am
End Time: 8:04 am
Start Point UTM: 0357138 / 4887672
End Point UTM: 0357602 / 4887997
Habitat: Old fields
Transect: (12)
Feature #:

| Species | Tally |
|---|---|
| SWSP | \|\| |
| WTSP | 𝍸 \| |
| CORA | \|\| |
| AMCR | \|\|\|\| |
| BCCH | 𝍸 \|\| |
| AMRO | 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 \|\|\| |
| MYWA | 𝍸 𝍸 \|\| |
| MERL | \| |
| RCKI | 𝍸 \|\|\|\| |
| EATO | \|\| |
| CEDW | 𝍸 \|\|\| |
| Warbler Sp. | 25 (flew overhead) |
| YSFL | \| |
| GCKI | 𝍸 \|\| |
| SOSP | 𝍸 𝍸 \|\|\| |
| EUST | 𝍸 𝍸 \| + 20 + 30 |
| EWCS | \|\|\| |
| SSHA | \| |
| BLJA | 𝍸 \|\| |
| SCJU | \| |
| RBNU | \| |

Pg. 1 of 1

Quality Control: This form is complete ☑ ~~& legible~~ ☑.

Signature:
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014a

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Fax: (519) 836-2493

# Migratory Bird Survey Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Oct. 21/11
Field Personnel: Zoé Lebrun-Southcott

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10°C | 2 | 80% | none | rain |

**Start Time:** 8:28 am
**End Time:** 8:50 am
**Start Point UTM:** 0358676 / 4888542
**End Point UTM:** 0358410 / 4889019
**Habitat:** Young woods, Grass, Marsh
**Transect:** (9)
**Feature #:**

| Species | Tally |
|---|---|
| RWBL | ~~\|\|\|\|~~ \|\|\| |
| EUST | 85 |
| BLJA | \|\|\|\| |
| RCKI | ~~\|\|\|\|~~ \|\| |
| WTSP | ~~\|\|\|\|~~ \|\|\|\| |
| BCCH | ~~\|\|\|\|~~ \|\|\| |
| EATO | \| |
| AMRO | ~~\|\|\|\|~~ \|\|\| |
| DOWO | \| |
| FISP | \|\| |
| MYWA | \|\|\|\| |
| SOSP | ~~\|\|\|\|~~ \|\| |
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Pg. 1 of 1

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014a

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# Migratory Bird Survey Observation Form

**Project Number:** H0960595
**Project Name:** Amherst Island
**Date:** Oct. 21 / 11
**Field Personnel:** Zoé Lebrun-Southcott

| **Weather Conditions:** | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 10°C | 3 | 100% | none | rain |

**Start Time:** 9:28 am
**End Time:** 10:19 am
**Start Point UTM:** 0362840 / 4807034
**End Point UTM:** 0363054 4896544
**Habitat:** roadway / field
**Transect:** 1
**Feature #:**

| Species | Tally |
|---|---|
| EUST | 55 |
| EWCS | 11 |
| SOSP | 𝍸 |
| SSHA or COHA | 1 |
| → RBWO | 1 |
| BCCH | 1 |
| BLJA | 1 |
| MYWA | 𝍸 \|\|\|\| |
| CEDW | 𝍸 𝍸 𝍸 + 4 flyovers |
| AMRO | 𝍸 𝍸 \|\|\| |
| WTSP | \|\|\| |
| SCJU | 1 |
| Finch Sp. | 𝍸 (there were possibly HOFI but didn't |
| | get a very good look at them) |
| | |
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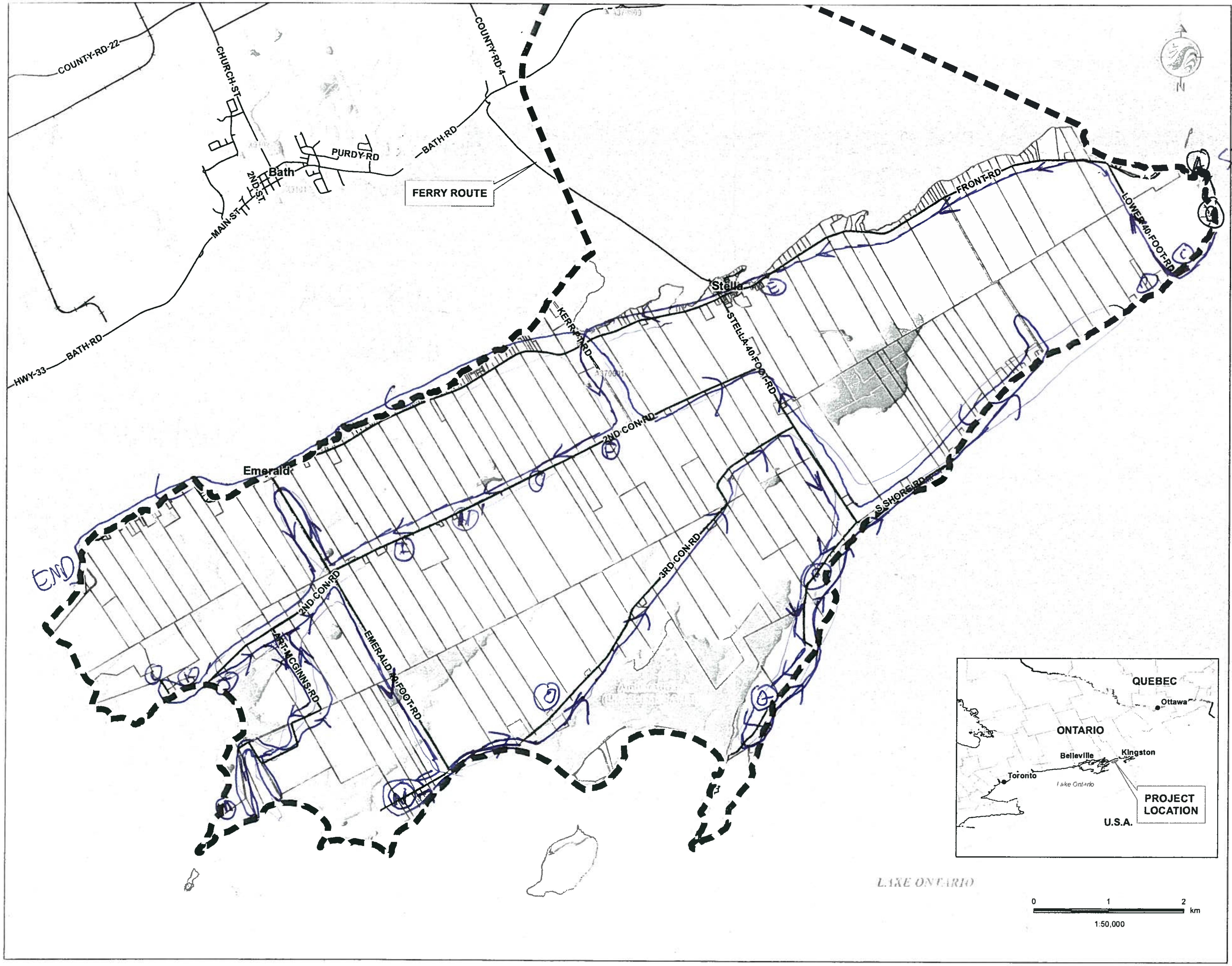
Pg. 1 of 1

**Signature:** (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** (Project Manager)

REV: 2011-05-03 / FORM 014a



## Legend

- ▛ Study Area
- Active Landfill
- Closed Landfill
- Road
- Railway
- Watercourse
- Property Boundaries
- Wooded Area
- Waterbody
- Unevaluated Wetland
- PSW
- ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595 FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell

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Canada N1G 4P5
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Stantec

1:30pm -

# Swallow Staging Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Jul 8, 2011

Field Personnel: B. Holden

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 26°C | 0-1 - VAR | 30 | — | — |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| Ⓐ | 12:30pm | BARS-15 TRES-20<br>PUMA-2 | BANS-5 | Gravel bar/Marsh | - Flying & feeding |
| Ⓑ | 12:45 | -TRES-10<br>BARS-10 | BANS-10 | - KFN Marsh Cell | - flying / feeding. |
| Ⓒ | 1:00 | PUMA-30 TRES-~20<br>BARS ~20 | BANS-5 NRWS-1 | Pasture / share @ KFN - PUMA nesting houses. | -PUMA colony w/ staging / feeding swallows - some on fence wire |
| Ⓓ | 1:35 | -BARS-15<br>-TRES-25 | } — | on wire to W. (Pasture / Fallow) | - 50% flying / feeding<br>- 50% perched on tele-wire |
| Ⓔ | 1:47 | BARS - 30 | — | Near Barns / Pasture | - feeding & Many probably nested locally. |
| Ⓕ | 2:05 | BARS-7<br>TRES-5 } | on wires leading to house # 2475 / HAY fields | | - perched. / 1 BARS dead on road - (JUV) |
| Ⓖ | 2:11 | TRES-30<br>BARS-10<br>BANS-1 } | on wires / perched — Hay fields. | | |
| Ⓗ | 2:20 | BARS-25<br>TRES-5 } | Hay } | On wires @ Community Pasture. | } Perched. |
| Ⓘ | 2:23 | BARS-15<br>TRES-15 } | Hay / Pasture } | on wires @ house 4725 } | 50% perched<br>50% feeding. |
| Ⓙ | 242 | BARS-20<br>TRES-20<br>NRWS-1 } | Marsh / Hay } | on wires near metal barn | } 50% feeding<br>50% Perched |

Signature:

(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Scatton

(Project Manager)

REV: 2011-05-05 / FORM 010b

Swallows Cont'd.

~~**Other Bird Species**~~

~~Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.~~

|  | **Species** | **No. of Individuals** | **Location**<br>(e.g. in water puddle, agr. field near puddle, mowed lawn, etc.) | **Behaviour**<br>(i.e. height/direction of flight, feeding, etc.) |  |
|---|---|---|---|---|---|
| Ⓚ | PUMA-1<br>BARS-10<br>TRES-4 | } on | wires @ 8850 shore / hay. |  | 244 |
| Ⓛ | NRWS-6<br>BARS-5 | } on | wires @ house 9345 | } Hay / woods. | 246 |
| Ⓜ | BARS-30<br>TRES-40<br>BANS-10 | } on | wires & Grand — 14 / Pasture. | 50% flying<br>50% perched | 3:01 |
| Ⓝ | BARS-100<br>TRES-500 | BANS-150<br>NRWS-5 | PUMA-2 } On wires / Road & feeding over fresh cut hay field. |  | 370 |
| Ⓞ | BARS-30 | } on | wire } hay ~ |  | 325 |
| Ⓟ | TRES-30<br>NRWS-1 | } on | wire / Pasture |  | 340 |
| Ⓠ | TRES-75<br>BARS-50 | BANS-10<br>NRWS-1 | } on wires above pasture |  | 350 |
|  |  |  |  |  |  |
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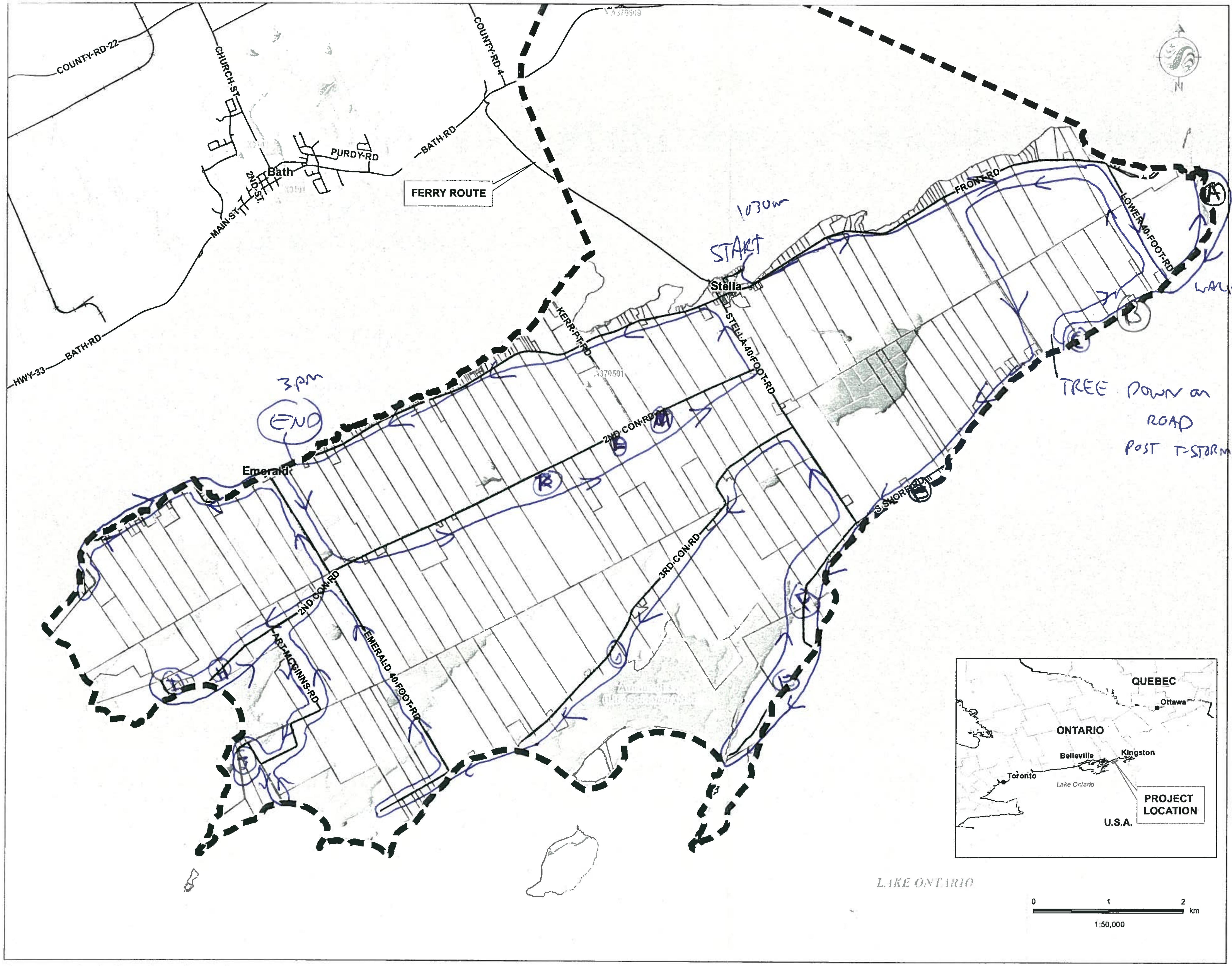
Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________
(Project Manager)

REV: 2011-05-05 / FORM 010b



1030am

START

WALK

TREE DOWN on ROAD POST T-STORM

3pm

END

## Legend

- ▚ Study Area
- Active Landfill
- Closed Landfill
- — Road
- ┼ Railway
- Watercourse
- ☐ Property Boundaries
- Wooded Area
- Waterbody
- ▨ Unevaluated Wetland
- ▨ PSW
- ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

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April 201
16096059

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Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595_FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell

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Canada N1G 4P5
Tel: (519) 836-6050
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# Swallow Staging Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Jul 13, 2011

Field Personnel: B. Holder

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 22-26°C | 2-3 N (3-6 during storm) | 50-100% | Heavy T-storm passed quickly | |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| A | 1145 | TRES-40<br>BARS-20<br>BANS-10 | KRN | property | - feeding - H = 50m to 0 |
| B | 12:30 | TRES-400<br>BANS-50 | BARS-50<br>CLSW-2 | feeding behind | Post T-Storm large tree - H~5m |
| C | 1240 | TRES- 100 | feeding | behind large | tree H~5 |
| D | 1257 | BARS-26<br>TRES-70 | BANS-20 | perched on | wires - 5m |
| E | 119 | BARS - 30<br>TRES- 15 | | perched on | wires 5m |
| F | 126 | TRES- 60<br>BANS- 20 | | Possible evening roost site? | On wires 5m |
| G | 150 | BARS - 30<br>TRES- 10 | on | wires H~5m | |
| H | 2:16 | BARS-40<br>TRES-20 | BANS-5 | on wires | near shore H~5m |
| I | 2:24 | BANS-100<br>TRES-20 | BARS-10<br>NRWS-5 | on wires | - H~5m |
| J | 232 | BARS-70<br>TRES-20 | BANS-10 | on wires | 5m |

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: SCotton
(Project Manager)

pg 1 of 2

REV: 2011-05-05 / FORM 010b

### *Other ~~Bird~~ Species*

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| **Species** | **No. of Individuals** | **Location**<br>(e.g. in water puddle, agr. field near puddle, mowed lawn, etc.) | **Behaviour**<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|
| | | | |
| | | | |
| | KFN | property | |
| | | AMWI-3<br>GREG-1 | WIPH-2 |
| | | GWTE-2<br>GBHE-3 | LEYE-7 |
| | | GADW-2<br>BCNH-1 | GRYE-1 |
| | | TUSW-1<br>COGO-1 | LESA-15 |
| | | LTDU-1<br>OSPR-2 | |
| | | CAGO-200<br>MALL-30<br>NOHA-2 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Signature: ______________________
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ______________________
(Project Manager)

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1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Swallow Staging Observation Form

Project Number: 60 595

Project Name: Amherst

Date: Jul 13, 11

Field Personnel: BH

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | | Low | Pg | / | |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| K | 240 | TRES-20<br>BARS-10 | ) on | wires<br>hay fields | ~5m |
| L | 242 | TRES-120<br>BARS-20 | ) on | wires over<br>hayfields | H=5 |
| M | 244 | TRES-40 | ) on | wires over<br>hayfields | H=5m |
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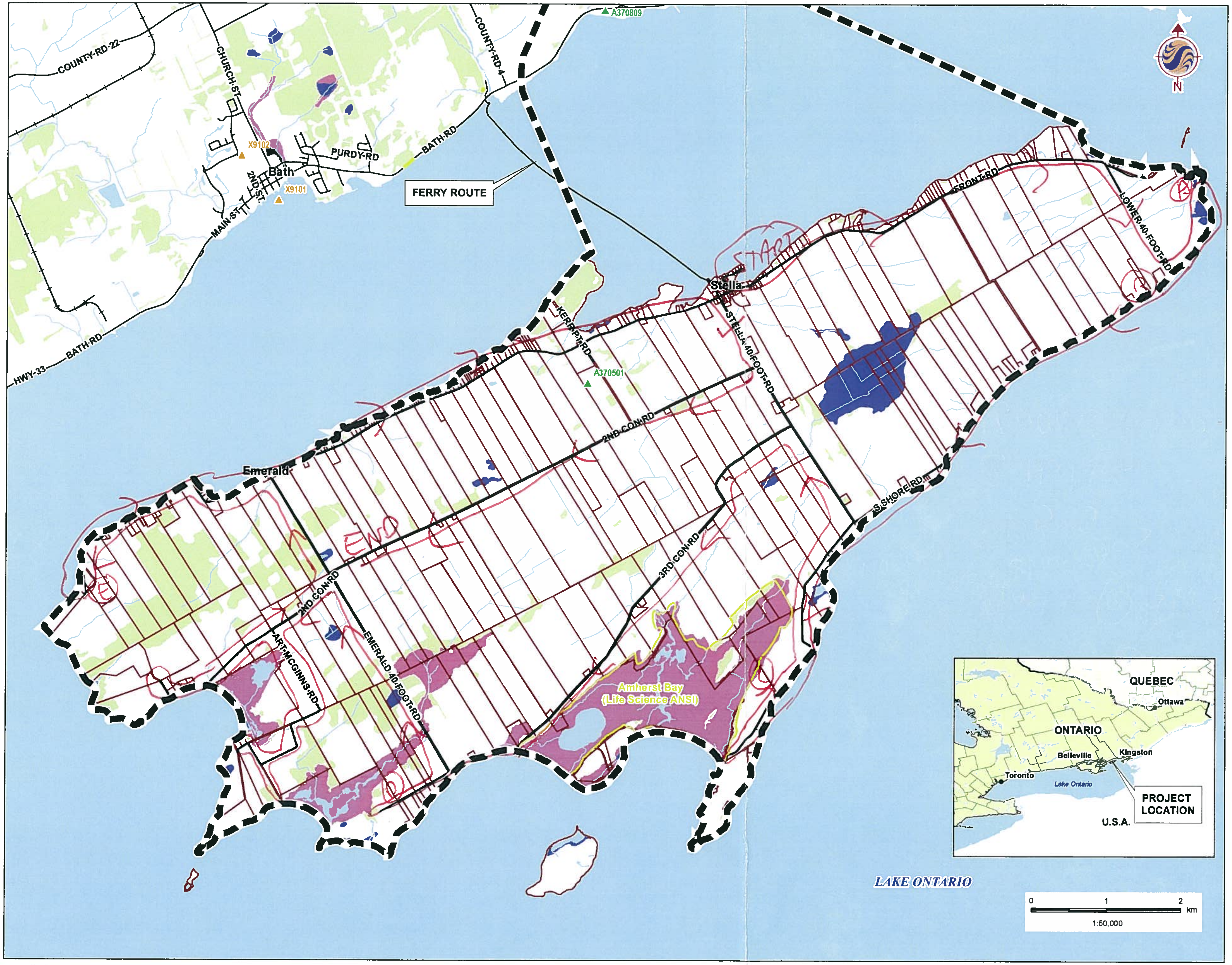
Signature: ______________________ (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Katherine ______________________ (Project Manager)

pg 2 of 2

REV: 2011-05-05 / FORM 010b



## Legend

- ▭ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- ┼ Railway
- — Watercourse
- ▭ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ▭ ANSI Boundary

Staging Swallows
Wk of. July 25

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

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April 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

W:\active\60960595\drawing\GIS\MXD\Fieldmaps\60960595_FieldMapOverview_20110413.mxd
Revised on: 2011-04-05 By: pworsell

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Swallow Staging Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Jul 23, 2011

Field Personnel: B. Holden

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 32 | 2-3 | 10-30 | — | — |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| A | 11:15 | TRES-100<br>PUMA-20 | BARS-30<br>BANS-20 | Far end of KFN | feeding / roosting |
| B | 11:49 | TRES-200<br>BANS-100 | BARS-40<br>CLSW-1 | roosting on wires | & feeding. |
| C | 12:19 | TRES-150<br>BANS-150 | BARS-40 | on wires. | |
| D | 1:00 | NRWS-10<br>TRES-60 | PUMA-10<br>BARS-30 | on wires | and over lake |
| E | 2:16 | TRES-40<br>BARS-20 | on wires | near Barn. | |
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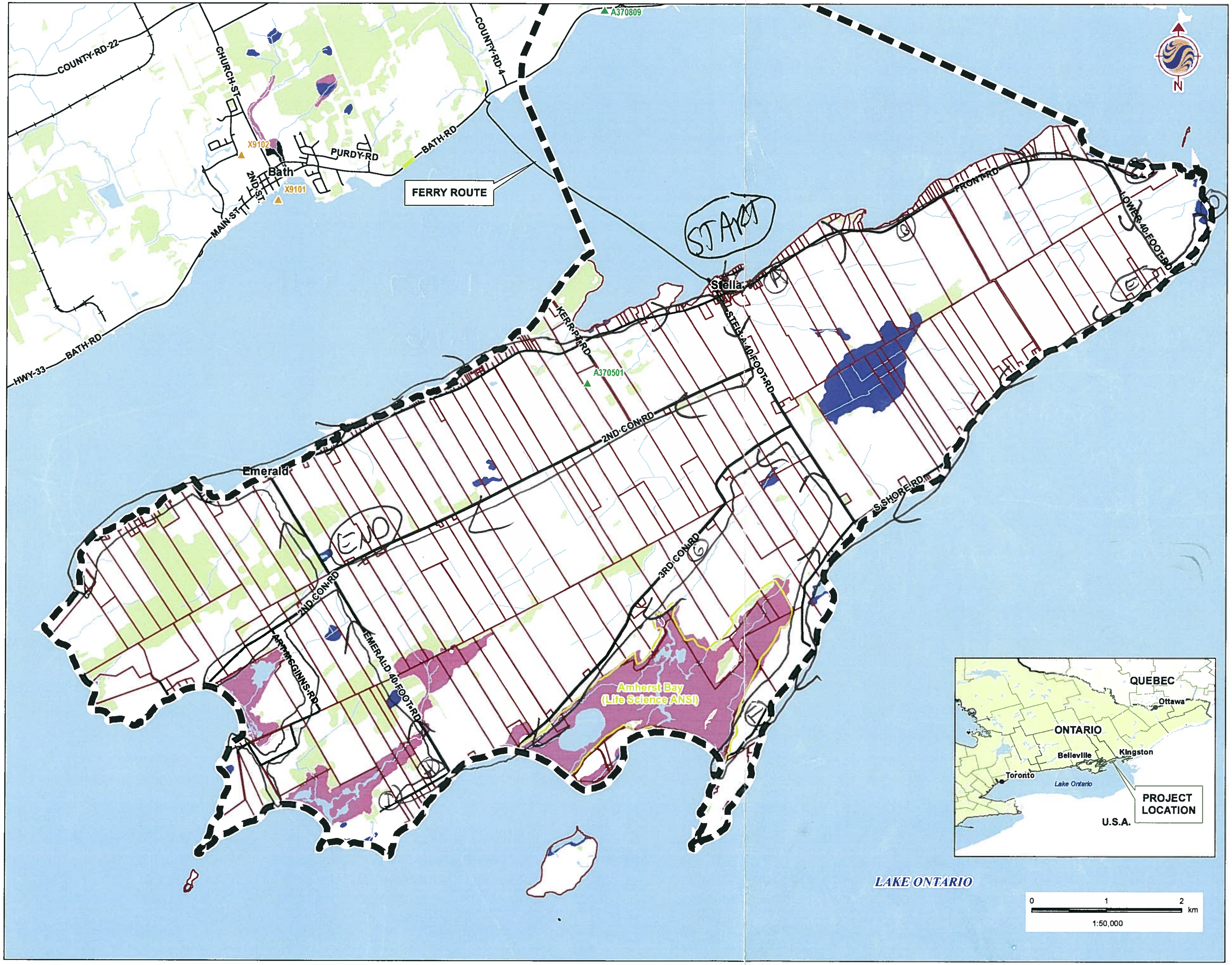
Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature:
(Project Manager)



## Legend

- ▚ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- ┼ Railway
- — Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

Staging Swallows
wk of: July 18

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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Client
Title
Project

Figure No.
DRAFT

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Revised on: 2011-04-05 By: pworsell

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Swallow Staging Observation Form

Project Number: 160960595
Project Name: Amherst
Date: Jul 27, 2011
Field Personnel: B. Holden

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C):<br>27-29°C | WIND:<br>3 | CLOUD:<br>40-60% | PPT:<br>— | PPT (in last 24 hrs):<br>— |

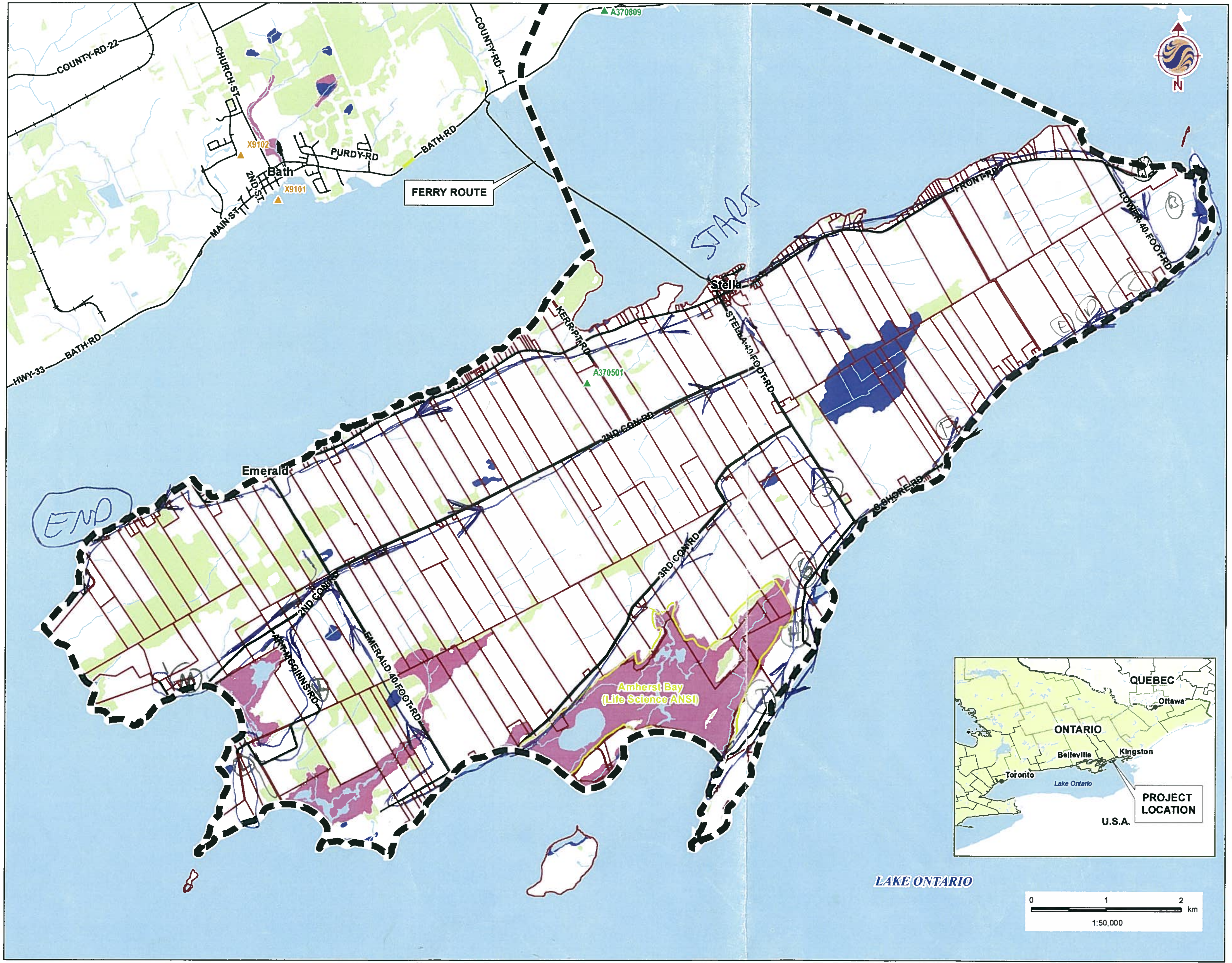
| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| A | 8:40 | 40 total<br>30 BARS, | 10 TRES | hunting | 1. feeding near barns 2 wires. |
| B | 8:50 | 50 total<br>40 TRES, 10 BARS | | on wire | perched / resting |
| C | 9:00 | 300 total<br>200 TRES, 50 BANS | 10 PUMA<br>40 BARS | on wires & | feeding. |
| D | 10:00 | 100 total<br>70 TRES, 25 BANS. | 5 BARS | feeding around marsh | |
| E | 1035 | 500 total<br>300 TRES, 150 | BANS, 50 BARS | on wires. | |
| F | 1050 | 250 total | 200 TRES<br>50 BARS | on wires | & also on cattails |
| 6 | 11:00 | 30 total | 25 BARS<br>5 TRES | feeding near barns. | |
| H | 11:10 | 200 total | 100 TRES 50 BARS<br>50 BANS | on wires | |
| I | 11:13 | 60 total | ~20 TRES 30 BARS<br>5 NRWS 5 BANS | on wires | |
| | | | | | |

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-05 / FORM 010b



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

○

Staging Swallows
WK of: Aug 29

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

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April 2011
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Client
Title
Project

Figure No.
DRAFT

Title
**STUDY AREA**

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Revised on: 2011-04-05 By: pworsell

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**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

12:00 –

# Swallow Staging Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Aug 3, 2011

Field Personnel: B. Holder

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | TEMP (°C): 20-23°C | WIND: 2-3 - E | CLOUD: 100% | PPT: RAIN | PPT (in last 24 hrs): RAIN |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| Ⓐ | 1210 | TRES<br>BARS | – 50<br>– 50 | on wires | Roosting. |
| Ⓑ | 12:30 | TRES – 300<br>BARS – 200 | BANS – 100 | over cows in pasture | – feeding low. |
| Ⓒ | 12:50 | TRES – ~~100~~ 150<br>BARS – 50 | BANS – ~~[illegible]~~ – 40 | Tall grass pasture | feeding low |
| Ⓓ | 12:55 | TRES – 150<br>BARS - 100 | BANS – 250 | on ground / wires | feeding / roosting very low. |
| Ⓔ | 1:00 | TRES - 100<br>BANS. 250 | BARS - 20 | on wires. – | roosting |
| F | 1:06 | BARS - 40<br>TRES – 100 | BANS – 50 | on wires | roosting |
| Ⓖ | 1:14 | TRES – 90<br>BANS. 100 | BARS – 80 | on wires ; feeding – low | / Tall Grass |
| Ⓗ | 1:16 | TRES – 75<br>BARS - 25 | BANS. 50 | on wires | / Tall Grass |
| Ⓘ | 1:19 | TRES / 60<br>BANS 150 | BARS – 20<br>PUMA – 10 | on wires near house | / tall grass, ~~[illegible]~~ BARS NRWS here as well |
| Ⓙ | 1:29 | TRES – 30<br>BARS – 20 | PUMA – 10 | on wire | roosting |

Quality Control: This form is complete ☑ & legible ☑.

Signature: (Field Personnel)

Signature: SC (Project Manager)

Swallows

### Other Bird Species

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| Species | No. of Individuals | Location<br>(e.g. in water puddle, agr. field near puddle, mowed lawn, etc.) | Behaviour<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|
| Ⓚ 1:58 | PUMA | -15 – on wires | roosting > no other species! |
| Ⓛ 2:10 | BARS- 40<br>TRES- 30 | – on wires near | Barn > roosting. |
| Ⓜ 2:17 | PUMA- 15<br>TRES- 10 | BARS- 10 > on | wires > roosting |
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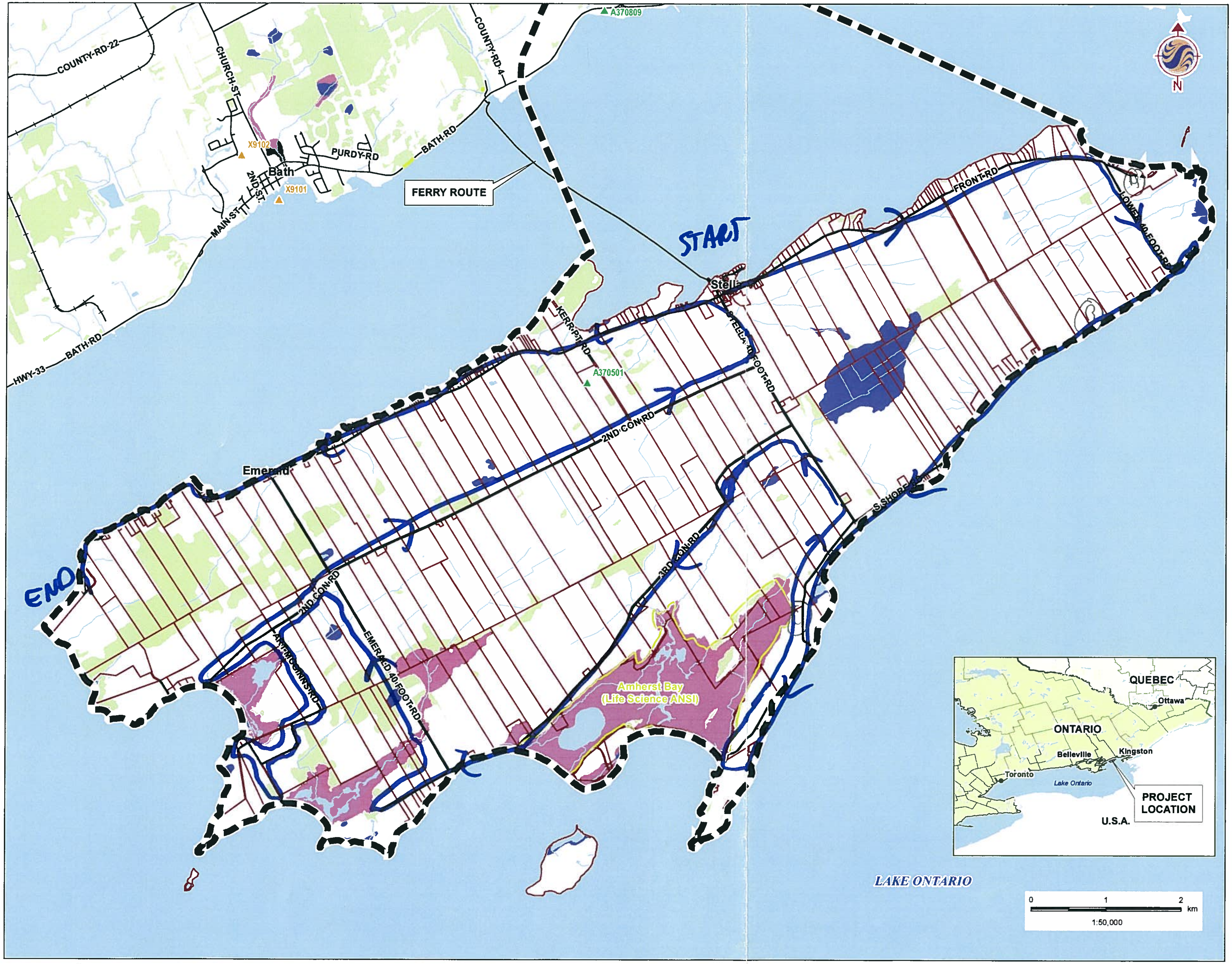
Quality Control: This form is complete ☐ & legible ☐.

**Signature:** ______________________
(Field Personnel)

**Signature:** ______________________
(Project Manager)

REV: 2011-05-05 / FORM 010b



## Legend

- Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ☐ ANSI Boundary

Staging Swallows
Wk of: Aug 8
B. Holden
Aug 9, 2011

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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April 2011
160960595

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Project

Figure No.
DRAFT

Title
**STUDY AREA**

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Revised on: 2011-04-05 By: pworsell

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Tel: (519) 836-6050
Fax: (519) 836-2493

2:00pm - 4:00pm

## Swallow Staging Observation Form

Project Number: 160960595

Project Name: Amherst

Date: Aug 9, 11

Field Personnel: B. Holden

| | | | | | |
|---|---|---|---|---|---|
| Weather Conditions: | TEMP (°C):<br>19-21°C | WIND:<br>2-3 E | CLOUD:<br>100% | PPT:<br>Heavy RAIN | PPT (in last 24 hrs):<br>Heavy Rain |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| A | 2:16 | TRES - 500<br>BANS - 200 | PUMA - 15<br>BARS - 50 | Roosting on wires near barn. Limited feeding. | |
| B | 2:38 | BARS - 40<br>BANS 200 | TRES - 300<br>PUMA - 5 | Roosting on wires. Very little feeding. | |
| C | 3:02 | BANS - 200<br>TRES - 800 | BARS - 100<br>NRWS - 5 | Roosting on wires & in cattails. Limited feeding. | |
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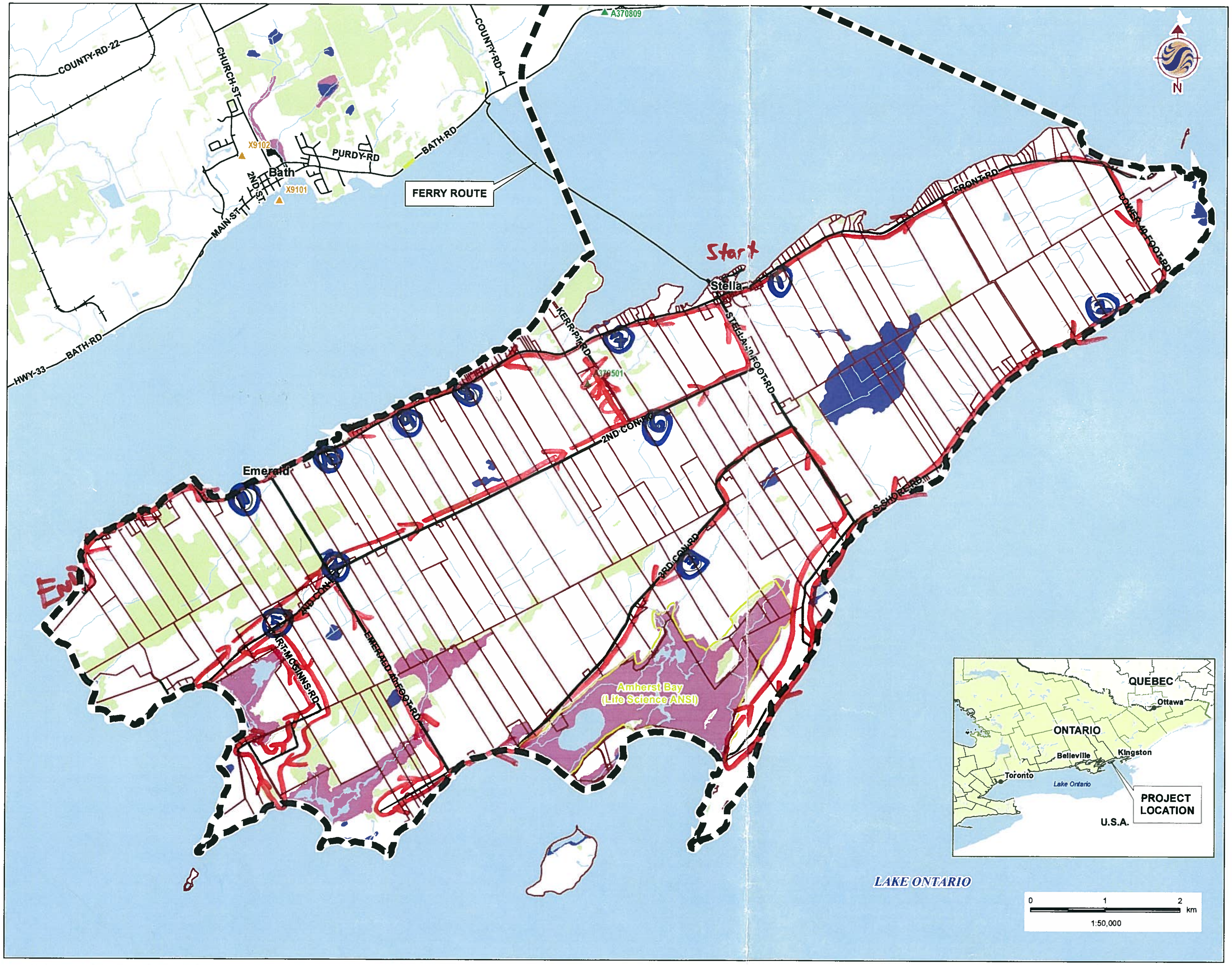
Very poor Weather

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)



## Legend

⌐ Study Area
▲ Active Landfill
▲ Closed Landfill
— Road
—+— Railway
— Watercourse
☐ Property Boundaries
🟩 Wooded Area
■ Waterbody
■ Unevaluated Wetland
■ PSW
☐ ANSI Boundary

Staging Swallows
Wk of: Aug. 15
M. Ross
Aug 16/11

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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April 2011
160960595

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Project

Figure No.
DRAFT

Title
**STUDY AREA**

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Revised on: 2011-04-05 By: pworsell

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Swallow Staging Observation Form

Project Number: 160960595
Project Name: Amherst Island
Date: Aug 16/11
Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 27 | 2 | 15%-40% | None | Rain |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| ① | 2:05 | PUMA - 12 TRES - 4<br>BANS - 2<br>BARS - 10 | | wire / Res / field | Rest / forage |
| ② | 2:45 | BARS - 40<br>BANS - 15 | | wire / Pasture + shore line @ Barn | Rest / Forage |
| ③ | 3:45 | BARS - 100<br>NRWS - 60<br>TRES - 40 | | Wire / Field near Res. | Rest / forage → all chased off by merlin |
| ④ | 4:19 | BARS - 11<br>BANS - 3 | | Wire along road near barn | Rest |
| ⑤ | 4:55 | BARS - 25 PUMA - 3<br>TRES - 12<br>BANS - 3 | | Wire / fields next to road | Rest / Forage |
| ⑥ | 5:25 | TRES - 100<br>BANS - 10<br>BARS - 40 | | wire / fields near road | Rest / Forage |
| ⑦ | 5:38 | BARS - 19 | | Wire along Rd. | Rest |
| ⑧ | 5:42 | BARS - 15<br>BANS - 8<br>TRES - 3 | | wire along Rd | Rest / preen |
| ⑨ | 5:48 | BARS - 30<br>BANS - 10<br>TRES - 20 | | Wire along road / field | Rest / Forage |
| ⑩ | 5:55 | BARS - 40 NRWS - 10<br>BANS - 60<br>TRES - 90 | | " | " |

Signature: Matt
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.
Signature: Katherine Stem
(Project Manager)

## *Other Bird Species*

Please record any flock behavior (i.e. gulls, crows, blackbirds), raptors or any significant species.

| Species | No. of Individuals | **Location**<br>(e.g. in water puddle, agr. field near puddle, mowed lawn, etc.) | **Behaviour**<br>(i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|
| ⑪ BARS - 15<br>BANS - 25<br>TRES - 30 | | wire near road | Rest /Preen |
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Quality Control: This form is complete ☐ & legible ☐.

**Signature:** ______________________ (Field Personnel)

**Signature:** ______________________ (Project Manager)

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Stantec

# Butterfly Stopover Areas Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug. 16/11

Field Personnel: Matthew Ross

| Weather Conditions: | TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|---|
| | 27 | 2 | 15 – 40% | None | Rain |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour<br>(i.e. Roosting / Feeding) |
|---|---|---|---|---|---|
| — | — | No flocks / large No.'s; occasional Monarchs, | | | |
| — | — | giant swallowtails observed | | | |
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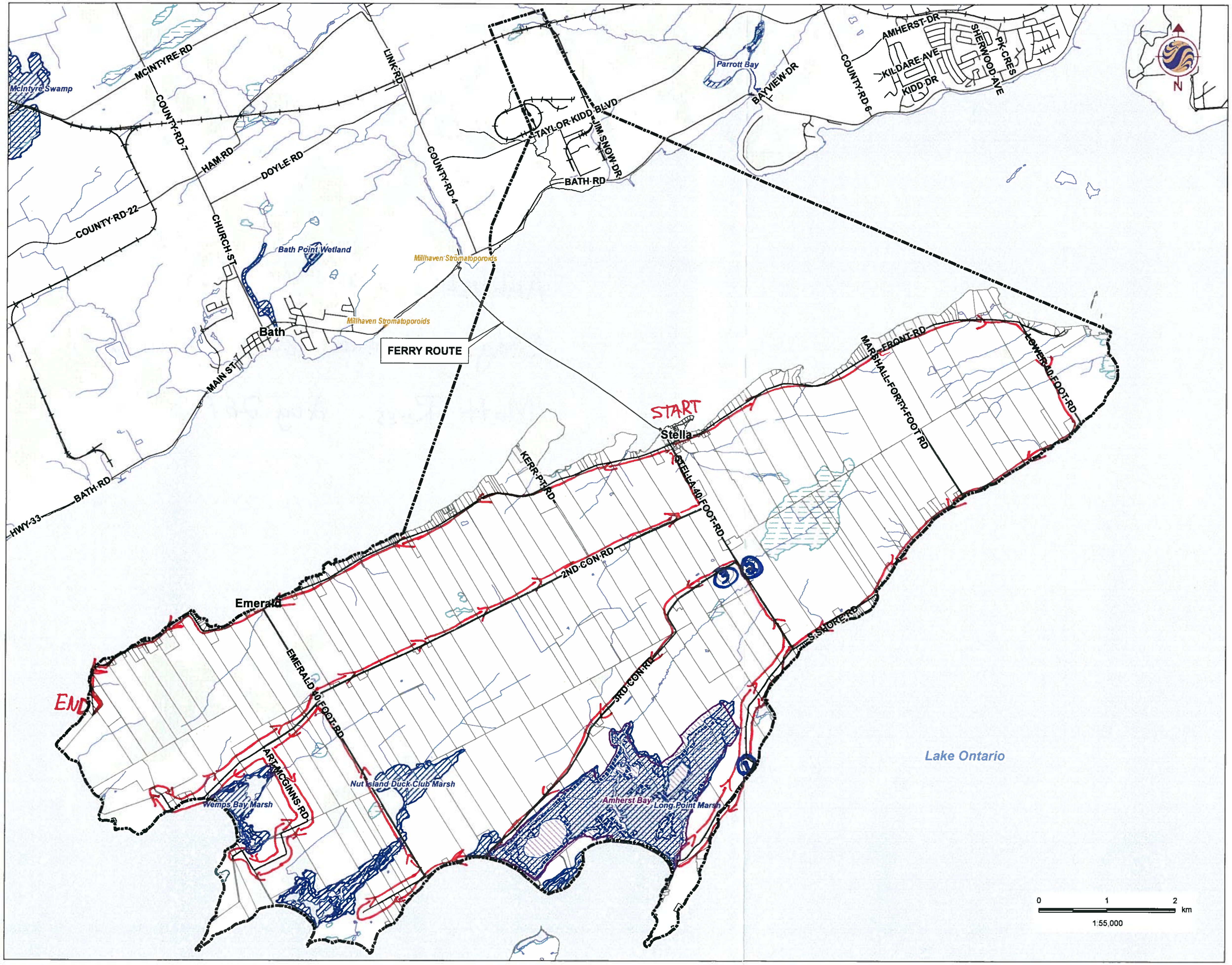
Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature: Katherine [illegible]
(Project Manager)

REV: 2011-05-05 / FORM 010b



## Legend

- ▭ Project Study Area
- — Road
- ┼ Railway
- — Watercourse
- ▭ Waterbody
- ▤ Unevaluated Wetland
- ▨ Provincially Significant Wetland
- ▨ ANSI, Earth Science
- ▨ ANSI, Life Science
- ▭ Property Boundaries
- Wooded Area

Staging Swallows
week of Aug 22
M. Ross Aug 26 11

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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August 2011
160960595

Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title

# Field Map - Waterfowl & Raptor Migration

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Revised on: 2011-08-22 By: pworsell

**Stantec Consulting Ltd.**
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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Swallow Staging Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 26/11

Field Personnel: Matthew Ross

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 17° - 20°C | 3 | 35 - 45% | None | Rain |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour (i.e. height/direction of flight, feeding, etc.) |
|---|---|---|---|---|---|
| ①<br>② | 9:25<br>9:50 | BARS<br>BARS | 15<br>10 | Pasture<br>Hayfield / wire | Forage<br>Perch -> Forage |
| ③ | 9:55 | TRES<br>BARS | 14<br>1 | wire / Hayfield | Perch |
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**Signature:**
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

**Signature:** Katherine
(Project Manager)

REV: 2011-05-05 / FORM 010b

**Stantec**

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Guelph, ON
Canada N1G 4P5
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Fax: (519) 836-2493

# Butterfly Stopover Areas Observation Form

Project Number: 160960595

Project Name: Amherst Island

Date: Aug 26/11

Field Personnel: Matthew Ross

**Weather Conditions:**

| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 17° - 20°C | 3 | 35-45% | None | Rain |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour<br>(i.e. Roosting / Feeding) |
|---|---|---|---|---|---|
| —— | —— | No flocks / large #'s observed; occasional Monarchs observed —— | | | |
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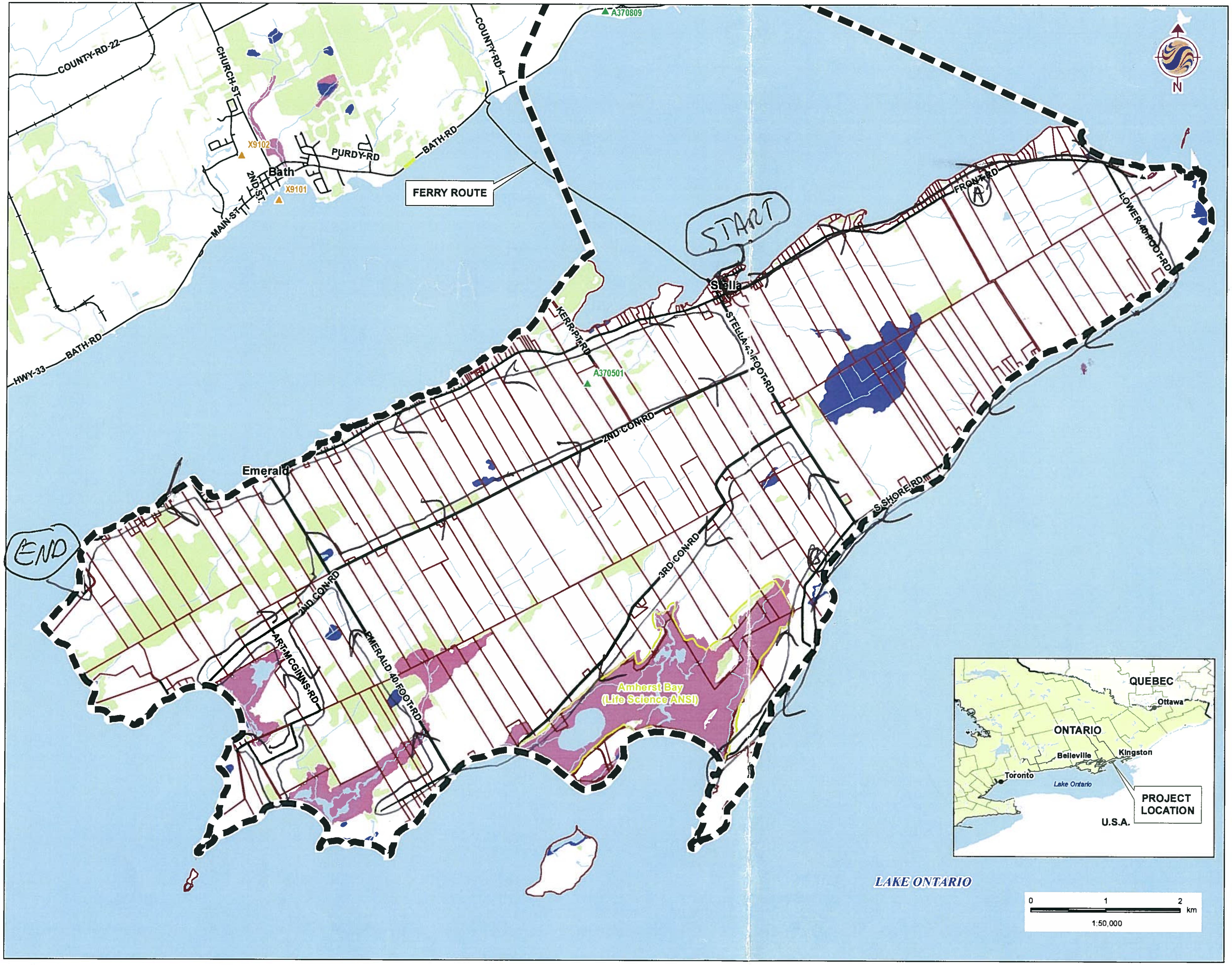
**Signature:** ______________________
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

**Signature:** Katherine
(Project Manager)

REV: 2011-05-05 / FORM 010b



## Legend

- ⬚ Study Area
- ▲ Active Landfill
- ▲ Closed Landfill
- — Road
- ┼ Railway
- — Watercourse
- ▭ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 PSW
- ▭ ANSI Boundary

Staging Swallows
WK of: Aug 29

Date: Sep 2, 2011
B. Holden
11:15 - 1:30

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
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April 2011
160960595

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Client
Title
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Figure No.
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Title
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Revised on: 2011-04-05 By: pworsell

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Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Swallow Staging Observation Form

Project Number: 160960565

Project Name: Amherst

Date: Sep 7, 2011

Field Personnel: B. Holden

**Weather Conditions:**

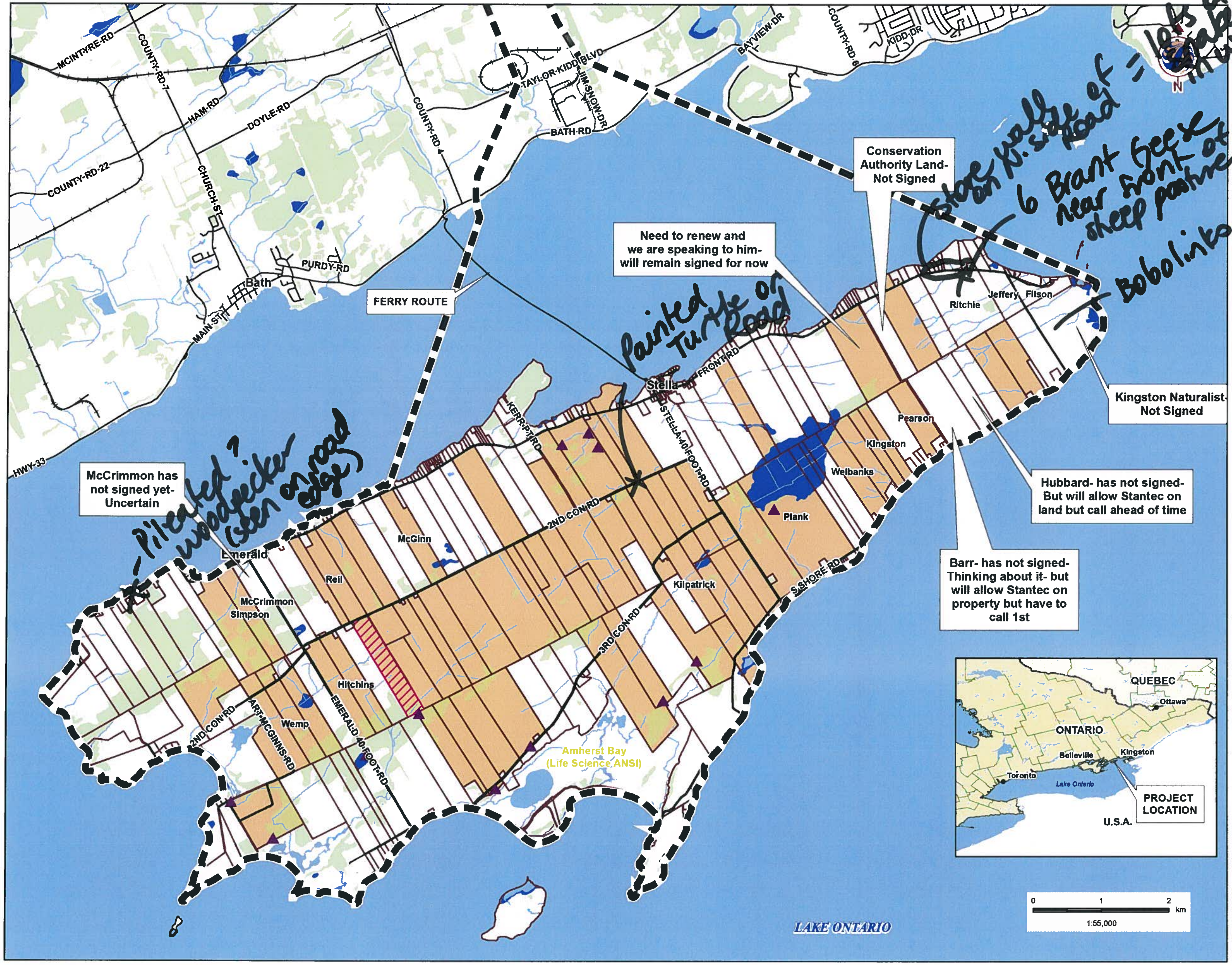
| TEMP (°C): | WIND: | CLOUD: | PPT: | PPT (in last 24 hrs): |
|---|---|---|---|---|
| 22-24°C | 3-4 SSW | 5% | | |

| Flock No. | Time | Species | No. of Individuals | Location / Habitat | Behaviour |
|---|---|---|---|---|---|
| | | | | | (i.e. height/direction of flight, feeding, etc.) |
| Ⓐ | 11:27 | BARS-20<br>TRES-10 | 7 on wires | H= | 3m. |
| Ⓑ | 12:01 | TRES-50 | 7 on wires | / marsh - | H=5m. |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Signature:
(Field Personnel)

Quality Control: This form is complete ☑ & legible ☑.

Signature:
(Project Manager)



FERRY ROUTE

Need to renew and we are speaking to him- will remain signed for now

Conservation Authority Land- Not Signed

Kingston Naturalist- Not Signed

Hubbard- has not signed- But will allow Stantec on land but call ahead of time

Barr- has not signed- Thinking about it- but will allow Stantec on property but have to call 1st

McCrimmon has not signed yet- Uncertain

Stone walls on N. side of Road = lots of rubble in wall

6 Brant Geese near front of sheep pasture.

Bobolinks

Painted Turtle on Road

Pileated? woodpecker (seen on road edge)

**Legend**

| | |
|---|---|
| ▬ ▬ | Study Area |
| — | Road |
| ┼ | Railway |
| — | Watercourse |
| ☐ | Property Boundaries |
| 🟩 | Wooded Area |
| 🟦 | Waterbody |
| 🟦 | Unevaluated Wetland |
| 🟧 | Optioned Property |
| ▨ | 24hr Notice Required |

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

Stantec

May 2011
160960595

Client/Project
Client
Title
Project

Figure No.
DRAFT

Title
LAND ACCESS

W:\active\60960595\drawing\GIS\MXD\60960595_Landaccess_20110511.mxd
Revised on: 2011-05-11 By: dharvey

Stantec
Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

# Wildlife Habitat Assessment

Project Number: 160960595

Project Name: Amherst Island. WF

Date / Time: May 19 2011

Field Personnel: KE + RP.

| | | | | | |
|---|---|---|---|---|---|
| **Weather Conditions:** | Temp: 19 | Wind: light | Cloud: 20% | PPT: 0 | PPT in last 24 hrs: 1.mm |

**Visual assessment** (roadside – no access) ☒
**Physical assessment** (walk through feature) ☐

**Extent of physical investigation of feature**: ☐ Entire ☒ Partial (indicate on map) see map.

**Species Observations** List species and type of observation (indicate on map):
(CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs, nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization)

| Birds | Mammals | Herps | Butterflies / Dragonflies | Other |
|---|---|---|---|---|
| i.e.) A: AMRO/VO | | Eastern Gartersnakes (approx. 7) in rock wall along Front Road at Ritchie property. | | |

# Appendix D

## Staff Summaries

# Alan Wormington Tech. Dipl.

Ornithologist

Alan Wormington is an ornithologist with extensive experience in conducting avian surveys, data analysis and reporting. Alan has served as a researcher, data collector, contributing author and editor for a variety of technical journals, books, newspapers and newsletters, writing articles pertaining to the biological sciences, specifically with regard to birds, butterflies and moths, and natural history. He is a founding member and member of various birding and field naturalist associations, and has conducted interpretive birding tours for various groups in Ontario and other provinces of Canada, various states in the USA, and Mexico. Over the years Alan has provided technical field skills to both private and public organizations, including various environmental consultancies, the Ontario Ministry of Natural Resources, and Parks Canada.

Alan has provided technical support on contract to Stantec Consulting for various renewable energy wind power projects, primarily performing seasonal avian surveys at various project sites throughout Ontario. A brief summary of Alan's projects is listed below.

## EDUCATION

Tech. Dipl., Seneca College / Historical/Natural Interpretive Services, Toronto, Ontario, 1979

Tech. Dipl., Sheridan College of Applied Arts and Technology / Applied Photography, Oakville, Ontario, 1976

## MEMBERSHIPS & VOLUNTARY SERVICE

Voting Member (2011), Ontario Bird Records Committee (Ontario Field Ornithologists)

Associate Editor (2011), North American Birds Journal (American Birding Association)

Volunteer (1978-2010), Point Pelee volunteer compiler of bird observations for the North American Birds Journal (American Birding Association)

## PROJECT EXPERIENCE

### Renewable Energy

Mica Bay Wind Power Project, Ontario (Field Technician)
*Conducted avian field surveys in northern Ontario as part of the pre-construction monitoring.*

Amherst Island Wind Power Project, Amherst Island, Ontario (Field Technician)
*Conducted avian field surveys for breeding birds including species at risk.*

Port Alma Wind Power Project, Municipality of Chatham-Kent, Ontario (Field Technician)
*Conducted avian field surveys as port of the Post-construction disturbance monitoring.*

### Natural Sciences & Heritage Resources

Seasonal Avian Surveys for a Private Consultancy*, Various Sites, Canada (1973, 2001) (Biologist)
*Performed wildlife surveys in the Yukon and Northwest Territories to assess environmental impacts of the proposed Mackenzie Valley Oil Pipeline*

Seasonal Data Collection and Analysis at the Lake Erie Fisheries Research Station for the Ministry of Natural Resources*, Ontario (1987-1997) (Resource Technician)
*Responsible for field collection and lab analysis of various samples, including fish, water, zooplankton, and Zebra Mussels*

Seasonal Avian Surveys and Reporting for Southpoint Wind Ontario Limited*, Leamington, Ontario (2009) (Consultant)
*Extensive avian surveys of spring and fall migration for wind turbine projects proposed for offshore waters of Lake Erie*

** denotes projects completed with other firms*

# Alan Wormington Tech. Dipl.

Ornithologist

---

Seasonal Avian Surveys for a Private Consultancy*, Various Sites, Ontario (2003-2010) (Consultant)
*Performed various assessments of breeding birds and their habitats for multiple construction projects, including those associated with highways, bridges, railway corridors, and wind turbine projects*

Seasonal Avian Surveys and Reporting for Wind Projects Incorporated*, Milton, Ontario (2007-2008) (Consultant)
*Completed a comprehensive assessment of bird populations for the Oxley Wind Farm, Essex, as part of the environmental review process; bird surveys conducted included winter, spring migration, summer breeding, and fall raptor migration*

Expert Review of Species at Risk Documents for Point Pelee National Park*, Leamington, Ontario (2006-2008) (Consultant)
*Performed expert review of various documents related to species at risk*

Seasonal Avian Surveys and Reporting for Point Pelee National Park*, Leamington, Ontario (2005) (Consultant)
*Intensive breeding bird survey conducted, and completion of 'The Breeding Birds of Point Pelee National Park, with an Emphasis on Species at Risk' (77 page report)*

Seasonal Avian Surveys and Reporting for Various Private Consultancies*, Various Sites, Ontario (1984, 1986, 2000-2004) (Consultant)
*Completed specific, short-term projects that generally involved intensive biological fieldwork at a site, followed by writing and submission of a report, often pertaining to environmental assessments in advance of proposed development projects*

Seasonal Avian Surveys and Reporting for Joint Study*, Gulf of Mexico (1999-2000) (Ornithologist)
*Three seasons (fall / spring / fall) avian studies for the "Migration-Over-The-Gulf Project", a joint study by Louisiana State University (Baton Rouge, LA) and Minerals Management Service (US Department of Interior). Stationed on offshore oil platforms to study the migration of birds crossing the Gulf of Mexico*

Seasonal Avian Surveys for a Private Consultancy*, Various Sites, Ontario (2007, 2008) (Field Scientist)
*Conducted seasonal avian surveys for various wind power projects in Essex, Chatham-Kent, and Lambton, Ontario. Field survey types included point counts for spring and fall migration and breeding birds, roadside surveys for waterfowl and shorebird staging, and fall migration studies for raptors*

Seasonal Avian Survey and Reporting for Ivory-billed Woodpecker Joint Study*, Louisiana, USA (2002) (Ornithologist)
*Expert birder in search of Ivory-billed Woodpecker in southeast Louisiana for a joint project of Zeiss Optics Inc., Louisiana State University (Baton Rouge, LA), and Louisiana Department of Natural Resources*

Wildlife Habitat Assessment Project for the Ministry of Natural Resources*, Various Sites, Ontario (1990) (Field Crew Biologist)
*Served as field crew biologist for the Wildlife Habitat Assessment Project on Hudson Bay and James Bay*

Ontario Wetland Identification Program for the Ministry of Natural Resources*, Chatham, Ontario (1985) (Wetlands Crew Leader)
*Served as wetlands crew leader for the provincial wetland identification program*

Seasonal Expert Birder on Occasion for Two National and Provincial Parks*, Various Sites, Ontario (1978-2005) (Expert Birder)
*1978-1982, 1999-2002, 2004-2005 – Point Pelee Provincial Park*
*2003 – Rondeau Provincial Park*

Environmentally Significant Areas Projects*, Various Sites, Ontario (1976-2004) (Field Biologist)
*Gathered life science information for designated natural areas and, in most cases, submitted reports, which generally spanned the period of April to September, inclusive:*
*2003-2004 – Halton Region (Conservation Halton)*
*2001-2002 – Hamilton Region (Hamilton CA)*
*1991 – Hamilton Region (Hamilton Naturalists Club*
*1986 – Kent/Elgin Counties (World Wildlife Canada)*
*1977 – North Wellington County (University of Guelph, Centre for Resources Development)*
*1976 – Hamilton Region (Hamilton Region CA)*

** denotes projects completed with other firms*

# Brandon Holden

Environmental Scientist

Brandon joined Stantec in 2008. He has been birding extensively in Ontario and Eastern North America since 1997. Having recorded 344 species in Ontario, Brandon has a keen personal interest in finding vagrant bird species; highlighted last year by finding and photographing the first Black-tailed Gull (Larus crassirostris) for the province. A recent accomplishment was being voted onto the Ontario Bird Records Committee; the youngest member in its 30 year history. At Stantec, Brandon is responsible for carrying out seasonal bird and wildlife field surveys throughout Ontario, including some lengthy programs at remote sites.

## EDUCATION

Lambton College, Sarnia, Ontario, 2007

## PROFESSIONAL ASSOCIATIONS

Voting Member, Ontario Bird Record Committee (OBRC)

Member, Bird Studies Canada

Member, Ontario Field Ornithologists

Member, American Birding Association

## AWARDS

Finalist, Veolia Wildlife Photographer of the Year, London England, 2009

NatureScapes.net Image of the Week - Multiple Weeks, 2006-2009

Ross Thompson Trophy for Proficiency in Ornithology - 2004

Doug Tarry Young Ornithologist Award - 2002

Hamilton Civic Award - 2002

Ross Thompson Trophy for Proficiency in Ornithology - 2002

## PROJECT EXPERIENCE

**Research**

Port Alma Wind Project, Municipality of Chatham-Kent, Ontario (Environmental Scientist)
*Brandon conducted migratory bird surveys.*

Sault Ste. Marie Wind Power Project, Algoma District, Ontario (Environmental Scientist)
*Brandon conducted migratory bird surveys.*

Thunder Bay Wind Power Project, Thunder Bay District, Ontario (Environmental Scientist)
*Brandon conducted migratory bird surveys.*

Melancthon Wind Project, Dufferin County, Ontario (Environmental Scientist)
*Brandon conducted breeding bird surveys.*

Ostrander Point Wind Energy Park, Prince Edward County, Ontario (Environmental Scientist)
*Brandon conducted surveys on breeding, migratory and wintering birds.*

Wolfe Island Wind Project, Wolfe Island, Ontario (Environmental Scientist)
*Brandon conducted surveys on breeding, migratory and wintering birds.*

** denotes projects completed with other firms*

## Sports, Recreation & Leisure

Volunteer Work, Multiple Locations* (Volunteer)

*Annual leader of guided hikes for the Ontario Field Ornithologists, including a featured hike leader for two of the past three annual conventions. Brandon continues to volunteer by donating photographs to various provincial and local organizations. He also volunteers with the Hamilton Naturalists Club assisting with the Fall Bird Counts since 2001, and worked with the Haldimand Bird Observatory with bird banding.*

Peregrine Prints, Multiple Locations* (Photographer)

*Brandon established and maintains his own website, www.peregrineprints.com, showcasing his natural history photography and information. In 2010 the site has attracted over 23,000 visits and captured 800,000 hits as of June 1, 2010.*

## Emergency Planning / Response

Emergency Medical Care Training, Multiple Locations*

*Brandon has taken extensive medical training; starting with general First Aid many years ago. He has upgraded this to Standard First Aid, First Responder and in 2008 obtained certification as an Emergency Medical Responder - the highest level available below Paramedic. Brandon also holds a (60 hour) Emergency Patient Care certificate from Lambton College.*

# Pete Read Hons. B.Sc. Zoology/Ecology, B.Ed. (UWO)

Biologist

Pete Read is a knowledgeable biologist and project manager with a wealth of experience in both the public and private sector, conducting various faunal surveys throughout Ontario. Since 1975 he has organized, coordinated, and participated as a volunteer in notable bird-related projects, organizations, atlases and committees, and field naturalist groups, where he has honed and shared his field skills and knowledge of natural heritage resources in Ontario and elsewhere. Pete is an expert birder, and has served as an expert interpreter and group leader for various wildlife tours within Ontario and outside Canada. Pete is knowledgeable about bird species at risk, and has consulted, designed and constructed enclosures for the Loggerhead Shrike, as well as collected nest records, performed habitat studies, banding, and blood sampling of Acadian Flycatchers for a research program in southwestern Ontario. He has a great deal of experience conducting various types of avifaunal survey programs for wind turbine projects throughout Ontario. Pete has also served as crew leader for boreal bird inventories for a joint study in various locations of northwestern Ontario, where he was responsible for programming and logistics, including coordination of communications with stakeholders, including First Nations representatives.

Pete has provided technical support on contract to Stantec Consulting for various projects, primarily performing seasonal avian surveys, including spring and autumn raptor and migratory bird surveys, waterfowl, amphibian, and other wildlife surveys, at various project sites throughout Ontario. In addition to collecting data in the field, Pete has provided data analysis and reporting services to Stantec in support of several of our projects, including wind farm planning and post-construction monitoring projects. A brief summary of his recent projects is listed below.

## EDUCATION

Hons. B.Sc. Zoology/Ecology, B.Ed. / University of Western Ontario, London, Ontario

## PROJECT EXPERIENCE

### Natural Sciences & Heritage Resources

Wind Turbine Projects*, Various Sites, Ontario (2006-2010) (Biologist)
*Performed faunal studies, including avian location, migration, and roadside surveys, for wind turbine projects in Middlesex, Bruce, Grey, Haldimand and Norfolk, Chatham-Kent, Lampton, Dover, Amherstberg.*

Loggerhead Shrike Recovery Program for Wildlife Preservation Canada and Canadian Wildlife Service, and Metropolitan Toronto Zoo*, Toronto, Ontario (2004-2010) (Biologist)
*Designed and constructed enclosures, and provided ongoing consulting services for the Loggerhead Shrike, an avian species at risk.*

Friends of Point Pelee, Point Pelee National Park*, Ontario (2001-2010) (Biologist)
*Served seasonally as 'expert' bird hike leader at Point Pelee National Park, a popular birding destination due to its diversity of avifauna.*

Woodlot Faunal Surveys*, Various Sites, Ontario (2009) (Biologist)
*Performed faunal surveys in 37 woodlots in Tecumseh, Essex County.*

Boreal Bird Inventories for Federation of Ontario Naturalists (Ontario Nature), Boreal Initiative, and Atlas of Breeding Birds Joint Study*, Various Sites, Ontario (2004-2005) (Biologist)
*Served as field crew leader, and was in charge of program, logistics, and communications with stakeholders, including First Nations representatives.*

Location, Habitat, and Point Count Bird Surveys for Atlas of Breeding Birds of Ontario*, Various Sites, Ontario (2005) (Biologist)
*Served as field crew leader for location, habitat, and point count bird surveys in area near Algonquin Provincial Park.*

** denotes projects completed with other firms*

# Pete Read Hons. B.Sc. Zoology/Ecology, B.Ed. (UWO)

Biologist

---

Acadian Flycatcher Research Program*, Various Sites, Ontario (2004) (Biologist)
*Collected nest records, performed habitat studies, banding, blood sampling of Acadian Flycatchers, a species at risk, for a research program run by Dr. Bonnie Wolfenden, York University.*

Location, Habitat, and Point Count Bird Surveys for Atlas of Breeding Birds of Ontario*, Various Sites, Ontario (2003) (Biologist)
*Performed location, habitat, and point count bird surveys in area near Temagami, North Bay, Sudbury regions.*

Faunal Surveys for Nature Conservancy Canada*, Various Sites, Ontario (2002) (Biologist)
*Performed faunal surveys at Clear Creek, Chatham-Kent.*

Faunal Surveys for Ontario Ministry of Natural Resources*, Various Sites, Ontario (2002) (Biologist)
*Performed faunal surveys at Bickford Oak Woods, Lambton.*

Amphibian Surveys*, Ontario (2002) (Biologist)
*Performed amphibian surveys at Komoka Provincial Park Reserve.*

Acadian Flycatcher and Hooded Warbler Surveys for Canadian Wildlife Service*, Various Sites, Ontario (2000, 2002) (Biologist)
*Performed surveys for Acadian Flycatcher and Hooded Warbler, species at risk, at southwestern Ontario core sites.*

Acadian Flycatcher Habitat Assessment and Nest Productivity for Canadian Wildlife Service and Ontario Ministry of Natural Resources*, Various Sites, Ontario (2001) (Biologist)
*Performed habitat assessment and nest productivity studies for Acadian Flycatcher, a species at risk.*

Faunal Surveys, Komoka Provincial Park*, Ontario (2001) (Biologist)
*Performed faunal surveys for Komoka Provincial Park.*

Acadian Flycatcher Surveys for Bird Studies Canada*, Various Sites, Ontario (1999) (Biologist)
*Performed searches for Acadian Flycatchers, a species at risk, at ravine and upland forest sites in Elgin, Middlesex, and Lambton Counties.*

Acadian Flycatcher, Hooded Warbler, and Other Species at Risk Breeding Bird Surveys for Bird Studies Canada, Canadian Wildlife Service, World Wildlife Fund Canada*, Various Sites, Ontario (1998) (Biologist)
*Searched for breeding Acadian Flycatcher, Hooded Warbler and other species at risk, at known sites in southwestern Ontario, and noted habitat features at breeding territories.*

Acadian Flycatcher, Hooded Warbler, Prothonotary Warbler, and Other Species at Risk Breeding Bird Surveys for Bird Studies Canada, Canadian Wildlife Service, World Wildlife Fund Canada*, Various Sites, Ontario (1997) (Biologist)
*Searched for breeding Acadian Flycatcher, Hooded Warbler, Prothonotary Warbler and other species at risk, at known sites in southwestern Ontario, and noted habitat features at breeding territories.*

** denotes projects completed with other firms*

# Zoé Lebrun-Southcott B.Sc. (Hons.), M.Sc.

Biologist / Ecologist

Stantec

---

Zoé Lebrun-Southcott is a biologist with experience in the field of avian research and conservation. She has extensive experience in avian research methods, including point counts, nest searching and nest monitoring, territory mapping, habitat assessment, banding, mist net extraction, radio-transmitter and geolocator attachment, and is proficient at navigation, data collection and analyses using GPS and GIS technologies. Zoé has been involved in recovery efforts and research pertaining to avian Species at Risk in Ontario and beyond, with over five years' experience working in the field of avian conservation in North America, contributing to research, recovery, and policy initiatives. She has facilitated multi-partner projects, working with private landowners, and has coordinated volunteer projects. Additionally, Zoé has managed and coordinated field projects, including reviewing protocols and the training and supervision of field staff.

Zoe has provided technical support on contract to Stantec Consulting for various projects, primarily performing seasonal avian surveys, including spring and autumn raptor and migratory bird surveys, waterfowl, amphibian, and other wildlife surveys, at various project sites throughout Ontario. A brief summary of her recent projects is listed below.

## EDUCATION

M.Sc., York University / Environmental Studies, Toronto, Ontario, 2005

B.Sc. (Hons.), McMaster University / Biology (Major) / Biochemistry (Minor), Hamilton, Ontario, 2002

## AWARDS

2003 York University Graduate Assistantship ($6000)

1998 McMaster University Scholar Award ($3000)

## PROJECT EXPERIENCE

### Natural Sciences & Heritage Resources

Eastern Loggerhead Shrike Program, Wildlife Preservation Canada*, Ontario (2010-2011) (Biologist)

*Prepared 2010 Eastern Loggerhead Shrike (ELOSH) Recovery Program end-of-season reports for Environment Canada. Performed banding data entry and management, reviewed field data and necropsies for all deaths of adult and juvenile shrikes in the captive breeding program since 2005; prepared and organized data, graphs and additional information for analysis by an epidemiologist. Interviewed and selected field staff. Assisted the species recovery biologist with additional program activities and field season preparation*

Research, Data Collection and Analysis, Reporting, and Handling of Avian Species at Risk (SAR) for Canadian Wildlife Service*, Various Sites, Ontario (2011) (Contract Biologist)

*Conducted research on Bank Swallows, Barn Swallows, and Whip-poor-wills in the Guelph, Ontario area. Data collection and analysis included monitoring of colony size, disturbance, and nest occupancy of Bank Swallows in various sand and gravel pits and along Saugeen River. Monitoring nest productivity included monitoring nest contents of a subset of burrows in accessible colonies. Monitoring reproductive success of Barn Swallows in 15 barns in Wellington County included banding of nestlings and adults, mist-netting, and attachment of geolocators. Assisted with attachment of geolocators onto Whip-poor-wills in the Long Point area*

Tundra-nesting Bird Monitoring for Wildlife Conservation Society*, Alaska, USA (2010) (Crew Leader)

*Led the 2010 nest monitoring research project on tundra-nesting birds in the Prudhoe Bay region of Alaska. Established study plots and nest searched for all species using rope dragging and single-person searching techniques; floated eggs to determine hatch dates and monitored nest success. Collected habitat data at nest sites and examined nests for egg fragments to confirm successful hatch or predation. Set up remote cameras at select nests to record any predation events and activity. Performed data entry and management*

** denotes projects completed with other firms*

Eastern Loggerhead Shrike Research on Carden Plain*, Ontario (2008-2010) (Biologist)

*Supervised a small team of field staff and coordinated all Eastern Loggerhead Shrike monitoring for both wild population and captive breeding activities at the Carden field site. Surveyed for wild pairs and collected nesting and productivity data during two breeding seasons. Conducted point counts, juvenile captive shrike banding and attachment of radio-transmitters and geolocators. Managed communications with private landowners and collaborated on habitat stewardship initiatives. Produced monthly and end-of-season reports for both wild and captive shrike programs, and aided with review of protocols and field season preparation of materials for field staff. Aided with interviewing, hiring, and training of field staff. Developed an 'Adopt-a-site' volunteer survey program*

Eastern Loggerhead Shrike Surveys for Environment Canada*, Various Sites, Ontario (2008) (Biologist)

*Collected nest site data at known and accessible nesting sites, including habitat characteristics and micro-habitat vegetation data. Data entry, management and analysis from field data collected. Prepared a final report with results and recommendations for refining the data collection protocol for future use*

Avian Species Studies on Private Ranches for Texas A&M University*, Texas, USA (2007) (Biologist)

*Conducted point count surveys for all avian species on private ranches in central Texas. Surveyed for endangered Golden-cheeked Warblers and Black-capped Vireos using audio playbacks; located and monitored nests of White-eyed Vireos and Black-capped Vireos; assessed habitat characteristics of Black-capped Vireo nesting areas; collected GPS data on territory size and managed point count and nest searching data*

Piping Plover Research for Sleeping Bear Dunes National Lakeshore, National Park Service*, Michigan, USA (2006) (Research Intern)

*Surveyed shoreline for nesting pairs and established nest locations; built enclosures around nests; monitored adults and chicks daily; assisted with banding of chicks and adults; collected GPS data and produced maps of nesting areas; researched effects of increasing nest density and presented findings at a multi-agency end-of-season meeting; co-authored an article published in the National Park Service*

Site Surveys and Environmental Assessments for Ontario Heritage Trust*, Various Sites, Ontario (2003) (Natural Heritage Assistant)

*Conducted site visits and environmental assessments of ecologically significant natural areas in southern Ontario; monitored and documented invasive and endangered plant species; maintained database on protected areas and researched ecological information on properties using the MNRs NHIC database*

**Research / Laboratories**

Wildlife Research for Sierra Club of Canada*, Ottawa, Ontario (2006) (Research Intern)

*Researched wildlife management policies and programs implemented by forestry companies certified under the Sustainable Forestry Initiative (SFI) to protect species at risk and critical habitat. Researched numerous species under consideration for addition to the list of species at risk under the Species at Risk Act. Helped plan and participated in public outreach campaigns to raise awareness of Canada's endangered species*

Graduate Research*, Toronto, Ontario (2003-2005)

*Researched the microbial ecology of Avian influenza A H5N1, E. coli 0157:H7, and antimicrobial resistance; conducted advanced analysis of the spread of West Nile virus throughout North America and the outbreak of E. coli 0157:H7 in Walkerton, Ontario using hierarchy theory and panarchy theory; researched and analyzed the effects of climate change on emerging waterborne diseases; performed policy research to assess the effects of relevant legislation on the emergence of new diseases*

** denotes projects completed with other firms*

# Appendix E

## Wetland Evaluations

## WETLAND DATA AND SCORING RECORD

i) **WETLAND NAME:** PASTURE COMPLEX - Wetland 6

ii) **MNR ADMINISTRATIVE REGION:** SOUTHERN **DISTRICT:** PETERBOROUGH

**AREA OFFICE (if different from District):** ____

iii) **CONSERVATION AUTHORITY JURISDICTION:** CATARAQUI REGION

(If not within a designated CA, check here:____

iv) **COUNTY OR REGIONAL MUNICIPALITY:** LENNOX AND ADDINGTON

v) **TOWNSHIP:** LOYALIST

vi) **LOTS & CONCESSIONS:** ____
(attach separate sheet if necessary)

vii) **MAP AND AIR PHOTO REFERENCES**

a) Latitude ____ Longitude: ____

b) UTM grid reference: Zone: ____ Block: ____
Grid: E ___ ___ ___ N ___ ___ ___

c) National Topographic Series:

map name(s) KINGSTON

map number(s) 31 C edition 4

scale 1: 250,000

d) Aerial photographs: Date photo taken:____ Scale:____

Flight & plate numbers:____

(attach separate sheet if necessary)

e) Ontario Base Map numbers & scale____

(attach separate sheets if necessary)

- FIRST BASE SOLUTIONS - IMAGERY DATE: 2008

## viii) WETLAND SIZE AND BOUNDARIES

a) Single contiguous wetland area: 31.01 hectares

b) Wetland complex comprised of 5 individual wetlands:

| INTERSPERSION MAP #: | Wetland Unit Number (for reference) | Size of each wetland unit |
|---|---|---|
| 3 | Wetland Unit No. ~~1~~ | 19.52 ha |
| 4 | Wetland Unit No. ~~2~~ | 2.08 ha |
| 5 | Wetland Unit No. ~~3~~ | 4.40 ha |
| 2 | Wetland Unit No. ~~4~~ | 2.67 ha |
| 1 | Wetland Unit No. ~~5~~ | 2.35 ha |
| | Wetland Unit No. 6 | ______ ha |
| | Wetland Unit No. 7 | ______ ha |
| | Wetland Unit No. 8 | ______ ha |
| | Wetland Unit No. 9 | ______ ha |
| | Wetland Unit No. 10 | ______ ha |

(Attach additional sheets if necessary)

TOTAL WETLAND SIZE 31.01 ha

c) Brief documentation of reasons for including any areas less than 0.5 ha in size:

______________________________

______________________________

______________________________

(Attach separate sheets if necessary)

## 1.0 BIOLOGICAL COMPONENT

### 1.1 PRODUCTIVITY

### 1.1.1 GROWING DEGREE-DAYS/SOILS

GROWING DEGREE DAYS

(check one)
1)________ <2800
2)________ 2800 - 3200
3) X 3200 - 3600
4)________ 3600 - 4000
5)________ >4000

SOILS

Estimated Fractional Area
1.00 clay/loam
________ silt/marl
________ limestone
________ sand
________ humic/mesic
________ fibric
________ granite

SCORING:

| Growing Degree-Days | Clay-Loam | Silt-Marl | Lime-stone | Sand | Humic-Mesic | Fibric | Granite |
|---|---|---|---|---|---|---|---|
| <2800 | 15 | 13 | 11 | 9 | 8 | 7 | 5 |
| 2800-3200 | 18 | 15 | 13 | 11 | 9 | 8 | 7 |
| 3200-3600 | [✓ 22] | 18 | 15 | 13 | 11 | 9 | 7 |
| 3600-4000 | 26 | 21 | 18 | 15 | 13 | 10 | 8 |
| >4000 | 30 | 25 | 20 | 18 | 15 | 12 | 8 |

(maximum score 30; if wetland contains more than one soil type, evaluate based on the fractional area)

Steps required for evaluation: (maximum score 30 points)

1. Select GDD line in evaluation table applicable to your wetland;
2. Determine fractional area of the wetland for each soil type;
3. Multiply fractional area of each soil type by score;
4. Sum individual soil type scores (round to nearest whole number).

In wetland complexes the evaluator should aim at determining the percentage of area occupied by the categories for the complex as a whole.

**Final Score Growing Degree-Days/Soils (maximum 30 points)** 22

### 1.1.2 WETLAND TYPE (Fractional Area = area of wetland type/total wetland area)

| | Fractional Area | | Score |
|---|---|---|---|
| Bog | | x 3 | |
| Fen | | x 6 | |
| Swamp | 0.08 | x 8 | 0.64 |
| Marsh | 0.92 | x 15 | 13.8 |

**Wetland type score (maximum 15 points)** 14

### 1.1.3 SITE TYPE (Fractional Area = area of site type/total wetland area)

| | Fractional Area | | Score |
|---|---|---|---|
| Isolated | | x 1 = | |
| Palustrine (permanent or intermittent flow) | 1.0 | x 2 = | 2.0 |
| Riverine | | x 4 = | |
| Riverine (at rivermouth) | | x 5 = | |
| Lacustrine (at rivermouth | | x 5 = | |
| Lacustrine (on enclosed bay, with barrier beach) | | x 3 = | |
| Lacustrine (exposed to lake) | | x 2 = | |

**Site Type Score (maximum 5 points)** 2

## 1.2 BIODIVERSITY

### 1.2.1 NUMBER OF WETLAND TYPES

| (Check only one) | | Score |
|---|---|---|
| 1) | one | 9 points |
| 2) X | two | 13 |
| 3) | three | 20 |
| 4) | four | 30 |

**Number of Wetland Types Score (maximum 30 points)** 13

## 1.2.2 VEGETATION COMMUNITIES

Attach a separate sheet listing community (map) codes, vegetation forms and dominant species.
Use the form on the following page to record percent area by dominant vegetation form. This information will be used in other parts of the evaluation.

Communities should be grouped by number of forms. For example, 2 form communities might appear as follows:

2 forms

| Code | Forms | Dominant Species |
|---|---|---|
| M6 | re, ff | re, *Typha latifolia*; ff, *Lemna minor, Wolffia* |
| S1 | ts, gc | ts, *Salix discolor*; gc, *Impatiens capensis*, *Thelypteris palustris* |

Note that the dominant species for each form are separated by a semicolon. The dominant species (maximum of 2) within a form are separated by commas.

Scoring:

| Total # of communities with 1-3 forms | Total # of communities with 4-5 forms | Total # of communities with 6 or more forms |
|---|---|---|
| 1 = 1.5 points | 1 = 2 points | 1 = 3 points |
| [✓ 2] = 2.5 | 2 = 3.5 | 2 = 5 |
| 3 = 3.5 | 3 = 5 | 3 = 7 |
| 4 = 4.5 | 4 = 6.5 | 4 = 9 |
| 5 = 5 | 5 = 7.5 | 5 = 10.5 |
| 6 = 5.5 | 6 = 8.5 | 6 = 12 |
| 7 = 6 | 7 = 9.5 | 7 = 13.5 |
| 8 = 6.5 | 8 = 10.5 | 8 = 15 |
| 9 = 7 | 9 = 11.5 | 9 = 16.5 |
| 10 = 7.5 | 10 = 12.5 | 10 = 18 |
| 11 = 8 | 11 = 13 | 11 = 19 |
| +.5 each additional community = 2.5 | +.5 each additional community = ________ | +1 each additional community = ________ |

e.g., a wetland with 3 one form communities, 4 two form communities, 12 four form communities and 8 six form communities would score:

6 + 13.5 + 15 = 34.5 = 35 points

**Vegetation Communities Score (maximum 45 points)** ~~2.5~~ 3

Wetland Name: PASTURE COMPLEX

Wetland Size (ha): 31.01

| Vegetation Form | % area in which form is dominant |
|---|---|
| h | 8 |
| c | |
| dh | |
| dc | |
| ts | |
| ls | |
| ds | |
| gc | 92 |
| m | |
| ne | |
| be | |
| re | |
| ff | |
| f | |
| su | |
| u (unvegetated) | |

Total = 100%

## 1.2.3 DIVERSITY OF SURROUNDING HABITAT

(Check all appropriate items)

_______ row crop
X pasture
_______ abandoned agricultural land
X deciduous forest
X coniferous forest
_______ mixed forest (at least 25% conifer and 75% deciduous or vice versa)
_______ abandoned pits and quarries
X open lake or deep river
_______ fence rows with cover, or shelterbelts
_______ terrain appreciably undulating, hilly, or with ravines
_______ creek flood plain

**Diversity of Surrounding Habitat Score (1 for each, maximum 7 points)** 4

## 1.2.4 PROXIMITY TO OTHER WETLANDS

(Check first appropriate category only)

| | | | Scoring |
|---|---|---|---|
| 1) | X | Hydrologically connected by surface water to other wetlands (different dominant wetland type), or to open lake or deep river within 1.5 km | 8 points |
| 2) | _____ | Hydrologically connected by surface water to other wetlands (same dominant wetland type) within 0.5 km | 8 |
| 3) | _____ | Hydrologically connected by surface water to other wetlands (different dominant wetland type), or to open lake or deep river from 1.5 to 4 km away | 5 |
| 4) | _____ | Hydrologically connected by surface water to other wetlands (same dominant wetland type) from 0.5 to 1.5 km away | 5 |
| 5) | _____ | Within 0.75 km of other wetlands (different dominant wetland type) or open water body, but not hydrologically connected by surface water | 5 |
| 6) | _____ | Within 1 km of other wetlands, but not hydrologically connected by surface water | 2 |
| 7) | _____ | No wetland within 1 km | 0 |

**Proximity to other Wetlands Score (Choose one only, maximum 8 points)** 8

## 1.2.5 INTERSPERSION

| Number of Intersections<br>(Check one) | | Score |
|---|---|---|
| 1) 26 or less | | 3 |
| 2) 27 to 40 | | 6 |
| 3) 41 to 60 | | 9 |
| 4) 61 to 80 | | 12 |
| 5) 81 to 100 | | 15 |
| 6) 101 to 125 | | 18 |
| 7) 126 to 150 | X | 21 |
| 8) 151 to 175 | | 24 |
| 9) 176 to 200 | | 27 |
| 10) >200 | | 30 |

**Interspersion Score (Choose one only, maximum 30 points)** 21

## 1.2.6 OPEN WATER TYPES

| Permanently flooded:<br>(Check one) | | Score |
|---|---|---|
| 1) X | type 1 | 8 |
| 2) | type 2 | 8 |
| 3) | type 3 | 14 |
| 4) | type 4 | 20 |
| 5) | type 5 | 30 |
| 6) | type 6 | 8 |
| 7) | type 7 | 14 |
| 8) | type 8 | 3 |
| 9) | no open water | 0 |

**Open Water Type Score (Choose one only, maximum 30 points)** 8

## 1.3 SIZE

31.01 hectares

**Size Score (Biological Component) (maximum 50 points)** 19

Evaluation Table Size Score (Biological Component)

| Wetland size (ha) | Total Score for Biodiversity Subcomponent | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | <37 | 37-48 | 49-60 | 61-72 | 73-84 | 85-96 | 97-108 | 109-120 | 121-132 | >132 |
| <21 ha | 1 | 5 | 7 | 8 | 9 | 17 | 25 | 34 | 43 | 50 |
| 21-40 | 5 | 7 | 8 | 9 | 10 | 19 | 28 | 37 | 46 | 50 |
| 41-60 | 6 | 8 | 9 | 10 | 11 | 21 | 31 | 40 | 49 | 50 |
| 61-80 | 7 | 9 | 10 | 11 | 13 | 23 | 34 | 43 | 50 | 50 |
| 81-100 | 8 | 10 | 11 | 13 | 15 | 25 | 37 | 46 | 50 | 50 |
| 101-120 | 9 | 11 | 13 | 15 | 18 | 28 | 40 | 49 | 50 | 50 |
| 121-140 | 10 | 13 | 15 | 17 | 21 | 31 | 43 | 50 | 50 | 50 |
| 141-160 | 11 | 15 | 17 | 19 | 23 | 34 | 46 | 50 | 50 | 50 |
| 161-180 | 13 | 17 | 19 | 21 | 25 | 37 | 49 | 50 | 50 | 50 |
| 181-200 | 15 | 19 | 21 | 23 | 28 | 40 | 50 | 50 | 50 | 50 |
| 201-400 | 17 | 21 | 23 | 25 | 31 | 43 | 50 | 50 | 50 | 50 |
| 401-600 | 19 | 23 | 25 | 28 | 34 | 46 | 50 | 50 | 50 | 50 |
| 601-800 | 21 | 25 | 28 | 31 | 37 | 49 | 50 | 50 | 50 | 50 |
| 801-1000 | 23 | 28 | 31 | 34 | 40 | 50 | 50 | 50 | 50 | 50 |
| 1001-1200 | 25 | 31 | 34 | 37 | 43 | 50 | 50 | 50 | 50 | 50 |
| 1201-1400 | 28 | 34 | 37 | 40 | 46 | 50 | 50 | 50 | 50 | 50 |
| 1401-1600 | 31 | 37 | 40 | 43 | 49 | 50 | 50 | 50 | 50 | 50 |
| 1601-1800 | 34 | 40 | 43 | 46 | 50 | 50 | 50 | 50 | 50 | 50 |
| 1801-2000 | 37 | 43 | 47 | 49 | 50 | 50 | 50 | 50 | 50 | 50 |
| >2000 | 40 | 46 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

## 2.0 SOCIAL COMPONENT

## 2.1 ECONOMICALLY VALUABLE PRODUCTS

### 2.1.1 WOOD PRODUCTS

Area of wetland forested (ha), i.e. dominant form is h or c. Note that this is not wetland size. (Check one only)

| | | | Score |
|---|---|---|---|
| 1) | X | <5 ha | 0 |
| 2) | | 5 - 25 ha | 3 |
| 3) | | 26 - 50 ha | 6 |
| 4) | | 51 - 100 ha | 9 |
| 5) | | 101 - 200 ha | 12 |
| 6) | | >200 ha | 18 |

Source of information: STANTEC FIELD SURVEYS

**Wood Products Score (Score one only, maximum 18 points)** 0

### 2.1.2 WILD RICE

| (Check one) | | Score (Choose one) |
|---|---|---|
| Present (minimum size 0.5 ha) | 1) | 6 points |
| Absent | 2) X | 0 |

Source of information: STANTEC FIELD SURVEYS

**Wild Rice Score (maximum 6 points)** 0

### 2.1.3 COMMERCIAL FISH (BAIT FISH AND/OR COARSE FISH)

| (Check one) | | Score (Choose one) |
|---|---|---|
| Present | 1) | 12 points |
| Habitat not suitable for fish | 2) X | 0 |

Source of information: STANTEC FIELD SURVEYS

**Commercial Fish Score (maximum 12 points)** 0

### 2.1.4 BULLFROGS

| (Check one) | | Score (Choose one) |
|---|---|---|
| Present | 1) | 1 points |
| Absent | 2) X | 0 |

Source of information: STANTEC FIELD SURVEYS

**Bullfrog Score (maximum 1 point)** 0

## 2.1.5 SNAPPING TURTLES

| (Check one) | | Score (Choose one) |
|---|---|---|
| Present | 1) ______ | 1 point |
| Absent | 2) 0 | 0 |

Source of information: STANTEC FIELD SURVEYS

**Snapping Turtle Score (maximum 1 point)** 0

## 2.1.6 FURBEARERS

(Consult Appendix 9)

| | Name of furbearer | Source of information |
|---|---|---|
| 1) | — | |
| 2) | | |
| 3) | | |
| 4) | | |
| 5) | | |

Scoring: 3 points for each species, maximum 12

**Furbearer Score (maximum 12 points)** 0

## 2.2 RECREATIONAL ACTIVITIES

| | Type of Wetland-Associated Use | | |
|---|---|---|---|
| Intensity of Use | Hunting | Nature Enjoyment/ Ecosystem Study | Fishing |
| High | 40 points | 40 points | 40 points |
| Moderate | 20 | 20 | 20 |
| Low | 8 | 8 | 8 |
| Not Possible/Not known | [✓ 0] | [✓ 0] | [✓ 0] |

(score one level for each of the three wetland uses; scores are cumulative; maximum score 80 points)

Sources of information:

Hunting: ______

Nature: ______

Fishing: ______

**Recreational Activities Score (maximum 80 points)** 0

## 2.3 LANDSCAPE AESTHETICS

### 2.3.1 DISTINCTNESS

| (Check one) | | Score (Choose one) |
|---|---|---|
| Clearly distinct | 1) | 3 points |
| Indistinct | 2) X | 0 |

**Landscape Distinctness Score (maximum 3 points)** 0

### 2.3.2 ABSENCE OF HUMAN DISTURBANCE

| (Check one) | | Score (Choose one) |
|---|---|---|
| Human disturbances absent or nearly so | 1) | 7 points |
| One or several localized disturbances | 2) | 4 |
| Moderate disturbance; localized water pollution | 3) | 2 |
| Wetland intact but impairment of ecosystem quality intense in some areas | 4) | 1 |
| Extreme ecological degradation, or water pollution severe and widespread | 5) X | 0 |

Source of information: STANTEC FIELD SURVEYS

**Absence of Human Disturbance Score (maximum 7 points)** 0

## 2.4 EDUCATION AND PUBLIC AWARENESS

### 2.4.1 EDUCATIONAL USES

| (Check one) | | Score (Choose one) |
|---|---|---|
| Frequent | 1) | 20 points |
| Infrequent | 2) | 12 |
| No visits | 3) X | 0 |

Source of information: STANTEC FIELD SURVEYS

**Educational Uses Score (maximum 20 points)** 0

### 2.4.2 FACILITIES AND PROGRAMS

| (check one) | | Score (Choose one) |
|---|---|---|
| Staffed interpretation centre | 1) | 8 points |
| No interpretation centre or staff, but a system of self-guiding trails or brochures available | 2) | 4 |
| Facilities such as maintained paths (e.g., woodchips), boardwalks, boat launches or observation towers but no brochures or other interpretation | 3) | 2 |
| No facilities or programs | 4) X | 0 |

Source of information: STANTEC FIELD SURVEYS

**Facilities and Programs Score (maximum 8 points)** 0

### 2.4.3 RESEARCH AND STUDIES

(check appropriate spaces)

| | | Score |
|---|---|---|
| Long term research has been done | ____ | 12 points |
| Research papers published in refereed scientific journal or as a thesis | ____ | 10 |
| One or more (non-research) reports have been written on some aspect of the wetland's flora, fauna, hydrology, etc. | ____ | 5 |
| No research or reports | x | 0 |

Attach list of known reports by above categories

**Research and Studies Score (Score is cumulative, maximum 12 points)** 0

### 2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT

Circle the highest applicable score

| Distance of wetland from settlement | 1) population >10,000 | 2) population 2,500 - 10,000 | 3) population <2,500 or cottage community |
|---|---|---|---|
| 1) Within or adjoining settlement | 40 points | 26 | [✓ 16] |
| 2) 0.5 to 10 km from settlement | 26 | 16 | 10 |
| 3) 10 to 60 km from settlement | 12 | 8 | 4 |
| 4) >60 km from settlement | 5 | 2 | 0 |

Name of settlement: STELLA

**Proximity to Human Settlement Score (maximum 40 points)** 16

### 2.6 OWNERSHIP (FA = fractional area)

| | Fractional Area | | Score |
|---|---|---|---|
| FA of wetland in public or private ownership, held under contract or in trust for wetland protection | ____ | x 10 = | ____ |
| FA of wetland area in public ownership, not as above | ____ | x 8 = | ____ |
| FA of wetland area in private ownership, not as above | 1 | x 4 = | 4 |

Source of information: STANTEC

**Ownership Score (maximum 10 points)** 4

## 2.7 SIZE

31.01 hectares

Evaluation Table for Size Score (Social Component)

| Wetland size (ha) | Total for Size Dependent Score | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | <31 | 31-45 | 46-60 | 61-75 | 76-90 | 91-105 | 106-109 | 121-135 | 136-150 | >150 |
| <2 ha | 1 | 2 | 4 | 8 | 10 | 12 | 14 | 14 | 14 | 15 |
| 2-4 | 1 | 2 | 4 | 8 | 12 | 13 | 14 | 14 | 15 | 16 |
| 5-8 | 2 | 2 | 5 | 9 | 13 | 14 | 15 | 15 | 16 | 16 |
| 9-12 | 3 | 3 | 6 | 10 | 14 | 15 | 15 | 16 | 17 | 17 |
| 13-17 | 3 | 4 | 7 | 10 | 14 | 15 | 16 | 16 | 17 | 17 |
| 18-28 | 4 | 5 | 8 | 11 | 15 | 16 | 16 | 17 | 17 | 18 |
| 29-37 | [✓ 5] | 7 | 10 | 13 | 16 | 17 | 18 | 18 | 19 | 19 |
| 38-49 | 5 | 7 | 10 | 13 | 16 | 17 | 18 | 18 | 19 | 20 |
| 50-62 | 5 | 8 | 11 | 14 | 17 | 17 | 18 | 19 | 20 | 20 |
| 63-81 | 5 | 8 | 11 | 15 | 17 | 18 | 19 | 20 | 20 | 20 |
| 82-105 | 6 | 9 | 11 | 15 | 18 | 18 | 19 | 20 | 20 | 20 |
| 106-137 | 6 | 9 | 12 | 16 | 18 | 19 | 20 | 20 | 20 | 20 |
| 138-178 | 6 | 9 | 13 | 16 | 18 | 19 | 20 | 20 | 20 | 20 |
| 179-233 | 6 | 9 | 13 | 16 | 18 | 20 | 20 | 20 | 20 | 20 |
| 234-302 | 7 | 9 | 13 | 16 | 18 | 20 | 20 | 20 | 20 | 20 |
| 303-393 | 7 | 9 | 14 | 17 | 18 | 20 | 20 | 20 | 20 | 20 |
| 394-511 | 7 | 10 | 14 | 17 | 18 | 20 | 20 | 20 | 20 | 20 |
| 512-665 | 7 | 10 | 14 | 17 | 18 | 20 | 20 | 20 | 20 | 20 |
| 666-863 | 7 | 10 | 14 | 17 | 19 | 20 | 20 | 20 | 20 | 20 |
| 864-1123 | 8 | 12 | 15 | 17 | 19 | 20 | 20 | 20 | 20 | 20 |
| 1124-1460 | 8 | 12 | 15 | 17 | 19 | 20 | 20 | 20 | 20 | 20 |
| 1461-1898 | 8 | 13 | 15 | 18 | 19 | 20 | 20 | 20 | 20 | 20 |
| 1899-2467 | 8 | 14 | 16 | 18 | 20 | 20 | 20 | 20 | 20 | 20 |
| >2467 | 8 | 14 | 16 | 18 | 20 | 20 | 20 | 20 | 20 | 20 |

**Total Size Score (Social Component)** 5

## 2.8 ABORIGINAL AND CULTURAL HERITAGE VALUES

Either or both Aboriginal or Cultural Values may be scored. However, the maximum score permitted for 2.8 is 30 points. Attach documentation.

### 2.8.1 ABORIGINAL VALUES

Full documentation of sources must be attached to the data record.

1) ______ Significant = 30 points
2) ______ Not Significant = 0
3) __X__ Unknown = 0

### 2.8.2 CULTURAL HERITAGE

1) ______ Significant = 30 points
2) ______ Not Significant = 0
3) __X__ Unknown = 0

**Aboriginal Values/Cultural Heritage Score (maximum 30 points)** __0__

## 3.0 HYDROLOGICAL COMPONENT

### 3.1 FLOOD ATTENUATION

If the wetland is a complex including isolated wetlands, apportion the 100 points according to area. For example, if 10 ha of a 100 ha complex is isolated, the isolated portion receives the maximum proportional score of 10. The remainder of the wetland is then evaluated out of 90.

**Step 1** Determination of Maximum Score

_____ Wetland is located on one of the defined 5 large lakes or 5 major rivers (Go to Step 4).
_____ Wetland is entirely isolated (i.e. not part of a complex) (Go to Step 4)
__X__ All other wetland types (Go through steps 2, 3, and 4B)

**Step 2.** Determination of Upstream Detention Factor (DF)

(a) Wetland area (ha) 31.01
(b) Total area (ha) of upstream detention areas (include the wetland itself) 38.41
(c) Ratio of (a):(b) 0.81
(d) Upstream detention factor: (c) x 2 = (maximum allowable factor = 1) 1

**Step 3** Determination of Wetland Attenuation Factor (AF)

(a) Wetland area (ha) 31.01
(b) Size of catchment basin (ha) upstream of wetland (include wetland itself in catchment area) 169.1
(c) Ratio of (a):(b) 0.18
(d) Wetland attenuation factor: (c) x 10 = (maximum allowable factor = 1) 1

**Step 4.** Calculation of final score

(a) Wetlands on large lakes or major rivers 0

(b) Wetland entirely isolated 100

(b) All other wetlands -- calculate as follows:

Initial score 100*
Upstream detention factor (DF) (Step 2) 1
Wetland attenuation factor (AF) (Step 3) 1
Final score: ((DF + AF)/2) x Initial score = 100

*Unless wetland is a complex with isolated portions (see above).

**Flood Attenuation Score (maximum 100 points)** 100

## 3.2 WATER QUALITY IMPROVEMENT

### 3.2.1 SHORT TERM WATER QUALITY IMPROVEMENT

**Step 1:** **Determination of maximum initial score**

_____ Wetland on one of the 5 defined large lakes or 5 major rivers (Go to Step 5a)
X All other wetlands (Go through Steps 2, 3, 4, and 5b)

**Step 2:** **Determination of watershed improvement factor (WIF)**
Calculation of WIF is based on the fractional area (FA) of each site type that makes up the total area of the wetland.

(FA = area of site type/total area of wetland)

| | Fractional Area | | |
|---|---|---|---|
| FA of isolated wetland | _____ | x 0.5 = | _____ |
| FA of riverine wetland | _____ | x 1.0 = | _____ |
| FA of palustrine wetland with no inflow | _____ | x 0.7 = | _____ |
| FA of palustrine wetland with inflows | 1 | x 1.0 = | 1 |
| FA of lacustrine on lake shoreline | _____ | x 0.2 = | _____ |
| FA of lacustrine at lake inflow or outflow | _____ | x 1.0 = | _____ |

**Sum (WIF cannot exceed 1.0)** 1

**Step 3:** **Determination of catchment land use factor (LUF)**
(Choose the first category that fits upstream landuse in the catchment.)

| | | | |
|---|---|---|---|
| 1) | X | Over 50% agricultural and/or urban | 1.0 |
| 2) | _____ | Between 30 and 50% agricultural and/or urban | 0.8 |
| 3) | _____ | Over 50% forested or other natural vegetation | 0.6 |

**LUF (maximum 1.0)** 1

**Step 4:** **Determination of pollutant uptake factor (PUT)**

Calculation of PUT is based on the fractional area (FA) of each vegetation type that makes up the total area of the wetland. Base assessment on the dominant vegetation form for each community except where dead trees or shrubs dominate. In that case base assessment on the dominant live vegetation type. (FA = area of vegetation type/total area of wetland)

| | Fractional Area | | |
|---|---|---|---|
| FA of wetland with live trees, shrubs, herbs or mosses (c,h,ts,ls,gc,m) | 1 | x 0.75 = | 0.75 |
| FA of wetland with emergent, submergent or floating vegetation (re,be,ne,su,f,ff) | _____ | x 1.0 = | _____ |
| FA of wetland with little or no vegetation (u) | _____ | x 0.5 = | _____ |

**Sum (PUT cannot exceed 1.0)** 0.75

**Step 5:** **Calculation of final score**

| | | |
|---|---|---|
| (a) | Wetland on large lakes or major rivers | 0 |
| (b) | All other wetlands - calculate as follows | |
| | Initial score | 60 |
| | Water quality improvement factor (WQF) | 1 |
| | Land use factor (LUF) | 1 |
| | Pollutant uptake factor (PUT) | 0.75 |

**Final score: 60 x WQF x LUF x PUT =** 45

**Short Term Water Quality Improvement Score (maximum 60 points)** 45

## 3.2.2 LONG TERM NUTRIENT TRAP

**Step 1:**

| | | |
|---|---|---|
| | Wetland on large lakes or 5 major rivers | 0 points |
| X | All other wetlands (Proceed to Step 2) | |

**Step 2:** Choose only one of the following settings that best describes the wetland being evaluated

| | | | |
|---|---|---|---|
| 1) | | Wetland located in a river mouth | 10 points |
| 2) | | Wetland is a bog, fen, or swamp with more than 50% of the wetland being covered with organic soil | 10 |
| 3) | | Wetland is a bog, fen, or swamp with less than 50% of the wetland being covered with organic soil | 3 |
| 4) | | Wetland is a marsh with more than 50% of the wetland covered with organic soil | 3 |
| 5) | X | None of the above | 0 |

**Long Term Nutrient Trap Score (maximum 10 points)** 0

### 3.2.3 GROUNDWATER DISCHARGE

(Circle the characteristics that best describe the wetland being evaluated and then sum the scores. If the sum exceeds 30 points assign the maximum score of 30.)

| Wetland Characteristics | Potential for Discharge | | |
|---|---|---|---|
| | None to Little | Some | High |
| Wetland type | 1) Bog = 0 | 2) Swamp/Marsh = [✓ 2] | 3) Fen = 5 |
| Topography | 1) Flat/rolling = [✓ 0] | 2) Hilly = 2 | 3) Steep = 5 |
| Wetland Area:Upslope Catchment Area | Large (>50%) = 0 | Moderate (5-50%) = [✓ 2] | Small (<5%) = 5 |
| Lagg Development | 1) None found = [✓ 0] | 2) Minor = 2 | 3) Extensive = 5 |
| Seeps | 1) None = [✓ 0] | 2) = or < 3 seeps = 2 | 3) > 3 seeps = 5 |
| Surface marl deposits | 1) None = [✓ 0] | 2) = or < 3 sites = 2 | 3) > 3 sites = 5 |
| Iron precipitates | 1) None = [✓ 0] | 2) = or < 3 sites = 2 | 3) > 3 sites = 5 |
| Located within 1 km of a major aquifer | N/A = [✓ 0] | N/A = 0 | Yes = 10 |

(Scores are cumulative, maximum score 30 points)

**Groundwater Discharge Score (maximum 30 points)** 4

### 3.3 CARBON SINK

Choose only one of the following

1) _____ Bog, fen or swamp with more than 50% coverage by organic soil 5 points
2) _____ Bog, fen or swamp with between 10 to 49% coverage by organic soil 2
3) _____ Marsh with more than 50% coverage by organic soil 3
4) X Wetlands not in one of the above categories [✓ 0]

**Carbon Sink Score (maximum 5 points)** 0

## 3.4 SHORELINE EROSION CONTROL

**Step 1:**

| | | Score |
|---|---|---|
| X | Wetland entirely isolated or palustrine | 0 |
| _____ | Any part of the wetland riverine, or lacustrine (proceed to Step 2) | |

**Step 2:**

Choose the one characteristic that best describes the shoreline vegetation (see text for a definition of shoreline)

| | | | Score |
|---|---|---|---|
| 1) | _____ | Trees and shrubs | 15 |
| 2) | _____ | Emergent vegetation | 8 |
| 3) | _____ | Submergent vegetation | 6 |
| 4) | _____ | Other shoreline vegetation | 3 |
| 5) | _____ | No vegetation | 0 |

**Shoreline Erosion Control Score (maximum 15 points)** 0

## 3.5 GROUND WATER RECHARGE

### 3.5.1 WETLAND SITE TYPE

| | | Score |
|---|---|---|
| (a) | Wetland > 50% lacustrine (by area) or located on one of the five major rivers | 0 |
| (b) | Wetland not as above. Calculate final score as follows: (FA = area of site type/total area of wetland) | |

| | Fractional Area | | |
|---|---|---|---|
| FA of isolated or palustrine wetland | 1 | x 50 = | 50 |
| FA of riverine wetland | _____ | x 20 = | _____ |
| FA of lacustrine wetland (wetland <50% lacustrine) | _____ | x 0 = | _____ |

**Ground Water Recharge, Wetland Site Type Component Score (maximum 50 points)** 50

## 3.5.2 WETLAND SOIL RECHARGE POTENTIAL

(Circle only one choice that best describes the hydrologic soil class of the area surrounding the wetland being evaluated.)

| Dominant Wetland Type | 1) Sand, loam, gravel, till | 2) Clay or bedrock |
|---|---|---|
| 1) Lacustrine or on a major river | 0 | 0 |
| 2) Isolated | 10 | 5 |
| 3) Palustrine | 7 | [✓ 4] |
| 4) Riverine (not a major river) | 5 | 2 |

**Ground Water Recharge, Wetland Soil Recharge Potential Score (maximum 10 points)** 4

## 4.0 SPECIAL FEATURES COMPONENT

### 4.1 RARITY

### 4.1.1 WETLANDS

Site District 6E-15

Presence of wetland type (check one or more)

________ Bog

________ Fen

___X___ Swamp

___X___ Marsh

Score for rarity within the landscape and rarity of the wetland type. Score for rarity of wetland type is cumulative (maximum 80 points) based on presence or absence.

| Site District | Score for Rarity within the Landscape | Score for Rarity of Wetland Type | | | |
|---|---|---|---|---|---|
| | | Marsh | Swamp | Fen | Bog |
| 6-1 | 60 | 40 | 0 | 80 | 80 |
| 6-2 | 60 | 40 | 0 | 80 | 80 |
| 6-3 | 40 | 10 | 0 | 40 | 80 |
| 6-4 | 60 | 40 | 0 | 80 | 80 |
| 6-5 | 20 | 40 | 0 | 80 | 80 |
| 6-6 | 40 | 20 | 0 | 80 | 80 |
| 6-7 | 60 | 10 | 0 | 80 | 80 |
| 6-8 | 20 | 20 | 0 | 80 | 80 |
| 6-9 | 0 | 20 | 0 | 80 | 80 |
| 6-10 | 20 | 0 | 20 | 80 | 80 |
| 6-11 | 0 | 30 | 0 | 80 | 80 |
| 6-12 | 0 | 30 | 0 | 60 | 80 |
| 6-13 | 60 | 10 | 0 | 80 | 80 |
| 6-14 | 40 | 20 | 0 | 40 | 80 |
| 6-15 | [✓ 40] | [✓ 0] | [✓ 0] | 80 | 80 |
| 7-1 | 60 | 0 | 60 | 80 | 80 |
| 7-2 | 60 | 0 | 0 | 80 | 80 |
| 7-3 | 60 | 0 | 0 | 80 | 80 |
| 7-4 | 80 | 0 | 0 | 80 | 80 |
| 7-6 | 80 | 30 | 0 | 80 | 80 |

**Rarity within the Landscape Score (maximum 80 points)** 40

**Rarity of Wetland Type Score (Maximum 80 points)** 0

## 4.1.2 SPECIES

### 4.1.2.1 BREEDING HABITAT FOR AN ENDANGERED OR THREATENED SPECIES

| Name of species | Source of information |
|---|---|
| 1) NONE | STANTEC FIELD SURVEYS |
| 2) | |
| 3) | |

**Attach documentation.**

Scoring:

| | |
|---|---|
| For each species | 250 points |

(Score is cumulative, no maximum score)

**Breeding Habitat for Endangered or Threatened Species Score (no maximum)** 0

### 4.1.2.2 TRADITIONAL MIGRATION OR FEEDING HABITAT FOR AN ENDANGERED OR THREATENED SPECIES

| Name of species | Source of information |
|---|---|
| 1) NONE | STANTEC FIELD SURVEYS |
| 2) | |
| 3) | |

Attach documentation.

Scoring:

| | |
|---|---|
| For one species | 150 points |
| For each additional species | 75 |

(Score is cumulative, no maximum score)

**Traditional Habitat for Endangered or Threatened Species Score (no maximum)** 0

## 4.1.2.3 PROVINCIALLY SIGNIFICANT ANIMAL SPECIES

Name of species Source of information

1) NONE STANTEC FIELD SURVEY

2)

3)

4)

5)

Attach separate list if necessary; Attach documentation

Scoring:

Number of provincially significant animal species in the wetland:

| | | | | | |
|---|---|---|---|---|---|
| One species | = | 50 points | 14 species | = | 154 |
| 2 species | = | 80 | 15 species | = | 156 |
| 3 species | = | 95 | 16 species | = | 158 |
| 4 species | = | 105 | 17 species | = | 160 |
| 5 species | = | 115 | 18 species | = | 162 |
| 6 species | = | 125 | 19 species | = | 164 |
| 7 species | = | 130 | 20 species | = | 166 |
| 8 species | = | 135 | 21 species | = | 168 |
| 9 species | = | 140 | 22 species | = | 170 |
| 10 species | = | 143 | 23 species | = | 172 |
| 11 species | = | 146 | 24 species | = | 174 |
| 12 species | = | 149 | 25 species | = | 176 |
| 13 species | = | 152 | | | |

Add one point for every species past 25 (for example, 26 species = 177 points, 27 species = 178 points etc.)

(no maximum score)

**Provincially Significant Animal Species Score (no maximum)** 0

## 4.1.2.4 PROVINCIALLY SIGNIFICANT PLANT SPECIES

(Scientific names must be recorded)

| | Common Name | Scientific Name | Source of information |
|---|---|---|---|
| 1) | NONE | | STANTEC FIELD SURVEYS |
| 2) | | | |
| 3) | | | |
| 4) | | | |
| 5) | | | |

Attach separate list if necessary. Attach documentation.

Scoring:

Number of provincially significant plant species in the wetland:

One species = 50 points
2 species = 80
3 species = 95
4 species = 105
5 species = 115
6 species = 125
7 species = 130
8 species = 135
9 species = 140
10 species = 143
11 species = 146
12 species = 149
13 species = 152
14 species = 154
15 species = 156
16 species = 158
17 species = 160
18 species = 162
19 species = 164
20 species = 166
21 species = 168
22 species = 170
23 species = 172
24 species = 174
25 species = 176

Add one point for every species past 25 (for example, 26 species = 177 points, 27 species = 178 points etc.)

**Provincially Significant Plant Species Score (no maximum)** 0

## 4.1.2.5 REGIONALLY SIGNIFICANT SPECIES (SITE REGION)

Scientific names must be recorded for plant species. **Lists of significant species must be approved by MNR.**

SIGNIFICANT IN SITE REGION:

| Common Name | Scientific Name | Source of information |
|---|---|---|
| 1) NONE | | STANTEC FIELD SURVEYS |
| 2) | | |
| 3) | | |
| 4) | | |
| 5) | | |
| 6) | | |
| 7) | | |
| 8) | | |

Attach separate list if necessary. Attach documentation

Scoring:

No. of species significant in Site Region

| | | | | | |
|---|---|---|---|---|---|
| One species | = | 20 | 6 species | = | 55 |
| 2 species | = | 30 | 7 species | = | 58 |
| 3 species | = | 40 | 8 species | = | 61 |
| 4 species | = | 45 | 9 species | = | 64 |
| 5 species | = | 50 | 10 species | = | 67 |

Add one point for every species past 10. (No maximum score)

**Regionally Significant Species Score (Site Region) (no maximum)** 0

## 4.2.1.6 LOCALLY SIGNIFICANT SPECIES (SITE DISTRICT)

Scientific names must be recorded for plant species. **Lists of significant species must be approved by MNR.**

| Common Name | Scientific Name | Source of information |
|---|---|---|
| 1) NONE | | STANTEC FIELD SURVEYS |
| 2) | | |
| 3) | | |
| 4) | | |
| 5) | | |
| 6) | | |
| 7) | | |
| 8) | | |
| 9) | | |
| 10) | | |

Attach separate list if necessary. Attach documentation.

Scoring:

No. of species significant in Site District

One species = 10
2 species = 17
3 species = 24
4 species = 31
5 species = 38
6 species = 41
7 species = 43
8 species = 45
9 species = 47
10 species = 49

For each significant species over 10 in the wetland, add 1 point.

**Locally Significant Species Score(Site District) (no maximum)**

0

## 4.2 SIGNIFICANT FEATURES AND/OR FISH & WILDLIFE HABITAT

### 4.2.1 NESTING OF COLONIAL WATERBIRDS

| Status | Name of species | Source of Information | Score |
|---|---|---|---|
| 1) Currently nesting | | | 50 points |
| 2) Known to have nested within past 5 years | | | 25 |
| 3) Active feeding area (Do not include feeding by great blue herons) | | | 15 |
| 4) None known | NONE | | 0 |

Attach documentation (nest locations, etc., if known)

Score highest applicable category only; maximum score 50 points.

**Score for Nesting Colonial Waterbirds (maximum 50 points)** 0

### 4.2.2. WINTER COVER FOR WILDLIFE

| (Check only highest level of significance) (one only) | | | Score |
|---|---|---|---|
| 1) | | Provincially significant 100 | |
| 2) | | Significant in Site Region | 50 |
| 3) | | Significant in Site District | 25 |
| 3) | | Locally significant | 10 |
| 4) | X | Little or poor winter cover present | 0 |

Source of information: STANTEC FIELD SURVEYS

**Winter Cover for Wildlife Score (maximum 100 points)** 0

### 4.2.3 WATERFOWL STAGING AND/OR MOULTING

(Check only highest level of significance for both staging and moulting; score is cumulative across columns, maximum score 150)

| | Staging | Score (one only) | Moulting | Score (one only) |
|---|---|---|---|---|
| 1) Nationally significant | | 150 | | 150 |
| 2) Provincially significant | | 100 | | 100 |
| 3) Regionally significant | | 50 | | 50 |
| 4) Known to occur | | 10 | | 10 |
| 5) Not possible | X | 0 | X | 0 |
| 6) Unknown | | 0 | | 0 |

Source of information: STARTEC FIELD SURVEYS

**Waterfowl Moulting and Staging Score (maximum 150 points)** 0

### 4.2.4 WATERFOWL BREEDING

| (Check only highest level of significance) | | Score |
|---|---|---|
| 1) | Provincially significant | 100 |
| 2) | Regionally significant | 50 |
| 3) | Habitat suitable | 10 |
| 4) X | Habitat not suitable | 0 |

Source of information: STARTEC FIELD SURVEYS

**Waterfowl Breeding Score (maximum 100 points)** 0

### 4.2.5 MIGRATORY PASSERINE, SHOREBIRD OR RAPTOR STOPOVER AREA

(check highest applicable category)

| | | Score |
|---|---|---|
| 1) | Provincially significant | 100 |
| 2) | Significant in Site Region | 50 |
| 3) | Significant in Site District | 10 |
| 4) X | Not significant | 0 |

Source of information: STARTEC FIELD SURVEYS

**Passerine, Shorebird or Raptor Stopover Score (maximum 100 points)** 0

## 4.2.7 FISH HABITAT

### 4.2.7.1 Spawning and Nursery Habitat

**Table 5. Area Factors for Low Marsh, High Marsh and Swamp Communities.**

| No. of ha of Fish Habitat | Area Factor |
|---|---|
| < 0.5 ha | [✓ 0.1] |
| 0.5 - 4.9 | 0.2 |
| 5.0 - 9.9 | 0.4 |
| 10.0 - 14.9 | 0.6 |
| 15.0 - 19.9 | 0.8 |
| 20.0+ ha | 1.0 |

**Step 1:**

____ Fish habitat is not present within the wetland (Score = 0)

X Fish habitat is present within the wetland (Go to Step 2)

**Step 2:** Choose only one option

1) X Significance of the spawning and nursery habitat within the wetland is known (Go to Step3)

2) ____ Significance of the spawning and nursery habitat within the wetland is not known (Go through Steps 4, 5, 6, and 7)

**Step 3:** Select the highest appropriate category below, attach documentation:

1) ____ Significant in Site Region 100 points

2) ____ Significant in Site District 50

3) ____ Locally Significant Habitat (5.0+ ha) 25

4) X Locally Significant Habitat (<5.0 ha) 15

**Score for Spawning and Nursery Habitat (maximum score 100 points)** 15

**Step 4: Proceed to Steps 4 to 7 only if Step 3 was not answered.**

(**Low Marsh:** marsh area from the existing water line out to the outer boundary of the wetland)

______ Low marsh not present (Continue to Step 5)
______ Low marsh present (Score as follows)

**Scoring for Presence of Key Vegetation Groups**

Scoring is based on the one most clearly dominant plant species of the dominant form in each Low Marsh vegetation community. Check the appropriate Vegetation Group (see Appendix 16, Table 16-2) for each Low Marsh community. Sum the areas of the communities assigned to each Vegetation Group and multiply by the appropriate size factor from Table 5.

| Vegetation Group Number | Vegetation Group Name | Present as a Dominant Form (check) | Total Area (ha) | Area Factor (see Table 5) | Score | Final Score (area factor x score) |
|---|---|---|---|---|---|---|
| 1 | Tallgrass | | | | 6 pts | |
| 2 | Shortgrass-Sedge | | | | 11 | |
| 3 | Cattail-Bulrush-Burreed | | | | 5 | |
| 4 | Arrowhead-Pickerelweed | | | | 5 | |
| 5 | Duckweed | | | | 2 | |
| 6 | Smartweed-Waterwillow | | | | 6 | |
| 7 | Waterlily-Lotus | | | | 11 | |
| 8 | Waterweed-Watercress | | | | 9 | |
| 9 | Ribbongrass | | | | 10 | |
| 10 | Coontail-Naiad-Watermilfoil | | | | 13 | |
| 11 | Narrowleaf Pondweed | | | | 5 | |
| 12 | Broadleaf Pondweed | | | | 8 | |
| Total Score (maximum 75 points) | | | | | | |

Step 5: (**High Marsh:** area from the water line to the inland boundary of marsh wetland type. This is essentially what is commonly referred to as a wet meadow, in that there is insufficient standing water to provide fisheries habitat except during flood or high water conditions.)
______ High marsh not present (Continue to Step 6)
______ High marsh present (Score as follows)

**Scoring for Presence of Key Vegetation Groups**

Scoring is based on the one most clearly dominant plant species of the dominant form in each High lMarsh vegetation community. Check the appropriate Vegetation Group (see Appendix 16, Table 16-2) for each High Marsh community. Sum the areas of the communities assigned to each Vegetation Group and multiply by the appropriate size factor from Table 5.

| Vegetation Group Number | Vegetation Group Name | Present as a Dominant Form (check) | Total Area (ha) | Area Factor (see Table 5) | Score | Final Score (area factor x score) |
|---|---|---|---|---|---|---|
| 1 | Tallgrass | | | | 6 pts | |
| 2 | Shortgrass-Sedge | | | | 11 | |
| 3 | Cattail-Bulrush-Burreed | | | | 5 | |
| 4 | Arrowhead-Pickerelweed | | | | 5 | |
| Total Score (maximum 25 points) | | | | | | |

**Step 6:** (**Swamp**: Swamp communities containing fish habitat, either seasonally or permanently. Determine the total area of seasonally flooded swamps and permanently flooded swamps containing fish habitat.)

_____ Swamp containing fish habitat not present (Continue to Step 7)
_____ Swamp containing fish habitat present (Score as follows)

| Swamp containing fish habitat | Present (check) | Total area (ha) | Area Factor (see Table 5) | Score | TOTAL SCORE (factor x score) |
|---|---|---|---|---|---|
| seasonally flooded | | | | 10 | |
| permanently flooded | | | | 10 | |
| SCORE (maximum 20 points) | | | | | |

**Step 7:** Calculation of final score

Score for Spawning and Nursery Habitat (Low Marsh) (maximum 75) = ____

Score for Spawning and Nursery Habitat (High Marsh) (maximum 25) = ____

Score for Swamp Containing Fish Habitat (maximum 20) = ____

**Sum (maximum score 100 points) =** ____

### 4.2.6.2 Migration and Staging Habitat

**Step 1:**

1) X Staging or Migration Habitat is not present in the wetland (Score = 0)

2) ___ Staging or Migration Habitat is present in the wetland, significance of the habitat is known (Go to Step 2)

3) ___ Staging or Migration Habitat is present in the wetland, significance of the habitat is not known (Go to Step 3)

**NOTE: Only one of Step 2 or Step 3 is to be scored.**

**Step 2:** Select the highest appropriate category below, attach documentation:

| | | | | Score |
|---|---|---|---|---|
| 1) | ___ | Significant in Site Region | 25 points | |
| 2) | ___ | Significant in Site District | 15 | |
| 3) | ___ | Locally Significant | 10 | |
| 4) | ___ | Fish staging and/or migration habitat present, but not as above | 5 | |

**Score for Fish Migration and Staging Habitat (maximum score 25 points)** 0

**Step 3:** Select the highest appropriate category below based on **presence** of the designated site type (does not have to be dominant). See Section 1.1.3. Note name of river for 2) and 3).

| | | | Score |
|---|---|---|---|
| 1) | ___ | Wetland is riverine at rivermouth or lacustrine at rivermouth | 25 points |
| 2) | ___ | Wetland is riverine, within 0.75 km of rivermouth | 15 |
| 3) | ___ | Wetland is lacustrine, within 0.75 km of rivermouth | 10 |
| 4) | ___ | Fish staging and/or migration habitat present, but not as above | 0 |

**Score for Staging and Migration Habitat (maximum score 25 points)**_____

## 4.3 ECOSYSTEM AGE

(Fractional Area = area of wetland/total area of wetland area)

| | Fractional Area | | Scoring |
|---|---|---|---|
| Bog | ______ | x 25 | ______ |
| Fen, treed to open on deep soils, floating mats or marl | ______ | x 20 | ______ |
| Fen, on limestone rock | ______ | x 5 | ______ |
| Swamp | 0.08 | x 3 | 0.24 |
| Marsh | 0.92 | x 0 | 0 |

**Ecosystem Age Score (maximum 25 points)** 0

## 4.4 GREAT LAKES COASTAL WETLANDS

**Score for coastal (see text for definition) wetlands only**

Choose one only
____ wetland <10 ha = 10 points
____ wetland 10-50 ha = 25
____ wetland 51-100 ha = 50
____ wetland >100 ha = 75

**Great Lakes Coastal Wetlands Score (maximum 75 points)** 0

## 5.0 EXTRA INFORMATION

### 5.1 PURPLE LOOSESTRIFE

[✓ Absent/Not seen]

___ Present

(a) One location in wetland ___
Two to many locations ___

Abundance code
(b) (1) < 20 stems ___
(2) 20-99 stems ___
(3) 100-999 stems ___
(4) >1000 stems ___

### 5.2 SEASONALLY FLOODED AREAS

Indicate length of seasonal flooding

Check one or more

Ephemeral (less than 2 weeks) ___
Temporal (2 weeks to 1 month) ___
Seasonal (1 to 3 months) ___
Semi-permanent (>3 months) ___
[✓ No seasonal flooding]

### 5.3 SPECIES OF SPECIAL SIGNIFICANCE

#### 5.3.1 Osprey

Present and nesting ___
Known to have nested in last 5 yr. ___
Feeding area for Osprey ___
[✓ Not as above]

#### 5.3.2 Common Loon

Nesting in wetland ___
Feeding at edge of wetland ___
Observed or heard on lake or river adjoining the wetland ___
[✓ Not as above]

| **INVESTIGATORS** | **AFFILIATION** |
|---|---|
| JAMES LESLIE | STANTEC CONSULTING |
| KATHERINE ST. JAMES | STANTEC CONSULTING |
| ALAN WORMINGTON | CONTRACT BIRDER |

**DATES WETLAND VISITED**

JULY 27, 2011 ; MARCH 27, 2012

**DATE THIS EVALUATION COMPLETED:** AUGUST 23, 2012

**ESTIMATED TIME DEVOTED TO COMPLETING THE FIELD SURVEY IN "PERSON HOURS"**

8 HRS

**WEATHER CONDITIONS**

**i) at time of field work** JULY - 23°C & SUNNY; MARCH - 4°C, WINDY, SUNNY.
(Continue in the space below if necessary)

**ii) summer conditions in general** WARM, SUBJECT TO LAKE EFFECT PRECIPITATION

**OTHER POTENTIALLY USEFUL INFORMATION:**

- WETLAND IS AN ACTIVELY USED SHEEP PASTURE
- HERBS ARE GRAZED IN THE SPRING BUT SELECTIVELY GRAZED AS THE MATURE (REED-CANARY GRASS OFTEN INTACT WITH MINIMAL GRAZE & MODERATE TRAMPLING.

CHECKLIST OF PLANT AND ANIMAL SPECIES RECORDED IN THE WETLAND:

Attach list of all flora and fauna observed in the wetland.

* Indicate if voucher specimens or photos have been obtained, where located, etc.

## WETLAND EVALUATION SCORING RECORD

WETLAND NAME AND/OR NUMBER PASTURE COMPLEX

## 1.0 BIOLOGICAL COMPONENT

### 1.1 PRODUCTIVITY

| | | |
|---|---|---|
| 1.1.1 Growing Degree-Days/Soils | 22 | |
| 1.1.2 Wetland Type | 14 | |
| 1.1.3 Site Type | 2 | |
| Total for Productivity | | 38 |

### 1.2 BIODIVERSITY

| | | |
|---|---|---|
| 1.2.1 Number of Wetland Types | 13 | |
| 1.2.2 Vegetation Communities (maximum 45) | 3 | |
| 1.2.3 Diversity of Surrounding Habitat (maximum 7) | 4 | |
| 1.2.4 Proximity to Other Wetlands | 8 | |
| 1.2.5 Interspersion | 21 | |
| 1.2.6 Open Water Type | 8 | |
| Total for Biodiversity | | 57 |

1.3 SIZE (Biological Component) 19

TOTAL FOR BIOLOGICAL COMPONENT (not to exceed 250) 114

## 2.0 SOCIAL COMPONENT

### 2.1 ECONOMICALLY VALUABLE PRODUCTS

|  |  |  |
|---|---|---|
| 2.1.1 Wood Products | 0 |  |
| 2.1.2 Wild Rice | 0 |  |
| 2.1.3 Commercial Fish | 0 |  |
| 2.1.4 Bullfrogs | 0 |  |
| 2.1.5 Snapping Turtles | 0 |  |
| 2.1.6 Furbearers | 0 |  |
| Total for Economically Valuable Products |  | 0 |

### 2.2 RECREATIONAL ACTIVITIES (maximum 80)

|  |  |  |
|---|---|---|
| 2.2 RECREATIONAL ACTIVITIES (maximum 80) |  | 0 |

### 2.3 LANDSCAPE AESTHETICS

|  |  |  |
|---|---|---|
| 2.3.1 Distinctness | 0 |  |
| 2.3.2 Absence of Human Disturbance | 0 |  |
| Total for Landscape Aesthetics |  | 0 |

### 2.4 EDUCATION AND PUBLIC AWARENESS

|  |  |  |
|---|---|---|
| 2.4.1 Educational Uses | 0 |  |
| 2.4.2 Facilities and Programs | 0 |  |
| 2.4.3 Research and Studies | 0 |  |
| Total for Education and Public Awareness |  | 0 |

|  |  |
|---|---|
| 2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT | 16 |
| 2.6 OWNERSHIP | 4 |
| 2.7 SIZE (Social Component) | 5 |
| 2.8 ABORIGINAL AND CULTURAL VALUES | 0 |
| TOTAL FOR SOCIAL COMPONENT (not to exceed 250) | 25 |

## 3.0 HYDROLOGICAL COMPONENT

3.1 FLOOD ATTENUATION 100

3.2 WATER QUALITY IMPROVEMENT

3.2.1 Short Term Improvement 45
3.2.2 Long Term Improvement 0
3.2.3 Groundwater Discharge (maximum 30) 4

Total for Water Quality Improvement 49

3.3 CARBON SINK 0

3.4 SHORELINE EROSION CONTROL 0

3.5 GROUNDWATER RECHARGE

3.5.1 Site Type 50
3.5.2 Soils 4

Total for Groundwater Recharge 54

TOTAL FOR HYDROLOGICAL COMPONENT (not to exceed 250) 203

## 4.0 SPECIAL FEATURES

|  |  |  |  |
|---|---|---|---|
| **4.1 RARITY** |  |  |  |
| 4.1.1 Wetlands |  |  |  |
| 4.1.1.1 Rarity within the Landscape | 40 |  |  |
| 4.1.1.2 Rarity of Wetland Type (maximum 80) | 0 |  |  |
| Total for Wetland Rarity |  | 40 |  |
| 4.1.2 Species |  |  |  |
| 4.1.2.1 Endangered Species Breed | 0 |  |  |
| 4.1.2.2 Traditional Use by Endangered or Threatened Species | 0 |  |  |
| 4.1.2.3 Provincially Significant Animals | 0 |  |  |
| 4.1.2.4 Provincially Significant Plants | 0 |  |  |
| 4.1.2.5 Regionally Significant Species | 0 |  |  |
| 4.1.2.6 Locally Significant Species | 0 |  |  |
| Total for Species Rarity |  | 0 |  |
| **4.2 SIGNIFICANT FEATURES OR HABITAT** |  |  |  |
| 4.2.1 Colonial Waterbirds | 0 |  |  |
| 4.2.2 Winter Cover for Wildlife | 0 |  |  |
| 4.2.3 Waterfowl Staging and Moulting | 0 |  |  |
| 4.2.4 Waterfowl Breeding | 0 |  |  |
| 4.2.5 Migratory Passerine, Shorebird or Raptor Stopover | 0 |  |  |
| 4.2.6 Fish Habitat | 15 |  |  |
| Total for Significant Features and Habitat |  | 15 |  |
| **4.3 ECOSYSTEM AGE** |  |  | 0 |
| **4.4 GREAT LAKES COASTAL WETLANDS** |  | 0 |  |
| **TOTAL FOR SPECIAL FEATURES** (maximum 250) |  |  | 55 |

## SUMMARY OF EVALUATION RESULT

Wetland PASTURE COMPLEX

TOTAL FOR 1.0 BIOLOGICAL COMPONENT 114

TOTAL FOR 2.0 SOCIAL COMPONENT 25

TOTAL FOR 3.0 HYDROLOGICAL COMPONENT 203

TOTAL FOR 4.0 SPECIAL FEATURES COMPONENT 55

**WETLAND TOTAL** 397

INVESTIGATORS

JAMES LESLIE - VEGETATION / OWES EVALUATOR
KATHERINE ST. JAMES - VEGETATION
ALAN WORMINGTON - AVIAN OBSERVATIONS

AFFILIATION

STANTEC CONSULTING LTD.

DATE AUG. 27, 2012

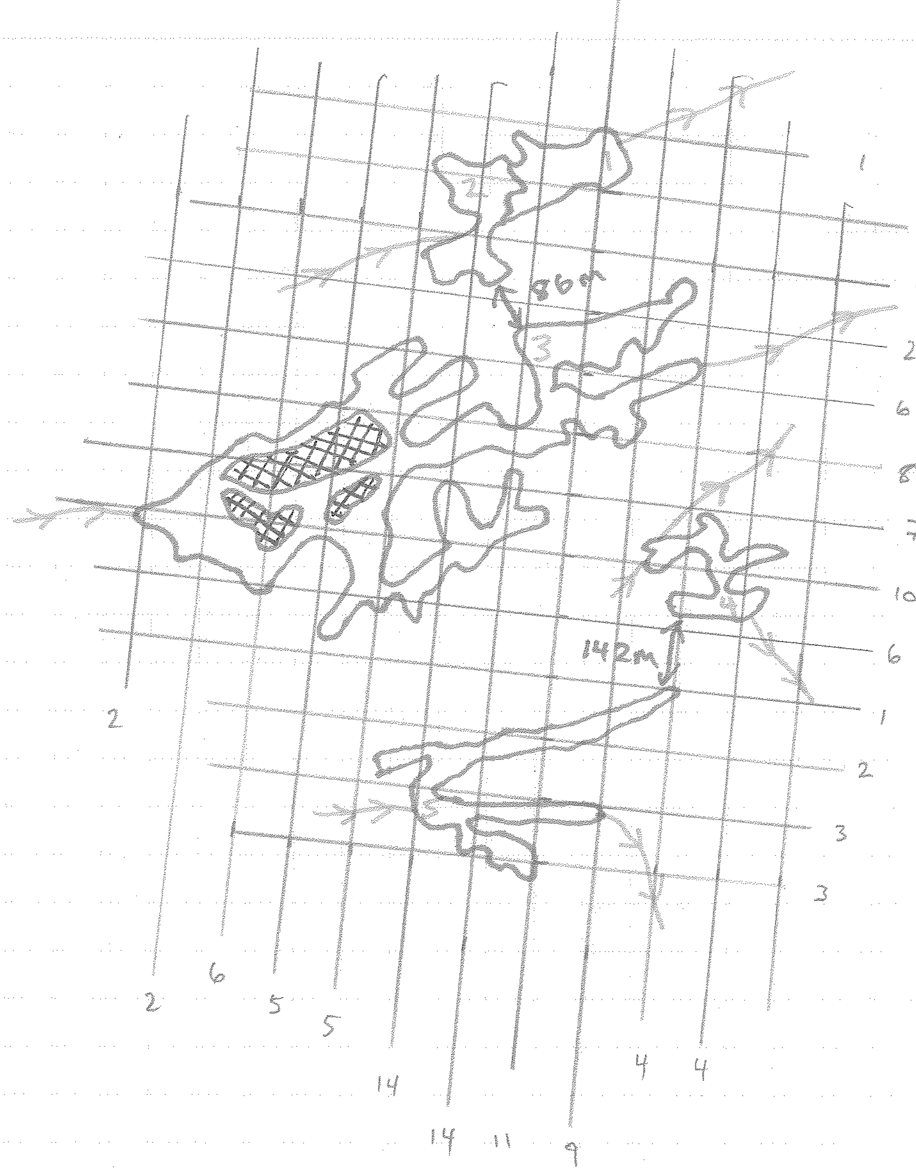
## Summer Botanical Inventory
## Pasture Complex

| LATIN NAME | LOCAL STATUS SOURCE LAST UPDATE/ INITIALS | COMMON NAME | COEFFICIENT OF CONSERVATISM | WETNESS INDEX | WEEDINESS INDEX | PROVINCIAL STATUS | OMNR STATUS | COSEWIC STATUS | GLOBAL STATUS |
|---|---|---|---|---|---|---|---|---|---|
| **GYMNOSPERMS** | | **CONIFERS** | | | | | | | |
| *Juniperus* | *virginiana* | Eastern Red Cedar | | | | S5 | | | G5 |
| **Pinaceae** | | **Pine Family** | | | | | | | |
| *Picea* | *glauca* | White Spruce | 6 | 3 | | S5 | | | G5 |
| **DICOTYLEDONS** | | **DICOTS** | | | | | | | |
| **Apiaceae** | | **Carrot or Parsley Family** | | | | | | | |
| *Daucus* | *carota* | Wild Carrot | | 5 | -2 | SE5 | | | G? |
| *Heracleum* | *lanatum* | Cow-parsnip | 3 | -3 | | S5 | | | G5 |
| **Asteraceae** | | **Composite or Aster Family** | | | | | | | |
| *Ambrosia* | *artemisiifolia* | Common Ragweed | 0 | 3 | | S5 | | | G5 |
| **Cornaceae** | | **Dogwood Family** | | | | | | | |
| *Cornus* | *foemina* ssp. *racemosa* | Red Panicled Dogwood | 2 | -2 | | S5 | | | G5? |
| *Cornus* | *stolonifera* | Red-osier Dogwood | 2 | -3 | | S5 | | | G5 |
| **Guttiferae** | | **St. John's-wort Family** | | | | | | | |
| *Hypericum* | *perforatum* | Common St. John's-wort | | 5 | -3 | SE5 | | | G? |
| **Lamiaceae** | | **Mint Family** | | | | | | | |
| *Lycopus* | *uniflorus* | Northern Water-horehound | 5 | -5 | | S5 | | | G5 |
| **Oleaceae** | | **Olive Family** | | | | | | | |
| *Fraxinus* | *pennsylvanica* | Red Ash | 3 | -3 | | S5 | | | G5 |
| **Polygonaceae** | | **Smartweed Family** | | | | | | | |
| *Persicaria* | *maculosa* | Lady's-thumb | | -3 | -1 | SE5 | | | G? |
| **Rosaceae** | | **Rose Family** | | | | | | | |
| *Crataegus* | *species* | Hawthorn species | | | | | | | |
| *Fragaria* | *vesca* ssp. *americana* | Woodland Strawberry | 4 | 4 | | S5 | | | G5T? |
| **Ulmaceae** | | **Elm Family** | | | | | | | |
| *Ulmus* | *americana* | White Elm | 3 | -2 | | S5 | | | G5? |
| **Verbenaceae** | | **Vervain Family** | | | | | | | |
| *Verbena* | *hastata* | Blue Vervain | 4 | -4 | | S5 | | | G5 |
| **Vitaceae** | | **Grape Family** | | | | | | | |
| *Parthenocissus* | *inserta* | Inserted Virginia-creeper | 3 | 3 | | S5 | | | G5 |
| *Vitis* | *riparia* | Riverbank Grape | 0 | -2 | | S5 | | | G5 |
| **MONOCOTYLEDONS** | | **MONOCOTS** | | | | | | | |
| **Cyperaceae** | | **Sedge Family** | | | | | | | |
| *Carex* | *granularis* | Meadow Sedge | 3 | -4 | | S5 | | | G5 |
| *Carex* | *pellita* | Woolly Sedge | 4 | -5 | | S5 | | | G5 |
| *Carex* | *vulpinoidea* | Fox Sedge | 3 | -5 | | S5 | | | G5 |
| *Scirpus* | *atrovirens* | Dark-green Bulrush | 3 | -5 | | S5 | | | G5? |
| *Scirpus* | *cyperinus* | Wool-grass | 4 | -5 | | S5 | | | G5 |
| **Juncaceae** | | **Rush Family** | | | | | | | |
| *Juncus* | *tenuis* | Path Rush | 0 | 0 | | S5 | | | G5 |
| **Poaceae** | | **Grass Family** | | | | | | | |
| *Agrostis* | *stolonifera* | Redtop | | -3 | | S5 | | | G5 |
| *Phalaris* | *arundinacea* | Reed Canary Grass | 0 | -4 | | S5 | | | G5 |
| **Typhaceae** | | **Cattail Family** | | | | | | | |
| *Typha* | *angustifolia* | Narrow-leaved Cattail | 3 | -5 | | S5 | | | G5 |

Stantec

# INTERSPERSION MAP & SPECIES WITHIN DOMINANT FORMS.

N



55

SCALE:
1:15,000

INTERSPERSION TOTAL:
131

76

1. S1 - h, ts, gc -> FRAPENN; CORRACE; PHAARUN
2. M1 - gc -> PHAARUN
3. M2 - gc -> PHAARUN
4. M3 - gc -> PHA ARUN
5. M4 - gc -> PHA ARUN

Designed by:

Checked by:

**Data Summary Form**

Wetland Name PASTURE COMPLEX

Page 1 of 1

| Map Code | Field Code | # Forms | Dominant Form | Forms | % open water | area (ha) | ha open water | Soils | Site Type | Fish Habitat (LM or HM) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -6e | 3 | h | h, ts, gc | 0 | 2.4 | 0 | LOAM | SWAMP | NONE |
| 2 | -6d | 1 | gc | gc | <5% | 2.7 | N/A | LOAM | MARSH | YES |
| 3 | -6a | 1 | gc | gc | <5% | 19.5 | N/A | LOAM | MARSH | YES |
| 4 | -6b | 1 | gc | gc | 0 | 2.1 | 0 | LOAM | MARSH | NONE |
| 5 | -6c | 1 | gc | gc | 0 | 4.4 | 0 | LOAM/CLAY | MARSH | NONE |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |

## WETLAND DATA AND SCORING RECORD

i) **WETLAND NAME:** WETLAND #7

ii) **MNR ADMINISTRATIVE REGION:** SOUTHERN **DISTRICT:** PETERBOROUGH

**AREA OFFICE (if different from District):**

iii) **CONSERVATION AUTHORITY JURISDICTION:** CATARAQUI REGION

(If not within a designated CA, check here:_____

iv) **COUNTY OR REGIONAL MUNICIPALITY:** LENNOX + ADDINGTON

v) **TOWNSHIP:** LOYALIST

vi) **LOTS & CONCESSIONS:**
(attach separate sheet if necessary)

vii) **MAP AND AIR PHOTO REFERENCES**

a) Latitude __________ Longitude: __________

b) UTM grid reference: Zone: __________ Block: __________
Grid: E __ __ __ N __ __ __

c) National Topographic Series:

map name(s) KINGSTON

map number(s) 31 C edition 4

scale 1:250,000

d) Aerial photographs: Date photo taken:__________ Scale:__________

Flight & plate numbers:__________

(attach separate sheet if necessary)

e) Ontario Base Map numbers & scale__________

(attach separate sheets if necessary)

- FIRST BASE SOLUTIONS - IMAGERY DATE = 2008
- BING IMAGERY

## viii) WETLAND SIZE AND BOUNDARIES

a) Single contiguous wetland area: 2-1 hectares

b) Wetland complex comprised of 1 individual wetlands:

| Wetland Unit Number (for reference) | Size of each wetland unit |
|---|---|
| Wetland Unit No.1 | 2-1 ha |
| Wetland Unit No. 2 | ______ha |
| Wetland Unit No. 3 | ______ha |
| Wetland Unit No. 4 | ______ha |
| Wetland Unit No. 5 | ______ha |
| Wetland Unit No. 6 | ______ha |
| Wetland Unit No. 7 | ______ha |
| Wetland Unit No. 8 | ______ha |
| Wetland Unit No. 9 | ______ha |
| Wetland Unit No. 10 | ______ha |

(Attach additional sheets if necessary)

TOTAL WETLAND SIZE 2-1 ha

c) Brief documentation of reasons for including any areas less than 0.5 ha in size:

______________________________

______________________________

______________________________

(Attach separate sheets if necessary)

# 1.0 BIOLOGICAL COMPONENT

## 1.1 PRODUCTIVITY

### 1.1.1 GROWING DEGREE-DAYS/SOILS

GROWING DEGREE DAYS

(check one)
1)______ <2800
2)______ 2800 - 3200
3) ✓ 3200 - 3600
4)______ 3600 - 4000
5)______ >4000

SOILS

Estimated Fractional Area
1.0 clay/loam
______ silt/marl
______ limestone
______ sand
______ humic/mesic
______ fibric
______ granite

SCORING:

| Growing Degree-Days | Clay-Loam | Silt-Marl | Lime-stone | Sand | Humic-Mesic | Fibric | Granite |
|---|---|---|---|---|---|---|---|
| <2800 | 15 | 13 | 11 | 9 | 8 | 7 | 5 |
| 2800-3200 | 18 | 15 | 13 | 11 | 9 | 8 | 7 |
| 3200-3600 | [✓ 22] | 18 | 15 | 13 | 11 | 9 | 7 |
| 3600-4000 | 26 | 21 | 18 | 15 | 13 | 10 | 8 |
| >4000 | 30 | 25 | 20 | 18 | 15 | 12 | 8 |

(maximum score 30; if wetland contains more than one soil type, evaluate based on the fractional area)

Steps required for evaluation: (maximum score 30 points)

1. Select GDD line in evaluation table applicable to your wetland;
2. Determine fractional area of the wetland for each soil type;
3. Multiply fractional area of each soil type by score;
4. Sum individual soil type scores (round to nearest whole number).

In wetland complexes the evaluator should aim at determining the percentage of area occupied by the categories for the complex as a whole.

**Final Score Growing Degree-Days/Soils (maximum 30 points)** 22

### 1.1.2 WETLAND TYPE (Fractional Area = area of wetland type/total wetland area)

| | Fractional Area | | Score |
|---|---|---|---|
| Bog | | x 3 | |
| Fen | | x 6 | |
| Swamp | | x 8 | |
| Marsh | 1 | x 15 | 15 |

**Wetland type score (maximum 15 points)** 15

### 1.1.3 SITE TYPE (Fractional Area = area of site type/total wetland area)

| | Fractional Area | | Score |
|---|---|---|---|
| Isolated | | x 1 = | |
| Palustrine (permanent or intermittent flow) | 1.0 | x 2 = | 2 |
| Riverine | | x 4 = | |
| Riverine (at rivermouth) | | x 5 = | |
| Lacustrine (at rivermouth | | x 5 = | |
| Lacustrine (on enclosed bay, with barrier beach) | | x 3 = | |
| Lacustrine (exposed to lake) | | x 2 = | |

**Site Type Score (maximum 5 points)** 2

## 1.2 BIODIVERSITY

### 1.2.1 NUMBER OF WETLAND TYPES

| (Check only one) | | Score |
|---|---|---|
| 1) X | one | 9 points |
| 2) | two | 13 |
| 3) | three | 20 |
| 4) | four | 30 |

**Number of Wetland Types Score (maximum 30 points)** 9

## 1.2.2 VEGETATION COMMUNITIES

Attach a separate sheet listing community (map) codes, vegetation forms and dominant species. Use the form on the following page to record percent area by dominant vegetation form. This information will be used in other parts of the evaluation.

Communities should be grouped by number of forms. For example, 2 form communities might appear as follows:

2 forms

| Code | Forms | Dominant Species |
|---|---|---|
| M6 | re, ff | re, *Typha latifolia*; ff, *Lemna minor, Wolffia* |
| S1 | ts, gc | ts, *Salix discolor*; gc, *Impatiens capensis, Thelypteris palustris* |

Note that the dominant species for each form are separated by a semicolon. The dominant species (maximum of 2) within a form are separated by commas.

Scoring:

| Total # of communities with 1-3 forms | Total # of communities with 4-5 forms | Total # of communities with 6 or more forms |
|---|---|---|
| [✓ 1] = 1.5 points | 1 = 2 points | 1 = 3 points |
| 2 = 2.5 | 2 = 3.5 | 2 = 5 |
| 3 = 3.5 | 3 = 5 | 3 = 7 |
| 4 = 4.5 | 4 = 6.5 | 4 = 9 |
| 5 = 5 | 5 = 7.5 | 5 = 10.5 |
| 6 = 5.5 | 6 = 8.5 | 6 = 12 |
| 7 = 6 | 7 = 9.5 | 7 = 13.5 |
| 8 = 6.5 | 8 = 10.5 | 8 = 15 |
| 9 = 7 | 9 = 11.5 | 9 = 16.5 |
| 10 = 7.5 | 10 = 12.5 | 10 = 18 |
| 11 = 8 | 11 = 13 | 11 = 19 |
| +.5 each additional community = 1.5 | +.5 each additional community = ________ | +1 each additional community = ________ |

e.g., a wetland with 3 one form communities, 4 two form communities, 12 four form communities and 8 six form communities would score:

6 + 13.5 + 15 = 34.5 = 35 points

**Vegetation Communities Score (maximum 45 points)** 2

Wetland Name: WETLAND #7

Wetland Size (ha): 2.1

| Vegetation Form | % area in which form is dominant |
|---|---|
| h | 4 |
| c | |
| dh | |
| dc | |
| ts | 11 |
| ls | |
| ds | |
| gc | 85 |
| m | |
| ne | |
| be | |
| re | |
| ff | |
| f | |
| su | |
| u (unvegetated) | |

Total = 100%

### 1.2.3 DIVERSITY OF SURROUNDING HABITAT

(Check all appropriate items)

| | |
|---|---|
| X | row crop |
| X | pasture |
| | abandoned agricultural land |
| X | deciduous forest |
| | coniferous forest |
| | mixed forest (at least 25% conifer and 75% deciduous or vice versa) |
| | abandoned pits and quarries |
| | open lake or deep river |
| X | fence rows with cover, or shelterbelts |
| | terrain appreciably undulating, hilly, or with ravines |
| X | creek flood plain |

**Diversity of Surrounding Habitat Score (1 for each, maximum 7 points)** 5

### 1.2.4 PROXIMITY TO OTHER WETLANDS

(Check first appropriate category only)

| | | | Scoring |
|---|---|---|---|
| 1) | X | Hydrologically connected by surface water to other wetlands (different dominant wetland type), or to open lake or deep river within 1.5 km | 8 points |
| 2) | | Hydrologically connected by surface water to other wetlands (same dominant wetland type) within 0.5 km | 8 |
| 3) | | Hydrologically connected by surface water to other wetlands (different dominant wetland type), or to open lake or deep river from 1.5 to 4 km away | 5 |
| 4) | | Hydrologically connected by surface water to other wetlands (same dominant wetland type) from 0.5 to 1.5 km away | 5 |
| 5) | | Within 0.75 km of other wetlands (different dominant wetland type) or open water body, but not hydrologically connected by surface water | 5 |
| 6) | | Within 1 km of other wetlands, but not hydrologically connected by surface water | 2 |
| 7) | | No wetland within 1 km | 0 |

**Proximity to other Wetlands Score (Choose one only, maximum 8 points)** 8

## 1.2.5 INTERSPERSION

| Number of Intersections (Check one) | | Score |
|---|---|---|
| 1) 26 or less | ____ | 3 |
| 2) 27 to 40 | X | 6 |
| 3) 41 to 60 | | 9 |
| 4) 61 to 80 | ____ | 12 |
| 5) 81 to 100 | ____ | 15 |
| 6) 101 to 125 | ____ | 18 |
| 7) 126 to 150 | ____ | 21 |
| 8) 151 to 175 | ____ | 24 |
| 9) 176 to 200 | ____ | 27 |
| 10) >200 | ____ | 30 |

**Interspersion Score (Choose one only, maximum 30 points)** 6

## 1.2.6 OPEN WATER TYPES

| Permanently flooded: (Check one) | | Score |
|---|---|---|
| 1) ____ | type 1 | 8 |
| 2) ____ | type 2 | 8 |
| 3) ____ | type 3 | 14 |
| 4) ____ | type 4 | 20 |
| 5) ____ | type 5 | 30 |
| 6) ____ | type 6 | 8 |
| 7) ____ | type 7 | 14 |
| 8) ____ | type 8 | 3 |
| 9) X | no open water | 0 |

**Open Water Type Score (Choose one only, maximum 30 points)** 0

## 1.3 SIZE

2.1 hectares

**Size Score (Biological Component) (maximum 50 points)** 8

Evaluation Table Size Score (Biological Component)

| Wetland size (ha) | Total Score for Biodiversity Subcomponent | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | <37 | 37-48 | 49-60 | 61-72 | 73-84 | 85-96 | 97-108 | 109-120 | 121-132 | >132 |
| <21 ha | 1 | 5 | 7 | [✓ 8] | 9 | 17 | 25 | 34 | 43 | 50 |
| 21-40 | 5 | 7 | 8 | 9 | 10 | 19 | 28 | 37 | 46 | 50 |
| 41-60 | 6 | 8 | 9 | 10 | 11 | 21 | 31 | 40 | 49 | 50 |
| 61-80 | 7 | 9 | 10 | 11 | 13 | 23 | 34 | 43 | 50 | 50 |
| 81-100 | 8 | 10 | 11 | 13 | 15 | 25 | 37 | 46 | 50 | 50 |
| 101-120 | 9 | 11 | 13 | 15 | 18 | 28 | 40 | 49 | 50 | 50 |
| 121-140 | 10 | 13 | 15 | 17 | 21 | 31 | 43 | 50 | 50 | 50 |
| 141-160 | 11 | 15 | 17 | 19 | 23 | 34 | 46 | 50 | 50 | 50 |
| 161-180 | 13 | 17 | 19 | 21 | 25 | 37 | 49 | 50 | 50 | 50 |
| 181-200 | 15 | 19 | 21 | 23 | 28 | 40 | 50 | 50 | 50 | 50 |
| 201-400 | 17 | 21 | 23 | 25 | 31 | 43 | 50 | 50 | 50 | 50 |
| 401-600 | 19 | 23 | 25 | 28 | 34 | 46 | 50 | 50 | 50 | 50 |
| 601-800 | 21 | 25 | 28 | 31 | 37 | 49 | 50 | 50 | 50 | 50 |
| 801-1000 | 23 | 28 | 31 | 34 | 40 | 50 | 50 | 50 | 50 | 50 |
| 1001-1200 | 25 | 31 | 34 | 37 | 43 | 50 | 50 | 50 | 50 | 50 |
| 1201-1400 | 28 | 34 | 37 | 40 | 46 | 50 | 50 | 50 | 50 | 50 |
| 1401-1600 | 31 | 37 | 40 | 43 | 49 | 50 | 50 | 50 | 50 | 50 |
| 1601-1800 | 34 | 40 | 43 | 46 | 50 | 50 | 50 | 50 | 50 | 50 |
| 1801-2000 | 37 | 43 | 47 | 49 | 50 | 50 | 50 | 50 | 50 | 50 |
| >2000 | 40 | 46 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

## 2.0 SOCIAL COMPONENT

## 2.1 ECONOMICALLY VALUABLE PRODUCTS

### 2.1.1 WOOD PRODUCTS

Area of wetland forested (ha), i.e. dominant form is h or c. Note that this is not wetland size. (Check one only)

| | | Score |
|---|---|---|
| 1) X | <5 ha | 0 |
| 2) | 5 - 25 ha | 3 |
| 3) | 26 - 50 ha | 6 |
| 4) | 51 - 100 ha | 9 |
| 5) | 101 - 200 ha | 12 |
| 6) | >200 ha | 18 |

Source of information: STANTEC

**Wood Products Score (Score one only, maximum 18 points)** 0

### 2.1.2 WILD RICE

| (Check one) | | Score (Choose one) |
|---|---|---|
| Present (minimum size 0.5 ha) | 1) | 6 points |
| Absent | 2) X | 0 |

Source of information: STANTEC

**Wild Rice Score (maximum 6 points)** 0

### 2.1.3 COMMERCIAL FISH (BAIT FISH AND/OR COARSE FISH)

| (Check one) | | Score (Choose one) |
|---|---|---|
| Present | 1) X | 12 points |
| Habitat not suitable for fish | 2) | 0 |

Source of information: STANTEC

**Commercial Fish Score (maximum 12 points)** 12

### 2.1.4 BULLFROGS

| (Check one) | | Score (Choose one) |
|---|---|---|
| Present | 1) | 1 points |
| Absent | 2) | 0 |

Source of information: STANTEC

**Bullfrog Score (maximum 1 point)** 0

### 2.1.5 SNAPPING TURTLES

(Check one)
Present 1) ________
Absent 2) X

Score (Choose one)
1 point
0

Source of information: STANTEC

**Snapping Turtle Score (maximum 1 point)** 0

### 2.1.6 FURBEARERS

(Consult Appendix 9)

| Name of furbearer | Source of information |
|---|---|
| 1) NONE OBSERVED | STANTEC |
| 2) | |
| 3) | |
| 4) | |
| 5) | |

Scoring: 3 points for each species, maximum 12

**Furbearer Score (maximum 12 points)** 0

## 2.2 RECREATIONAL ACTIVITIES

| | Type of Wetland-Associated Use | | |
|---|---|---|---|
| Intensity of Use | Hunting | Nature Enjoyment/ Ecosystem Study | Fishing |
| High | 40 points | 40 points | 40 points |
| Moderate | 20 | 20 | 20 |
| Low | 8 | 8 | 8 |
| Not Possible/Not known | [✓ 0] | [✓ 0] | [✓ 0] |

(score one level for each of the three wetland uses; scores are cumulative; maximum score 80 points)

Sources of information:
Hunting: STANTEC
Nature: STANTEC
Fishing: STANTEC

**Recreational Activities Score (maximum 80 points)** 0

## 2.3 LANDSCAPE AESTHETICS

### 2.3.1 DISTINCTNESS

| (Check one) | | Score (Choose one) |
|---|---|---|
| Clearly distinct | 1)____ | 3 points |
| Indistinct | 2) X | 0 |

**Landscape Distinctness Score (maximum 3 points)** 0

### 2.3.2 ABSENCE OF HUMAN DISTURBANCE

| (Check one) | | Score (Choose one) |
|---|---|---|
| Human disturbances absent or nearly so | 1) ____ | 7 points |
| One or several localized disturbances | 2) ____ | 4 |
| Moderate disturbance; localized water pollution | 3) ____ | 2 |
| Wetland intact but impairment of ecosystem quality intense in some areas | 4) ____ | 1 |
| Extreme ecological degradation, or water pollution severe and widespread | 5) X | 0 |

Source of information: STANTEC

**Absence of Human Disturbance Score (maximum 7 points)** 0

## 2.4 EDUCATION AND PUBLIC AWARENESS

### 2.4.1 EDUCATIONAL USES

| (Check one) | | Score (Choose one) |
|---|---|---|
| Frequent | 1)____ | 20 points |
| Infrequent | 2)____ | 12 |
| No visits | 3) X | 0 |

Source of information: STANTEC

**Educational Uses Score (maximum 20 points)** 0

### 2.4.2 FACILITIES AND PROGRAMS

| (check one) | | Score (Choose one) |
|---|---|---|
| Staffed interpretation centre | 1) ____ | 8 points |
| No interpretation centre or staff, but a system of self-guiding trails or brochures available | 2) ____ | 4 |
| Facilities such as maintained paths (e.g., woodchips), boardwalks, boat launches or observation towers but no brochures or other interpretation | 3) ____ | 2 |
| No facilities or programs | 4) X | 0 |

Source of information: STANTEC

**Facilities and Programs Score (maximum 8 points)** 0

## 2.4.3 RESEARCH AND STUDIES

(check appropriate spaces)

| | | Score |
|---|---|---|
| Long term research has been done | ___ | 12 points |
| Research papers published in refereed scientific journal or as a thesis | ___ | 10 |
| One or more (non-research) reports have been written on some aspect of the wetland's flora, fauna, hydrology, etc. | ___ | 5 |
| No research or reports | X | 0 |

Attach list of known reports by above categories

**Research and Studies Score (Score is cumulative, maximum 12 points)** 0

## 2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT

Circle the highest applicable score

| Distance of wetland from settlement | 1) population >10,000 | 2) population 2,500 - 10,000 | 3) population <2,500 or cottage community |
|---|---|---|---|
| 1) Within or adjoining settlement | 40 points | 26 | 16 |
| 2) 0.5 to 10 km from settlement | 26 | 16 | [✓ 10] |
| 3) 10 to 60 km from settlement | 12 | 8 | 4 |
| 4) >60 km from settlement | 5 | 2 | 0 |

Name of settlement: STELLA

**Proximity to Human Settlement Score (maximum 40 points)** 10

## 2.6 OWNERSHIP (FA = fractional area)

Fractional Area Score

FA of wetland in public or private ownership, held under contract or in trust for wetland protection ___ x 10 = ___

FA of wetland area in public ownership, not as above ___ x 8 = ___

FA of wetland area in private ownership, not as above 1 x 4 = 4

Source of information: STANTEC

**Ownership Score (maximum 10 points)** 4

## 2.7 SIZE

________ hectares

Evaluation Table for Size Score (Social Component)

| Wetland size (ha) | Total for Size Dependent Score | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | <31 | 31-45 | 46-60 | 61-75 | 76-90 | 91-105 | 106-109 | 121-135 | 136-150 | >150 |
| <2 ha | 1 | 2 | 4 | 8 | 10 | 12 | 14 | 14 | 14 | 15 |
| 2-4 | [✓ 1] | 2 | 4 | 8 | 12 | 13 | 14 | 14 | 15 | 16 |
| 5-8 | 2 | 2 | 5 | 9 | 13 | 14 | 15 | 15 | 16 | 16 |
| 9-12 | 3 | 3 | 6 | 10 | 14 | 15 | 15 | 16 | 17 | 17 |
| 13-17 | 3 | 4 | 7 | 10 | 14 | 15 | 16 | 16 | 17 | 17 |
| 18-28 | 4 | 5 | 8 | 11 | 15 | 16 | 16 | 17 | 17 | 18 |
| 29-37 | 5 | 7 | 10 | 13 | 16 | 17 | 18 | 18 | 19 | 19 |
| 38-49 | 5 | 7 | 10 | 13 | 16 | 17 | 18 | 18 | 19 | 20 |
| 50-62 | 5 | 8 | 11 | 14 | 17 | 17 | 18 | 19 | 20 | 20 |
| 63-81 | 5 | 8 | 11 | 15 | 17 | 18 | 19 | 20 | 20 | 20 |
| 82-105 | 6 | 9 | 11 | 15 | 18 | 18 | 19 | 20 | 20 | 20 |
| 106-137 | 6 | 9 | 12 | 16 | 18 | 19 | 20 | 20 | 20 | 20 |
| 138-178 | 6 | 9 | 13 | 16 | 18 | 19 | 20 | 20 | 20 | 20 |
| 179-233 | 6 | 9 | 13 | 16 | 18 | 20 | 20 | 20 | 20 | 20 |
| 234-302 | 7 | 9 | 13 | 16 | 18 | 20 | 20 | 20 | 20 | 20 |
| 303-393 | 7 | 9 | 14 | 17 | 18 | 20 | 20 | 20 | 20 | 20 |
| 394-511 | 7 | 10 | 14 | 17 | 18 | 20 | 20 | 20 | 20 | 20 |
| 512-665 | 7 | 10 | 14 | 17 | 18 | 20 | 20 | 20 | 20 | 20 |
| 666-863 | 7 | 10 | 14 | 17 | 19 | 20 | 20 | 20 | 20 | 20 |
| 864-1123 | 8 | 12 | 15 | 17 | 19 | 20 | 20 | 20 | 20 | 20 |
| 1124-1460 | 8 | 12 | 15 | 17 | 19 | 20 | 20 | 20 | 20 | 20 |
| 1461-1898 | 8 | 13 | 15 | 18 | 19 | 20 | 20 | 20 | 20 | 20 |
| 1899-2467 | 8 | 14 | 16 | 18 | 20 | 20 | 20 | 20 | 20 | 20 |
| >2467 | 8 | 14 | 16 | 18 | 20 | 20 | 20 | 20 | 20 | 20 |

**Total Size Score (Social Component)** ___1___

## 2.8 ABORIGINAL AND CULTURAL HERITAGE VALUES

Either or both Aboriginal or Cultural Values may be scored. However, the maximum score permitted for 2.8 is 30 points. Attach documentation.

### 2.8.1 ABORIGINAL VALUES

Full documentation of sources must be attached to the data record.

1) ______ Significant = 30 points
2) ______ Not Significant = 0
3) __X__ Unknown = 0

### 2.8.2 CULTURAL HERITAGE

1) ______ Significant = 30 points
2) ______ Not Significant = 0
3) __X__ Unknown = 0

**Aboriginal Values/Cultural Heritage Score (maximum 30 points)** __0__

## 3.0 HYDROLOGICAL COMPONENT

### 3.1 FLOOD ATTENUATION

If the wetland is a complex including isolated wetlands, apportion the 100 points according to area. For example, if 10 ha of a 100 ha complex is isolated, the isolated portion receives the maximum proportional score of 10. The remainder of the wetland is then evaluated out of 90.

**Step 1** Determination of Maximum Score

____ Wetland is located on one of the defined 5 large lakes or 5 major rivers (Go to Step 4).
____ Wetland is entirely isolated (i.e. not part of a complex) (Go to Step 4)
X All other wetland types (Go through steps 2, 3, and 4B)

**Step 2.** Determination of Upstream Detention Factor (DF)

| | | |
|---|---|---|
| (a) | Wetland area (ha) | 2.1 |
| (b) | Total area (ha) of upstream detention areas (include the wetland itself) | 4.2 |
| (c) | Ratio of (a):(b) | 0.5 |
| (d) | Upstream detention factor: (c) x 2 = (maximum allowable factor = 1) | 1 |

**Step 3** Determination of Wetland Attenuation Factor (AF)

| | | |
|---|---|---|
| (a) | Wetland area (ha) | 2.1 |
| (b) | Size of catchment basin (ha) upstream of wetland (include wetland itself in catchment area) | 273 |
| (c) | Ratio of (a):(b) | 0.008 |
| (d) | Wetland attenuation factor: (c) x 10 = (maximum allowable factor = 1) | 0.08 |

**Step 4.** Calculation of final score

| | | |
|---|---|---|
| (a) | Wetlands on large lakes or major rivers | 0 |
| (b) | Wetland entirely isolated | 100 |
| (b) | All other wetlands -- calculate as follows: | |
| | Initial score | 100* |
| | Upstream detention factor (DF) (Step 2) | 1 |
| | Wetland attenuation factor (AF) (Step 3) | 0.08 |
| | Final score: ((DF + AF)/2) x Initial score = | 54 |

*Unless wetland is a complex with isolated portions (see above).

**Flood Attenuation Score (maximum 100 points)** 54

## 3.2 WATER QUALITY IMPROVEMENT

### 3.2.1 SHORT TERM WATER QUALITY IMPROVEMENT

**Step 1:** **Determination of maximum initial score**

_____ Wetland on one of the 5 defined large lakes or 5 major rivers (Go to Step 5a)
X All other wetlands (Go through Steps 2, 3, 4, and 5b)

**Step 2:** **Determination of watershed improvement factor (WIF)**

Calculation of WIF is based on the fractional area (FA) of each site type that makes up the total area of the wetland.

(FA = area of site type/total area of wetland)

| | Fractional Area | | |
|---|---|---|---|
| FA of isolated wetland | _____ | x 0.5 = | _____ |
| FA of riverine wetland | _____ | x 1.0 = | _____ |
| FA of palustrine wetland with no inflow | _____ | x 0.7 = | _____ |
| FA of palustrine wetland with inflows | 1 | x 1.0 = | 1 |
| FA of lacustrine on lake shoreline | _____ | x 0.2 = | _____ |
| FA of lacustrine at lake inflow or outflow | _____ | x 1.0 = | _____ |

**Sum (WIF cannot exceed 1.0)** 1

**Step 3:** **Determination of catchment land use factor (LUF)**

(Choose the first category that fits upstream landuse in the catchment.)

| | | |
|---|---|---|
| 1) X | Over 50% agricultural and/or urban | 1.0 |
| 2) _____ | Between 30 and 50% agricultural and/or urban | 0.8 |
| 3) _____ | Over 50% forested or other natural vegetation | 0.6 |

**LUF (maximum 1.0)** 1

**Step 4:** **Determination of pollutant uptake factor (PUT)**

Calculation of PUT is based on the fractional area (FA) of each vegetation type that makes up the total area of the wetland. Base assessment on the dominant vegetation form for each community except where dead trees or shrubs dominate. In that case base assessment on the dominant live vegetation type. (FA = area of vegetation type/total area of wetland)

| | Fractional Area | | |
|---|---|---|---|
| FA of wetland with live trees, shrubs, herbs or mosses (c,h,ts,ls,gc,m) | 1 | x 0.75 = | _____ |
| FA of wetland with emergent, submergent or floating vegetation (re,be,ne,su,f,ff) | _____ | x 1.0 = | _____ |
| FA of wetland with little or no vegetation (u) | _____ | x 0.5 = | _____ |

**Sum (PUT cannot exceed 1.0)** 0.75

**Step 5:** **Calculation of final score**

| | | |
|---|---|---|
| (a) | Wetland on large lakes or major rivers | 0 |
| (b) | All other wetlands - calculate as follows | |
| | Initial score | 60 |
| | Water quality improvement factor (~~W~~QF) WIF | 1 |
| | Land use factor (LUF) | 1 |
| | Pollutant uptake factor (PUT) | 0.75 |

**Final score: 60 x WQF x LUF x PUT =** 45

**Short Term Water Quality Improvement Score (maximum 60 points)** 45

## 3.2.2 LONG TERM NUTRIENT TRAP

**Step 1:**

| | | |
|---|---|---|
| ____ | Wetland on large lakes or 5 major rivers | 0 points |
| X | All other wetlands (Proceed to Step 2) | |

**Step 2:** Choose only one of the following settings that best describes the wetland being evaluated

| | | | |
|---|---|---|---|
| 1) | ____ | Wetland located in a river mouth | 10 points |
| 2) | ____ | Wetland is a bog, fen, or swamp with more than 50% of the wetland being covered with organic soil | 10 |
| 3) | ____ | Wetland is a bog, fen, or swamp with less than 50% of the wetland being covered with organic soil | 3 |
| 4) | ____ | Wetland is a marsh with more than 50% of the wetland covered with organic soil | 3 |
| 5) | X | None of the above | 0 |

**Long Term Nutrient Trap Score (maximum 10 points)** 0

### 3.2.3 GROUNDWATER DISCHARGE

(Circle the characteristics that best describe the wetland being evaluated and then sum the scores. If the sum exceeds 30 points assign the maximum score of 30.)

| Wetland Characteristics | Potential for Discharge | | |
|---|---|---|---|
| | None to Little | Some | High |
| Wetland type | 1) Bog = 0 | 2) Swamp/Marsh [✓ = 2] | 3) Fen = 5 |
| Topography | 1) Flat/rolling [✓ = 0] | 2) Hilly = 2 | 3) Steep = 5 |
| Wetland Area:Upslope Catchment Area | Large (>50%) = 0 | Moderate (5-50%) = 2 | Small (<5%) [✓ = 5] |
| Lagg Development | 1) None found [✓ = 0] | 2) Minor = 2 | 3) Extensive = 5 |
| Seeps | 1) None [✓ = 0] | 2) = or < 3 seeps = 2 | 3) > 3 seeps = 5 |
| Surface marl deposits | 1) None [✓ = 0] | 2) = or < 3 sites = 2 | 3) > 3 sites = 5 |
| Iron precipitates | 1) None [✓ = 0] | 2) = or < 3 sites = 2 | 3) > 3 sites = 5 |
| Located within 1 km of a major aquifer | N/A [✓ = 0] | N/A = 0 | Yes = 10 |

(Scores are cumulative, maximum score 30 points)

**Groundwater Discharge Score (maximum 30 points)** 7

### 3.3 CARBON SINK

Choose only one of the following

1) _____ Bog, fen or swamp with more than 50% coverage by organic soil 5 points
2) _____ Bog, fen or swamp with between 10 to 49% coverage by organic soil 2
3) _____ Marsh with more than 50% coverage by organic soil 3
4) X Wetlands not in one of the above categories 0

**Carbon Sink Score (maximum 5 points)** 0

## 3.4 SHORELINE EROSION CONTROL

**Step 1:**

| | | Score |
|---|---|---|
| X | Wetland entirely isolated or palustrine | 0 |
| _____ | Any part of the wetland riverine, or lacustrine (proceed to Step 2) | |

**Step 2:**

Choose the one characteristic that best describes the shoreline vegetation (see text for a definition of shoreline)

| | | Score |
|---|---|---|
| 1) _____ | Trees and shrubs | 15 |
| 2) _____ | Emergent vegetation | 8 |
| 3) _____ | Submergent vegetation | 6 |
| 4) _____ | Other shoreline vegetation | 3 |
| 5) _____ | No vegetation | 0 |

**Shoreline Erosion Control Score (maximum 15 points)** 0

## 3.5 GROUND WATER RECHARGE

### 3.5.1 WETLAND SITE TYPE

| | | Score |
|---|---|---|
| (a) | Wetland > 50% lacustrine (by area) or located on one of the five major rivers | 0 |
| (b) | Wetland not as above. Calculate final score as follows: (FA = area of site type/total area of wetland) | |

| | Fractional Area | | |
|---|---|---|---|
| FA of isolated or palustrine wetland | 1 | x 50 = | 50 |
| FA of riverine wetland | _____ | x 20 = | _____ |
| FA of lacustrine wetland (wetland <50% lacustrine) | _____ | x 0 = | _____ |

**Ground Water Recharge, Wetland Site Type Component Score (maximum 50 points)** 50

### 3.5.2 WETLAND SOIL RECHARGE POTENTIAL

(Circle only one choice that best describes the hydrologic soil class of the area surrounding the wetland being evaluated.)

| Dominant Wetland Type | 1) Sand, loam, gravel, till | 2) Clay or bedrock |
|---|---|---|
| 1) Lacustrine or on a major river | 0 | 0 |
| 2) Isolated | 10 | 5 |
| 3) Palustrine | 7 | [✓ 4] |
| 4) Riverine (not a major river) | 5 | 2 |

**Ground Water Recharge, Wetland Soil Recharge Potential Score (maximum 10 points)** 4

# 4.0 SPECIAL FEATURES COMPONENT

## 4.1 RARITY

### 4.1.1 WETLANDS

Site District 6E-15

Presence of wetland type (check one or more)

_______ Bog
_______ Fen
_______ Swamp
___✓___ Marsh

Score for rarity within the landscape and rarity of the wetland type. Score for rarity of wetland type is cumulative (maximum 80 points) based on presence or absence.

| Site District | Score for Rarity within the Landscape | Score for Rarity of Wetland Type | | | |
|---|---|---|---|---|---|
| | | Marsh | Swamp | Fen | Bog |
| 6-1 | 60 | 40 | 0 | 80 | 80 |
| 6-2 | 60 | 40 | 0 | 80 | 80 |
| 6-3 | 40 | 10 | 0 | 40 | 80 |
| 6-4 | 60 | 40 | 0 | 80 | 80 |
| 6-5 | 20 | 40 | 0 | 80 | 80 |
| 6-6 | 40 | 20 | 0 | 80 | 80 |
| 6-7 | 60 | 10 | 0 | 80 | 80 |
| 6-8 | 20 | 20 | 0 | 80 | 80 |
| 6-9 | 0 | 20 | 0 | 80 | 80 |
| 6-10 | 20 | 0 | 20 | 80 | 80 |
| 6-11 | 0 | 30 | 0 | 80 | 80 |
| 6-12 | 0 | 30 | 0 | 60 | 80 |
| 6-13 | 60 | 10 | 0 | 80 | 80 |
| 6-14 | 40 | 20 | 0 | 40 | 80 |
| 6-15 | [✓ 40] | [✓ 0] | 0 | 80 | 80 |
| 7-1 | 60 | 0 | 60 | 80 | 80 |
| 7-2 | 60 | 0 | 0 | 80 | 80 |
| 7-3 | 60 | 0 | 0 | 80 | 80 |
| 7-4 | 80 | 0 | 0 | 80 | 80 |
| 7-6 | 80 | 30 | 0 | 80 | 80 |

**Rarity within the Landscape Score (maximum 80 points)** 40

**Rarity of Wetland Type Score (Maximum 80 points)** 0

## 4.1.2 SPECIES

### 4.1.2.1 BREEDING HABITAT FOR AN ENDANGERED OR THREATENED SPECIES

| Name of species | Source of information |
|---|---|
| 1) NONE OBSERVED | STANTEC |
| 2) | |
| 3) | |

**Attach documentation.**

Scoring:

For each species 250 points

(Score is cumulative, no maximum score)

**Breeding Habitat for Endangered or Threatened Species Score (no maximum)** 0

### 4.1.2.2 TRADITIONAL MIGRATION OR FEEDING HABITAT FOR AN ENDANGERED OR THREATENED SPECIES

| Name of species | Source of information |
|---|---|
| 1) NONE OBSERVED | STANTEC |
| 2) | |
| 3) | |

Attach documentation.

Scoring:

| | |
|---|---|
| For one species | 150 points |
| For each additional species | 75 |

(Score is cumulative, no maximum score)

**Traditional Habitat for Endangered or Threatened Species Score (no maximum)** 0

## 4.1.2.3 PROVINCIALLY SIGNIFICANT ANIMAL SPECIES

| Name of species | Source of information |
|---|---|
| 1) NONE OBSERVED | STANTEC |
| 2) | |
| 3) | |
| 4) | |
| 5) | |

Attach separate list if necessary; Attach documentation

Scoring:

Number of provincially significant animal species in the wetland:

| | | | | | |
|---|---|---|---|---|---|
| One species | = | 50 points | 14 species | = | 154 |
| 2 species | = | 80 | 15 species | = | 156 |
| 3 species | = | 95 | 16 species | = | 158 |
| 4 species | = | 105 | 17 species | = | 160 |
| 5 species | = | 115 | 18 species | = | 162 |
| 6 species | = | 125 | 19 species | = | 164 |
| 7 species | = | 130 | 20 species | = | 166 |
| 8 species | = | 135 | 21 species | = | 168 |
| 9 species | = | 140 | 22 species | = | 170 |
| 10 species | = | 143 | 23 species | = | 172 |
| 11 species | = | 146 | 24 species | = | 174 |
| 12 species | = | 149 | 25 species | = | 176 |
| 13 species | = | 152 | | | |

Add one point for every species past 25 (for example, 26 species = 177 points, 27 species = 178 points etc.)

(no maximum score)

**Provincially Significant Animal Species Score (no maximum)** 0

## 4.1.2.4 PROVINCIALLY SIGNIFICANT PLANT SPECIES

(Scientific names must be recorded)

| | Common Name | Scientific Name | Source of information |
|---|---|---|---|
| 1) | NONE OBSERVED | | STANTEC |
| 2) | | | |
| 3) | | | |
| 4) | | | |
| 5) | | | |

Attach separate list if necessary. Attach documentation.

Scoring:

Number of provincially significant plant species in the wetland:

---

One species = 50 points
2 species = 80
3 species = 95
4 species = 105
5 species = 115
6 species = 125
7 species = 130
8 species = 135
9 species = 140
10 species = 143
11 species = 146
12 species = 149
13 species = 152
14 species = 154
15 species = 156
16 species = 158
17 species = 160
18 species = 162
19 species = 164
20 species = 166
21 species = 168
22 species = 170
23 species = 172
24 species = 174
25 species = 176

Add one point for every species past 25 (for example, 26 species = 177 points, 27 species = 178 points etc.)

**Provincially Significant Plant Species Score (no maximum)** 0

## 4.1.2.5 REGIONALLY SIGNIFICANT SPECIES (SITE REGION)

Scientific names must be recorded for plant species. **Lists of significant species must be approved by MNR.**

SIGNIFICANT IN SITE REGION:

| | Common Name | Scientific Name | Source of information |
|---|---|---|---|
| 1) | NONE OBSERVED | | STANTEC |
| 2) | | | |
| 3) | | | |
| 4) | | | |
| 5) | | | |
| 6) | | | |
| 7) | | | |
| 8) | | | |

Attach separate list if necessary. Attach documentation

Scoring:

No. of species significant in Site Region

| | | | | | |
|---|---|---|---|---|---|
| One species | = | 20 | 6 species | = | 55 |
| 2 species | = | 30 | 7 species | = | 58 |
| 3 species | = | 40 | 8 species | = | 61 |
| 4 species | = | 45 | 9 species | = | 64 |
| 5 species | = | 50 | 10 species | = | 67 |

Add one point for every species past 10. (No maximum score)

**Regionally Significant Species Score (Site Region) (no maximum)** 0

### 4.2.1.6 LOCALLY SIGNIFICANT SPECIES (SITE DISTRICT)

Scientific names must be recorded for plant species. **Lists of significant species must be approved by MNR.**

| Common Name | Scientific Name | Source of information |
|---|---|---|
| 1) NONE OBSERVED | | STANTEC |
| 2) | | |
| 3) | | |
| 4) | | |
| 5) | | |
| 6) | | |
| 7) | | |
| 8) | | |
| 9) | | |
| 10) | | |

Attach separate list if necessary. Attach documentation.

Scoring:

No. of species significant in Site District

---

One species = 10
2 species = 17
3 species = 24
4 species = 31
5 species = 38
6 species = 41
7 species = 43
8 species = 45
9 species = 47
10 species = 49

For each significant species over 10 in the wetland, add 1 point.

**Locally Significant Species Score(Site District) (no maximum)**

0

## 4.2 SIGNIFICANT FEATURES AND/OR FISH & WILDLIFE HABITAT

### 4.2.1 NESTING OF COLONIAL WATERBIRDS

| Status | Name of species | Source of Information | Score |
|---|---|---|---|
| 1) Currently nesting | | | 50 points |
| 2) Known to have nested within past 5 years | | | 25 |
| 3) Active feeding area (Do not include feeding by great blue herons) | | | 15 |
| [✓ 4) None known] | | | 0 |

Attach documentation (nest locations, etc., if known)

Score highest applicable category only; maximum score 50 points.

**Score for Nesting Colonial Waterbirds (maximum 50 points)** 0

### 4.2.2. WINTER COVER FOR WILDLIFE

(Check only highest level of significance) (one only) Score

| | | | |
|---|---|---|---|
| 1) | | Provincially significant | 100 |
| 2) | | Significant in Site Region | 50 |
| 3) | | Significant in Site District | 25 |
| 3) | | Locally significant | 10 |
| 4) | X | Little or poor winter cover present | 0 |

Source of information: STANTEC

**Winter Cover for Wildlife Score (maximum 100 points)** 0

## 4.2.3 WATERFOWL STAGING AND/OR MOULTING

(Check only highest level of significance for both staging and moulting; score is cumulative across columns, maximum score 150)

| | Staging | Score (one only) | Moulting | Score (one only) |
|---|---|---|---|---|
| 1) Nationally significant | | 150 | | 150 |
| 2) Provincially significant | | 100 | | 100 |
| 3) Regionally significant | | 50 | | 50 |
| 4) Known to occur | | 10 | | 10 |
| 5) Not possible | X | 0 | X | 0 |
| 6) Unknown | | 0 | | 0 |

Source of information: STANTEC

**Waterfowl Moulting and Staging Score (maximum 150 points)** 0

## 4.2.4 WATERFOWL BREEDING

| (Check only highest level of significance) | | Score |
|---|---|---|
| 1) | Provincially significant | 100 |
| 2) | Regionally significant | 50 |
| 3) | Habitat suitable | 10 |
| 4) X | Habitat not suitable | 0 |

Source of information: STANTEC

**Waterfowl Breeding Score (maximum 100 points)** 0

## 4.2.5 MIGRATORY PASSERINE, SHOREBIRD OR RAPTOR STOPOVER AREA

(check highest applicable category)

| | | Score |
|---|---|---|
| 1) | Provincially significant | 100 |
| 2) | Significant in Site Region | 50 |
| 3) | Significant in Site District | 10 |
| 4) X | Not significant | 0 |

Source of information: STANTEC

**Passerine, Shorebird or Raptor Stopover Score (maximum 100 points)** 0

## 4.2.7 FISH HABITAT

### 4.2.7.1 Spawning and Nursery Habitat

**Table 5. Area Factors for Low Marsh, High Marsh and Swamp Communities.**

| No. of ha of Fish Habitat | Area Factor |
|---|---|
| < 0.5 ha | [✓ 0.1] |
| 0.5 - 4.9 | 0.2 |
| 5.0 - 9.9 | 0.4 |
| 10.0 - 14.9 | 0.6 |
| 15.0 - 19.9 | 0.8 |
| 20.0+ ha | 1.0 |

**Step 1:**

____ Fish habitat is not present within the wetland (Score = 0)

X Fish habitat is present within the wetland (Go to Step 2)

**Step 2:** Choose only one option

1) ____ Significance of the spawning and nursery habitat within the wetland is known (Go to Step3)

2) ____ Significance of the spawning and nursery habitat within the wetland is not known (Go through Steps 4, 5, 6, and 7)

**Step 3:** Select the highest appropriate category below, attach documentation:

1) ____ Significant in Site Region 100 points

2) ____ Significant in Site District 50

3) ____ Locally Significant Habitat (5.0+ ha) 25

4) ____ Locally Significant Habitat (<5.0 ha) 15

**Score for Spawning and Nursery Habitat (maximum score 100 points)** ____

**Step 4: Proceed to Steps 4 to 7 only if Step 3 was not answered.**

(**Low Marsh:** marsh area from the existing water line out to the outer boundary of the wetland)

X Low marsh not present (Continue to Step 5)
_____ Low marsh present (Score as follows)

**Scoring for Presence of Key Vegetation Groups**

Scoring is based on the one most clearly dominant plant species of the dominant form in each Low Marsh vegetation community. Check the appropriate Vegetation Group (see Appendix 16, Table 16-2) for each Low Marsh community. Sum the areas of the communities assigned to each Vegetation Group and multiply by the appropriate size factor from Table 5.

| Vegetation Group Number | Vegetation Group Name | Present as a Dominant Form (check) | Total Area (ha) | Area Factor (see Table 5) | Score | Final Score (area factor x score) |
|---|---|---|---|---|---|---|
| 1 | Tallgrass | | | | 6 pts | |
| 2 | Shortgrass-Sedge | | | | 11 | |
| 3 | Cattail-Bulrush-Burreed | | | | 5 | |
| 4 | Arrowhead-Pickerelweed | | | | 5 | |
| 5 | Duckweed | | | | 2 | |
| 6 | Smartweed-Waterwillow | | | | 6 | |
| 7 | Waterlily-Lotus | | | | 11 | |
| 8 | Waterweed-Watercress | | | | 9 | |
| 9 | Ribbongrass | | | | 10 | |
| 10 | Coontail-Naiad-Watermilfoil | | | | 13 | |
| 11 | Narrowleaf Pondweed | | | | 5 | |
| 12 | Broadleaf Pondweed | | | | 8 | |
| Total Score (maximum 75 points) | | | | | | |

**Step 5:** (**High Marsh:** area from the water line to the inland boundary of marsh wetland type. This is essentially what is commonly referred to as a wet meadow, in that there is insufficient standing water to provide fisheries habitat except during flood or high water conditions.)

_____ High marsh not present (Continue to Step 6)
X High marsh present (Score as follows)

**Scoring for Presence of Key Vegetation Groups**

Scoring is based on the one most clearly dominant plant species of the dominant form in each High 1Marsh vegetation community. Check the appropriate Vegetation Group (see Appendix 16, Table 16-2) for each High Marsh community. Sum the areas of the communities assigned to each Vegetation Group and multiply by the appropriate size factor from Table 5.

| Vegetation Group Number | Vegetation Group Name | Present as a Dominant Form (check) | Total Area (ha) | Area Factor (see Table 5) | Score | Final Score (area factor x score) |
|---|---|---|---|---|---|---|
| 1 | Tallgrass | ✓ | 2.1 | 0.1 | 6 pts | 0.6 |
| 2 | Shortgrass-Sedge | | | | 11 | |
| 3 | Cattail-Bulrush-Burreed | | | | 5 | |
| 4 | Arrowhead-Pickerelweed | | | | 5 | |
| Total Score (maximum 25 points) | | | | | | 0.6 |

**Step 6:** (**Swamp**: Swamp communities containing fish habitat, either seasonally or permanently. Determine the total area of seasonally flooded swamps and permanently flooded swamps containing fish habitat.)

X Swamp containing fish habitat not present (Continue to Step 7)
____ Swamp containing fish habitat present (Score as follows)

| Swamp containing fish habitat | Present (check) | Total area (ha) | Area Factor (see Table 5) | Score | TOTAL SCORE (factor x score) |
|---|---|---|---|---|---|
| seasonally flooded | | | | 10 | |
| permanently flooded | | | | 10 | |
| SCORE (maximum 20 points) | | | | | |

**Step 7:** Calculation of final score

Score for Spawning and Nursery Habitat (Low Marsh) (maximum 75) = 0

Score for Spawning and Nursery Habitat (High Marsh) (maximum 25) = 0.6

Score for Swamp Containing Fish Habitat (maximum 20) = 0

**Sum (maximum score 100 points)** = 1

### 4.2.6.2 Migration and Staging Habitat

**Step 1:**

1) [✓] Staging or Migration Habitat is not present in the wetland (Score = 0)

2) ___ Staging or Migration Habitat is present in the wetland, significance of the habitat is known (Go to Step 2)

3) ___ Staging or Migration Habitat is present in the wetland, significance of the habitat is not known (Go to Step 3)

**NOTE: Only <u>one</u> of Step 2 <u>or</u> Step 3 is to be scored.**

**Step 2:** Select the highest appropriate category below, attach documentation:

| | | | | Score |
|---|---|---|---|---|
| 1) | ___ | Significant in Site Region | 25 points | |
| 2) | ___ | Significant in Site District | 15 | |
| 3) | ___ | Locally Significant | 10 | |
| 4) | ___ | Fish staging and/or migration habitat present, but not as above | 5 | |

**Score for Fish Migration and Staging Habitat (maximum score 25 points)** 0

**Step 3:** Select the highest appropriate category below based on **presence** of the designated site type (does not have to be dominant). See Section 1.1.3. Note name of river for 2) and 3).

| | | | Score |
|---|---|---|---|
| 1) | ___ | Wetland is riverine at rivermouth or lacustrine at rivermouth | 25 points |
| 2) | ___ | Wetland is riverine, within 0.75 km of rivermouth | 15 |
| 3) | ___ | Wetland is lacustrine, within 0.75 km of rivermouth | 10 |
| 4) | ___ | Fish staging and/or migration habitat present, but not as above | 0 |

**Score for Staging and Migration Habitat (maximum score 25 points)** 0

## 4.3 ECOSYSTEM AGE

(Fractional Area = area of wetland/total area of wetland area)

| | Fractional Area | Scoring | |
|---|---|---|---|
| Bog | ______ | x 25 | ______ |
| Fen, treed to open on deep soils, floating mats or marl | ______ | x 20 | ______ |
| Fen, on limestone rock | ______ | x 5 | ______ |
| Swamp | ______ | x 3 | ______ |
| Marsh | 1.0 | x 0 | 0 |

**Ecosystem Age Score (maximum 25 points)** 0

## 4.4 GREAT LAKES COASTAL WETLANDS

**Score for coastal (see text for definition) wetlands only**

Choose one only

____ wetland <10 ha = 10 points
____ wetland 10-50 ha = 25
____ wetland 51-100 ha = 50
____ wetland >100 ha = 75

**Great Lakes Coastal Wetlands Score (maximum 75 points)** 0

## 5.0 EXTRA INFORMATION

### 5.1 PURPLE LOOSESTRIFE

X Absent/Not seen

___ Present

(a) One location in wetland ___
Two to many locations ___

Abundance code
(b) (1) < 20 stems ___
(2) 20-99 stems ___
(3) 100-999 stems ___
(4) >1000 stems ___

### 5.2 SEASONALLY FLOODED AREAS

Indicate length of seasonal flooding

Check one or more

| | | |
|---|---|---|
| Ephemeral | (less than 2 weeks) | X |
| Temporal | (2 weeks to 1 month) | ___ |
| Seasonal | (1 to 3 months) | ___ |
| Semi-permanent | (>3 months) | ___ |
| No seasonal flooding | | ___ |

### 5.3 SPECIES OF SPECIAL SIGNIFICANCE

#### 5.3.1 Osprey

Present and nesting ___
Known to have nested in last 5 yr. ___
Feeding area for Osprey ___
Not as above X

#### 5.3.2 Common Loon

Nesting in wetland ___
Feeding at edge of wetland ___
Observed or heard on lake or river adjoining the wetland ___
Not as above X

| **INVESTIGATORS** | **AFFILIATION** |
|---|---|
| JAMES LESLIE | STANTEC CONSULTING |
| ALAN WORMINGTON | CONTRACT BIRDER |
| | |

**DATES WETLAND VISITED**

AUGUST 19, 2011

**DATE THIS EVALUATION COMPLETED:** NOV. 1, 2012

**ESTIMATED TIME DEVOTED TO COMPLETING THE FIELD SURVEY IN "PERSON HOURS"**

2 HRS

**WEATHER CONDITIONS**

**i) at time of field work** 25°C, NO PRECIPITATION, SUN
(Continue in the space below if necessary)

**ii) summer conditions in general** WARM, SUBJECT TO LAKE EFFECT PRECIPITATION

**OTHER POTENTIALLY USEFUL INFORMATION:**

- WETLAND ASSOCIATED WITH A CONSTRUCTED DRAIN AND TOPOGRAPHIC LOW AREA - INTERMIXED W/ <50% COVER OF UPLAND SPECIES.
- SURROUNDED BY AGRICULTURAL LAND USE

CHECKLIST OF PLANT AND ANIMAL SPECIES RECORDED IN THE WETLAND:

Attach list of all flora and fauna observed in the wetland.

* Indicate if voucher specimens or photos have been obtained, where located, etc.

→ SEE ELC CARD FOR VASCULAR SPP LIST ("TILE 4 - NORTH OF 520", POLYGON 8)

## WETLAND EVALUATION SCORING RECORD

WETLAND NAME AND/OR NUMBER WETLAND #7

## 1.0 BIOLOGICAL COMPONENT

### 1.1 PRODUCTIVITY

| | |
|---|---|
| 1.1.1 Growing Degree-Days/Soils | 22 |
| 1.1.2 Wetland Type | 15 |
| 1.1.3 Site Type | 2 |

Total for Productivity 39

### 1.2 BIODIVERSITY

| | |
|---|---|
| 1.2.1 Number of Wetland Types | 9 |
| 1.2.2 Vegetation Communities (maximum 45) | 2 |
| 1.2.3 Diversity of Surrounding Habitat (maximum 7) | 5 |
| 1.2.4 Proximity to Other Wetlands | 8 |
| 1.2.5 Interspersion | 6 |
| 1.2.6 Open Water Type | 0 |

Total for Biodiversity 33

1.3 SIZE (Biological Component) 8

TOTAL FOR BIOLOGICAL COMPONENT (not to exceed 250) 77

## 2.0 SOCIAL COMPONENT

| | | |
|---|---|---|
| 2.1 ECONOMICALLY VALUABLE PRODUCTS | | |
| 2.1.1 Wood Products | 0 | |
| 2.1.2 Wild Rice | 0 | |
| 2.1.3 Commercial Fish | 12 | |
| 2.1.4 Bullfrogs | 0 | |
| 2.1.5 Snapping Turtles | 0 | |
| 2.1.6 Furbearers | 0 | |
| Total for Economically Valuable Products | | 12 |
| 2.2 RECREATIONAL ACTIVITIES (maximum 80) | | 0 |
| 2.3 LANDSCAPE AESTHETICS | | |
| 2.3.1 Distinctness | 0 | |
| 2.3.2 Absence of Human Disturbance | 0 | |
| Total for Landscape Aesthetics | | 0 |
| 2.4 EDUCATION AND PUBLIC AWARENESS | | |
| 2.4.1 Educational Uses | 0 | |
| 2.4.2 Facilities and Programs | 0 | |
| 2.4.3 Research and Studies | 0 | |
| Total for Education and Public Awareness | | 0 |
| 2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT | | 10 |
| 2.6 OWNERSHIP | | 4 |
| 2.7 SIZE (Social Component) | | 1 |
| 2.8 ABORIGINAL AND CULTURAL VALUES | | 0 |
| TOTAL FOR SOCIAL COMPONENT (not to exceed 250) | | 27 |

## 3.0 HYDROLOGICAL COMPONENT

3.1 FLOOD ATTENUATION 54

3.2 WATER QUALITY IMPROVEMENT

3.2.1 Short Term Improvement 45
3.2.2 Long Term Improvement 0
3.2.3 Groundwater Discharge (maximum 30) 7

Total for Water Quality Improvement 52

3.3 CARBON SINK 0

3.4 SHORELINE EROSION CONTROL 0

3.5 GROUNDWATER RECHARGE

3.5.1 Site Type 50
3.5.2 Soils 4

Total for Groundwater Recharge 54

TOTAL FOR HYDROLOGICAL COMPONENT (not to exceed 250) 160

## 4.0 SPECIAL FEATURES

### 4.1 RARITY

4.1.1 Wetlands

4.1.1.1 Rarity within the Landscape 40

4.1.1.2 Rarity of Wetland Type (maximum 80) 0

Total for Wetland Rarity 40

4.1.2 Species

4.1.2.1 Endangered Species Breed 0

4.1.2.2 Traditional Use by Endangered or Threatened Species 0

4.1.2.3 Provincially Significant Animals 0

4.1.2.4 Provincially Significant Plants 0

4.1.2.5 Regionally Significant Species 0

4.1.2.6 Locally Significant Species 0

Total for Species Rarity 0

### 4.2 SIGNIFICANT FEATURES OR HABITAT

4.2.1 Colonial Waterbirds 0

4.2.2 Winter Cover for Wildlife 0

4.2.3 Waterfowl Staging and Moulting 0

4.2.4 Waterfowl Breeding 0

4.2.5 Migratory Passerine, Shorebird or Raptor Stopover 0

4.2.6 Fish Habitat 1

Total for Significant Features and Habitat 1

### 4.3 ECOSYSTEM AGE 0

### 4.4 GREAT LAKES COASTAL WETLANDS 0

TOTAL FOR SPECIAL FEATURES (maximum 250) 41

## SUMMARY OF EVALUATION RESULT

Wetland WETLAND #7

TOTAL FOR 1.0 BIOLOGICAL COMPONENT 77

TOTAL FOR 2.0 SOCIAL COMPONENT 27

TOTAL FOR 3.0 HYDROLOGICAL COMPONENT 160

TOTAL FOR 4.0 SPECIAL FEATURES COMPONENT 41

**WETLAND TOTAL** 305

INVESTIGATORS

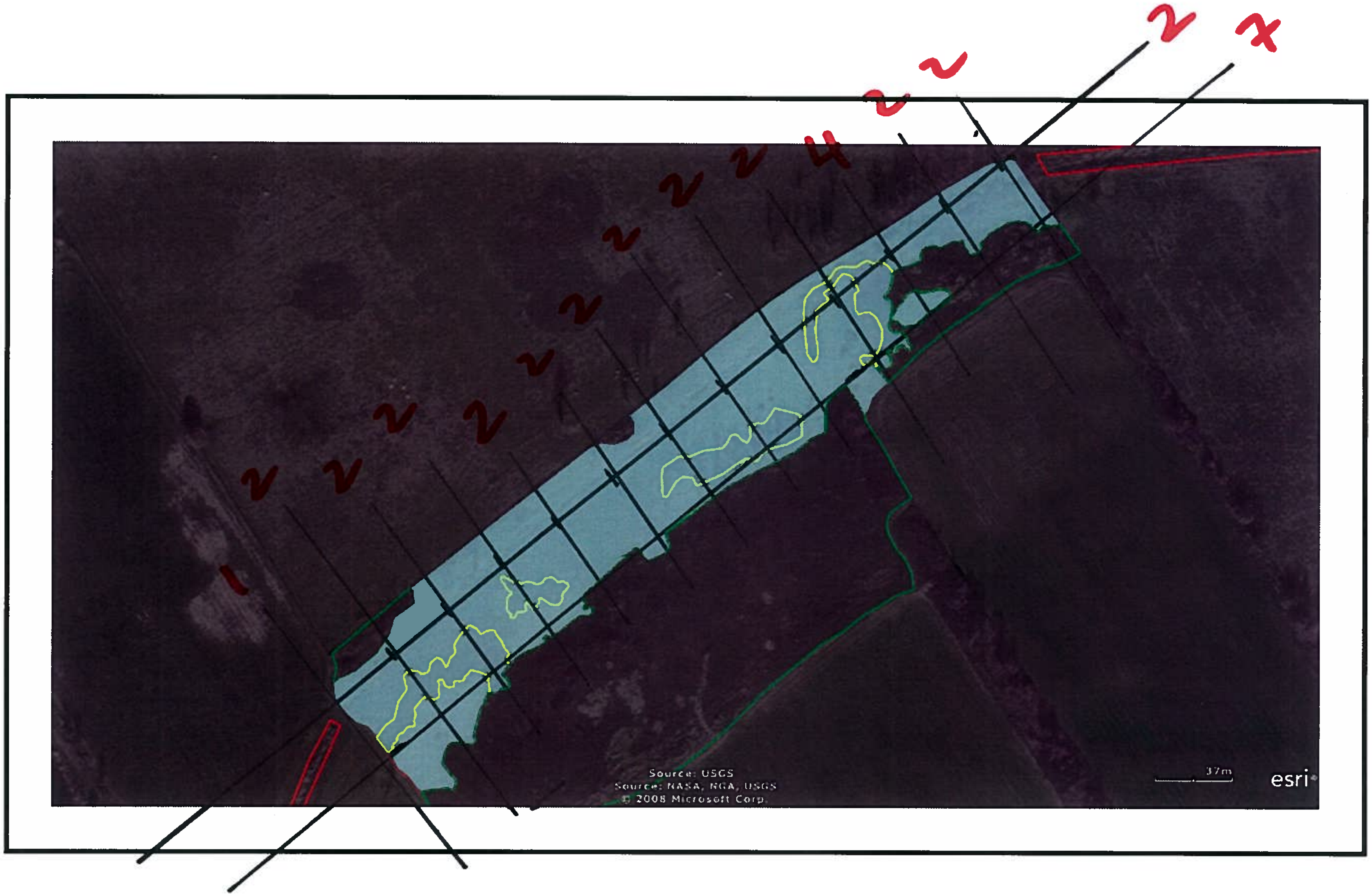
JAMES LESLIE - VEGETATION / OWES EVALUATOR
ALAN WORMWOOD - AVIAN SURVEYOR

AFFILIATION

STANTEC CONSULTING

DATE NOV. 1, 2012

WETLAND #7 - OWES EVALUATION
INTERSPERSION MAP



– WETLAND CONSISTS OF 1 MAPABLE TYPE AND FORM;
ALL OTHER FORMS/TYPES ARE SMALLER THAN 0.2 ha.

**Data Summary Form**

Wetland Name WETLAND 7

Page 1 of 1

| Map Code | Field Code | # Forms | Dominant Form | Forms | % open water | area (ha) | ha open water | Soils | Site Type | Fish Habitat (LM or [✓ HM]) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAM2-2 | 7 | 1 | 9C | 9C | NONE | 2.1 | 0 | CLAY | MARSH | YES - HM |
| | | | | | | | | | | |
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## Table A: Overall Wildlife List: Observed by Stantec

| COMMON NAME | SCIENTIFIC NAME | ONTARIO STATUS | COSSARO | COSEWIC | Observed Breeding | Observed During Migration | Observed Winter | Observed Incidentally |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| **BUTTERFLIES** | | | | | | | | |
| Tawny-edged Skipper | *Polites themistocles* | S5 | | | | | | x |
| Giant Swallowtail | *Papilio cresphontes* | S3 | | | | x | | x |
| Eastern Tailed Blue | *Everes comyntas* | S5 | | | | | | x |
| Common Buckeye | *Junonia coenia* | SNA | | | | | | x |
| Monarch | *Danaus plexippus* | S4B, S2N | SC | SC | | x | | x |
| | | | | | | | | |
| **AMPHIBIANS** | | | | | | | | |
| American Toad | *Anaxyrus americanus* | S5 | | | x | | | |
| Western Chorus Frog (carolinian) | *Pseudacris triseriata* | S4 | NAR | NAR | x | | | |
| Spring Peeper | *Pseudacris crucifer* | S5 | | | x | | | |
| Bullfrog | *Lithobates catesbeiana* | S4 | | | x | | | |
| Northern Green Frog | *Lithobates clamitans* | S5 | | | x | | | |
| Wood Frog | *Lithobates sylvatica* | S5 | | | x | | | |
| Northern Leopard Frog | *Lithobates pipiens* | S5 | NAR | NAR | x | | | |
| | | | | | | | | |
| **REPTILES** | | | | | | | | |
| Eastern Gartersnake | *Thamnophis sirtalis* | S5 | | | | | | x |
| Brown Snake | *Storeria dekayi* | S5 | | NAR | | | | x |
| | | | | | | | | |
| **BIRDS** | | | | | | | | |
| Snow Goose | *Chen caerulescens* | S5B | | | | x | | |
| Canada Goose | *Branta canadensis* | S5 | | | x | x | | |
| Brant Goose | *Branta bernicla* | S4N | | | | x | | |
| Mute Swan | *Cygnus olor* | SNA | | | | x | | |
| Tundra Swan | *Cygnus colombianus* | S4 | | | | x | | |
| Wood Duck | *Aix sponsa* | S5 | | | x | x | | |
| Gadwall | *Anas strepera* | S4 | | | x | x | | |
| American Wigeon | *Anas americana* | S4 | | | x | | | |
| Eurasian wigeon | *Anas penelope* | SNA | | | | x | | |
| American Black Duck | *Anas rubripes* | S4 | | | | x | | |
| Mallard | *Anas platyrhynchos* | S5 | | | x | x | | |
| Blue-winged Teal | *Anas discors* | S4 | | | | x | | |
| Northern Shoveler | *Anas clypeata* | S4 | | | | x | | |
| Northern Pintail | *Anas acuta* | S5 | | | x | x | | |
| Green-winged Teal | *Anas crecca* | S4 | | | x | x | | |
| Ring-necked Duck | *Aythya collaris* | S5 | | | | x | | |
| Greater Scaup | *Aythya marila* | S4 | | | | x | | |
| Lesser Scaup | *Aythya affinis* | S4 | | | | x | | |
| Bufflehead | *Bucephala albeola* | S4 | | | | x | | |
| Common Goldeneye | *Bucephala clangula* | S5 | | | | x | | |
| Harlequin duck | *Histrionicus histrionicus* | SNA | | SC | | x | | |
| Long-tailed duck | *Clangula hyemalis* | S3B | | | | x | | |
| White-winged Scoter | *Melanitta deglandi* | S4B,S4N | | | | x | | |
| Hooded Merganser | *Lophodytes cucullatus* | S5B,S5N | | | | x | | |
| Common Merganser | *Mergus merganser* | S5B,S5N | | | | x | | |
| Red-breasted Merganser | *Mergus serrator* | S4B,S5N | | | | x | | |
| Ring-necked Pheasant | *Phasianus colchicus* | SNA | | | x | x | | |
| Wild Turkey | *Meleagris gallopava* | S5 | | | | x | | |
| Common Loon | *Gavia immer* | S5B,S5N | NAR | NAR | x | x | | |
| Horned Grebe | *Podiceps auritus* | S1B, S4N | SC | SC | | x | | |
| Double-crested Cormorant | *Phalacrocorax auritus* | S5B | NAR | NAR | x | x | | |
| American Bittern | *Botaurus lentiginosus* | S4B | | | x | | | |
| Great Blue Heron | *Ardea herodias* | S5 | | | x | x | | |
| Great Egret | *Ardea alba* | S2B | | | x | | | |
| Green Heron | *Butorides virescens* | S4B | | | x | x | | |
| Black-crowned Night-Heron | *Nycticorax nycticorax* | S3B,S3N | | | | x | | |
| Turkey Vulture | *Cathartes aura* | S5B | | | x | x | | |
| Osprey | *Pandion haliaetus* | S5B | | | x | x | x | |
| Bald Eagle | *Haliaeetus leucocephalus* | S2N,S4B | SC | NAR | | x | | |
| Northern Harrier | *Circus cyaneus* | S4B | NAR | NAR | x | x | x | |
| Sharp-shinned Hawk | *Accipiter striatus* | S5 | NAR | NAR | x | x | | |
| Cooper's Hawk | *Accipiter cooperii* | S4 | NAR | NAR | | x | x | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Red-shouldered Hawk | *Buteo lineatus* | S4B | | NAR | | | x | |
| Red-tailed Hawk | *Buteo jamaicensis* | S5 | NAR | NAR | x | x | x | |
| Rough-legged Hawk | *Buteo lagopus* | S1B, S4N | NAR | NAR | | x | x | |
| American Kestrel | *Falco sparverius* | S5B | | | x | x | x | |
| Merlin | *Falco columbarius* | S5B | NAR | NAR | x | x | x | |
| Virginia Rail | *Rallus limicola* | S5B | | | x | x | | |
| Ruddy Turnstone | *Arenaria interpres* | SNA | | | | x | | |
| Short-billed Dowitcher | *Limnodromus griseus* | S3B,S4n | | | | x | | |
| Black-bellied Plover | *Pluvialis squatarola* | S4N | | | x | x | | |
| Semipalmated Plover | *Charadrius semipalmatus* | S4B,S4N | | | | x | | |
| Killdeer | *Charadrius vociferus* | S5B, S5N | | | x | x | | |
| Spotted Sandpiper | *Actitis macularia* | S5 | | | x | x | | |
| Solitary Sandpiper | *Tringa solitaria* | S4B | | | | x | | |
| Lesser Yellowlegs | *Tringa flavipes* | S4B,S4N | | | x | | | |
| Upland Sandpiper | *Bartramia longicauda* | S4B | | | x | x | | |
| Dunlin | *Calidris alpina* | S4B, S5N | | | | x | | |
| White-rumped Sandpiper | *Calidris fuscicollis* | S5N | | | x | | | |
| Least Sandpiper | *Calidris minutilla* | S4B,S5N | | | | x | | |
| Semipalmated Sandpiper | *Calidris pusilla* | S3B,S4N | | | x | x | | |
| Wilson's Snipe | *Gallinago delicata* | S5B | | | x | x | | |
| American Woodcock | *Scolopax minor* | S4B | | | x | x | | |
| Wilson's Phalarope | *Phalaropus tricolor* | S3B | | | x | x | | |
| Bonaparte's Gull | *Larus philadelphia* | S4B,S4N | | | | x | | |
| Ring-billed Gull | *Larus delawarensis* | S5B,S4N | | | x | x | | |
| Herring Gull | *Larus argentatus* | S5B,S5N | | | x | x | | |
| Caspian Tern | *Hydroprogne caspia* | S3B | NAR | NAR | x | | | |
| Black Tern | *Chlidonias niger* | S3B | SC | NAR | x | | | |
| Rock Pigeon | *Columba livia* | SNA | | | | x | | |
| Mourning Dove | *Zenaida macroura* | S5 | | | x | x | | |
| Yellow-billed Cuckoo | *Coccyzus americanus* | S4B | | | x | | | |
| Black-billed Cuckoo | *Coccyzus erythropthalmus* | S5B | | | x | | | |
| Great Horned Owl | *Bubo virginianus* | S5 | | | x | x | | |
| Snowy Owl | *Bubo scandiaca* | SNA | NAR | NAR | | | x | |
| Short-eared Owl | *Asio flammeus* | S2N, S4B | SC | SC-3 | | | x | |
| Northern Saw-whet Owl | *Aegolius acadicus* | S4 | | | | x | x | |
| Ruby-throated Hummingbird | *Archilochus colubris* | S5B | | | x | x | | |
| Belted Kingfisher | *Ceryle alcyon* | S4B | | | x | x | | |
| Red-headed Woodpecker | *Melanerpes erythrocephalus* | S4B | SC | THR | | x | | |
| Red-bellied Woodpecker | *Melanerpes carolinus* | S4 | | | x | x | | |
| Yellow-bellied Sapsucker | *Sphyrapicus varius* | S5B | | | x | x | | |
| Downy Woodpecker | *Picoides pubescens* | S5 | | | x | x | | |
| Hairy Woodpecker | *Picoides villosus* | S5 | | | x | x | | |
| Black-backed Woodpecker | *Picoides arcticus* | S4 | | | | x | | |
| Northern Flicker | *Colaptes auratus* | S4B | | | x | x | | |
| Pileated Woodpecker | *Dryocopus pileatus* | S5 | | | | x | | |
| Olive-sided Flycatcher | *Contopus borealis* | S4B | SC | THR | | x | | |
| Eastern Wood-Pewee | *Contopus virens* | S4B | | | x | x | | |
| Yellow-bellied Flycatcher | *Empidonax flaviventris* | S5B | | | | x | | |
| Alder Flycatcher | *Empidonax alnorum* | S5B | | | x | x | | |
| Willow Flycatcher | *Empidonax traillii* | S5B | | | x | x | | |
| Least Flycatcher | *Empidonax minimus* | S4B | | | x | x | | |
| Eastern Phoebe | *Sayornis phoebe* | S5B | | | x | x | | |
| Great Crested Flycatcher | *Myiarchus crinitus* | S4B | | | x | x | | |
| Eastern Kingbird | *Tyrannus tyrannus* | S4B | | | x | x | | |
| Northern Shrike | *Lanius excubitor* | SNA | | | | x | x | |
| Blue-headed Vireo | *Vireo solitarius* | S5B | | | | x | | |
| Warbling Vireo | *Vireo gilvus* | S5B | | | x | x | | |
| Philadelphia Vireo | *Vireo philadelphicus* | S5B | | | | x | | |
| Red-eyed Vireo | *Vireo olivaceus* | S5B | | | x | x | | |
| Gray Jay | *Perisoreus canadensis* | S5 | | | | x | | |
| Blue Jay | *Cyanocitta cristata* | S5 | | | x | x | | |
| American Crow | *Corvus brachyrhynchos* | S5B | | | x | x | | |
| Common Raven | *Corvus corax* | S5 | | | x | x | x | |
| Horned Lark | *Eremophila alpestris* | S5B | | | x | | | |
| Purple Martin | *Progne subis* | S4B | | | x | x | | |
| Tree Swallow | *Tachycineta bicolor* | S4B | | | x | x | | |
| Northern Rough-winged Swallow | *Stelgidopteryx serripennis* | S4B | | | x | x | | |
| Bank Swallow | *Riparia riparia* | S4B | | | x | x | | |
| Cliff Swallow | *Petrochelidon pyrrhonota* | S4B | | | x | x | | |
| Barn Swallow | *Hirundo rustica* | S4B | | THR-NS | x | x | | |
| Black-capped Chickadee | *Poecile atricapillus* | S5 | | | x | x | | |

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Red-breasted Nuthatch | *Sitta canadensis* | S5 |  |  |  | x |  |  |
| White-breasted Nuthatch | *Sitta carolinensis* | S5 |  |  | x | x |  |  |
| Brown Creeper | *Certhia americana* | S5B |  |  | x | x |  |  |
| Carolina Wren | *Thryothorus ludovicianus* | S4 |  |  |  | x |  |  |
| House Wren | *Troglodytes aedon* | S5B |  |  | x | x |  |  |
| Winter Wren | *Troglodytes hiemalis* | S5B |  |  | x | x |  |  |
| Sedge Wren | *Cistothorus platensis* | S4B | NAR | NAR | x |  |  |  |
| Marsh Wren | *Cistothorus palustris* | S4B |  |  | x | x |  |  |
| Golden-crowned Kinglet | *Regulus satrapa* | S5B |  |  |  | x |  |  |
| Ruby-crowned Kinglet | *Regulus calendula* | S4B |  |  |  | x |  |  |
| Eastern Bluebird | *Sialia sialis* | S5B | NAR | NAR |  | x |  |  |
| Veery | *Catharus fuscescens* | S4B |  |  | x | x |  |  |
| Swainson's Thrush | *Catharus ustulatus* | S4B |  |  |  | x |  |  |
| Hermit Thrush | *Catharus guttatus* | S5B |  |  | x | x |  |  |
| Wood Thrush | *Hylocichla mustelina* | S4B |  |  | x | x |  |  |
| American Robin | *Turdus migratorius* | S5B |  |  | x | x | x |  |
| Gray Catbird | *Dumetella carolinensis* | S4B |  |  | x | x |  |  |
| Brown Thrasher | *Toxostoma rufum* | S4B |  |  | x | x |  |  |
| European Starling | *Sturnus vulgaris* | SNA |  |  | x | x |  |  |
| American Pipit | *Anthus rubescens* | S4 |  |  |  | x |  |  |
| Cedar Waxwing | *Bombycilla cedrorum* | S5B |  |  | x | x |  |  |
| Ovenbird | *Seiurus aurocapilla* | S4B |  |  | x | x |  |  |
| Northern Waterthrush | *Parkesia noveboracensis* | S5B |  |  | x | x |  |  |
| Golden-winged Warbler | *Vermivora chrysoptera* | S4B | SC | THR |  | x |  |  |
| Black-and-white Warbler | *Mniotilta varia* | S5B |  |  |  | x |  |  |
| Tennessee Warbler | *Oreothlypis peregrina* | S5B |  |  |  | x |  |  |
| Orange-crowned Warbler | *Oreothlypis celata* | S4B |  |  |  | x |  |  |
| Nashville Warbler | *Oreothlypis ruficapilla* | S5B |  |  | x | x |  |  |
| Mourning Warbler | *Geothlypis philadelphia* | S4B |  |  | x | x |  |  |
| Common Yellowthroat | *Geothlypis trichas* | S5B |  |  | x | x |  |  |
| Cerulean Warbler | *Dendroica cerulea* | S3B | SC | END |  | x |  |  |
| Hooded Warbler | *Setophaga citrina* | S3B | SC | THR |  | x |  |  |
| American Redstart | *Setophaga ruticilla* | S5B |  |  | x | x |  |  |
| Cape May Warbler | *Setophaga tigrina* | S5B |  |  |  | x |  |  |
| Northern Parula | *Setophaga americana* | S4B |  |  |  | x |  |  |
| Magnolia Warbler | *Setophaga magnolia* | S5B |  |  | x | x |  |  |
| Bay-breasted Warbler | *Setophaga castanea* | S5B |  |  |  | x |  |  |
| Blackburnian Warbler | *Setophaga fusca* | S5B |  |  |  | x |  |  |
| Yellow Warbler | *Setophaga petechia* | S5B |  |  | x | x |  |  |
| Chestnut-sided Warbler | *Setophaga pensylvanica* | S5B |  |  | x | x |  |  |
| Blackpoll Warbler | *Setophaga striata* | S4B |  |  |  | x |  |  |
| Black-throated Blue Warbler | *Setophaga caerulescens* | S5B |  |  |  | x |  |  |
| Palm Warbler | *Setophaga palmarum* | S5B |  |  |  | x |  |  |
| Pine Warbler | *Setophaga pinus* | S5B |  |  | x |  |  |  |
| Yellow-rumped Warbler | *Setophaga coronata* | S5B |  |  |  | x |  |  |
| Prairie Warbler | *Setophaga discolor* | S3B | NAR | NAR |  | x |  |  |
| Black-throated Green Warbler | *Setophaga virens* | S5B |  |  | x | x |  |  |
| Canada Warbler | *Cardellina canadensis* | S4B | SC | THR |  | x |  |  |
| Wilson's Warbler | *Cardellina pusilla* | S4B |  |  | x | x |  |  |
| Eastern Towhee | *Pipilo erythrophthalmus* | S4B |  |  | x | x |  |  |
| Chipping Sparrow | *Spizella passerina* | S5B |  |  | x | x |  |  |
| Clay-colored Sparrow | *Spizella pallida* | S4B |  |  | x | x |  |  |
| Field Sparrow | *Spizella pusilla* | S4B |  |  | x | x |  |  |
| Savannah Sparrow | *Passerculus sandwichensis* | S4B |  |  | x | x |  |  |
| Grasshopper Sparrow | *Ammodramus savannarum* | S4B |  |  | x | x |  |  |
| Fox Sparrow | *Passerella iliaca* | S4B |  |  |  | x |  |  |
| Song Sparrow | *Melospiza melodia* | S5B |  |  | x | x |  |  |
| Lincoln's Sparrow | *Melospiza lincolnii* | S5B |  |  |  | x |  |  |
| Swamp Sparrow | *Melospiza georgiana* | S5B |  |  | x | x |  |  |
| White-throated Sparrow | *Zonotrichia albicollis* | S5B |  |  |  | x |  |  |
| White-crowned Sparrow | *Zonotrichia leucophrys* | S4B |  |  |  | x |  |  |
| Dark-eyed Junco | *Junco hyemalis* | S5B |  |  |  | x |  |  |
| Scarlet Tanager | *Piranga olivacea* | S4B |  |  | x | x |  |  |
| Northern Cardinal | *Cardinalis cardinalis* | S5 |  |  | x | x |  |  |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | S4B |  |  | x | x |  |  |
| Indigo Bunting | *Passerina cyanea* | S4B |  |  | x |  |  |  |
| Red-winged Blackbird | *Agelaius phoeniceus* | S5 |  |  | x | x |  |  |
| Eastern Meadowlark | *Sturnella magna* | S4B |  | THR-NS | x | x | x |  |
| Western Meadowlark | *Sturnella neglecta* | S3B |  |  |  | x |  |  |
| Rusty Blackbird | *Euphagus carolinus* | S4B |  | SC |  | x |  |  |
| Brewer's Blackbird | *Euphagus cyanocephalus* | S4B |  |  |  | x |  |  |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Common Grackle | *Quiscalus quiscula* | S5B | | | x | x | | |
| Brown-headed Cowbird | *Molothrus ater* | S4B | | | x | x | | |
| Orchard Oriole | *Icterus spurius* | S4B | | | x | x | | |
| Baltimore Oriole | *Icterus galbula* | S4B | | | x | x | | |
| Purple Finch | *Carpodacus purpureus* | S4B | | | | x | | |
| House Finch | *Carpodacus mexicanus* | SNA | | | x | x | | |
| Pine Siskin | *Carduelis pinus* | S4B | | | | x | | |
| American Goldfinch | *Carduelis tristis* | S5B | | | x | x | | |
| House Sparrow | *Passer domesticus* | SNA | | | x | x | | |
| **Mammals** | | | | | | | | |
| Least Weasel | *Mustela nivalis* | SU | G5 | | | | *x* | |

## Explanation of Status and Acronymns

COSSARO: Committee on the Status of Species at Risk in Ontario
COSEWIC: Committee on the Status of Endangered Wildlife in Canada
REGION: Rare in a Site Region
S1: Critically Imperiled—Critically imperiled in the province (often 5 or fewer occurrences)
S2: Imperiled—Imperiled in the province, very few populations (often 20 or fewer),
S3: Vulnerable—Vulnerable in the province, relatively few populations (often 80 or fewer)
S4: Apparently Secure—Uncommon but not rare
S5: Secure—Common, widespread, and abundant in the province
SX: Presumed extirpated
SH: Possibly Extirpated (Historical)
SNR: Unranked
SU: Unrankable—Currently unrankable due to lack of information
SNA: Not applicable—A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
S#S#: Range Rank—A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species
S#B- Breeding status rank
S#N- Non Breeding status rank
?: Indicates uncertainty in the assigned rank
G1: Extremely rare globally; usually fewer than 5 occurrences in the overall range
G1G2: Extremely rare to very rare globally
G2: Very rare globally; usually between 5-10 occurrences in the overall range
G2G3: Very rare to uncommon globally
G3: Rare to uncommon globally; usually between 20-100 occurrences
G3G4: Rare to common globally
G4: Common globally; usually more than 100 occurrences in the overall range
G4G5: Common to very common globally
G5: Very common globally; demonstrably secure
GU: Status uncertain, often because of low search effort or cryptic nature of the species; more data needed.
T: Denotes that the rank applies to a subspecies or variety
END: Endangered
THR: Threatened
SC: Special Concern
2, 3 or NS after a COSEWIC ranking indicates the species is either on Schedule 2, Schedule 3 or No Schedule of the Species At Risk Act (SARA)
NAR: Not At Risk
IND: Indeterminant, insufficient information to assign status
DD: Data Deficient
6: Rare in Site Region 6
7: Rare in Site Region 7
Area: Minimum patch size for area-sensitive species (ha)
H- highly significant in Hamilton Region (i.e. rare)
m- moderately significant in Hamilton Region (i.e. uncommon)
L1- extremely rare locally (Toronto Region)
L2- very rare locally (Toronto Region)
L3- rare to uncommon locally (Toronto Region)
HR- rare in Halton Region, highly significant
HU- uncommon in Halton Region, moderately significant
* The Pileated Woodpecker will incorporate smaller woodlots into its homerange, therefore it may not be a true area-sensitive species (Naylor et al. 1996)

## Table B: Waterfowl Stopover and Staging Habitat

| Location (map) | CSWH | Date | Species | # individuals | field type |
|---|---|---|---|---|---|
| 64 | WA1 | 9-Nov-11 | CAGO | 12 | |
| 100 | WA1 | 7-Dec-11 | CAGO | 20 | |
| 100 | WA1 | 7-Dec-11 | BUFF | 4 | |
| 100 | WA1 | 7-Dec-11 | MALL | 1 | |
| 100 | WA1 | 21-Dec-11 | MALL | 4 | |
| 41 | WT1 | 3-May-11 | CAGO | 4 | Pasture |
| 41 | WT1 | 3-May-11 | MALL | 1 | Pasture |
| 41 | WT1 | 11-May-11 | CAGO | 2 | Agricultural field |
| 41 | WT1 | 17-May-11 | CAGO | 6 | Agricultural field |
| 16 | WT1 | 29-Sep-11 | CAGO | 12 | |
| 51 | WT1 | 27-Oct-11 | CAGO | 20 | |
| 59 | WT1 | 3-Nov-11 | CAGO | 60 | |
| 28 | WT2 | 4-Apr-11 | CAGO | 12 | Hay field |
| 28 | WT2 | 4-Apr-11 | CAGO | 12 | Hay field |
| 28 | WT2 | 14-Apr-11 | CAGO | 1 | Water |
| 28 | WT2 | 14-Apr-11 | CAGO | 2 | Field |
| 28 | WT2 | 14-Apr-11 | CAGO | 11 | Field |
| 28 | WT2 | 26-Apr-11 | CAGO | 11 | Pasture, barnyard |
| 28 | WT2 | 26-Apr-11 | CAGO | 2 | Lawn |
| 28 | WT2 | 3-May-11 | CAGO | 6 | Lake Ontario |
| 28 | WT2 | 11-May-11 | CAGO | 2 | Agricultural field |
| 28 | WT2 | 11-May-11 | MALL | 4 | Agricultural field |
| 28 | WT2 | 25-May-11 | CAGO | 13 | Hay field |
| 28 | WT2 | 25-May-11 | CAGO | 2 | Hay field |
| 111 | WT2 | 21-Dec-11 | CAGO | 175 | |
| 11 | WT3 | 24-Mar-11 | CAGO | 5 | Pasture |
| 11 | WT3 | 14-Apr-11 | CAGO | 6 | Pasture |
| 11 | WT3 | 26-Apr-11 | CAGO | 2 | Barnyard |
| 11 | WT3 | 11-May-11 | CAGO | 4 | Agricultural field |
| 11 | WT3 | 17-May-11 | MALL | 2 | Woodlot |
| 11 | WT3 | 25-May-11 | CAGO | 6 | Pasture |
| 11 | WT3 | 25-May-11 | CAGO | 7 | Fallow field |
| 101 | WT3 | 7-Dec-11 | CAGO | 10 | |
| 31 | WT4 | 14-Apr-11 | MALL | 2 | Pond |
| 31 | WT4 | 3-May-11 | CAGO | 2 | Fallow field |
| 31 | WT4 | 3-May-11 | MALL | 2 | Fallow field |
| 31 | WT4 | 25-May-11 | GADW | 2 | Dug pond |
| 24 | WT4 | 12-Oct-11 | CAGO | 40 | |
| 24 | WT4 | 9-Nov-11 | CAGO | 5 | |
| 24 | WT4 | 17-Nov-11 | CAGO | 30 | |
| 53 | WT4 | 27-Oct-11 | CAGO | 10 | |
| 65 | WT4 | 9-Nov-11 | CAGO | 14 | |
| 81 | WT4 | 24-Nov-11 | CAGO | 20 | |
| 81 | WT4 | 7-Dec-11 | CAGO | 125 | |
| 87 | WT4 | 24-Nov-11 | CAGO | 22 | |
| 1 | | 24-Mar-11 | COGO | 4 | NA |
| 1 | | 3-May-11 | MALL | 2 | Field, puddle |
| 1 | | 1-Sep-11 | CAGO | 50 | agricultural field |
| 1 | | 22-Sep-11 | CAGO | 25 | bay |
| 1 | | 22-Sep-11 | MALL | 5 | bay |
| 1 | | 29-Sep-11 | CAGO | 25 | agricultural field |
| 1 | | 6-Oct-11 | RBME | 2 | on shore |
| 1 | | 6-Oct-11 | CAGO | 75 | on shore |
| 1 | | 12-Oct-11 | CAGO | 25 | near shore |
| 1 | | 12-Oct-11 | MALL | 4 | near shore |
| 1 | | 12-Oct-11 | ABDU | 4 | near shore |
| 1 | | 20-Oct-11 | CAGO | 25 | pasture |
| 1 | | 20-Oct-11 | MALL | 15 | pasture |
| 1 | | 27-Oct-11 | CAGO | 100 | pasture |
| 1 | | 3-Nov-11 | BUFF | 15 | shoreline |
| 1 | | 3-Nov-11 | RBME | 30 | shoreline |
| 1 | | 9-Nov-11 | MALL | 12 | shoreline |
| 1 | | 9-Nov-11 | RBME | 12 | shoreline |
| 1 | | 9-Nov-11 | COGO | 6 | shoreline |
| 1 | | 9-Nov-11 | BUFF | 35 | shoreline |
| 1 | | 17-Nov-11 | CAGO | 150 | in bay |
| 1 | | 17-Nov-11 | BUFF | 20 | in bay |
| 1 | | 17-Nov-11 | RBME | 10 | in bay |
| 1 | | 17-Nov-11 | COGO | 30 | in bay |
| 1 | | 17-Nov-11 | MALL | 5 | in bay |
| 1 | | 24-Nov-11 | COGO | 6 | bay |
| 1 | | 1-Dec-11 | MALL | 2 | in bay |
| 1 | | 1-Dec-11 | RBME | 10 | near shore |
| 1 | | 7-Dec-11 | COGO | 30 | bay |

| | | | | | |
|---|---|---|---|---|---|
| 1 | | 7-Dec-11 | MALL | 10 | bay |
| 1 | | 7-Dec-11 | BUFF | 1 | bay |
| 1 | | 7-Dec-11 | COGO | 15 | bay |
| 1 | | 21-Dec-11 | COGO | 60 | shoreline |
| 1 | | 21-Dec-11 | MALL | 8 | shoreline |
| 2 | | 24-Mar-11 | COGO | 15 | Off shore, 20m |
| 2 | | 29-Mar-11 | MALL | 2 | Small pond |
| 2 | | 29-Mar-11 | PINT | 2 | Small pond |
| 2 | | 29-Mar-11 | BUFF | 6 | Small pond |
| 2 | | 29-Mar-11 | RBME | 1 | Small pond |
| 2 | | 26-Apr-11 | CAGO | 3 | Pond |
| 2 | | 26-Apr-11 | BUFF | 2 | Pond |
| 2 | | 26-Apr-11 | GWTE | 2 | Pond |
| 2 | | 26-Apr-11 | DCCO | 1 | Lake Ontario |
| 2 | | 26-Apr-11 | CAGO | 2 | Cut hay |
| 2 | | 22-Sep-11 | CAGO | 75 | pasture |
| 2 | | 29-Sep-11 | CAGO | 50 | lakeshore/bay |
| 2 | | 6-Oct-11 | CAGO | 60 | on shore |
| 2 | | 12-Oct-11 | MALL | 9 | near shore |
| 2 | | 20-Oct-11 | RBME | 1 | near shore |
| 2 | | 27-Oct-11 | CAGO | 100 | shoreline |
| 2 | | 27-Oct-11 | RBME | 1 | shoreline |
| 2 | | 3-Nov-11 | HOGR | 2 | shoreline |
| 2 | | 9-Nov-11 | TUSW | 40 | shoreline |
| 2 | | 9-Nov-11 | BUFF | 3 | shoreline |
| 2 | | 9-Nov-11 | RBME | 3 | shoreline |
| 2 | | 9-Nov-11 | BUFF | 2 | shoreline |
| 2 | | 9-Nov-11 | RBME | 2 | shoreline |
| 2 | | 17-Nov-11 | BUFF | 4 | in bay |
| 2 | | 17-Nov-11 | RBME | 4 | in bay |
| 2 | | 17-Nov-11 | COGO | 125 | in bay |
| 2 | | 17-Nov-11 | MALL | 2 | in bay |
| 2 | | 24-Nov-11 | CAGO | 20 | agricultural field |
| 2 | | 1-Dec-11 | COGO | 40 | near shore |
| 2 | | 7-Dec-11 | CAGO | 125 | pasture |
| 2 | | 7-Dec-11 | COGO | 140 | near shore |
| 2 | | 21-Dec-11 | CAGO | 250 | pasture |
| 3 | | 24-Mar-11 | CAGO | 6 | Pasture |
| 3 | | 14-Apr-11 | CAGO | 2 | Field |
| 3 | | 14-Apr-11 | CAGO | 2 | Edge of pond |
| 3 | | 14-Apr-11 | CAGO | 1 | In nest on pond |
| 3 | | 14-Apr-11 | CAGO | 2 | Lawn |
| 3 | | 26-Apr-11 | CAGO | 4 | Hay field |
| 3 | | 26-Apr-11 | CAGO | 1 | Pond |
| 3 | | 3-May-11 | MALL | 2 | Fallow field |
| 3 | | 11-May-11 | CAGO | 4 | Agricultural field |
| 3 | | 25-May-11 | CAGO | 16 | Pasture |
| 3 | | 25-May-11 | MALL | 2 | Pasture |
| 3 | | 25-May-11 | BLDU | 1 | Pond |
| 3 | | 22-Sep-11 | MALL | 20 | marsh and shoreline |
| 3 | | 22-Sep-11 | CAGO | 50 | marsh and shoreline |
| 3 | | 22-Sep-11 | ABDU | 4 | marsh and shoreline |
| 3 | | 29-Sep-11 | MALL | 9 | lakeshore |
| 3 | | 6-Oct-11 | CAGO | 100 | offshore |
| 3 | | 12-Oct-11 | CAGO | 10 | near shore |
| 3 | | 12-Oct-11 | COME | 3 | near shore |
| 3 | | 20-Oct-11 | RBME | 2 | near shore |
| 3 | | 27-Oct-11 | GADW | 2 | shoreline |
| 3 | | 3-Nov-11 | CAGO | 30 | pasture |
| 3 | | 9-Nov-11 | CAGO | 4 | shoreline |
| 3 | | 9-Nov-11 | BUFF | 10 | shoreline |
| 3 | | 9-Nov-11 | RBME | 1 | shoreline |
| 3 | | 9-Nov-11 | CAGO | 120 | agricultural field |
| 3 | | 17-Nov-11 | BUFF | 30 | near shore |
| 3 | | 24-Nov-11 | COGO | 30 | bay |
| 3 | | 24-Nov-11 | MALL | 2 | bay |
| 3 | | 24-Nov-11 | RBME | 1 | bay |
| 3 | | 1-Dec-11 | TUSW | 3 | near shore |
| 3 | | 7-Dec-11 | RBME | 12 | near shore |
| 3 | | 7-Dec-11 | COGO | 50 | near shore |
| 3 | | 21-Dec-11 | BUFF | 4 | shoreline |
| 4 | | 24-Mar-11 | CAGO | 68 | Pasture |
| 4 | | 19-Apr-11 | HOME | 4 | pond |
| 4 | | 19-Apr-11 | CAGO | 18 | Pasture |
| 4 | | 19-Apr-11 | MALL | 2 | Pasture |
| 4 | | 26-Apr-11 | CAGO | 2 | Hay field |
| 4 | | 26-Apr-11 | CAGO | 7 | Pond, hay field |
| 4 | | 26-Apr-11 | MALL | 1 | Pond, hay field |

| | | | | | |
|---|---|---|---|---|---|
| 4 | | 26-Apr-11 | MALL | 1 | Hay |
| 4 | | 3-May-11 | CAGO | 4 | Pasture |
| 4 | | 17-May-11 | CAGO | 6 | Agricultural field |
| 4 | | 17-May-11 | CAGO | 16 | Pasture |
| 4 | | 17-May-11 | MALL | 4 | Water |
| 4 | | 17-May-11 | NSHO | 2 | Lawn |
| 4 | | 25-May-11 | CAGO | 7 | Pasture, fallow field |
| 4 | | 25-May-11 | MALL | 2 | Pasture, fallow field |
| 4 | | 22-Sep-11 | Puddle ducks | 40 | gravel bar |
| 4 | | 22-Sep-11 | Bay ducks | 15 | gravel bar |
| 4 | | 22-Sep-11 | MUSW | 1 | gravel bar |
| 4 | | 22-Sep-11 | CAGO | 30 | gravel bar |
| 4 | | 29-Sep-11 | CAGO | 12 | pasture |
| 4 | | 6-Oct-11 | CAGO | 35 | offshore |
| 4 | | 12-Oct-11 | CAGO | 175 | agricultural field |
| 4 | | 20-Oct-11 | CAGO | 110 | pasture |
| 4 | | 27-Oct-11 | RBME | 150 | shoreline |
| 4 | | 3-Nov-11 | CAGO | 275 | shoreline |
| 4 | | 9-Nov-11 | BUFF | 35 | shoreline |
| 4 | | 9-Nov-11 | COME | 4 | shoreline |
| 4 | | 9-Nov-11 | BUFF | 75 | in bay |
| 4 | | 9-Nov-11 | RBME | 6 | in bay |
| 4 | | 17-Nov-11 | COGO | 25 | near shore |
| 4 | | 24-Nov-11 | CAGO | 100 | agricultural field |
| 4 | | 1-Dec-11 | RBME | 3 | near shore |
| 4 | | 7-Dec-11 | CAGO | 16 | pasture |
| 4 | | 7-Dec-11 | MALL | 30 | near shore |
| 4 | | 7-Dec-11 | COME | 4 | near shore |
| 4 | | 21-Dec-11 | BUFF | 5 | shoreline |
| 4 | | 21-Dec-11 | MALL | 4 | shoreline |
| 5 | | 24-Mar-11 | COGO | 170 | Off shore, 60-100m |
| 5 | | 24-Mar-11 | BUFF | 40 | Off shore, 60-100m |
| 5 | | 24-Mar-11 | MALL | 4 | Off shore, 60-100m |
| 5 | | 19-Apr-11 | BUFF | 25 | Water |
| 5 | | 19-Apr-11 | RMBE | 20 | Water |
| 5 | | 19-Apr-11 | GADW | 2 | Water |
| 5 | | 19-Apr-11 | COGO | 4 | Water |
| 5 | | 19-Apr-11 | CAGO | 5 | pond |
| 5 | | 3-May-11 | BUFF | 5 | Lake Ontario |
| 5 | | 3-May-11 | RBME | 7 | Lake Ontario |
| 5 | | 11-May-11 | MALL | 6 | Off shore |
| 5 | | 11-May-11 | GADW | 2 | Off shore |
| 5 | | 11-May-11 | RBME | 8 | Off shore |
| 5 | | 22-Sep-11 | CAGO | 200 | bay |
| 5 | | 29-Sep-11 | CAGO | 250 | hayfield |
| 5 | | 12-Oct-11 | CAGO | 85 | agricultural field |
| 5 | | 20-Oct-11 | MALL | 6 | near shore |
| 5 | | 20-Oct-11 | RBME | 3 | near shore |
| 5 | | 20-Oct-11 | GRSC | 1 | near shore |
| 5 | | 27-Oct-11 | CAGO | 40 | pasture |
| 5 | | 3-Nov-11 | BUFF | 20 | shoreline |
| 5 | | 9-Nov-11 | CAGO | 20 | shoreline |
| 5 | | 9-Nov-11 | CAGO | 60 | on point |
| 5 | | 17-Nov-11 | BUFF | 15 | in bay |
| 5 | | 17-Nov-11 | UNSC | 2 | in bay |
| 5 | | 17-Nov-11 | COGO | 2 | in bay |
| 5 | | 24-Nov-11 | COGO | 12 | shoreline |
| 5 | | 24-Nov-11 | BUFF | 15 | shoreline |
| 5 | | 24-Nov-11 | CAGO | 1 | shoreline |
| 5 | | 24-Nov-11 | TUSW | 2 | shoreline |
| 5 | | 1-Dec-11 | MALL | 1 | near shore |
| 5 | | 1-Dec-11 | COGO | 30 | near shore |
| 5 | | 1-Dec-11 | BUFF | 1 | near shore |
| 5 | | 1-Dec-11 | CAGO | 20 | near shore |
| 5 | | 7-Dec-11 | MALL | 12 | near shore |
| 5 | | 7-Dec-11 | COGO | 5 | near shore |
| 5 | | 7-Dec-11 | COGO | 17 | near shore |
| 5 | | 21-Dec-11 | BUFF | 15 | field near shoreline |
| 6 | | 24-Mar-11 | COGO | 20 | Off shore, 40-80m |
| 6 | | 24-Mar-11 | BUFF | 5 | Off shore, 40-80m |
| 6 | | 24-Mar-11 | MALL | 4 | Off shore, 40-80m |
| 6 | | 29-Mar-11 | COGO | 240 | Lake Ontario |
| 6 | | 29-Mar-11 | BUFF | 45 | Lake Ontario |
| 6 | | 29-Mar-11 | RBME | 7 | Lake Ontario |
| 6 | | 29-Mar-11 | LTDU | 100 | Lake Ontario |
| 6 | | 29-Mar-11 | LESC | 10 | Lake Ontario |
| 6 | | 29-Mar-11 | MALL | 7 | Lake Ontario |
| 6 | | 29-Mar-11 | COGO | 10 | Lake Ontario |

| | | | | | |
|---|---|---|---|---|---|
| 6 | | 4-Apr-11 | COGO | 35 | Off shore, 30-100m |
| 6 | | 4-Apr-11 | RBME | 60 | Off shore, 30-100m |
| 6 | | 14-Apr-11 | MALL | 1 | Water |
| 6 | | 14-Apr-11 | BUFF | 2 | Water |
| 6 | | 25-May-11 | CAGO | 22 | Lake Ontario |
| 6 | | 22-Sep-11 | CAGO | 100 | agricultural field |
| 6 | | 29-Sep-11 | COME | 10 | Lake Ontario |
| 6 | | 12-Oct-11 | CAGO | 100 | agricultural field |
| 6 | | 27-Oct-11 | divers & dabblers | 250 | shoreline |
| 6 | | 3-Nov-11 | BUFF | 50 | shoreline |
| 6 | | 9-Nov-11 | CAGO | 12 | inland island |
| 6 | | 9-Nov-11 | CAGO | 25 | on beach |
| 6 | | 17-Nov-11 | COME | 3 | in bay |
| 6 | | 17-Nov-11 | RBME | 1 | in bay |
| 6 | | 24-Nov-11 | RBME | 4 | shoreline |
| 6 | | 1-Dec-11 | CAGO | 150 | near shore |
| 6 | | 7-Dec-11 | CAGO | 75 | pasture |
| 6 | | 7-Dec-11 | MALL | 8 | near shore |
| 6 | | 7-Dec-11 | COME | 5 | near shore |
| 6 | | 21-Dec-11 | UNSC | 200 | shoreline/bay |
| 7 | | 24-Mar-11 | COGO | 20 | Off shore, 50-100m |
| 7 | | 24-Mar-11 | BUFF | 5 | Off shore, 50-100m |
| 7 | | 4-Apr-11 | RBME | 30 | Off shore, 30-100m |
| 7 | | 4-Apr-11 | COGO | 16 | Off shore, 30-100m |
| 7 | | 4-Apr-11 | BUFF | 10 | Off shore, 30-100m |
| 7 | | 14-Apr-11 | RBME | 2 | Water |
| 7 | | 14-Apr-11 | BUFF | 2 | Water |
| 7 | | 14-Apr-11 | COGO | 2 | Water |
| 7 | | 14-Apr-11 | RBME | 5 | Water |
| 7 | | 14-Apr-11 | BUFF | 2 | Water |
| 7 | | 14-Apr-11 | COGO | 1 | Water |
| 7 | | 3-May-11 | RBME | 19 | Lake Ontario |
| 7 | | 3-May-11 | BUFF | 11 | Lake Ontario |
| 7 | | 3-May-11 | COLO | 1 | Lake Ontario |
| 7 | | 3-May-11 | COGO | 1 | Lake Ontario |
| 7 | | 11-May-11 | BUFF | 8 | Off shore |
| 7 | | 11-May-11 | RBME | 10 | Off shore |
| 7 | | 11-May-11 | MALL | 2 | Off shore |
| 7 | | 17-May-11 | RBME | 16 | Water |
| 7 | | 17-May-11 | CAGO | 2 | Agricultural field |
| 7 | | 17-May-11 | LTDU | 2 | Water |
| 7 | | 25-May-11 | GADW | 2 | Lake Ontario |
| 7 | | 22-Sep-11 | CAGO | 250 | hayfield |
| 7 | | 29-Sep-11 | MALL | 20 | lakeshore |
| 7 | | 12-Oct-11 | CAGO | 50 | agricultural field |
| 7 | | 27-Oct-11 | HOGR | 3 | shoreline |
| 7 | | 3-Nov-11 | CAGO | 60 | pasture |
| 7 | | 9-Nov-11 | CAGO | 14 | pond |
| 7 | | 9-Nov-11 | CAGO | 20 | near shore |
| 7 | | 9-Nov-11 | BUFF | 2 | near shore |
| 7 | | 9-Nov-11 | MALL | 3 | near shore |
| 7 | | 9-Nov-11 | COGO | 4 | near shore |
| 7 | | 17-Nov-11 | COGO | 100 | near shore |
| 7 | | 17-Nov-11 | BUFF | 25 | near shore |
| 7 | | 24-Nov-11 | MALL | 20 | shoreline |
| 7 | | 1-Dec-11 | RBME | 100 | near shore |
| 7 | | 7-Dec-11 | CAGO | 25 | pasture |
| 7 | | 7-Dec-11 | COGO | 150 | near shore |
| 7 | | 7-Dec-11 | MALL | 40 | near shore |
| 7 | | 7-Dec-11 | BUFF | 2 | near shore |
| 7 | | 21-Dec-11 | MALL | 4 | long point marsh |
| 8 | | 24-Mar-11 | COGO | 80 | Off shore, 20m |
| 8 | | 24-Mar-11 | BUFF | 10 | Off shore, 20m |
| 8 | | 26-Apr-11 | DCCO | 7 | Lake Ontario |
| 8 | | 26-Apr-11 | BUFF | 28 | Lake Ontario |
| 8 | | 26-Apr-11 | MALL | 2 | Lake Ontario |
| 8 | | 26-Apr-11 | GADW | 7 | Lake Ontario |
| 8 | | 26-Apr-11 | AMWI | 2 | Lake Ontario |
| 8 | | 26-Apr-11 | RBME | 37 | Lake Ontario |
| 8 | | 26-Apr-11 | COGO | 2 | Lake Ontario |
| 8 | | 3-May-11 | MALL | 2 | Lake Ontario |
| 8 | | 3-May-11 | BUFF | 3 | Lake Ontario |
| 8 | | 3-May-11 | RBME | 12 | Lake Ontario |
| 8 | | 11-May-11 | RBME | 11 | Off shore |
| 8 | | 11-May-11 | MALL | 2 | Off shore |
| 8 | | 11-May-11 | RBME | 3 | Off shore |
| 8 | | 11-May-11 | GADW | 1 | Off shore |
| 8 | | 17-May-11 | RBME | 3 | Water |

| | | | | | |
|---|---|---|---|---|---|
| 8 | | 17-May-11 | LTDU | 13 | Water |
| 8 | | 29-Sep-11 | CAGO | 60 | lakeshore/bay |
| 8 | | 12-Oct-11 | CAGO | 40 | pasture |
| 8 | | 27-Oct-11 | HOGR | 10 | shoreline |
| 8 | | 27-Oct-11 | RBME | 1 | shoreline |
| 8 | | 3-Nov-11 | CAGO | 25 | pasture |
| 8 | | 9-Nov-11 | CAGO | 200 | pasture |
| 8 | | 9-Nov-11 | RBME | 4 | near shore |
| 8 | | 17-Nov-11 | MALL | 20 | near shore |
| 8 | | 17-Nov-11 | ABDU | 10 | near shore |
| 8 | | 24-Nov-11 | MALL | 6 | shoreline |
| 8 | | 1-Dec-11 | BUFF | 20 | near shore |
| 8 | | 1-Dec-11 | CAGO | 80 | shoreline |
| 8 | | 1-Dec-11 | COGO | 25 | near shore |
| 8 | | 7-Dec-11 | HOGR | 3 | shoreline |
| 8 | | 7-Dec-11 | BUFF | 2 | shoreline |
| 8 | | 7-Dec-11 | RBME | 1 | shoreline |
| 8 | | 7-Dec-11 | COME | 3 | shoreline |
| 8 | | 7-Dec-11 | COGO | 70 | near shore |
| 8 | | 7-Dec-11 | BUFF | 25 | near shore |
| 8 | | 7-Dec-11 | RBME | 5 | near shore |
| 9 | | 24-Mar-11 | COGO | 30 | Off shore, 20-50m |
| 9 | | 24-Mar-11 | USCA | 40 | Off shore, 60-100m |
| 9 | | 29-Mar-11 | REDH | 200 | Lake Ontario |
| 9 | | 29-Mar-11 | LESC | 5 | Lake Ontario |
| 9 | | 14-Apr-11 | MALL | 2 | Water |
| 9 | | 19-Apr-11 | GWTE | 15 | Bay |
| 9 | | 19-Apr-11 | AMWI | 20 | Bay |
| 9 | | 19-Apr-11 | MALL | 6 | Bay |
| 9 | | 19-Apr-11 | WODU | 2 | Bay |
| 9 | | 19-Apr-11 | RBME | 2 | Bay |
| 9 | | 19-Apr-11 | COME | 2 | Bay |
| 9 | | 19-Apr-11 | BUFF | 2 | Bay |
| 9 | | 26-Apr-11 | CAGO | 5 | Pasture |
| 9 | | 3-May-11 | RBME | 1 | Hay field |
| 9 | | 17-May-11 | RBME | 8 | water |
| 9 | | 29-Sep-11 | CAGO | 50 | pasture |
| 9 | | 12-Oct-11 | CAGO | 5 | near shore |
| 9 | | 12-Oct-11 | MALL | 15 | near shore |
| 9 | | 12-Oct-11 | COME | 8 | near shore |
| 9 | | 27-Oct-11 | RBME | 75 | shoreline |
| 9 | | 3-Nov-11 | CAGO | 75 | shoreline |
| 9 | | 3-Nov-11 | ABDU | 10 | shoreline |
| 9 | | 9-Nov-11 | CAGO | 5 | pasture |
| 9 | | 9-Nov-11 | CAGO | 4 | agricultural field |
| 9 | | 17-Nov-11 | ABDU | 20 | in bay |
| 9 | | 17-Nov-11 | BUFF | 3 | in bay |
| 9 | | 17-Nov-11 | RBME | 2 | in bay |
| 9 | | 24-Nov-11 | BUFF | 2 | shoreline |
| 9 | | 7-Dec-11 | HOGR | 5 | offshore |
| 10 | | 24-Mar-11 | COGO | 80 | Off shore, 30-40m |
| 10 | | 17-May-11 | CAGO | 4 | Agricultural field |
| 10 | | 25-May-11 | CAGO | 11 | Residential, lawn |
| 10 | | 25-May-11 | CAGO | 12 | Cultural meadow |
| 10 | | 27-Oct-11 | CAGO | 70 | pasture |
| 10 | | 3-Nov-11 | BUFF | 10 | shoreline |
| 10 | | 3-Nov-11 | ABDU | 15 | shoreline |
| 10 | | 9-Nov-11 | RBME | 20 | open water |
| 10 | | 17-Nov-11 | BUFF | 30 | near point |
| 10 | | 24-Nov-11 | GRSC | 15 | bay |
| 10 | | 24-Nov-11 | BUFF | 2 | bay |
| 10 | | 24-Nov-11 | SNGO | 1 | bay |
| 10 | | 24-Nov-11 | CAGO | 250 | bay |
| 10 | | 1-Dec-11 | CAGO | 550 | in bay |
| 10 | | 1-Dec-11 | GRSC | 100 | on shore |
| 10 | | 7-Dec-11 | COGO | 6 | near shore |
| 11 | | 24-Mar-11 | CAGO | 5 | Pasture |
| 11 | | 14-Apr-11 | CAGO | 6 | Pasture |
| 11 | | 26-Apr-11 | CAGO | 2 | Barnyard |
| 11 | | 11-May-11 | CAGO | 4 | Agricultural field |
| 11 | | 17-May-11 | MALL | 2 | Woodlot |
| 11 | | 25-May-11 | CAGO | 6 | Pasture |
| 11 | | 25-May-11 | CAGO | 7 | Fallow field |
| 11 | | 27-Oct-11 | RBME | 18 | shoreline |
| 11 | | 3-Nov-11 | CAGO | 15 | pasture |
| 11 | | 9-Nov-11 | RBME | 34 | near shore |
| 11 | | 17-Nov-11 | CAGO | 20 | over pasture |
| 11 | | 24-Nov-11 | MALL | 6 | agricultural field |

| | | | | | |
|---|---|---|---|---|---|
| 11 | | 1-Dec-11 | COGO | 25 | in bay |
| 11 | | 7-Dec-11 | COGO | 14 | shoreline |
| 12 | | 24-Mar-11 | CAGO | 4 | Pasture |
| 12 | | 29-Mar-11 | CAGO | 12 | Lawn |
| 12 | | 4-Apr-11 | CAGO | 20 | Hay field |
| 12 | | 14-Apr-11 | CAGO | 26 | Pasture |
| 12 | | 19-Apr-11 | CAGO | 35 | Agricultural field |
| 12 | | 26-Apr-11 | CAGO | 2 | Cut hay |
| 12 | | 26-Apr-11 | CAGO | 2 | Pasture, flooded |
| 12 | | 26-Apr-11 | CAGO | 35 | Cut hay |
| 12 | | 26-Apr-11 | CAGO | 3 | Fallow field |
| 12 | | 3-May-11 | CAGO | 8 | Cut hay |
| 12 | | 3-May-11 | CAGO | 14 | Pasture |
| 12 | | 3-May-11 | CAGO | 60 | Lake Ontario |
| 12 | | 11-May-11 | CAGO | 14 | Agricultural field |
| 12 | | 17-May-11 | CAGO | 6 | Agricultural field |
| 12 | | 17-May-11 | CAGO | 18 | Agricultural field |
| 12 | | 25-May-11 | CAGO | 12 | Fallow field |
| 12 | | 27-Oct-11 | RBME | 25 | shoreline |
| 12 | | 27-Oct-11 | CAGO | 10 | shoreline |
| 12 | | 27-Oct-11 | TUSW | 8 | shoreline |
| 12 | | 3-Nov-11 | CAGO | 30 | pasture |
| 12 | | 9-Nov-11 | RBME | 16 | near shore |
| 12 | | 17-Nov-11 | CAGO | 20 | pasture |
| 12 | | 24-Nov-11 | COGO | 28 | near shore |
| 12 | | 24-Nov-11 | RBME | 2 | near shore |
| 12 | | 24-Nov-11 | BUFF | 1 | near shore |
| 12 | | 1-Dec-11 | CAGO | 12 | in bay |
| 12 | | 1-Dec-11 | BUFF | 30 | in bay |
| 12 | | 7-Dec-11 | BUFF | 25 | bay |
| 13 | | 24-Mar-11 | COGO | 80 | Off shore, 15-20m |
| 13 | | 24-Mar-11 | BUFF | 10 | Off shore, 15-20m |
| 13 | | 24-Mar-11 | USCA | 30 | Off shore, 15-20m |
| 13 | | 24-Mar-11 | COGO | 25 | Off shore, 40m |
| 13 | | 14-Apr-11 | BUFF | 6 | Water |
| 13 | | 19-Apr-11 | COGO | 40 | Water |
| 13 | | 19-Apr-11 | RBME | 40 | Water |
| 13 | | 19-Apr-11 | BUFF | 24 | Water |
| 13 | | 19-Apr-11 | MALL | 2 | Water |
| 13 | | 25-May-11 | CAGO | 2 | Pasture |
| 13 | | 27-Oct-11 | BUFF | 50 | shoreline |
| 13 | | 27-Oct-11 | RBME | 40 | shoreline |
| 13 | | 3-Nov-11 | CAGO | 125 | pasture |
| 13 | | 9-Nov-11 | RBME | 5 | shoreline |
| 13 | | 9-Nov-11 | MALL | 1 | shoreline |
| 13 | | 17-Nov-11 | CAGO | 30 | pasture |
| 13 | | 24-Nov-11 | MALL | 17 | agricultural field |
| 13 | | 1-Dec-11 | CAGO | 27 | agricultural field |
| 13 | | 7-Dec-11 | CAGO | 20 | marsh |
| 13 | | 7-Dec-11 | BUFF | 4 | marsh |
| 13 | | 7-Dec-11 | MALL | 1 | marsh |
| 14 | | 24-Mar-11 | CAGO | 41 | Pasture |
| 14 | | 4-Apr-11 | CAGO | 41 | Hay field |
| 14 | | 14-Apr-11 | CAGO | 18 | Pasture |
| 14 | | 26-Apr-11 | CAGO | 2 | Pond, lawn |
| 14 | | 26-Apr-11 | CAGO | 1 | Road |
| 14 | | 3-May-11 | CAGO | 15 | Pasture |
| 14 | | 11-May-11 | CAGO | 8 | Agricultural field |
| 14 | | 11-May-11 | CAGO | 10 | Pasture, lawn |
| 14 | | 17-May-11 | CAGO | 53 | Pasture, field |
| 14 | | 17-May-11 | MALL | 2 | Pasture, field |
| 14 | | 17-May-11 | SNGO | 2 | Pasture, field |
| 14 | | 25-May-11 | CAGO | 2 | Pasture, fallow field |
| 14 | | 25-May-11 | CAGO | 1 | Pasture |
| 14 | | 27-Oct-11 | RBME | 20 | shoreline |
| 14 | | 27-Oct-11 | COGO | 10 | shoreline |
| 14 | | 3-Nov-11 | MALL | 20 | shoreline |
| 14 | | 9-Nov-11 | RBME | 125 | 100m off shore |
| 14 | | 9-Nov-11 | WWSC | 1 | 100m off shore |
| 14 | | 9-Nov-11 | MALL | 3 | 100m off shore |
| 14 | | 17-Nov-11 | CAGO | 200 | pasture |
| 14 | | 24-Nov-11 | BUFF | 30 | near shore |
| 14 | | 24-Nov-11 | RBME | 6 | near shore |
| 14 | | 1-Dec-11 | COGO | 40 | near shore |
| 14 | | 7-Dec-11 | CAGO | 25 | bay |
| 14 | | 7-Dec-11 | UNSC | 100 | bay |
| 15 | | 24-Mar-11 | COGO | 180 | Off shore, 50-100m |
| 15 | | 24-Mar-11 | USCA | 130 | Off shore, 50-100m |

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|---|---|---|---|---|---|
| 15 | | 29-Mar-11 | COGO | 230 | Lake Ontario |
| 15 | | 29-Mar-11 | BUFF | 5 | Lake Ontario |
| 15 | | 29-Mar-11 | RMBE | 2 | Lake Ontario |
| 15 | | 4-Apr-11 | RBME | 40 | Off shore, 30-100m |
| 15 | | 4-Apr-11 | COGO | 45 | Off shore, 30-100m |
| 15 | | 26-Apr-11 | LTDU | 4 | Lake Ontario |
| 15 | | 26-Apr-11 | BUFF | 4 | Lake Ontario |
| 15 | | 26-Apr-11 | GADW | 2 | Lake Ontario |
| 15 | | 26-Apr-11 | RBME | 2 | Lake Ontario |
| 15 | | 3-May-11 | RBME | 40 | Lake Ontario |
| 15 | | 3-May-11 | BUFF | 17 | Lake Ontario |
| 15 | | 3-May-11 | LTDU | 2 | Lake Ontario |
| 15 | | 11-May-11 | COGO | 7 | Off shore |
| 15 | | 11-May-11 | RBME | 20 | Off shore |
| 15 | | 11-May-11 | BUFF | 6 | Off shore |
| 15 | | 11-May-11 | GADW | 2 | Off shore |
| 15 | | 17-May-11 | RBME | 3 | Water |
| 15 | | 17-May-11 | LTDU | 3 | Water |
| 15 | | 25-May-11 | CAGO | 10 | Pasture |
| 15 | | 27-Oct-11 | CAGO | 20 | pasture |
| 15 | | 3-Nov-11 | RBME | 7 | shoreline |
| 15 | | 9-Nov-11 | RBME | 14 | shoreline |
| 15 | | 9-Nov-11 | MALL | 2 | shoreline |
| 15 | | 17-Nov-11 | COGO | 10 | near shore |
| 15 | | 24-Nov-11 | MALL | 6 | marsh |
| 15 | | 24-Nov-11 | HOME | 2 | marsh |
| 15 | | 1-Dec-11 | COGO | 15 | near shore |
| 15 | | 1-Dec-11 | COGO | 7 | near shore |
| 15 | | 1-Dec-11 | RBME | 1 | near shore |
| 15 | | 7-Dec-11 | CAGO | 8 | shoreline |
| 16 | | 24-Mar-11 | COGO | 35 | Off shore, 20-30m |
| 16 | | 24-Mar-11 | CAGO | 16 | Off shore, 20-30m |
| 16 | | 24-Mar-11 | BUFF | 3 | Off shore, 20-30m |
| 16 | | 24-Mar-11 | MALL | 2 | Off shore, 20-30m |
| 16 | | 24-Mar-11 | CAGO | 2 | Off shore, 30m |
| 16 | | 24-Mar-11 | COGO | 15 | Off shore, 30m |
| 16 | | 11-May-11 | CAGO | 20 | Agricultural field |
| 16 | | 25-May-11 | CAGO | 25 | Fallow field |
| 16 | | 27-Oct-11 | BUFF | 30 | shoreline |
| 16 | | 9-Nov-11 | RBME | 15 | shoreline |
| 16 | | 17-Nov-11 | COGO | 15 | near shore |
| 16 | | 17-Nov-11 | WWSC | 2 | near shore |
| 16 | | 24-Nov-11 | BUFF | 25 | near shore |
| 16 | | 24-Nov-11 | COGO | 12 | near shore |
| 16 | | 1-Dec-11 | COGO | 7 | near shore |
| 16 | | 1-Dec-11 | RBME | 2 | near shore |
| 16 | | 1-Dec-11 | MALL | 4 | near shore |
| 16 | | 7-Dec-11 | CAGO | 10 | agricultural field |
| 17 | | 24-Mar-11 | MALL | 4 | Off shore, 20-50m |
| 17 | | 24-Mar-11 | CAGO | 25 | Off shore, 20-50m |
| 17 | | 24-Mar-11 | COGO | 40 | Off shore, 20-50m |
| 17 | | 29-Mar-11 | LESC | 30 | Lake Ontario |
| 17 | | 29-Mar-11 | COGO | 80 | Lake Ontario |
| 17 | | 29-Mar-11 | BUFF | 35 | Lake Ontario |
| 17 | | 29-Mar-11 | RBME | 2 | Lake Ontario |
| 17 | | 14-Apr-11 | MALL | 4 | Water |
| 17 | | 14-Apr-11 | GWTE | 4 | Water |
| 17 | | 14-Apr-11 | BUFF | 2 | Water |
| 17 | | 14-Apr-11 | BUFF | 8 | Water |
| 17 | | 14-Apr-11 | RBME | 6 | Water |
| 17 | | 26-Apr-11 | RBME | 7 | Lake Ontario |
| 17 | | 26-Apr-11 | BUFF | 7 | Lake Ontario |
| 17 | | 3-May-11 | RBME | 7 | Bay |
| 17 | | 3-May-11 | BUFF | 4 | Bay |
| 17 | | 3-May-11 | GADW | 1 | Bay |
| 17 | | 3-May-11 | COGO | 7 | Bay |
| 17 | | 11-May-11 | RBME | 15 | Off shore |
| 17 | | 17-May-11 | RBME | 8 | Water |
| 17 | | 25-May-11 | WODU | 4 | Marsh |
| 17 | | 25-May-11 | CAGO | 3 | Pasture, wetland |
| 17 | | 27-Oct-11 | CAGO | 50 | pasture |
| 17 | | 17-Nov-11 | MALL | 17 | on shore |
| 17 | | 24-Nov-11 | CAGO | 22 | agricultural field |
| 17 | | 1-Dec-11 | BUFF | 4 | near shore |
| 18 | | 24-Mar-11 | COGO | 55 | Off shore, 50-70m |
| 18 | | 24-Mar-11 | BUFF | 10 | Off shore, 50-70m |
| 18 | | 24-Mar-11 | ABDU | 4 | Off shore, 50-70m |
| 18 | | 24-Mar-11 | CAGO | 2 | Off shore, 50-70m |

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|---|---|---|---|---|---|
| 18 | | 14-Apr-11 | BUFF | 30 | Water |
| 18 | | 14-Apr-11 | RBME | 12 | Water |
| 18 | | 19-Apr-11 | CAGO | 25 | Water |
| 18 | | 19-Apr-11 | BUFF | 70 | Water |
| 18 | | 19-Apr-11 | GRSC | 20 | Water |
| 18 | | 19-Apr-11 | RBME | 150 | Water |
| 18 | | 19-Apr-11 | COGO | 30 | Water |
| 18 | | 19-Apr-11 | MALL | 4 | Water |
| 18 | | 3-May-11 | CAGO | 140 | Pasture |
| 18 | | 3-May-11 | MALL | 1 | Pasture |
| 18 | | 17-May-11 | RBME | 15 | Water |
| 18 | | 17-May-11 | MALL | 1 | Water |
| 18 | | 17-May-11 | BUFF | 1 | Water |
| 18 | | 17-May-11 | CAGO | 6 | Agricultural field |
| 18 | | 27-Oct-11 | CAGO | 30 | pasture |
| 18 | | 17-Nov-11 | CAGO | 8 | shoreline |
| 18 | | 17-Nov-11 | ducks | 100 | near shore |
| 18 | | 24-Nov-11 | CAGO | 425 | bay |
| 18 | | 24-Nov-11 | COGO | 20 | bay |
| 18 | | 24-Nov-11 | BUFF | 8 | bay |
| 18 | | 24-Nov-11 | RBME | 3 | bay |
| 18 | | 24-Nov-11 | COME | 1 | bay |
| 18 | | 24-Nov-11 | MALL | 1 | bay |
| 18 | | 24-Nov-11 | SNGO | 1 | bay |
| 18 | | 1-Dec-11 | BUFF | 5 | near shore |
| 18 | | 1-Dec-11 | COGO | 25 | near shore |
| 18 | | 1-Dec-11 | MALL | 18 | near shore |
| 18 | | 1-Dec-11 | RBME | 1 | near shore |
| 19 | | 24-Mar-11 | COGO | 45 | Off shore, 30-40m |
| 19 | | 24-Mar-11 | LTDU | 1 | Off shore, 30-40m |
| 19 | | 29-Mar-11 | COGO | 50 | Lake Ontario |
| 19 | | 29-Mar-11 | RBME | 7 | Lake Ontario |
| 19 | | 29-Mar-11 | LTDU | 19 | Lake Ontario |
| 19 | | 29-Mar-11 | BUFF | 13 | Lake Ontario |
| 19 | | 4-Apr-11 | MALL | 2 | Off shore, 50-70m |
| 19 | | 4-Apr-11 | COGO | 12 | Off shore, 50-70m |
| 19 | | 4-Apr-11 | RBME | 6 | Off shore, 50-70m |
| 19 | | 4-Apr-11 | LTDU | 30 | Off shore, 50-70m |
| 19 | | 14-Apr-11 | MALL | 2 | Water |
| 19 | | 14-Apr-11 | GADW | 2 | Water |
| 19 | | 14-Apr-11 | BUFF | 2 | Water |
| 19 | | 14-Apr-11 | RBME | 13 | Water |
| 19 | | 19-Apr-11 | RBME | 25 | Water |
| 19 | | 19-Apr-11 | LTDU | 20 | Water |
| 19 | | 19-Apr-11 | BUFF | 4 | Water |
| 19 | | 19-Apr-11 | GADW | 2 | Water |
| 19 | | 19-Apr-11 | GADW | 2 | Water |
| 19 | | 19-Apr-11 | MALL | 4 | Water |
| 19 | | 26-Apr-11 | BUFF | 9 | Lake Ontario |
| 19 | | 26-Apr-11 | GADW | 2 | Lake Ontario |
| 19 | | 26-Apr-11 | LTDU | 4 | Lake Ontario |
| 19 | | 26-Apr-11 | MALL | 2 | Lake Ontario |
| 19 | | 3-May-11 | GADW | 6 | Lake Ontario |
| 19 | | 3-May-11 | AMWI | 5 | Lake Ontario |
| 19 | | 3-May-11 | RBME | 12 | Lake Ontario |
| 19 | | 3-May-11 | BUFF | 4 | Lake Ontario |
| 19 | | 3-May-11 | LTDU | 35 | Lake Ontario |
| 19 | | 3-May-11 | MALL | 2 | Lake Ontario |
| 19 | | 3-May-11 | BWTE | 2 | Lake Ontario |
| 19 | | 3-May-11 | COLO | 1 | Lake Ontario |
| 19 | | 11-May-11 | LTDU | 10 | Off shore |
| 19 | | 11-May-11 | GADW | 2 | Off shore |
| 19 | | 11-May-11 | MALL | 3 | Off shore |
| 19 | | 17-May-11 | BUFF | 1 | Water |
| 19 | | 17-May-11 | RBME | 2 | Water |
| 19 | | 17-May-11 | LTDU | 1 | Water |
| 19 | | 25-May-11 | MALL | 2 | Lake Ontario |
| 19 | | 25-May-11 | GADW | 2 | Lake Ontario |
| 19 | | 27-Oct-11 | CAGO | 10 | pasture |
| 19 | | 24-Nov-11 | RBME | 12 | near shore |
| 19 | | 24-Nov-11 | BUFF | 3 | near shore |
| 19 | | 24-Nov-11 | MALL | 12 | near shore |
| 19 | | 1-Dec-11 | CAGO | 700 | agricultural field |
| 20 | | 29-Mar-11 | CAGO | 10 | Agricultural field |
| 20 | | 29-Mar-11 | CAGO | 12 | Agricultural field |
| 20 | | 29-Mar-11 | CAGO | 6 | Agricultural field |
| 20 | | 14-Apr-11 | CAGO | 2 | Field |
| 20 | | 14-Apr-11 | MALL | 3 | Stream |

| | | | | | |
|---|---|---|---|---|---|
| 20 | | 14-Apr-11 | MALL | 2 | Stream |
| 20 | | 26-Apr-11 | MALL | 5 | Creek, hay |
| 20 | | 26-Apr-11 | CAGO | 4 | Creek, hay |
| 20 | | 11-May-11 | CAGO | 4 | Agricultural field |
| 20 | | 17-May-11 | MALL | 2 | Pasture |
| 20 | | 27-Oct-11 | CAGO | 150 | pasture |
| 21 | | 29-Mar-11 | COGO | 80 | Lake Ontario |
| 21 | | 29-Mar-11 | BUFF | 5 | Lake Ontario |
| 21 | | 29-Mar-11 | CAGO | 8 | Lake Ontario |
| 21 | | 19-Apr-11 | CAGO | 14 | Pasture |
| 21 | | 3-May-11 | CAGO | 4 | Pasture |
| 21 | | 3-May-11 | NOSH | 1 | Pasture |
| 21 | | 3-May-11 | MALL | 1 | Pasture |
| 21 | | 3-May-11 | BWTE | 2 | Pasture |
| 21 | | 3-May-11 | CAGO | 2 | Residential |
| 21 | | 3-May-11 | MALL | 1 | Residential |
| 21 | | 17-May-11 | RBME | 8 | Water |
| 21 | | 27-Oct-11 | CAGO | 150 | pasture |
| 22 | | 29-Mar-11 | RBME | 2 | Lake Ontario |
| 22 | | 29-Mar-11 | BUFF | 20 | Lake Ontario |
| 22 | | 29-Mar-11 | MUSW | 2 | Lake Ontario |
| 22 | | 29-Mar-11 | CAGO | 8 | Lake Ontario |
| 22 | | 29-Mar-11 | COME | 40 | Lake Ontario |
| 22 | | 29-Mar-11 | COGO | 160 | Lake Ontario |
| 22 | | 29-Mar-11 | MALL | 6 | Lake Ontario |
| 22 | | 26-Apr-11 | BUFF | 9 | Lake Ontario |
| 22 | | 26-Apr-11 | CAGO | 2 | Lake Ontario |
| 22 | | 3-May-11 | BUFF | 39 | Lake Ontario |
| 22 | | 3-May-11 | RBME | 1 | Lake Ontario |
| 22 | | 3-May-11 | COGO | 8 | Lake Ontario |
| 23 | | 29-Mar-11 | BUFF | 6 | Lake Ontario |
| 23 | | 26-Apr-11 | MALL | 2 | Cut hay |
| 24 | | 29-Mar-11 | CAGO | 20 | Shallow marsh |
| 24 | | 29-Mar-11 | AMWI | 5 | Shallow marsh |
| 24 | | 29-Mar-11 | GADW | 5 | Shallow marsh |
| 24 | | 26-Apr-11 | CAGO | 1 | Cut hay |
| 24 | | 26-Apr-11 | CAGO | 4 | River channel |
| 24 | | 26-Apr-11 | MALL | 1 | River channel |
| 24 | | 11-May-11 | CAGO | 18 | Stream side |
| 24 | | 25-May-11 | MALL | 1 | Fallow field |
| 25 | | 29-Mar-11 | BUFF | 80 | Lake Ontario |
| 25 | | 29-Mar-11 | COGO | 30 | Lake Ontario |
| 25 | | 29-Mar-11 | RBME | 20 | Lake Ontario |
| 25 | | 29-Mar-11 | LTDU | 70 | Lake Ontario |
| 25 | | 29-Mar-11 | LESC | 30 | Lake Ontario |
| 25 | | 26-Apr-11 | DCCO | 19 | Lake Ontario |
| 25 | | 26-Apr-11 | RBME | 56 | Lake Ontario |
| 25 | | 26-Apr-11 | COME | 9 | Lake Ontario |
| 25 | | 26-Apr-11 | BUFF | 31 | Lake Ontario |
| 25 | | 26-Apr-11 | MALL | 12 | Lake Ontario |
| 25 | | 26-Apr-11 | CAGO | 3 | Pasture |
| 25 | | 26-Apr-11 | MALL | 1 | Pasture |
| 25 | | 11-May-11 | LTDU | 7 | Off shore |
| 25 | | 11-May-11 | RBME | 14 | Off shore |
| 25 | | 11-May-11 | COLO | 1 | Off shore |
| 25 | | 11-May-11 | MALL | 2 | Off shore |
| 26 | | 4-Apr-11 | RBME | 70 | Off shore |
| 26 | | 4-Apr-11 | LTDU | 10 | Off shore |
| 26 | | 4-Apr-11 | COGO | 45 | Off shore |
| 26 | | 14-Apr-11 | LTDU | 4 | Over water |
| 26 | | 14-Apr-11 | COLO | 2 | In water |
| 26 | | 3-May-11 | RBME | 2 | Dock, main land |
| 26 | | 3-May-11 | LTDU | 3 | Dock, main land |
| 26 | | 3-May-11 | LTDU | 2 | Bay |
| 27 | | 4-Apr-11 | COGO | 10 | Off shore, 10-15m |
| 27 | | 14-Apr-11 | BUFF | 2 | Water |
| 27 | | 26-Apr-11 | MALL | 1 | Edge of bay |
| 27 | | 26-Apr-11 | COLO | 1 | Lake Ontario |
| 27 | | 26-Apr-11 | DCCO | 1 | Lake Ontario |
| 27 | | 26-Apr-11 | RBME | 6 | Lake Ontario |
| 27 | | 26-Apr-11 | DCCO | 2 | Lake Ontario |
| 27 | | 17-May-11 | RBME | 7 | Water |
| 27 | | 25-May-11 | CAGO | 27 | Pasture |
| 27 | | 25-May-11 | MALL | 3 | Lakeshore |
| 27 | | 25-May-11 | GADW | 2 | Lakeshore |
| 28 | | 4-Apr-11 | CAGO | 12 | Hay field |
| 28 | | 4-Apr-11 | CAGO | 12 | Hay field |
| 28 | | 14-Apr-11 | CAGO | 1 | Water |

| | | | | | |
|---|---|---|---|---|---|
| 28 | | 14-Apr-11 | CAGO | 2 | Field |
| 28 | | 14-Apr-11 | CAGO | 11 | Field |
| 28 | | 26-Apr-11 | CAGO | 11 | Pasture, barnyard |
| 28 | | 26-Apr-11 | CAGO | 2 | Lawn |
| 28 | | 3-May-11 | CAGO | 6 | Lake Ontario |
| 28 | | 11-May-11 | CAGO | 2 | Agricultural field |
| 28 | | 11-May-11 | MALL | 4 | Agricultural field |
| 28 | | 25-May-11 | CAGO | 13 | Hay field |
| 28 | | 25-May-11 | CAGO | 2 | Hay field |
| 29 | | 4-Apr-11 | BUFF | 5 | Off shore, 10-50m |
| 29 | | 4-Apr-11 | COME | 18 | Off shore, 10-50m |
| 29 | | 4-Apr-11 | RBME | 65 | Off shore, 10-50m |
| 29 | | 4-Apr-11 | COGO | 19 | Off shore, 10-50m |
| 29 | | 4-Apr-11 | COGO | 35 | Off shore, 10-100m |
| 29 | | 4-Apr-11 | RMBE | 20 | Off shore, 10-100m |
| 29 | | 14-Apr-11 | RBME | 24 | Water |
| 29 | | 14-Apr-11 | COGO | 12 | Water |
| 29 | | 3-May-11 | BUFF | 28 | Bay |
| 29 | | 3-May-11 | RBME | 29 | Bay |
| 29 | | 11-May-11 | RBME | 22 | Off shore |
| 30 | | 4-Apr-11 | COGO | 245 | Off shore, 10-30m |
| 30 | | 4-Apr-11 | MALL | 15 | Off shore, 10-30m |
| 30 | | 4-Apr-11 | BUFF | 15 | Off shore, 10-30m |
| 30 | | 4-Apr-11 | COME | 20 | Off shore, 10-30m |
| 30 | | 4-Apr-11 | RBME | 40 | Off shore, 10-30m |
| 30 | | 14-Apr-11 | BUFF | 2 | Water |
| 30 | | 14-Apr-11 | RBME | 2 | Water |
| 30 | | 3-May-11 | BUFF | 2 | Bay |
| 30 | | 3-May-11 | RBME | 8 | Bay |
| 30 | | 11-May-11 | RBME | 14 | Off shore |
| 30 | | 17-May-11 | COGO | 9 | Water |
| 31 | | 14-Apr-11 | MALL | 2 | Pond |
| 31 | | 3-May-11 | CAGO | 2 | Fallow field |
| 31 | | 3-May-11 | MALL | 2 | Fallow field |
| 31 | | 25-May-11 | GADW | 2 | Dug pond |
| 32 | | 14-Apr-11 | CAGO | 2 | Field |
| 32 | | 14-Apr-11 | CAGO | 4 | Field |
| 32 | | 14-Apr-11 | MALL | 2 | pond |
| 32 | | 14-Apr-11 | CAGO | 18 | Pasture |
| 32 | | 26-Apr-11 | CAGO | 2 | Hay field |
| 32 | | 26-Apr-11 | CAGO | 3 | Pasture |
| 32 | | 11-May-11 | CAGO | 4 | Agricultural field |
| 32 | | 25-May-11 | CAGO | 24 | Pasture |
| 33 | | 14-Apr-11 | CAGO | 14 | Pasture |
| 33 | | 14-Apr-11 | CAGO | 18 | Pasture |
| 33 | | 14-Apr-11 | CAGO | 2 | Pasture |
| 33 | | 14-Apr-11 | MALL | 2 | Pasture |
| 33 | | 14-Apr-11 | CAGO | 2 | Pasture |
| 33 | | 19-Apr-11 | CAGO | 15 | Pasture |
| 33 | | 26-Apr-11 | NSHO | 3 | Pasture |
| 33 | | 26-Apr-11 | CAGO | 25 | Pasture |
| 33 | | 26-Apr-11 | CAGO | 3 | Pasture |
| 33 | | 26-Apr-11 | CAGO | 34 | Pasture |
| 33 | | 3-May-11 | CAGO | 33 | Pasture |
| 33 | | 3-May-11 | CAGO | 45 | Pasture |
| 33 | | 3-May-11 | CAGO | 6 | Pasture |
| 33 | | 11-May-11 | CAGO | 20 | Agricultural field |
| 33 | | 11-May-11 | CAGO | 20 | Agricultural field |
| 33 | | 11-May-11 | MALL | 4 | Agricultural field |
| 33 | | 17-May-11 | CAGO | 6 | Pasture, field |
| 33 | | 25-May-11 | CAGO | 5 | Pasture, fallow field |
| 33 | | 25-May-11 | MALL | 2 | Pasture |
| 34 | | 14-Apr-11 | CAGO | 12 | Water |
| 35 | | 14-Apr-11 | RBME | 7 | Water |
| 35 | | 14-Apr-11 | RBME | 12 | Water |
| 35 | | 14-Apr-11 | COME | 2 | Water |
| 35 | | 14-Apr-11 | BUFF | 1 | Water |
| 35 | | 14-Apr-11 | CAGO | 2 | Water |
| 35 | | 14-Apr-11 | CAGO | 2 | Lawn |
| 35 | | 19-Apr-11 | RBME | 3 | Water |
| 35 | | 19-Apr-11 | BUFF | 4 | Water |
| 35 | | 19-Apr-11 | COGO | 12 | Water |
| 35 | | 26-Apr-11 | RBME | 1 | Lake Ontario |
| 35 | | 3-May-11 | RBME | 8 | Bay |
| 36 | | 19-Apr-11 | CAGO | 14 | Agricultural field |
| 36 | | 26-Apr-11 | CAGO | 3 | Cut hay |
| 36 | | 26-Apr-11 | CAGO | 10 | Cut hay |
| 36 | | 3-May-11 | CAGO | 6 | Fallow field |

| | | | | | |
|---|---|---|---|---|---|
| 36 | | 3-May-11 | CAGO | 28 | Agricultural field |
| 36 | | 17-May-11 | CAGO | 50 | Agricultural field |
| 36 | | 25-May-11 | CAGO | 120 | Clover field |
| 36 | | 25-May-11 | MALL | 1 | Clover field |
| 37 | | 14-Apr-11 | CAGO | 2 | Lawn |
| 37 | | 14-Apr-11 | BUFF | 2 | Water |
| 37 | | 14-Apr-11 | COGO | 1 | Water |
| 37 | | 19-Apr-11 | EUWI | 1 | Beach |
| 37 | | 19-Apr-11 | AMWI | 8 | Beach |
| 37 | | 19-Apr-11 | ABDU | 8 | Beach |
| 37 | | 19-Apr-11 | MALL | 4 | Beach |
| 37 | | 19-Apr-11 | GWTE | 10 | Beach |
| 37 | | 3-May-11 | RBME | 1 | Lake Ontario |
| 37 | | 3-May-11 | BUFF | 6 | Lake Ontario |
| 37 | | 11-May-11 | RBME | 3 | Off shore |
| 37 | | 17-May-11 | CAGO | 28 | Agricultural field |
| 37 | | 17-May-11 | RBME | 51 | Agricultural field |
| 38 | | 19-Apr-11 | COGO | 100 | Water |
| 38 | | 19-Apr-11 | BUFF | 50 | Water |
| 38 | | 19-Apr-11 | LTDU | 2 | Water |
| 38 | | 19-Apr-11 | RBME | 4 | Water |
| 39 | | 19-Apr-11 | RNDU | 4 | Marsh |
| 39 | | 19-Apr-11 | CAGO | 6 | Marsh |
| 39 | | 19-Apr-11 | GWTE | 4 | Marsh |
| 39 | | 19-Apr-11 | BUFF | 2 | Marsh |
| 39 | | 19-Apr-11 | MALL | 4 | Marsh |
| 40 | | 19-Apr-11 | COGO | 25 | Water |
| 40 | | 19-Apr-11 | LTDU | 3 | Water |
| 40 | | 19-Apr-11 | RBME | 2 | Water |
| 40 | | 19-Apr-11 | BUFF | 2 | Water |
| 40 | | 19-Apr-11 | COGO | 10 | Water |
| 40 | | 19-Apr-11 | BUFF | 10 | Water |
| 40 | | 19-Apr-11 | BUFF | 5 | Water |
| 40 | | 19-Apr-11 | COGO | 30 | Water |
| 40 | | 19-Apr-11 | RBME | 10 | Water |
| 40 | | 11-May-11 | COME | 2 | Off shore |
| 40 | | 11-May-11 | RBME | 11 | Off shore |
| 40 | | 11-May-11 | MALL | 1 | Off shore |
| 41 | | 3-May-11 | CAGO | 4 | Pasture |
| 41 | | 3-May-11 | MALL | 1 | Pasture |
| 41 | | 11-May-11 | CAGO | 2 | Agricultural field |
| 41 | | 17-May-11 | CAGO | 6 | Agricultural field |
| 42 | | 3-May-11 | CAGO | 6 | Pasture |
| 42 | | 17-May-11 | CAGO | 2 | Agricultural field |
| 42 | | 25-May-11 | CAGO | 10 | Pasture |
| 42 | | 25-May-11 | CAGO | 10 | Pasture |
| 93 | | 1-Dec-11 | COGO | 40 | |
| 93 | | 7-Dec-11 | COGO | 140 | |
| A | | 8-Sep-11 | CAGO | 25 | pasture |
| A | | 15-Sep-11 | CAGO | 80 | Lake Ontario |
| a | | 16-Dec-11 | COGO | 70 | near shore |
| a | | 16-Dec-11 | MALL | 20 | near shore |
| a | | 16-Dec-11 | CAGO | 50 | near shore |
| a | | 21-Dec-11 | TUSW | 15 | on shore |
| B | | 8-Sep-11 | CAGO | 30 | pasture |
| B | | 15-Sep-11 | CAGO | 110 | hayfield |
| b | | 16-Dec-11 | CAGO | 150 | in bay |
| b | | 16-Dec-11 | MALL | 10 | in bay |
| b | | 16-Dec-11 | COGO | 30 | in bay |
| b | | 16-Dec-11 | LTDU | 5 | in bay |
| b | | 16-Dec-11 | RBME | 10 | in bay |
| b | | 16-Dec-11 | BUFF | 1 | in bay |
| b | | 21-Dec-11 | TUSW | 6 | near shore |
| b | | 21-Dec-11 | RBME | 4 | near shore |
| b | | 21-Dec-11 | BUFF | 10 | near shore |
| b | | 21-Dec-11 | COGO | 150 | near shore |
| b | | 21-Dec-11 | HOME | 2 | near shore |
| b | | 21-Dec-11 | MALL | 10 | near shore |
| C | | 8-Sep-11 | CAGO | 175 | pasture |
| C | | 15-Sep-11 | CAGO | 90 | hayfield |
| c | | 16-Dec-11 | MALL | 10 | in bay |
| c | | 21-Dec-11 | COGO | 100 | offshore |
| c | | 21-Dec-11 | HADU | 1 | offshore |
| d | | 16-Dec-11 | CAGO | 50 | in bay |
| d | | 16-Dec-11 | MALL | 20 | in bay |
| d | | 16-Dec-11 | GADW | 5 | in bay |
| d | | 16-Dec-11 | COGO | 50 | in bay |
| d | | 16-Dec-11 | BUFF | 10 | in bay |

| | | | | | |
|---|---|---|---|---|---|
| d | | 21-Dec-11 | CAGO | 250 | agricultural field |
| e | | 16-Dec-11 | CAGO | 250 | pasture |
| e | | 21-Dec-11 | CAGO | 175 | agricultural field |
| f | | 16-Dec-11 | TUSW | 15 | in bay |
| f | | 16-Dec-11 | CAGO | 15 | in bay |
| f | | 16-Dec-11 | MALL | 10 | in bay |
| f | | 21-Dec-11 | COGO | 100 | near shore |
| f | | 21-Dec-11 | BUFF | 10 | near shore |
| g | | 16-Dec-11 | BUFF | 15 | on shore |
| g | | 21-Dec-11 | BUFF | 30 | offshore |
| g | | 21-Dec-11 | ABDU | 10 | offshore |
| h | | 16-Dec-11 | MALL | 7 | pasture |
| i | | 16-Dec-11 | GRSC | 600 | shoreline |
| i | | 16-Dec-11 | CAGO | 500 | shoreline |
| i | | 16-Dec-11 | MALL | 30 | shoreline |
| i | | 16-Dec-11 | ABDU | 50 | shoreline |
| j | | 16-Dec-11 | BUFF | 20 | offshore |
| k | | 16-Dec-11 | COGO | 100 | offshore |
| k | | 16-Dec-11 | BUFF | 40 | offshore |
| l | | 16-Dec-11 | BUFF | 20 | offshore |
| l | | 16-Dec-11 | COGO | 20 | offshore |
| m | | 16-Dec-11 | BUFF | 15 | offshore |
| m | | 16-Dec-11 | COGO | 35 | offshore |
| m | | 16-Dec-11 | RBME | 2 | offshore |
| n | | 16-Dec-11 | COGO | 30 | offshore |
| n | | 16-Dec-11 | RBME | 35 | offshore |
| NA | | 4-Apr-11 | RBME | 6 | Off shore, 30-50m |
| NA | | 14-Apr-11 | GADW | 2 | Water |
| NA | | 14-Apr-11 | COLO | 1 | Water |
| NA | | 14-Apr-11 | RBME | 6 | Water |
| NA | | 14-Apr-11 | COME | 4 | Water |
| NA | | 14-Apr-11 | MALL | 1 | Water |
| NA | | 11-May-11 | RBME | 3 | Off shore |
| NA | | 11-May-11 | MALL | 3 | Off shore |
| o | | 16-Dec-11 | CAGO | 80 | pasture |
| p | | 16-Dec-11 | CAGO | 110 | near shore |
| p | | 16-Dec-11 | MALL | 35 | near shore |
| p | | 16-Dec-11 | ABDU | 25 | near shore |

**Summary**

| CSWH | Species | | | | Grand Total |
|---|---|---|---|---|---|
| | Bufflehead (BUFF) | Canada Goose (CAGO) | Gadwall (GADW) | Mallard (MALL) | |
| **WA1** | 4 | 32 | | 5 | 41 |
| **WT1** | | 104 | | 1 | 105 |
| **WT2** | | 249 | | 4 | 253 |
| **WT3** | | 40 | | 2 | 42 |
| **WT4** | | 268 | 2 | 4 | 274 |

## Table C: Shorebird Migratory Stopover Area

| Date | Species | Number | Location | Behaviour | Height (m) |
|---|---|---|---|---|---|
| 11-May | WISN | 1 | Pasture | Feeding | |
| 11-May | SPSA | 3 | Shore | Flying | 0 |
| 11-May | UPSA | 2 | Agricultural Field | On alert on ground | |
| 11-May | SPSA | 2 | Shore | On rock | |
| 17-May | SOSA | 1 | Puddle on lawn | Feeding | |
| 17-May | SPSA | 2 | Shoreline rocks | Feeding | |
| 20-May | KILL | 1 | Shoreline | on ground, possible breeder | |
| 20-May | WIPH | 1 | flushed, puddle in field | possible breeder flew up | 2 |
| 20-May | SPSA | 2 | Shoreline | on ground, possible breeder | |
| 20-May | SPSA | 3 | edge of pond | on ground | |
| 20-May | SPSA | 2 | edge of pond | flying | 10 |
| 20-May | SPSA | 3 | shoreline | on ground | |
| 20-May | KILL | 1 | shoreline | on ground | |
| 20-May | SPSA | 6 | mudflat | feeding, on ground | |
| 20-May | DUNL | 1 | mudflat | feeding, on ground | |
| 20-May | WIPH | 1 | flooded field | flushed, flying, possible breeder | 10 |
| 20-May | WISN | 1 | flooded field | flushed, flying, possible breeder | 10 |
| 20-May | WISN | 1 | over pasture | displaying, possible breeder | 40 |
| 25-May | COSN | 1 | Fallow field on fence | 2m perch | |
| 26-May | WIPH | 2 | irrigation pond on S. shore | | |
| 26-May | LESA | 2 | irrigation pond on S. shore | | |
| 26-May | DUNL | 2 | irrigation pond on S. shore | | |
| 26-May | SESA | 1 | irrigation pond on S. shore | | |
| 26-May | SPSA | 2 | irrigation pond on S. shore | | |
| 26-May | DUNL | 40 | inland pond | | |
| 26-May | DUNL | 20 | shingle shoreline | | |
| 26-May | BRANT | 5 | edge of inland pond | | |
| 26-May | DUNL | 300 | inland pond | | |
| 26-May | SESA | 20 | inland pond | | |
| 26-May | BBPL | 2 | Shingle beach | | |
| 26-May | SEPL | 1 | Shingle beach | | |
| 26-May | DUNL | 1 | Shingle beach | | |
| 26-May | SESA | 10 | Shingle beach | | |
| 26-May | SPPA | 1 | shingle beach | spread out into pairs | |
| 26-May | LESA | 2 | north shore shingle beach | | |
| 26-May | SESA | 3 | shingle bar north side | | |
| 26-May | LESA | 6 | shingle bar north side | | |
| 26-May | SESA | 2 | shingle bar north side | | |
| 26-May | DUNL | 2 | shingle bar north side | | |
| 26-May | RUTU | 1 | shingle bar north side | | |

**Total** 460

## Table D: Raptor Wintering Area and SEOW Surveys - Driving and Walking Transects

| Location (map) | CSWH | Date | Time | Species | # | Age/sex | Height | Direction | Habitat | Behaviour |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 2 | 9-Nov-11 | 15:01 | SEOW | 7 | | | | pasture | hunting |
| 3 | 2 | 9-Nov-11 | 15:15 | SEOW | 4 | | | | pasture | hunting |
| 1 | 4 | 9-Nov-11 | 15:01 | SEOW | 2 | | n/a | W | pasture | hunting, flew over pasture and crossed road |
| 4 | 1 | 24-Nov-11 | 16:53 | SEOW | 6 | | | E | pasture | crossed rd and started hunting on E side, all came up at once, seemed to be roosting on west side of rd. |
| 5 | 6 | 24-Nov-11 | 16:13 | SEOW | 2 | | 30 | E | pasture | flying |
| 6 | 6 | 24-Nov-11 | 16:20 | SEOW | 4 | | 30 to 50 | | pasture | randomly flying and interacting |
| 7 | 6 | 24-Nov-11 | 16:21 | SEOW | 3 | | 5 to 10 | | tall pasture | hunting low |
| 8 | 6 | 24-Nov-11 | 16:30 | SEOW | 1 | | 5 | | low pasture | hunting |
| 9 | 7 | 24-Nov-11 | 17:02 | SEOW | 1 | | 15 | E | tall pasture | flying |
| 32 | 1 | 1-Dec-11 | 14:43 | AMKE | 1 | | 10 | | | on wire |
| 35 | 1 | 1-Dec-11 | 15:08 | NSHR | 1 | | 20 | | | perched in tree |
| 22 | 2 | 1-Dec-11 | 13:57 | RLHA | 1 | | 15 | | | perched in tree |
| 22 | 2 | 1-Dec-11 | 13:57 | NOHA | 1 | | 2 | | | perched on snag |
| 23 | 2 | 1-Dec-11 | 14:01 | NOHA | 1 | | 2 | | pasture | hunting |
| 26 | 2 | 1-Dec-11 | 14:07 | RTHA | 1 | | 20 | | | chasing NOHA |
| 26 | 2 | 1-Dec-11 | 14:07 | NOHA | 1 | | 20 | | | chasing RTHA |
| 27 | 2 | 1-Dec-11 | 14:09 | NOHA | 1 | | 5 | | pasture | hunting |
| 28 | 2 | 1-Dec-11 | 14:13 | NOHA | 1 | | 0 | | pasture | hunting |
| 28 | 2 | 1-Dec-11 | 14:15 | NOHA | 1 | | 2 | | | on post |
| 29 | 2 | 1-Dec-11 | 14:19 | RLHA | 1 | | 25 | | | perched in tree |
| 31 | 2 | 1-Dec-11 | 14:31 | RLHA | 1 | | 50 | | | circling |
| 31 | 2 | 1-Dec-11 | 14:34 | NOHA | 1 | | 0 | | | perched on ground |
| 31 | 2 | 1-Dec-11 | 14:35 | AMKE | 1 | | 2 | | | perched on post |
| 31 | 2 | 1-Dec-11 | 14:37 | NOHA | 1 | | 40 | NW | | flying |
| 36 | 2 | 1-Dec-11 | 15:20 | NOHA | 1 | | 5 | | pasture | hunting |
| 37 | 2 | 1-Dec-11 | 15:23 | NOHA | 2 | | 5 | | pasture | hunting |
| 38 | 2 | 1-Dec-11 | 15:23 | RLHA | 1 | | 10 | | | perched on snag |
| 38 | 2 | 1-Dec-11 | 15:28 | RTHA | 1 | | 15 | | | perched in tree |
| 39 | 2 | 1-Dec-11 | 15:31 | NOHA | 6 | | 2 | | | on posts |
| 39 | 2 | 1-Dec-11 | 15:31 | RLHA | 11 | | 2 | | | on posts |
| 39 | 2 | 1-Dec-11 | 15:31 | RTHA | 2 | | 2 | | | on posts |
| 40 | 2 | 1-Dec-11 | 15:33 | NOHA | 1 | | 10 | S | | crossed road |
| 40 | 2 | 1-Dec-11 | 15:33 | RTHA | 1 | | 10 | S | | crossed road |
| 41 | 2 | 1-Dec-11 | 15:35 | RLHA | 4 | | 2 | | | on posts |
| 42 | 2 | 1-Dec-11 | 15:37 | RLHA | 1 | | 20 | | | perched in tree |
| 42 | 2 | 1-Dec-11 | 15:37 | NOHA | 2 | | 5 | | pasture | hunting |
| 44 | 2 | 1-Dec-11 | 15:44 | RLHA | 1 | | 30 | NW | | flying |
| 44 | 2 | 1-Dec-11 | 15:46 | RTHA | 1 | | 20 | | | perched in tree |
| 45 | 2 | 1-Dec-11 | 15:49 | RLHA | 1 | | 20 | | | perched in tree |
| 45 | 2 | 1-Dec-11 | 15:49 | NOHA | 1 | | 5 | | | being attacked by CORA |
| 46 | 2 | 1-Dec-11 | 15:51 | RTHA | 1 | | 20 | | | perched in trees |
| 47 | 2 | 1-Dec-11 | 15:54 | RTHA | 1 | | 15 | | | perched in tree |
| 43 | 3 | 1-Dec-11 | 15:37 | RLHA | 3 | | 10,30 | NW | | one perched, 2 flying |
| 49 | 3 | 1-Dec-11 | 16:13 | RTHA | 1 | | 20 | | | perched in tree |
| 16 | 5 | 1-Dec-11 | 13:22 | AMKE | 1 | | 10 | | | on wire |
| 17 | 5 | 1-Dec-11 | 13:23 | NOHA | 1 | | 5 | | pasture | hunting |
| 18 | 5 | 1-Dec-11 | 13:26 | NOHA | 1 | | 50 | | | circling |
| 20 | 5 | 1-Dec-11 | 13:51 | RTHA | 1 | | 20 | | | perched in tree |
| 21 | 5 | 1-Dec-11 | 13:54 | NOHA | 1 | | 5 | | pasture | hunting |
| 1 | 6 | 1-Dec-11 | 12:02 | RLHA | 1 | | 40 | | | perched in tree |
| 1 | 6 | 1-Dec-11 | 12:03 | RTHA | 1 | | 40 | | | circling |
| 2 | 6 | 1-Dec-11 | 12:07 | RLHA | 1 | | 50 | | | circling |
| 3 | 6 | 1-Dec-11 | 12:09 | RLHA | 1 | | 70 | | | circling |
| 4 | 6 | 1-Dec-11 | 12:10 | AMKE | 1 | | 10 | | | on wire |
| 12 | 6 | 1-Dec-11 | 12:52 | RTHA | 1 | | 25 | | | perched in tree |
| 15 | 6 | 1-Dec-11 | 13:20 | NOHA | 1 | | 5 | | pasture | hunting |
| 48 | 6 | 1-Dec-11 | 15:57 | RTHA | 1 | | 20 | | | perched in tree |
| 48 | 6 | 1-Dec-11 | 15:57 | RLHA | 3 | | 15,40,10 | SW | | perched, hovering, flying |
| 5 | 7 | 1-Dec-11 | 12:17 | RLHA | 1 | | 30 | | | hovering |
| 6 | 7 | 1-Dec-11 | 12:20 | RLHA | 1 | | 30 | SE | | flying, then perched |
| 7 | 7 | 1-Dec-11 | 12:22 | RTHA | 1 | | 25 | SE | | crossed road |
| 8 | 7 | 1-Dec-11 | 12:24 | RTHA | 1 | | 10 | | | on wire |
| 9 | 7 | 1-Dec-11 | 12:25 | RTHA | 1 | | 40 | | | circling and being harassed by AMCR |
| 9 | 7 | 1-Dec-11 | 12:26 | RLHA | 1 | | 40 | | | circling |
| 14 | 7 | 1-Dec-11 | 13:17 | RLHA | 1 | | 25 | | | perched in tree |
| 10 | 8 | 1-Dec-11 | 12:38 | SNOW | 1 | | 20 | | | perched in tree |
| 11 | 8 | 1-Dec-11 | 12:40 | SNOW | 1 | | 0 | | | on shore |
| 13 | 8 | 1-Dec-11 | 13:03 | NOHA | 1 | | 0 | | | perched on ground |
| 4 | 1 | 7-Dec-11 | 16:47 | SEOW | 2 | | | | pasture | flying/hunting |
| 35 | 1 | 7-Dec-11 | n/a | RLHA | 1 | | 10 | | | in tree |
| 100 | 1 | 7-Dec-11 | n/a | RLHA | 1 | | 15 | | | flew over rd and into pasture |
| 101 | 1 | 7-Dec-11 | n/a | NOHA | 1 | | 3 | | pasture | hunting |
| 102 | 1 | 7-Dec-11 | n/a | AMKE | 1 | | 10 | | | in tree |
| 102 | 1 | 7-Dec-11 | n/a | NOHA | 1 | | 2 | N | | flying, hunting |
| 104 | 1 | 7-Dec-11 | n/a | RLHA | 1 | | 20 | | pasture | flying |
| 105 | 1 | 7-Dec-11 | n/a | NOHA | 1 | | 5 | | pasture | flying |
| 12 | 2 | 7-Dec-11 | 16:40 | SEOW | 2 | | | | pasture | flying/hunting |
| 13 | 2 | 7-Dec-11 | 16:41 | SEOW | 1 | | | | pasture | flying/hunting |
| 14 | 2 | 7-Dec-11 | 16:42 | SEOW | 2 | | | | pasture | flying/hunting |
| 15 | 2 | 7-Dec-11 | 16:45 | SEOW | 3 | | | | pasture | flying/hunting |
| 16 | 2 | 7-Dec-11 | 16:46 | SEOW | 1 | | | | pasture | flying/hunting |
| 22 | 2 | 7-Dec-11 | n/a | NOHA | 1 | | 2 | | field | hunting |
| 42 | 2 | 7-Dec-11 | n/a | RTHA | 1 | | 1 | | | on post |
| 44 | 2 | 7-Dec-11 | n/a | RLHA | 1 | | 15 | | | in tree |
| 47 | 2 | 7-Dec-11 | 12:14 | NSHR | 1 | | 5 | | hedgerow | perched on bush |
| 47 | 2 | 7-Dec-11 | 12:14 | RLHA | 1 | | 10 | | field | perched in tree |
| 65 | 2 | 7-Dec-11 | n/a | RTHA | 1 | | 50 | SW | pasture | hunting |
| 66 | 2 | 7-Dec-11 | n/a | RTHA | 1 | | 15 | | | in tree |
| 67 | 2 | 7-Dec-11 | n/a | RTHA | 1 | | 10 | | | on hydroline |
| 68 | 2 | 7-Dec-11 | n/a | RLHA | 12 | | 1 | | | on posts |
| 69 | 2 | 7-Dec-11 | n/a | RTHA | 2 | | 1 | | | on posts |
| 70 | 2 | 7-Dec-11 | n/a | NOHA | 2 | | 1 | | | on posts |
| 70 | 2 | 7-Dec-11 | n/a | NOHA | 1 | | 1 | | | on posts |
| 72 | 2 | 7-Dec-11 | n/a | AMKE | 1 | | 10 | | pasture | hunting, flying |
| 73 | 2 | 7-Dec-11 | n/a | NOHA | 1 | | 1 | | | on post |
| 78 | 2 | 7-Dec-11 | n/a | RLHA | 1 | | 15 | | pasture | in tree |
| 79 | 2 | 7-Dec-11 | n/a | RLHA | 1 | | 20 | | pasture | in tree |
| 82 | 2 | 7-Dec-11 | n/a | RLHA | 1 | | 5 | | | flying, hunting |
| 83 | 2 | 7-Dec-11 | n/a | RLHA | 1 | | 15 | | pasture | in tree |
| 87 | 2 | 7-Dec-11 | n/a | NOHA | 1 | | 1 | | | eating on fence post |
| 88 | 2 | 7-Dec-11 | n/a | RLHA | 1 | | 15 | | pasture | in tree |
| 91 | 2 | 7-Dec-11 | n/a | RTHA | 1 | | 10 | | | flying, then perched in tree |
| 93 | 2 | 7-Dec-11 | n/a | NOHA | 3 | | 5 to 10 | | over marsh | hunting |
| 94 | 2 | 7-Dec-11 | n/a | RLHA | 1 | | 1 | | | on post |
| 95 | 2 | 7-Dec-11 | n/a | NSHR | 1 | | 15 | | | in bush |
| 96 | 2 | 7-Dec-11 | n/a | NOHA | 1 | | 1 | | | on post |
| 50 | 3 | 7-Dec-11 | 9:52 | NOHA | 1 | | 1 | | | on post |
| 51 | 3 | 7-Dec-11 | n/a | RTHA | 1 | | 10 | | | in tree |
| 52 | 3 | 7-Dec-11 | n/a | NOHA | 1 | | 20 | | | being mobbed, flying |
| 53 | 3 | 7-Dec-11 | n/a | RLHA | 1 | | 15 | | | in tree |
| 54 | 3 | 7-Dec-11 | n/a | RLHA | 1 | | 15 | | | in tree |
| 55 | 3 | 7-Dec-11 | n/a | RTHA | 1 | | 10 | | | in tree |
| 56 | 3 | 7-Dec-11 | n/a | RTHA | 1 | | 15 | | | in tree |
| 71 | 3 | 7-Dec-11 | n/a | RLHA | 7 | | 1 | | | on posts |
| 71 | 3 | 7-Dec-11 | n/a | RTHA | 1 | | 1 | | | on posts |
| 74 | 3 | 7-Dec-11 | n/a | NOHA | 1 | | 5 | | pasture | hunting |
| 75 | 3 | 7-Dec-11 | n/a | NOHA | 1 | | 10 | | pasture | hunting |
| 76 | 3 | 7-Dec-11 | n/a | RLHA | 1 | | 10 | | pasture | hunting |
| 77 | 3 | 7-Dec-11 | n/a | RTHA | 1 | | 10 | | near FOD | in tree |
| 80 | 3 | 7-Dec-11 | n/a | NOHA | 1 | | 10 | | | hunting |
| 81 | 3 | 7-Dec-11 | n/a | RTHA | 1 | | 15 | | | in tree |
| 11 | 5 | 7-Dec-11 | 16:50 | SEOW | 1 | | 25 | | pasture | hunting |
| 89 | 5 | 7-Dec-11 | n/a | NOHA | 1 | | 5 | | | in tree |
| 118 | 5 | 7-Dec-11 | 12:06 | RTHA | 2 | | 15 | | roadside | perched in tree |
| 7 | 6 | 7-Dec-11 | 16:30 | SEOW | 6 | | 5 to 40 | | pasture | hunting |
| 10 | 6 | 7-Dec-11 | 16:35 | SEOW | 4 | | 25 | | pasture | hunting |
| 111 | 6 | 7-Dec-11 | 9:54 | RLHA | 1 | | 8 | | pasture | perched in snag |
| 112 | 6 | 7-Dec-11 | 9:59 | NOHA | 1 | | 2 | | pasture | perched on post |
| 112 | 6 | 7-Dec-11 | 10:35 | SNOW | 1 | | 0 | | pasture | on ground |
| 113 | 6 | 7-Dec-11 | 10:14 | RTHA | 1 | | 15 | | pasture | perched in tree |
| 113 | 6 | 7-Dec-11 | 10:58 | RLHA | 1 | | 15 | | pasture | perched in tree |
| 114 | 6 | 7-Dec-11 | 10:17 | RTHA | 1 | | 20 | | pasture | perched in tree |
| 114 | 6 | 7-Dec-11 | 11:07 | NSHR | 1 | | 15 | | pasture | perched in tree |
| 115 | 6 | 7-Dec-11 | 10:18 | RTHA | 1 | | 15 | | pasture | perched in tree |
| 115 | 6 | 7-Dec-11 | 11:10 | RTHA | 1 | | 10 | | roadside/pasture | perched in tree |
| 119 | 6 | 7-Dec-11 | 12:16 | RLHA | 1 | | 2 | | pasture | on post |
| 120 | 6 | 7-Dec-11 | 12:18 | RTHA | 1 | | 15 | | road/pasture | circling |
| 14 | 7 | 7-Dec-11 | 10:48 | SNOW | 1 | | 2 | | pasture | on post |
| 108 | 10 | 7-Dec-11 | 8:55 | RTHA | 1 | | 15 | | forest/shrubland | perched in tree |
| 109 | 9 | 7-Dec-11 | 9:03 | RTHA | 1 | | 15 | | roadside/shore | perched in tree |
| 20 | 1 | 20-Dec-11 | 16:25 | SEOW | 3 | | 20 | | pasture | feeding |
| 12 | 2 | 20-Dec-11 | 16:00 | SEOW | 4 | | 10 | | pasture | hunting |
| 17 | 2 | 20-Dec-11 | 16:05 | SEOW | 3 | | 15 | | pasture | hunting |
| 18 | 2 | 20-Dec-11 | 16:07 | SEOW | 6 | | 10 | | pasture | hunting |
| 19 | 2 | 20-Dec-11 | 16:19 | SEOW | 1 | | 5 | | hay | hunting |
| 21 | 6 | 20-Dec-11 | 15:58 | SEOW | 11 | | 2 to 5 | | reed canary meadow/fallow/pasture | hunting,flying |
| 22 | 6 | 20-Dec-11 | 16:49 | SEOW | 1 | | 10 | | pasture | hunting, flying |
| 105 | 1 | 21-Dec-11 | 13:17 | NOHA | 1 | | 5 | | hay field | on post |
| 37 | 2 | 21-Dec-11 | 11:36 | NOHA | 1 | | 5 | | pasture | on post |
| 42 | 2 | 21-Dec-11 | 11:53 | RTHA | 1 | | 5 | | pasture | on post |
| 44 | 2 | 21-Dec-11 | 11:56 | RLHA | 1 | | 5 | | pasture | on post |
| 47 | 2 | 21-Dec-11 | 12:33 | NOHA | 1 | | 10 | | | in tree |

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|---|---|---|---|---|---|---|---|---|---|---|
| 65 | 2 | 21-Dec-11 | 11:31 | RLHA | 1 | | 5 | | pasture | on post |
| 70 | 2 | 21-Dec-11 | 11:47 | RTHA | 1 | | 5 | | pasture | flying |
| 73 | 2 | 21-Dec-11 | 11:53 | NOHA | 1 | | 5 | | pasture | on post |
| 78 | 2 | 21-Dec-11 | 12:09 | RLHA | 1 | | 15 | | pasture | in tree |
| 78 | 2 | 21-Dec-11 | 12:32 | RLHA | 1 | | 15 | | | in tree |
| 95 | 2 | 21-Dec-11 | 12:40 | RLHA | 1 | | 5 | | over swamp | flying |
| 123 | 2 | 21-Dec-11 | 11:35 | NOHA | 1 | | 5 | | pasture | flying |
| 123 | 2 | 21-Dec-11 | 13:00 | RLHA | 1 | | 20 | | pasture | flying |
| 125 | 2 | 21-Dec-11 | 11:40 | RTHA | 1 | | 5 | | pasture | on post |
| 126 | 2 | 21-Dec-11 | 11:40 | SNOW | 1 | | 5 | | pasture | on post |
| 127 | 2 | 21-Dec-11 | 11:42 | RTHA | 3 | | 5 | | pasture | on post |
| 128 | 2 | 21-Dec-11 | 11:42 | RLHA | 5 | | 5 | | pasture | on post |
| 130 | 2 | 21-Dec-11 | 11:45 | RLHA | 4 | | 5 | | pasture | on post |
| 131 | 2 | 21-Dec-11 | 11:45 | NOHA | 1 | | 5 | | pasture | on post |
| 132 | 2 | 21-Dec-11 | 11:53 | RLHA | 1 | | 5 | | pasture | on post |
| 134 | 2 | 21-Dec-11 | 11:59 | NOHA | 1 | | 5 | | pasture | on post |
| 135 | 2 | 21-Dec-11 | 12:00 | RLHA | 1 | | 5 | | pasture | on post |
| 136 | 2 | 21-Dec-11 | 12:07 | NOHA | 1 | | 5 | | pasture | on post |
| 137 | 2 | 21-Dec-11 | 12:13 | NOHA | 1 | | 5 | | hay field | flying |
| 139 | 2 | 21-Dec-11 | 12:24 | NOHA | 1 | | 10 | | corn field | flying |
| 142 | 2 | 21-Dec-11 | 12:57 | NOHA | 2 | | 5 | | pasture | flying |
| 51 | 3 | 21-Dec-11 | 10:04 | RLHA | 1 | | 10 | | pasture | in tree |
| 71 | 3 | 21-Dec-11 | 11:47 | NOHA | 2 | | 5 | | pasture | flying |
| 121 | 3 | 21-Dec-11 | 10:05 | NOHA | 1 | | 5 | | pasture | on post |
| 122 | 3 | 21-Dec-11 | 10:16 | RTHA | 1 | | 5 | | pasture | on post |
| 124 | 3 | 21-Dec-11 | 11:37 | RTHA | 1 | | 5 | | hay field | on post |
| 129 | 3 | 21-Dec-11 | 11:43 | RTHA | 1 | | 5 | | pasture | on post |
| 133 | 3 | 21-Dec-11 | 11:58 | NOHA | 1 | | 5 | | pasture | in tree |
| 20 | 5 | 21-Dec-11 | 12:24 | RTHA | 1 | | 5 | | | in tree |
| 118 | 5 | 21-Dec-11 | 12:19 | NOHA | 2 | | 3 | W | | in tree |
| 138 | 5 | 21-Dec-11 | 12:21 | AMKE | 1 | | 5 | | till field | flying |
| 155 | 5 | 21-Dec-11 | 12:13 | NOHA | 1 | | 0 | | | on ground |
| 156 | 5 | 21-Dec-11 | 12:17 | RTHA | 1 | | 10 | | | in tree |
| 3 | 6 | 21-Dec-11 | 11:01 | RTHA | 1 | | 10 | | | in tree |
| 48 | 6 | 21-Dec-11 | 12:38 | RLHA | 1 | | 1 | | | on post |
| 146 | 6 | 21-Dec-11 | 10:07 | AMKE | 1 | | 1 | | | on post |
| 147 | 6 | 21-Dec-11 | 10:22 | NOHA | 1 | | 10 | | | hunting |
| 151 | 6 | 21-Dec-11 | 11:37 | AMKE | 1 | | 2 | | | in tree |
| 157 | 6 | 21-Dec-11 | 12:31 | RTHA | 1 | | 10 | | | in tree |
| 158 | 6 | 21-Dec-11 | 12:37 | NOHA | 1 | | 2 | | | hunting |
| 159 | 6 | 21-Dec-11 | 12:45 | RTHA | 1 | | 10 | | | in tree |
| 7 | 7 | 21-Dec-11 | 10:27 | NOHA | 1 | | 10 | | | hunting |
| 148 | 7 | 21-Dec-11 | 10:28 | RTHA | 1 | | 1 | | | on post |
| 149 | 8 | 21-Dec-11 | 10:39 | RLHA | 1 | | 5 | | | in tree |
| 150 | 8 | 21-Dec-11 | 11:00 | SNOW | 1 | | 0 | | | on ground |
| 24 | 1 | 10-Jan-12 | 16:54 | SEOW | 1 | | n/a | | old field | hunting |
| 25 | 1 | 10-Jan-12 | 17:09 | SEOW | 1 | | n/a | | old field | hunting |
| 100 | 1 | 10-Jan-12 | 11:00 | RLHA | 2 | | 5 to 15 | | | foraging |
| 22 | 2 | 10-Jan-12 | 11:36 | RTHA | 1 | | 8 | | | perched |
| 31 | 2 | 10-Jan-12 | 11:08 | NOHA | 2 | | 2 to 5 | | | foraging |
| 38 | 2 | 10-Jan-12 | 11:15 | RTHA | 1 | | 5 | | | perched |
| 44 | 2 | 10-Jan-12 | 11:25 | RLHA | 4 | | 1 to 4 | | | perched |
| 67 | 2 | 10-Jan-12 | 11:08 | RTHA | 1 | | 25 | | | foraging |
| 83 | 2 | 10-Jan-12 | 11:25 | RTHA | 1 | | 1 | | | perched |
| 94 | 2 | 10-Jan-12 | 11:44 | RTHA | 1 | | 5 | | | perched |
| 96 | 2 | 10-Jan-12 | 11:44 | NOHA | 1 | | 3 | | | foraging |
| 171 | 2 | 10-Jan-12 | 11:08 | RTHA | 1 | | 25 | | | foraging |
| 176 | 2 | 10-Jan-12 | n/a | RLHA | 2 | | 5 to 8 | | | 1 perched, 1 foraging |
| 177 | 2 | 10-Jan-12 | 11:36 | NOHA | 1 | | 3 | | | foraging |
| 169 | 3 | 10-Jan-12 | 10:29 | RLHA | 1 | | 3 to 8 | | | foraging |
| 173 | 3 | 10-Jan-12 | 11:15 | NOHA | 1 | | 3 | | | foraging |
| 174 | 3 | 10-Jan-12 | 11:25 | NOHA | 2 | | 3 | | | foraging |
| 155 | 5 | 10-Jan-12 | 11:04 | NOHA | 1 | | 20 | | road | circling overhead |
| 3 | 6 | 10-Jan-12 | 10:51 | NOHA | 1 | female | 5 | | pasture | hunting |
| 8 | 6 | 10-Jan-12 | 17:17 | SEOW | 1 | | 10 | | pasture | flying/hunting |
| 15 | 6 | 10-Jan-12 | 11:01 | AMKE | 1 | female | 3 | | | in shrub |
| 21 | 6 | 10-Jan-12 | 16:32 | SEOW | 1 | | 10 | | pasture adjacent to roost | hunting |
| 23 | 6 | 10-Jan-12 | 17:15 | SEOW | 2 | | 20 | | pasture | flying |
| 160 | 6 | 10-Jan-12 | 10:09 | RLHA | 1 | | 2 | | pasture | on post |
| 161 | 6 | 10-Jan-12 | 10:10 | RLHA | 1 | | 3 | | pasture | in shrub |
| 161 | 6 | 10-Jan-12 | 11:53 | RTHA | 1 | | 4 | | | perched |
| 162 | 6 | 10-Jan-12 | 10:11 | RLHA | 1 | | 20 | | pasture | flying |
| 164 | 6 | 10-Jan-12 | 10:46 | RLHA | 1 | | 10 | | roadside near pasture | in tree |
| 165 | 6 | 10-Jan-12 | 11:33 | RTHA | 1 | adult | 8 | | near hayfield | in tree |
| 166 | 6 | 10-Jan-12 | 11:36 | RLHA | 1 | | 40 | | pasture | circling overhead |
| 168 | 6 | 10-Jan-12 | 11:38 | AMKE | 1 | male | 5 | | pasture | in shrub |
| 179 | 6 | 10-Jan-12 | 11:58 | NOHA | 1 | | 3 | | | foraging |
| 111 | 7 | 10-Jan-12 | 11:52 | NOHA | 1 | | 2 | | | foraging |
| 114 | 7 | 10-Jan-12 | 11:57 | RLHA | 1 | | 5 | | | perched |
| 114 | 7 | 10-Jan-12 | 12:02 | CORA | 1 | | 8 | | | flying |
| 163 | 7 | 10-Jan-12 | 10:15 | RTHA | 1 | | 5 | | fallow field | in tree |
| 180 | 7 | 10-Jan-12 | 12:04 | RLHA | 1 | | 15 to 20 | | | foraging |
| 167 | 8 | 10-Jan-12 | 11:37 | NOHA | 1 | male | 5 | | hay field | hunting |
| 190 | 1 | 24-Jan-12 | 14:43 | RTHA | 1 | juvenile | 15 | | roadside | perched in tree |
| 17 | 2 | 24-Jan-12 | 17:35 | SEOW | 1 | | 10 | | pasture | hunting |
| 27 | 2 | 24-Jan-12 | 17:27 | SEOW | 3 | | 25 | | pasture | hunting |
| 27 | 2 | 24-Jan-12 | 17:32 | SEOW | 2 | | 10 | | pasture | hunting |
| 28 | 2 | 24-Jan-12 | 17:37 | SEOW | 1 | | 30 | | pasture | harrasing SNOW |
| 36 | 2 | 24-Jan-12 | 14:46 | RLHA | 1 | | 10 | | pasture | hunting |
| 38 | 2 | 24-Jan-12 | 13:55 | RLHA | 2 | | 5 | | pasture | hunting |
| 70 | 2 | 24-Jan-12 | 14:05 | RLHA | 1 | | 8 | | pasture | hunting |
| 73 | 2 | 24-Jan-12 | 14:07 | RLHA | 1 | | 10 | | pasture | hunting |
| 88 | 2 | 24-Jan-12 | 14:20 | RLHA | 1 | | 10 | | | perched in tree |
| 90 | 2 | 24-Jan-12 | 14:23 | NOHA | 1 | adult female | 5 | | fallow field | hunting |
| 95 | 2 | 24-Jan-12 | 14:34 | RTHA | 1 | adult | 5 | | | perched on wire |
| 125 | 2 | 24-Jan-12 | 13:55 | RLHA | 1 | | 10 | | pasture | hunting |
| 132 | 2 | 24-Jan-12 | 14:10 | NOHA | 1 | male | 5 | | hay field | hunting |
| 171 | 2 | 24-Jan-12 | 14:44 | NOHA | 1 | juvenile | 0 | | pasture | perched on ground |
| 185 | 2 | 24-Jan-12 | 13:57 | RTHA | 1 | adult | 5 | | pasture | on post |
| 185 | 2 | 24-Jan-12 | 13:58 | RLHA | 2 | | 15 | | pasture | hunting |
| 186 | 2 | 24-Jan-12 | 14:11 | RLHA | 1 | | 30 | sw | | flying |
| 187 | 2 | 24-Jan-12 | 14:14 | AMKE | 1 | | 5 | | roadside | perched on post |
| 188 | 2 | 24-Jan-12 | 14:29 | NOHA | 1 | adult female | 5 | | hay field | hunting |
| 189 | 2 | 24-Jan-12 | 14:40 | NOHA | 1 | | 5 | | | on hay bail |
| 183 | 3 | 24-Jan-12 | 13:22 | RLHA | 1 | | 20 | | pasture | hunting |
| 184 | 3 | 24-Jan-12 | 13:24 | RLHA | 1 | | 2 | | | perched on fence post |
| 21 | 5 | 24-Jan-12 | 14:17 | SNOW | 1 | | 2 | | | roosting on fencepost |
| 151 | 6 | 24-Jan-12 | 14:17 | AMKE | 1 | | 5 | | | perched on wire |
| 158 | 6 | 24-Jan-12 | 14:10 | RLHA | 1 | | 1.5 | | | perched on post |
| 158 | 6 | 24-Jan-12 | 14:11 | AMKE | 1 | | 5 | w | | flying/foraging |
| 161 | 6 | 24-Jan-12 | 13:21 | RLHA | 1 | | 8 | | | foraging |
| 161 | 6 | 24-Jan-12 | 13:21 | NOHA | 1 | | 1.5 | | | perched on post |
| 161 | 6 | 24-Jan-12 | 13:21 | SNOW | 1 | | 1.5 | | | perched on post |
| 179 | 6 | 24-Jan-12 | 13:32 | NOHA | 1 | | 2 | | | foraging |
| 181 | 6 | 24-Jan-12 | 14:42 | SNOW | 1 | | 0 | | | perched on ground |
| 182 | 6 | 24-Jan-12 | 14:42 | NOHA | 1 | | 10 | w | | flying/foraging |
| 111 | 7 | 24-Jan-12 | 13:17 | RLHA | 1 | | 3 | | | foraging |
| 114 | 7 | 24-Jan-12 | 13:28 | NSHR | 1 | | 6 | | | perched in tree |
| 114 | 7 | 24-Jan-12 | 13:29 | SNOW | 1 | | 0 | | field | on ground |
| 114 | 7 | 24-Jan-12 | 13:55 | RTHA | 3 | | 15 | | over woods | soaring |
| 180 | 7 | 24-Jan-12 | 13:59 | RLHA | 1 | | 15 | | | perched in tree |
| 31 | 1 | 7-Feb-12 | 17:05 | SEOW | 12 | | n/a | | pasture/fallow | flew up from roost, flying/perched |
| 32 | 1 | 7-Feb-12 | 13:19 | RTHA | 2 | adult | 150 | | | Kettling |
| 32 | 1 | 7-Feb-12 | 13:20 | RLHA | 2 | | 100 | | | Kettling |
| 40 | 2 | 7-Feb-12 | 12:00 | RLHA | 2 | | 5 | | pasture | hunting |
| 42 | 2 | 7-Feb-12 | 12:04 | RTHA | 2 | | 20 | | pasture | hunting |
| 42 | 2 | 7-Feb-12 | 12:04 | RLHA | 2 | | 20 | | pasture | hunting |
| 45 | 2 | 7-Feb-12 | 12:09 | RLHA | 1 | | 0 | | | perched on ground |
| 68 | 2 | 7-Feb-12 | 11:58 | NOHA | 2 | female | 10 | | pasture | hunting |
| 69 | 2 | 7-Feb-12 | 12:01 | AMKE | 1 | | 10 | | over pasture | perched on wire |
| 72 | 2 | 7-Feb-12 | 12:02 | RTHA | 2 | adult | 50 | S | pasture | flying |
| 83 | 2 | 7-Feb-12 | 12:11 | RTHA | 1 | adult | 8 | | edge of woodlot | |
| 171 | 2 | 7-Feb-12 | 13:02 | NOHA | 3 | | 0 | | pasture | perched on ground |
| 171 | 2 | 7-Feb-12 | 13:05 | RLHA | 1 | | 15 | | pasture | hunting |
| 204 | 2 | 7-Feb-12 | 11:56 | RLHA | 2 | | 5 | | pasture | perched on fence post |
| 208 | 2 | 7-Feb-12 | 12:40 | RLHA | 9 | | 80 | | pasture | flying |
| 208 | 2 | 7-Feb-12 | 12:40 | RTHA | 3 | | 80 | | pasture | flying |
| 209 | 2 | 7-Feb-12 | 12:43 | NOHA | 3 | | 10 | | pasture | hunting |
| 210 | 2 | 7-Feb-12 | 12:45 | PEFA | 1 | | 100 | N | | |
| 211 | 2 | 7-Feb-12 | 12:52 | BAEA | 1 | | 600 | | | Kettling |
| 211 | 2 | 7-Feb-12 | 12:52 | RTHA | 1 | | 600 | | | Kettling |
| 211 | 2 | 7-Feb-12 | 12:52 | RLHA | 3 | | 600 | | | Kettling |
| 198 | 3 | 7-Feb-12 | 10:55 | NOHA | 1 | male | 10 | | fallow field | hunting |
| 199 | 3 | 7-Feb-12 | 11:02 | NOHA | 1 | female | 10 | | pasture | hunting |
| 200 | 3 | 7-Feb-12 | 11:03 | RLHA | 1 | | 10 | | pasture | hunting |
| 201 | 3 | 7-Feb-12 | 11:08 | NOHA | 1 | male | 10 | | pasture | hunting |
| 205 | 3 | 7-Feb-12 | 12:12 | RLHA | 1 | | 35 | | hay field | hunting |
| 206 | 3 | 7-Feb-12 | 12:15 | SNOW | 1 | | 0 | | hay field | roosting |
| 196 | 5 | 7-Feb-12 | 12:15 | RTHA | 1 | | 10 | | | perched in tree |
| 196 | 5 | 7-Feb-12 | 12:30 | RTHA | 1 | | 40 | | over woods | flying |
| 207 | 5 | 7-Feb-12 | 12:35 | RTHA | 1 | | 50 | | over woods | flying |
| 115 | 6 | 7-Feb-12 | 12:40 | RLHA | 1 | | 15 | | | foraging |
| 159 | 6 | 7-Feb-12 | 12:30 | RLHA | 1 | | 15 | | | foraging |
| 195 | 6 | 7-Feb-12 | 11:35 | SNOW | 1 | | 0 | | | perched on ground |
| 195 | 6 | 7-Feb-12 | 11:35 | NOHA | 1 | | 5 to 15 | | | chasing starling flock |
| 195 | 6 | 7-Feb-12 | 11:35 | RLHA | 1 | | 15 to 20 | | | soaring |
| 195 | 6 | 7-Feb-12 | 11:35 | AMKE | 1 | | 8 | | | perched on wire |
| 197 | 6 | 7-Feb-12 | 12:35 | RLHA | 2 | | 30 | | | foraging |
| 30 | 7 | 7-Feb-12 | 17:51 | SEOW | 2 | | n/a | | pasture | hunting |
| 115 | 7 | 7-Feb-12 | 12:40 | NOHA | 1 | | 5 | w | | flying/foraging |
| 191 | 7 | 7-Feb-12 | 11:03 | RTHA | 1 | | 15 to 20 | | | foraging |

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|---|---|---|---|---|---|---|---|---|---|---|
| 192 | 7 | 7-Feb-12 | 11:21 | SNOW | 1 | | 0 | | | perched on ground |
| 192 | 7 | 7-Feb-12 | 11:21 | SNOW | 1 | | 2 | | | perched on post |
| 193 | 7 | 7-Feb-12 | 11:22 | BAEA | 1 | juvenile | 25 | | | flying south of island by 0.5km |
| 194 | 7 | 7-Feb-12 | 11:25 | NOHA | 3 | | 10 to 15 | | | foraging |
| 194 | 7 | 7-Feb-12 | 11:25 | RTHA | 1 | | 15 | | | foraging |
| 11 | 8 | 7-Feb-12 | 11:12 | SNOW | 1 | | n/a (below sweep) | | | perched on shed |
| 29 | 8 | 7-Feb-12 | 17:20 | SEOW | 4 | | n/a | | pasture | hunting |
| 4 | 1 | 22-Feb-12 | 17:08 | SEOW | 13 | | to 50m | | field | flew up from roost then dispersed |
| 101 | 1 | 22-Feb-12 | 12:46 | RLHA | 1 | | 20 | | pasture | hover hunting |
| 190 | 1 | 22-Feb-12 | 12:43 | RSHA | 1 | juvenile | 15 | | woods | flew through |
| 225 | 1 | 22-Feb-12 | 13:02 | RTHA | 2 | adult | 50 | | over woods | circling |
| 22 | 2 | 22-Feb-12 | 12:16 | RTHA | 1 | | 5 | | hay field | perched on post |
| 27 | 2 | 22-Feb-12 | 12:21 | NOHA | 1 | juvenile | 5 | | hay field | hunting |
| 28 | 2 | 22-Feb-12 | 12:23 | RLHA | 4 | | 40 | | fallow field | hunting |
| 28 | 2 | 22-Feb-12 | 12:23 | NOHA | 2 | | 40 | | fallow field | hunting |
| 39 | 2 | 22-Feb-12 | 11:53 | RLHA | 8 | | 5 to 25 | | pasture | hunting |
| 39 | 2 | 22-Feb-12 | 11:53 | RTHA | 3 | | 5 to 25 | | pasture | hunting |
| 70 | 2 | 22-Feb-12 | 11:55 | RTHA | 1 | | 40 | | pasture | hunting |
| 70 | 2 | 22-Feb-12 | 11:55 | RLHA | 2 | | 40 | | pasture | hunting |
| 73 | 2 | 22-Feb-12 | 11:58 | RLHA | 3 | | 40 | | pasture | hunting |
| 87 | 2 | 22-Feb-12 | 12:18 | RLHA | 1 | | 40 | | hay field | hover hunting |
| 134 | 2 | 22-Feb-12 | 12:01 | RTHA | 1 | | 20 | | pasture | hunting |
| 134 | 2 | 22-Feb-12 | 12:01 | RLHA | 1 | | 20 | | pasture | hunting |
| 208 | 2 | 22-Feb-12 | 12:29 | RTHA | 1 | | 40 | | over woods | flying |
| 209 | 2 | 22-Feb-12 | 12:28 | SNOW | 1 | | 2 | | farm equipment | roosting |
| 218 | 2 | 22-Feb-12 | 12:10 | SNOW | 1 | | 0 | | pasture | perched on ground |
| 221 | 2 | 22-Feb-12 | 11:49 | RLHA | 1 | | 20 | | pasture | hover hunting |
| 75 | 3 | 22-Feb-12 | 12:02 | RTHA | 1 | | 15 | | woodlot | flew into woodlot |
| 206 | 3 | 22-Feb-12 | 12:06 | SNOW | 1 | | 0 | | hay field | roosting |
| 219 | 3 | 22-Feb-12 | 10:55 | RLHA | 1 | | 25 | | pasture | hover hunting |
| 220 | 3 | 22-Feb-12 | 11:44 | RLHA | 1 | | 40 | S | over woods | flying |
| 222 | 3 | 22-Feb-12 | 11:59 | RLHA | 1 | | 10 | | hay field | perched in tree |
| 155 | 5 | 22-Feb-12 | 12:00 | NOHA | 2 | | 2 | W | pasture | foraging |
| 111 | 6 | 22-Feb-12 | 10:55 | RLHA | 2 | | 3 to 8 | | field | foraging |
| 111 | 6 | 22-Feb-12 | 11:05 | RTHA | 1 | | 1 | | | perched on fence post |
| 195 | 6 | 22-Feb-12 | 11:25 | SNOW | 1 | | 8 | | | perched on telephone pole |
| 195 | 6 | 22-Feb-12 | 11:25 | AMKE | 1 | | 6 | | | perched on telephone pole |
| 195 | 6 | 22-Feb-12 | 11:25 | RTHA | 1 | | 8 | | | perched in tree |
| 215 | 6 | 22-Feb-12 | 11:30 | SNOW | 1 | | 1 | | | perched on fence post |
| 216 | 6 | 22-Feb-12 | 11:40 | RTHA | 1 | | 6 | | | perched in tree |
| 217 | 6 | 22-Feb-12 | 12:05 | AMKE | 1 | | 1 | | pasture | perched on post |
| 213 | 7 | 22-Feb-12 | 11:08 | AMKE | 1 | | 2 | | | foraging |
| 214 | 7 | 22-Feb-12 | 11:15 | NSHR | 1 | | 3 | | hedgerow | perched |
| 22 | 2 | 7-Mar-12 | 17:18 | NOHA | 1 | | 5 | | hayfield | flying |
| 23 | 2 | 7-Mar-12 | 17:16 | RTHA | 1 | | 10 | | hayfield | perched in tree |
| 31 | 2 | 7-Mar-12 | 16:21 | RLHA | 1 | | 0 | | pasture | perched on ground |
| 31 | 2 | 7-Mar-12 | 16:21 | RLHA | 1 | | 1 | | pasture | perched on fence post |
| 33 | 2 | 7-Mar-12 | 17:50 | SEOW | 2 | | >5 | | | flying/hunting |
| 34 | 2 | 7-Mar-12 | 17:56 | SEOW | 2 | | 40 | | | perched on fence post |

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| 37 | 2 | 7-Mar-12 | 18:12 | SEOW | 3 | | n/a | | | flying/hunting |
| 37 | 2 | 7-Mar-12 | 16:34 | NOHA | 1 | female | 0 | | pasture | perched on ground |
| 38 | 2 | 7-Mar-12 | 18:20 | SNOW | 1 | | 15 | | | flying, perched in tree |
| 41 | 2 | 7-Mar-12 | 16:20 | NOHA | 1 | female | 1 | | pasture | flying |
| 65 | 2 | 7-Mar-12 | 14:40 | RTHA | 1 | | 1 | | pasture | perched on fence post |
| 68 | 2 | 7-Mar-12 | 16:28 | AMKE | 1 | | 30 | | pasture | flying |
| 88 | 2 | 7-Mar-12 | 17:22 | SEOW | 7 | | 5 | | fallow/hay | flying |
| 96 | 2 | 7-Mar-12 | 16:59 | RLHA | 2 | | 10 | | hayfield | perched in hedgerow |
| 137 | 2 | 7-Mar-12 | 17:31 | AMKE | 1 | | 7 | | hayfield | flew to hydropole |
| 171 | 2 | 7-Mar-12 | 14:35 | RLHA | 1 | | 5 | | pasture | hunting |
| 187 | 2 | 7-Mar-12 | 17:28 | AMKE | 1 | | 7 | | hayfield | perched on hydropole |
| 189 | 2 | 7-Mar-12 | 16:57 | NOHA | 3 | 2xmale, 1 female | 15 | | hayfield | flying |
| 210 | 2 | 7-Mar-12 | 17:08 | SNOW | 1 | | 1 | | hayfield | perched on fence post |
| 210 | 2 | 7-Mar-12 | 17:08 | NOHA | 1 | | 2 | | hayfield | flying |
| 211 | 2 | 7-Mar-12 | 17:06 | unidentified | 1 | | 5 | | woodland | perched in tree |
| 231 | 2 | 7-Mar-12 | 14:42 | RLHA | 1 | | 50 | | pasture | flying |
| 235 | 2 | 7-Mar-12 | 16:45 | SEOW | 8 | | up to 10 | | pasture | perched/flying |
| 35 | 3 | 7-Mar-12 | 18:01 | SEOW | 3 | | n/a | | | perched in tree |
| 71 | 3 | 7-Mar-12 | 15:29 | NOHA | 2 | male and female | 1 to 2 | | hay field | flying/hunting |
| 71 | 3 | 7-Mar-12 | 16:18 | RTHA | 2 | | 2 to 10 | | pasture | perched in tree/shrub |
| 75 | 3 | 7-Mar-12 | 15:18 | COHA | 1 | | 10 | | woodlot | flying |
| 76 | 3 | 7-Mar-12 | 15:52 | RLHA | 1 | | 2 | | hayfield | perched in shrub |
| 77 | 3 | 7-Mar-12 | 16:08 | RTHA | 1 | | 30 | | hayfield | flying |
| 80 | 3 | 7-Mar-12 | 15:42 | RTHA | 1 | | 10 | | hayfield | perched in tree |
| 80 | 3 | 7-Mar-12 | 15:42 | RLHA | 1 | | 30 | | hayfield | flying |
| 129 | 3 | 7-Mar-12 | 16:26 | RLHA | 1 | | 30 | | hayfield | flying |
| 183 | 3 | 7-Mar-12 | 15:03 | RLHA | 2 | | 60 | | hay field | flying |
| 198 | 3 | 7-Mar-12 | 15:21 | RTHA | 2 | | n/a | | woodlot | pair mating |
| 199 | 3 | 7-Mar-12 | 15:05 | RLHA | 1 | | 5 | | hay field/woodlot | perched in tree |
| 200 | 3 | 7-Mar-12 | 15:04 | SNOW | 1 | | 0 | | hay field | perched on ground |
| 222 | 3 | 7-Mar-12 | 16:15 | RLHA | 2 | | 2 | | hayfield | perched in shrub |
| 233 | 3 | 7-Mar-12 | 16:01 | RTHA | 1 | | 5 | | edge of woodlot/hayfield | perched in tree |
| 234 | 3 | 7-Mar-12 | 16:30 | RLHA | 1 | | 5 | | hayfield | perched in hedgerow |
| 21 | 5 | 7-Mar-12 | 17:20 | SEOW | 1 | | 5 | | hayfield | perched in tree |
| 89 | 5 | 7-Mar-12 | 17:18 | RTHA | 2 | | 5 | | hayfield | perched in tree |
| 138 | 5 | 7-Mar-12 | 17:17 | AMKE | 2 | | 7 | | lawn/woodlot | perched on wire |
| 156 | 5 | 7-Mar-12 | 11:58 | AMKE | 1 | | 10 | | pasture | hover hunting |
| 2 | 6 | 7-Mar-12 | 11:02 | RLHA | 1 | | 40 | | pasture | hover hunting |
| 21 | 6 | 7-Mar-12 | 18:18 | SEOW | 1 | | 20 | | pasture | hunting |
| 36 | 6 | 7-Mar-12 | 18:07 | SEOW | 3 | | 10 | | | flying/hunting |
| 112 | 6 | 7-Mar-12 | 11:14 | RTHA | 1 | | 7 | | pasture | perched in tree |
| 195 | 6 | 7-Mar-12 | 11:49 | AMKE | 1 | female | 10 | | over hayfield | perched on wire |
| 226 | 6 | 7-Mar-12 | 10:57 | RLHA | 2 | | 15 | | pasture | hunting |
| 228 | 6 | 7-Mar-12 | 11:50 | SNOW | 1 | male | 10 | | over hayfield | perched on telephone pole |
| 229 | 6 | 7-Mar-12 | 11:54 | SNOW | 1 | female | 2 | | pasture | perched on fence post |
| 230 | 6 | 7-Mar-12 | 12:25 | RTHA | 1 | adult | 10 | E | over road | flying |
| 227 | 7 | 7-Mar-12 | 11:30 | RTHA | 1 | adult | 15 | E | fallow field | flying |
| 11 | 8 | 7-Mar-12 | 11:16 | SNOW | 2 | | 0 | | pasture | roosting |
| 32 | 8 | 7-Mar-12 | 17:50 | SEOW | 6 | | 20 | | KFN property | hunting |
| 150 | 8 | 7-Mar-12 | 11:12 | RLHA | 1 | | 20 | | pasture | hunting |
| 167 | 8 | 7-Mar-12 | 15:42 | MERL | 1 | | 1 | | hay field | perched on post |
| 167 | 8 | 7-Mar-12 | 15:48 | AMKE | 1 | | 5 | | hayfield | perched in tree |
| | 3 | 9-Nov-11 | 9:15 | NOHA | 1 | | | | pasture/red cedar | perched and hunting |
| | 2 | 24-Nov-11 | 13:20 | NOHA | 2 | | | | pasture | hunting and resting |
| | 2 | 24-Nov-11 | 13:20 | AMKE | 1 | | | | pasture | perched |
| | 2 | 24-Nov-11 | 14:25 | AMKE | 1 | | | | pasture | hunting |
| | 2 | 24-Nov-11 | 14:25 | RLHA | 1 | | | | pasture | hunting |
| | 3 | 24-Nov-11 | 12:00 | SEOW | 28 | | | | pasture | flushed |
| | 6 | 24-Nov-11 | 14:16 | NSHR | 1 | | | | | |
| | 2 | 7-Dec-11 | | SEOW | 1 | | | | reed canary grass | roosting |
| | 2 | 7-Dec-11 | | RLHA | 1 | | | | woodland | flushed |
| | 4 | 20-Dec-11 | | SEOW | 1 | | | | | predated |
| | 2 | 20-Dec-11 | 9:15 | SEOW | 5 | | | | cultural meadow | roosting |
| | 2 | 20-Dec-11 | 9:15 | SEOW | 10 | | | | cultural meadow | roosting |
| | 2 | 20-Dec-11 | 9:15 | NOHA | 1 | | | | fallow thicket | flushed |
| | 6 | 20-Dec-11 | 14:00 | SEOW | 3 | | | | fallow field | roosting |
| | 5 | 10-Jan-12 | 14:00 | RTHA | 1 | | | | pasture | perched |
| | 5 | 10-Jan-12 | 14:00 | NOHA | 2 | | | | pasture | foraging |
| | 5 | 10-Jan-12 | 14:00 | NSHR | 1 | | | | pasture | perched |
| | 7 | 10-Jan-12 | 13:17 | SNOW | 1 | | | | pasture | roosting |
| | 7 | 10-Jan-12 | 13:35 | SNOW | 1 | | | | pasture | roosting |
| | 7 | 10-Jan-12 | 14:43 | SEOW | 1 | | | | pasture | roosting |
| | 1 | 24-Jan-12 | 13:10 | NOHA | 1 | | | | hayfield | flying |
| | 1 | 24-Jan-12 | 13:10 | RTHA | 2 | | | | deciduous forest | perched |
| | 5 | 25-Jan-12 | 12:30 | SEOW | 16 | | | | fallow pasture | roosting |
| | 5 | 25-Jan-12 | 12:30 | SEOW | 1 | | | | grass between hayfields | roosting |
| | 2 | 7-Feb-12 | 13:45 | RTHA | 1 | | | | woodland | perched |
| | 2 | 7-Feb-12 | 14:10 | NOHA | 1 | | | | pasture | foraging |
| | 2 | 7-Feb-12 | 14:25 | NOHA | 1 | | | | pasture | foraging |
| | 2 | 7-Feb-12 | 14:45 | RTHA | 1 | | | | pasture | perched |
| | 6 | 7-Feb-12 | 13:30 | SEOW | 1 | | | | reed canary grass | roosting |
| | 6 | 7-Feb-12 | 13:30 | SEOW | 2 | | | | reed canary grass | roosting |
| | 6 | 7-Feb-12 | 13:30 | SEOW | 1 | | | | reed canary grass | roosting |
| | 6 | 7-Feb-12 | 13:30 | SNOW | 1 | | | | ice | roosting |
| | 2 | 22-Feb-12 | 12:40 | SEOW | 1 | | | | reed canary grass | roosting |
| | 2 | 22-Feb-12 | 12:40 | RTHA | 3 | | | | agricultural field | roosting |
| | 2 | 22-Feb-12 | 12:40 | NOHA | 1 | | | | agricultural field | foraging |
| | 2 | 22-Feb-12 | 12:40 | SEOW | 9 | | | | sedge wetland | roosting |
| | 4 | 22-Feb-12 | 14:08 | SNOW | 1 | | | | agricultural field | roosting |
| | 5 | 20-Mar-12 | 15:20 | SEOW | 1 | | | | tall grass | roosting |

**Summary**

| RWA and Date | Species | | | | | | | | | | | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **American Kestrel** | **Bald Eagle** | **Cooper's Hawk** | **Common Raven** | **Merlin** | **Northern Harrier** | **Northern Shrike** | **Peregrine Falcon** | **Rough-legged Hawk** | **Red-shouldered Hawk** | **Red-tailed Hawk** | **Short-eared Owl** | **Snowy Owl** | **Unk** | |
| **1** | **2** | | | | | **5** | **1** | | **8** | **1** | **7** | **38** | | | **62** |
| 11/24/2011 | | | | | | | | | | | | 6 | | | 6 |
| 12/1/2011 | 1 | | | | | | 1 | | | | | | | | 2 |
| 12/7/2011 | 1 | | | | | 3 | | | 3 | | | 2 | | | 9 |
| 12/20/2011 | | | | | | | | | | | | 3 | | | 3 |
| 12/21/2011 | | | | | | 1 | | | | | | | | | 1 |
| 1/10/2012 | | | | | | | | | 2 | | | 2 | | | 4 |
| 1/24/2012 | | | | | | 1 | | | | | 3 | | | | 4 |
| 2/7/2012 | | | | | | | | | 2 | | 2 | 12 | | | 16 |
| 2/22/2012 | | | | | | | | | 1 | 1 | 2 | 13 | | | 17 |
| **2** | **9** | **1** | | | | **75** | **2** | **1** | **123** | | **52** | **89** | **5** | **1** | **358** |
| 11/9/2011 | | | | | | | | | | | | 11 | | | 11 |
| 11/24/2011 | 2 | | | | | 2 | | | 1 | | | | | | 5 |
| 12/1/2011 | 1 | | | | | 21 | | | 22 | | 8 | | | | 52 |
| 12/7/2011 | 1 | | | | | 10 | 2 | | 21 | | 7 | 10 | | | 51 |
| 12/20/2011 | | | | | | 1 | | | | | | 29 | | | 30 |
| 12/21/2011 | | | | | | 11 | | | 17 | | 6 | | 1 | | 35 |
| 1/10/2012 | | | | | | 4 | | | 6 | | 6 | | | | 16 |
| 1/24/2012 | 1 | | | | | 5 | | | 10 | | 2 | 7 | | | 25 |
| 2/7/2012 | 1 | 1 | | | | 10 | | 1 | 20 | | 11 | | | | 44 |
| 2/22/2012 | | | | | | 4 | | | 20 | | 10 | 10 | 2 | | 46 |
| 3/7/2012 | 3 | | | | | 7 | | | 6 | | 2 | 22 | 2 | 1 | 43 |
| **3** | | | **1** | | | **18** | | | **31** | | **18** | **31** | **3** | | **102** |
| 11/9/2011 | | | | | | 1 | | | | | | | | | 1 |
| 11/24/2011 | | | | | | | | | | | | 28 | | | 28 |
| 12/1/2011 | | | | | | | | | 3 | | 1 | | | | 4 |
| 12/7/2011 | | | | | | 5 | | | 10 | | 6 | | | | 21 |
| 12/21/2011 | | | | | | 4 | | | 1 | | 3 | | | | 8 |
| 1/10/2012 | | | | | | 3 | | | 1 | | | | | | 4 |
| 1/24/2012 | | | | | | | | | 2 | | | | | | 2 |
| 2/7/2012 | | | | | | 3 | | | 2 | | | | 1 | | 6 |
| 2/22/2012 | | | | | | | | | 3 | | 1 | | 1 | | 5 |
| 3/7/2012 | | | 1 | | | 2 | | | 9 | | 7 | 3 | 1 | | 23 |
| **4** | | | | | | | | | | | | **3** | **1** | | **4** |
| 11/9/2011 | | | | | | | | | | | | 2 | | | 2 |
| 12/20/2011 | | | | | | | | | | | | 1 | | | 1 |
| 2/22/2012 | | | | | | | | | | | | | 1 | | 1 |
| **5** | **5** | | | | | **12** | **1** | | | | **11** | **20** | **1** | | **50** |
| 12/1/2011 | 1 | | | | | 3 | | | | | 1 | | | | 5 |
| 12/21/2011 | 1 | | | | | 3 | | | | | 2 | | | | 6 |
| 1/10/2012 | | | | | | 3 | 1 | | | | 1 | | | | 5 |
| 1/24/2012 | | | | | | | | | | | | | 1 | | 1 |
| 1/25/2012 | | | | | | | | | | | | 17 | | | 17 |
| 2/7/2012 | | | | | | | | | | | 3 | | | | 3 |
| 2/22/2012 | | | | | | 2 | | | | | | | | | 2 |
| 3/7/2012 | 3 | | | | | | | | | | 2 | 1 | | | 6 |
| 3/20/2012 | | | | | | | | | | | | 1 | | | 1 |
| **6** | **11** | | | | | **10** | **2** | | **27** | | **18** | **47** | **9** | | **124** |
| 11/24/2011 | | | | | | | 1 | | | | | 10 | | | 11 |
| 12/1/2011 | 1 | | | | | 1 | | | 6 | | 3 | | | | 11 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2011 | | | | | | 1 | 1 | | 3 | | 5 | 10 | 1 | | 21 |
| 12/20/2011 | | | | | | | | | | | | 15 | | | 15 |
| 12/21/2011 | 2 | | | | | 2 | | | 1 | | 3 | | | | 8 |
| 1/10/2012 | 2 | | | | | 2 | | | 5 | | 2 | 4 | | | 15 |
| 1/24/2012 | 2 | | | | | 3 | | | 2 | | | | 2 | | 9 |
| 2/7/2012 | 1 | | | | | 1 | | | 5 | | | 4 | 2 | | 13 |
| 2/22/2012 | 2 | | | | | | | | 2 | | 3 | | 2 | | 9 |
| 3/7/2012 | 1 | | | | | | | | 3 | | 2 | 4 | 2 | | 12 |
| **7** | **1** | **1** | | **1** | | **6** | **2** | | **8** | | **11** | **4** | **6** | | **40** |
| 11/24/2011 | | | | | | | | | | | | 1 | | | 1 |
| 12/1/2011 | | | | | | | | | 4 | | 3 | | | | 7 |
| 12/7/2011 | | | | | | | | | | | | | 1 | | 1 |
| 12/21/2011 | | | | | | 1 | | | | | 1 | | | | 2 |
| 1/10/2012 | | | | 1 | | 1 | | | 2 | | 1 | 1 | 2 | | 8 |
| 1/24/2012 | | | | | | | 1 | | 2 | | 3 | | 1 | | 7 |
| 2/7/2012 | | 1 | | | | 4 | | | | | 2 | 2 | 2 | | 11 |
| 2/22/2012 | 1 | | | | | | 1 | | | | | | | | 2 |
| 3/7/2012 | | | | | | | | | | | 1 | | | | 1 |
| **8** | **1** | | | | **1** | **2** | | | **2** | | | **10** | **6** | | **22** |
| 12/1/2011 | | | | | | 1 | | | | | | | 2 | | 3 |
| 12/21/2011 | | | | | | | | | 1 | | | | 1 | | 2 |
| 1/10/2012 | | | | | | 1 | | | | | | | | | 1 |
| 2/7/2012 | | | | | | | | | | | | 4 | 1 | | 5 |
| 3/7/2012 | 1 | | | | 1 | | | | 1 | | | 6 | 2 | | 11 |
| **9** | | | | | | | | | | | **1** | | | | **1** |
| 12/7/2011 | | | | | | | | | | | 1 | | | | 1 |
| **10** | | | | | | | | | | | **1** | | | | **1** |
| 12/7/2011 | | | | | | | | | | | 1 | | | | 1 |
| **Grand Total** | **29** | **2** | **1** | **1** | **1** | **128** | **8** | **1** | **199** | **1** | **119** | **242** | **31** | **1** | **764** |

## Table E: Migratory Landbird Survey

### ML1 - Spring

**Start UTM:** *18T 0359714 4887186*
**End UTM:** *18T 0360085 4887526*
**Habitat:** Ash lowland

**Obs:** Matthew Ross
Don Graham
Jim Heslop

|  | **Date:** | 27-Apr-11 | 4-May-11 | 12-May-11 | 18-May-11 | 19-May-11 | 26-May-11 |  |
|---|---|---|---|---|---|---|---|---|
|  | **Start time:** | **9:44** | **9:37** | **7:39** | **9:00** | **9;11** | **8:03** |  |
|  | **End time:** | **10:19** | **10:29** | **9:19** | **9:55** | **9:46** | **8:21** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** |  |  |  |  |  |  |  |
| American Crow | *Corvus brachyrhynchos* | 2 | 1 |  | 2 | 1 | 6 | 12 |
| American Goldfinch | *Carduelis tristis* | 1 |  | 2 | 1 | 1 |  | 5 |
| American Redstart | *Setophaga ruticilla* |  |  | 1 | 1 | 2 | 1 | 5 |
| American Robin | *Turdus migratorius* | 10 | 8 | 12 | 5 | 8 | 6 | 49 |
| American Woodcock | *Scolopax minor* | 1 |  |  |  |  |  | 1 |
| Baltimore Oriole | *Icterus galbula* |  |  | 2 | 2 | 4 |  | 8 |
| Barn Swallow | *Hirundo rustica* |  | 3 |  |  |  |  | 3 |
| Black-and-white Warbler | *Mniotilta varia* | 1 |  | 1 |  |  |  | 2 |
| Black-capped Chickadee | *Poecile atricapillus* | 5 | 1 | 6 | 2 |  | 1 | 15 |
| Black-throated Blue Warbler | *Dendroica caerulescens* |  |  |  | 1 | 1 |  | 2 |
| Black-throated Green Warbler | *Dendroica virens* |  |  | 1 | 2 | 2 | 1 | 6 |
| Blue Jay | *Cyanocitta cristata* | 1 | 1 | 4 |  | 4 | 1 | 11 |
| Brown Creeper | *Certhia americana* | 2 | 4 | 1 |  |  |  | 7 |
| Brown-headed Cowbird | *Molothrus ater* |  |  | 4 |  |  |  | 4 |
| Chestnut-sided Warbler | *Dendroica pensylvanica* |  |  |  | 1 |  |  | 1 |
| Common Grackle | *Quiscalus quiscula* |  |  | 1 |  | 7 |  | 8 |
| Common Raven | *Corvus corax* |  |  | 1 |  |  |  | 1 |
| Common Yellowthroat | *Geothlypis trichas* |  | 1 |  | 1 | 2 | 2 | 6 |
| Downy Woodpecker | *Picoides pubescens* | 2 | 1 | 3 | 2 | 2 |  | 10 |
| Eastern Wood-Pewee | *Contopus virens* |  |  |  | 1 |  | 1 | 2 |
| European Starling | *Sturnus vulgaris* | 12 | 4 | 9 | 4 | 4 | 3 | 36 |
| Evening Grosbeak | *Coccothraustes vespertinus* |  |  |  |  |  |  | 0 |
| Great Crested Flycatcher | *Myiarchus crinitus* |  |  |  | 1 | 2 | 1 | 4 |
| Great Horned Owl | *Bubo virginianus* | 1 | 1 | 1 |  |  |  | 3 |
| Hermit Thrush | *Catharus guttatus* |  |  | 2 |  |  |  | 2 |
| House Sparrow | *Passer domesticus* |  |  |  |  |  |  | 0 |
| House Wren | *Troglodytes aedon* |  | 1 | 3 | 5 | 6 | 2 | 17 |
| Least Flycatcher | *Empidonax minimus* |  |  | 1 |  |  |  | 1 |
| Magnolia Warbler | *Dendroica magnolia* |  |  |  |  | 1 |  | 1 |
| Mourning Dove | *Zenaida macroura* |  |  |  | 1 |  |  | 1 |
| Nashville Warbler | *Vermivora ruficapilla* |  |  | 4 |  |  |  | 4 |
| Northern Cardinal | *Cardinalis cardinalis* |  |  | 2 |  |  |  | 2 |
| Northern Flicker | *Colaptes auratus* | 2 | 3 | 1 |  | 1 |  | 7 |
| Ovenbird | *Seiurus aurocapilla* |  |  | 1 |  | 1 |  | 2 |
| Palm Warbler | *Dendroica palmarum* |  |  | 5 |  |  |  | 5 |
| Pileated Woodpecker | *Dryocopus pileatus* | 2 |  | 1 |  |  |  | 3 |
| Pine Siskin | *Carduelis pinus* |  |  |  |  |  |  | 0 |
| Purple Martin | *Progne subis* |  | 1 |  |  |  |  | 1 |
| Red-bellied Woodpecker | *Melanerpes carolinus* |  |  | 1 |  | 2 |  | 3 |
| Red-eyed Vireo | *Vireo olivaceus* |  |  |  |  | 1 | 1 | 2 |
| Red-tailed Hawk | *Buteo jamaicensis* | 1 |  | 2 |  | 1 |  | 4 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 3 |  |  | 2 | 4 | 4 | 13 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* |  | 2 | 5 | 5 | 10 | 1 | 23 |
| Ruby-crowned Kinglet | *Regulus calendula* | 1 |  | 2 |  |  |  | 3 |
| Rusty Blackbird | *Euphagus carolinus* |  |  | 4 |  |  |  | 4 |
| Song Sparrow | *Melospiza melodia* | 4 | 2 | 3 |  | 1 | 1 | 11 |
| Swainson's Thrush | *Catharus ustulatus* |  |  | 1 | 2 |  |  | 3 |
| Tree Swallow | *Tachycineta bicolor* | 1 | 7 | 6 |  |  |  | 14 |
| Veery | *Catharus fuscescens* |  |  |  | 2 |  |  | 2 |
| White-breasted Nuthatch | *Sitta carolinensis* | 3 | 4 | 2 | 1 | 2 |  | 12 |
| White-throated Sparrow | *Zonotrichia albicollis* |  |  | 3 |  | 1 |  | 4 |
| Wilson's Snipe | *Gallinago delicata* | 3 |  |  |  |  |  | 3 |
| Wood Duck | *Aix sponsa* | 4 | 1 |  | 3 | 3 |  | 11 |
| Wood Thrush | *Hylocichla mustelina* |  |  | 6 | 2 | 2 | 1 | 11 |
| Yellow Warbler | *Dendroica petechia* |  |  |  |  |  | 3 | 3 |
| Yellow-bellied Sapsucker | *Sphyrapicus varius* | 3 | 1 |  |  |  |  | 4 |
| Yellow-rumped Warbler | *Dendroica coronata* | 1 |  | 20 |  |  |  | 21 |
|  | **total individuals** | 66 | 48 | 126 | 49 | 76 | 36 | 401 |
|  | **total species** | 23 | 20 | 38 | 23 | 27 | 17 | 57 |

| | |
|---|---|
| **Total Species #:** | 57 |
| **Total Individuals:** | 401 |

# Migratory Landbird Survey

## ML2 - Spring

**Start UTM:** *18T 0363296 4888955*
**End UTM:** *18T 0363041 4888494*
**Habitat:** SWD Bur Oak and Shagbark Hickory

**Obs:** Don Graham
Matthew Ross
Bob Stamp

| | **Date:** | 27-Apr-11 | 4-May-11 | 11-May-11 | 18-May-11 | 19-May-11 | 26-May-11 | |
|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **8:58** | **8:36** | **10:25** | **10:52** | **9:20** | **11:59** | |
| | **End time:** | **9:23** | **9:00** | **10:45** | **11:16** | **10:06** | **12:37** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | | | | 1 | | | 1 |
| American Goldfinch | *Carduelis tristis* | | 1 | 1 | 1 | 2 | 2 | 7 |
| American Redstart | *Setophaga ruticilla* | | | | | | 1 | 1 |
| American Robin | *Turdus migratorius* | 6 | 4 | 2 | 1 | 3 | 7 | 23 |
| American Woodcock | *Scolopax minor* | | | | | 1 | | 1 |
| Baltimore Oriole | *Icterus galbula* | | | 2 | 1 | | 3 | 6 |
| Bay-breasted Warbler | *Dendroica castanea* | | | | | 2 | | 2 |
| Belted Kingfisher | *Ceryle alcyon* | | | | 1 | | | 1 |
| Black-and-white Warbler | *Mniotilta varia* | 1 | | | | 1 | | 2 |
| Blackburnian Warbler | *Dendroica fusca* | | | | | 2 | 2 | 4 |
| Black-capped Chickadee | *Poecile atricapillus* | 3 | 5 | | 1 | | | 9 |
| Blackpoll Warbler | *Dendroica striata* | | | | | 1 | | 1 |
| Black-throated Blue Warbler | *Dendroica caerulescens* | | | | 2 | 2 | 1 | 5 |
| Black-throated Green Warbler | *Dendroica virens* | | 1 | | | 1 | | 2 |
| Blue-headed Vireo | *Vireo solitarius* | | | | | 1 | | 1 |
| Brown Creeper | *Certhia americana* | 1 | | | | | | 1 |
| Brown Thrasher | *Toxostoma rufum* | 2 | | | | 1 | | 3 |
| Brown-headed Cowbird | *Molothrus ater* | 2 | | | | 2 | 2 | 6 |
| Canada Warbler | *Wilsonia canadensis* | | | | | 2 | | 2 |
| Cedar Waxwing | *Bombycilla cedrorum* | | | | | | 1 | 1 |
| Chestnut-sided Warbler | *Dendroica pensylvanica* | | | | 1 | 3 | | 4 |
| Common Grackle | *Quiscalus quiscula* | | | | 1 | 2 | | 3 |
| Common Yellowthroat | *Geothlypis trichas* | | | 1 | | 1 | 3 | 5 |
| Downy Woodpecker | *Picoides pubescens* | 1 | | | | | | 1 |
| European Starling | *Sturnus vulgaris* | 5 | 8 | | 1 | 2 | 4 | 20 |
| Evening Grosbeak | *Coccothraustes vespertinus* | | | | | | | 0 |
| Golden-crowned Kinglet | *Regulus satrapa* | | 1 | | | | | 1 |
| Gray Catbird | *Dumetella carolinensis* | | | 3 | 1 | 3 | 5 | 12 |
| Great Crested Flycatcher | *Myiarchus crinitus* | | | | | 1 | | 1 |
| House Sparrow | *Passer domesticus* | | | | | | | 0 |
| House Wren | *Troglodytes aedon* | | 1 | | | 1 | 1 | 3 |
| Least Flycatcher | *Empidonax minimus* | | | | | 3 | 1 | 4 |
| Lincoln's Sparrow | *Melospiza lincolnii* | | | | | 2 | | 2 |
| Magnolia Warbler | *Dendroica magnolia* | | | | 2 | 15 | | 17 |
| Mourning Dove | *Zenaida macroura* | | 1 | | | | | 1 |
| Nashville Warbler | *Vermivora ruficapilla* | 1 | 1 | 2 | | 3 | | 7 |
| Northern Cardinal | *Cardinalis cardinalis* | 1 | 1 | | | | | 2 |
| Northern Flicker | *Colaptes auratus* | 2 | 2 | | | | 1 | 5 |
| Northern Parula | *Parula americana* | 1 | | 2 | | | | 3 |
| Northern Waterthrush | *Seiurus noveboracensis* | | | | 1 | 1 | 1 | 3 |
| Pine Siskin | *Carduelis pinus* | | | | | | | 0 |
| Red-bellied Woodpecker | *Melanerpes carolinus* | 1 | | | | | | 1 |
| Red-breasted Nuthatch | *Sitta canadensis* | | | | | 1 | | 1 |
| Red-eyed Vireo | *Vireo olivaceus* | | | | | 2 | 3 | 5 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 5 | 5 | | 3 | 2 | 1 | 16 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | | | 4 | | 2 | 4 | 10 |
| Ruby-crowned Kinglet | *Regulus calendula* | 2 | | 1 | 1 | 1 | | 5 |
| Scarlet Tanager | *Piranga olivacea* | | | 1 | | | | 1 |
| Song Sparrow | *Melospiza melodia* | 4 | 3 | 4 | 2 | 3 | 4 | 20 |
| Tennessee Warbler | *Vermivora peregrina* | | | | | 3 | | 3 |
| Tree Swallow | *Tachycineta bicolor* | 6 | 6 | 1 | | | 1 | 14 |
| Warbling Vireo | *Vireo gilvus* | | | | | 1 | | 1 |
| White-breasted Nuthatch | *Sitta carolinensis* | 1 | 1 | | | | 1 | 3 |
| White-throated Sparrow | *Zonotrichia albicollis* | 1 | 3 | 1 | 2 | | | 7 |
| Wood Thrush | *Hylocichla mustelina* | 2 | 2 | | 3 | 1 | 5 | 13 |
| Yellow Warbler | *Dendroica petechia* | | | 8 | 2 | 2 | 9 | 21 |
| Yellow-rumped Warbler | *Dendroica coronata* | 12 | | | | 12 | | 24 |
| | **total individuals** | 62 | 46 | 33 | 29 | 88 | 63 | 321 |
| | **total species** | 23 | 17 | 14 | 20 | 36 | 23 | 57 |

**Total Species #:** 57
**Total Individuals:** 321

# Migratory Landbird Survey
## ML3 - Spring

**Start UTM:** *18T 0365038 4887960*
**End UTM:** *18T 0365002 4888463*
**Habitat:** Ash Swamp

**Obs:** Matthew Ross
Bob Stamp

| | **Date:** | 27-Apr-11 | 4-May-11 | 11-May-11 | 18-May-11 | 19-May-11 | 26-May-11 | |
|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **8:04** | **9:44** | **9:23** | **10:05** | **10:35** | **11:52** | |
| | **End time:** | **8:25** | **10:08** | **9:52** | **10:29** | **10:58** | **12:27** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | | | | | | 1 | 1 |
| American Goldfinch | *Carduelis tristis* | 2 | 1 | 1 | 2 | | 2 | 8 |
| American Redstart | *Setophaga ruticilla* | | | | | 1 | | 1 |
| American Robin | *Turdus migratorius* | 4 | 3 | 3 | 4 | 6 | 4 | 24 |
| American Woodcock | *Scolopax minor* | | | 1 | | | | 1 |
| Baltimore Oriole | *Icterus galbula* | | | 2 | 1 | 2 | 2 | 7 |
| Black-and-white Warbler | *Mniotilta varia* | 1 | | | | | | 1 |
| Black-capped Chickadee | *Poecile atricapillus* | | | | 1 | 1 | | 2 |
| Blackpoll Warbler | *Dendroica striata* | | | | | | 1 | 1 |
| Black-throated Green Warbler | *Dendroica virens* | | | | 1 | 2 | 1 | 4 |
| Blue-headed Vireo | *Vireo solitarius* | | | | | 1 | | 1 |
| Brown Creeper | *Certhia americana* | 1 | | | | | | 1 |
| Brown-headed Cowbird | *Molothrus ater* | | 2 | 1 | | 2 | | 5 |
| Canada Goose | *Branta canadensis* | | | 4 | | | | 4 |
| Canada Warbler | *Wilsonia canadensis* | | | | | | 1 | 1 |
| Chestnut-sided Warbler | *Dendroica pensylvanica* | | | | | 2 | | 2 |
| Common Grackle | *Quiscalus quiscula* | | 1 | | | 2 | 2 | 5 |
| Common Yellowthroat | *Geothlypis trichas* | | | 2 | 2 | 2 | 1 | 7 |
| Dark-eyed Junco | *Junco hyemalis* | 2 | | | | | | 2 |
| Eastern Wood-Pewee | *Contopus virens* | | | | | 1 | 1 | 2 |
| European Starling | *Sturnus vulgaris* | 2 | 1 | 7 | 2 | 1 | 2 | 15 |
| Hairy Woodpecker | *Picoides villosus* | 1 | | | | | | 1 |
| House Wren | *Troglodytes aedon* | | | 3 | 4 | 2 | 1 | 10 |
| Least Flycatcher | *Empidonax minimus* | | | 1 | 2 | 2 | 2 | 7 |
| Lincoln's Sparrow | *Melospiza lincolnii* | | | | | 1 | | 1 |
| Magnolia Warbler | *Dendroica magnolia* | | | | | 3 | 1 | 4 |
| Nashville Warbler | *Vermivora ruficapilla* | 1 | | 1 | | 1 | | 3 |
| Northern Flicker | *Colaptes auratus* | | | 1 | 1 | | | 2 |
| Red-eyed Vireo | *Vireo olivaceus* | | | | | | 1 | 1 |
| Red-tailed Hawk | *Buteo jamaicensis* | | | | 1 | | | 1 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 70 | 30 | 6 | 3 | 6 | 5 | 120 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | | | 3 | 2 | 1 | | 6 |
| Ruby-crowned Kinglet | *Regulus calendula* | 2 | | 1 | | | | 3 |
| Rusty Blackbird | *Euphagus carolinus* | 2 | 12 | | | | | 14 |
| Savannah Sparrow | *Passerculus sandwichensis* | 1 | | | | | | 1 |
| Scarlet Tanager | *Piranga olivacea* | | | 2 | | 1 | | 3 |
| Song Sparrow | *Melospiza melodia* | 2 | 2 | 4 | | 6 | 4 | 18 |
| Swamp Sparrow | *Melospiza georgiana* | 3 | 1 | 4 | 3 | 1 | 2 | 14 |
| Tree Swallow | *Tachycineta bicolor* | 10 | 13 | 6 | 15 | 5 | 7 | 56 |
| Veery | *Catharus fuscescens* | | | | 2 | | | 2 |
| Warbling Vireo | *Vireo gilvus* | | | 1 | | 2 | 2 | 5 |
| White-breasted Nuthatch | *Sitta carolinensis* | | | 2 | 1 | 2 | 1 | 6 |
| White-throated Sparrow | *Zonotrichia albicollis* | 5 | | | 1 | | | 6 |
| Wilson's Snipe | *Gallinago delicata* | | | | 1 | 1 | | 2 |
| Yellow Warbler | *Dendroica petechia* | | 1 | | 6 | 4 | 15 | 26 |
| Yellow-rumped Warbler | *Dendroica coronata* | 2 | | 7 | | 1 | | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **total individuals** | 111 | 67 | 63 | 55 | 62 | 59 | 417 |
| **total species** | 17 | 11 | 22 | 20 | 28 | 22 | 46 |

**Total Species #:** 46
**Total Individuals:** 417

# Migratory Landbird Survey
## ML4 - Spring

**Start UTM:** *18T 0365066 4890713*
**End UTM:** *18T 0365567 4890662*
**Habitat:** FOD lowland ash, SWT

**Obs:** Don Graham
Matthew Ross
Bob Stamp

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Date:** | 27-Apr-11 | 4-May-11 | 11-May-11 | 18-May-11 | 19-May-11 | 26-May-11 | |
| | **Start time:** | **10:01** | **7:10** | **6:50** | **7:11** | **7:12** | **7:13** | |
| | **End time:** | **10:25** | **7:35** | **7:14** | **7:26** | **7:35** | **7:58** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | | | | | | 1 | 1 |
| American Redstart | *Setophaga ruticilla* | | | | | | 3 | 3 |
| American Robin | *Turdus migratorius* | 4 | 3 | 4 | 6 | 4 | 5 | 26 |
| American Woodcock | *Scolopax minor* | | | | 1 | | 1 | 2 |
| Baltimore Oriole | *Icterus galbula* | | | 1 | 1 | | | 2 |
| Blackburnian Warbler | *Dendroica fusca* | | | | | 1 | 2 | 3 |
| Black-capped Chickadee | *Poecile atricapillus* | 3 | | 2 | | | | 5 |
| Blue Jay | *Cyanocitta cristata* | | 1 | 2 | | 2 | | 5 |
| Brown-headed Cowbird | *Molothrus ater* | 2 | 1 | | 1 | 2 | 5 | 11 |
| Chestnut-sided Warbler | *Dendroica pensylvanica* | | | | 1 | 2 | 1 | 4 |
| Common Grackle | *Quiscalus quiscula* | | | | | 4 | | 4 |
| Common Raven | *Corvus corax* | | | | | 1 | | 1 |
| Common Yellowthroat | *Geothlypis trichas* | 1 | 2 | 3 | 3 | 3 | 4 | 16 |
| Eastern Towhee | *Pipilo erythrophthalmus* | 1 | 1 | 4 | 2 | 2 | 2 | 12 |
| Eastern Wood-Pewee | *Contopus virens* | | | | | | 2 | 2 |
| European Starling | *Sturnus vulgaris* | | | | 1 | 2 | 3 | 6 |
| Evening Grosbeak | *Coccothraustes vespertinus* | | | | | | | 0 |
| Golden-crowned Kinglet | *Regulus satrapa* | 2 | | | | | | 2 |
| Gray Catbird | *Dumetella carolinensis* | | | 2 | 2 | 2 | 2 | 8 |
| Great Crested Flycatcher | *Myiarchus crinitus* | | | | | | 1 | 1 |
| Hairy Woodpecker | *Picoides villosus* | | 1 | | | | | 1 |
| House Sparrow | *Passer domesticus* | | | | | | | 0 |
| House Wren | *Troglodytes aedon* | | 2 | 2 | 2 | 1 | 3 | 10 |
| Least Flycatcher | *Empidonax minimus* | | | 1 | | 2 | | 3 |
| Magnolia Warbler | *Dendroica magnolia* | | | | 1 | | | 1 |
| Mourning Dove | *Zenaida macroura* | | | | | 4 | 4 | 8 |
| Northern Flicker | *Colaptes auratus* | | 1 | | | | 1 | 2 |
| Ovenbird | *Seiurus aurocapilla* | | | 1 | | | | 1 |
| Palm Warbler | *Dendroica palmarum* | | | 1 | | | | 1 |
| Pine Siskin | *Carduelis pinus* | | | | | | | 0 |
| Red-eyed Vireo | *Vireo olivaceus* | | | | | | 4 | 4 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 5 | 10 | 1 | | | 1 | 17 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | | 1 | | 3 | 3 | 5 | 12 |
| Ruby-crowned Kinglet | *Regulus calendula* | 1 | | | | | | 1 |
| Song Sparrow | *Melospiza melodia* | 1 | 3 | 3 | 4 | 2 | 1 | 14 |
| Swamp Sparrow | *Melospiza georgiana* | 3 | 1 | | | | 1 | 5 |
| Tennessee Warbler | *Vermivora peregrina* | | | | 1 | | | 1 |
| Tree Swallow | *Tachycineta bicolor* | | 2 | | | | | 2 |
| White-breasted Nuthatch | *Sitta carolinensis* | | | | | | 1 | 1 |
| White-throated Sparrow | *Zonotrichia albicollis* | | | 3 | | | | 3 |
| Wilson's Snipe | *Gallinago delicata* | | | 1 | 1 | | | 2 |
| Wilson's Warbler | *Wilsonia pusilla* | | | | | 1 | | 1 |
| Wood Thrush | *Hylocichla mustelina* | | 1 | 3 | 2 | 2 | 4 | 12 |
| Yellow Warbler | *Dendroica petechia* | | | 1 | 2 | 4 | 4 | 11 |
| Yellow-rumped Warbler | *Dendroica coronata* | 3 | | | | | | 3 |
| | **total** | 26 | 32 | 36 | 34 | 44 | 61 | 233 |
| | **species** | 11 | 16 | 18 | 17 | 19 | 24 | 45 |

**Total Species #:** 45
**Total Individuals:** 233

# Migratory Landbird Survey
## ML5 - Spring

**Start UTM:** *18T 0368127 4891747*
**End UTM:** *18T 0367858 4892170*
**Habitat:** SWT, Grey Dogwood

**Obs:** Don Graham
Matthew Ross
Bob Stamp

| | **Date:** | 27-Apr-11 | 4-May-11 | 11-May-11 | 14-May-11 | 19-May-11 | 26-May-11 | |
|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **7:14** | **10:45** | **8:26** | **8:36** | **8:35** | **8:40** | |
| | **End time:** | **7:35** | **11:00** | **8:50** | **8:55** | **8:51** | **9:15** | **Total** |
| ***COMMON NAME*** | ***SCIENTIFIC NAME*** | | | | | | | |
| Alder Flycatcher | *Empidonax alnorum* | | | | | 1 | 1 | 2 |
| American Crow | *Corvus brachyrhynchos* | 1 | 1 | 3 | | 1 | 2 | 8 |
| American Goldfinch | *Carduelis tristis* | | 1 | 1 | 8 | | | 10 |
| American Robin | *Turdus migratorius* | 6 | 4 | 3 | | 2 | | 15 |
| Blackburnian Warbler | *Dendroica fusca* | | | 1 | | | | 1 |
| Black-capped Chickadee | *Poecile atricapillus* | | | | | 1 | | 1 |
| Blue Jay | *Cyanocitta cristata* | | | | | | 1 | 1 |
| Bobolink* | *Dolichonyx oryzivorus* | | | 2 | 1 | 6 | | 9 |
| Brown Creeper | *Certhia americana* | 1 | | | | | | 1 |
| Brown Thrasher | *Toxostoma rufum* | | 1 | | 1 | | | 2 |
| Brown-headed Cowbird | *Molothrus ater* | 1 | 2 | 4 | | | | 7 |
| Chestnut-sided Warbler | *Dendroica pensylvanica* | | | | 2 | | | 2 |
| Common Grackle | *Quiscalus quiscula* | | | | 2 | 4 | 1 | 7 |
| Common Yellowthroat | *Geothlypis trichas* | | | 4 | 5 | 3 | | 12 |
| Dark-eyed Junco | *Junco hyemalis* | 5 | | | | | | 5 |
| Double-crested Cormorant | *Phalacrocorax auritus* | | | 1 | | | | 1 |
| Eastern Kingbird | *Tyrannus tyrannus* | | | 2 | | | 3 | 5 |
| Eastern Meadowlark | *Sturnella magna* | | | 1 | 1 | 1 | | 3 |
| Eastern Towhee | *Pipilo erythrophthalmus* | 1 | 1 | | | | 2 | 4 |
| European Starling | *Sturnus vulgaris* | 1 | | 3 | | 1 | | 5 |
| Field Sparrow | *Spizella pusilla* | 1 | | | | | | 1 |
| Gray Catbird | *Dumetella carolinensis* | | 1 | 1 | 2 | 3 | 1 | 8 |
| House Wren | *Troglodytes aedon* | | | 2 | 1 | | | 3 |
| Least Flycatcher | *Empidonax minimus* | | | | 2 | 2 | | 4 |
| Magnolia Warbler | *Dendroica magnolia* | | | | | 2 | | 2 |
| Mourning Dove | *Zenaida macroura* | 1 | 1 | | | | | 2 |
| Mourning Warbler | *Oporornis philadelphia* | | | | | | 1 | 1 |
| Northern Flicker | *Colaptes auratus* | 1 | | | | | 1 | 2 |
| Northern Harrier | *Circus cyaneus* | | | 1 | 1 | | | 2 |
| Northern Waterthrush | *Seiurus noveboracensis* | 1 | | | | | | 1 |
| Purple Finch | *Carpodacus purpureus* | 1 | | | | | | 1 |
| Red-eyed Vireo | *Vireo olivaceus* | | | | | | 1 | 1 |
| Red-necked Phalarope | *Phalaropus lobatus* | | | 2 | 1 | | | 3 |
| Red-tailed Hawk | *Buteo jamaicensis* | | | 2 | | | | 2 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 15 | | 6 | 5 | 6 | 1 | 33 |
| Ruby-crowned Kinglet | *Regulus calendula* | 1 | 1 | 1 | | | | 3 |
| Rusty Blackbird | *Euphagus carolinus* | | 10 | | | | | 10 |
| Savannah Sparrow | *Passerculus sandwichensis* | 1 | 1 | 2 | 2 | 2 | | 8 |
| Song Sparrow | *Melospiza melodia* | 5 | 5 | 6 | 5 | 5 | 8 | 34 |
| Swamp Sparrow | *Melospiza georgiana* | 1 | | | | | | 1 |
| Tree Swallow | *Tachycineta bicolor* | 5 | 7 | 4 | | 4 | 1 | 21 |
| Turkey Vulture | *Cathartes aura* | | | 4 | | | | 4 |
| White-throated Sparrow | *Zonotrichia albicollis* | 3 | | 2 | 2 | | | 7 |
| Willow Flycatcher | *Empidonax traillii* | | | | | | 4 | 4 |
| Wilson's Snipe | *Gallinago delicata* | | | | | 1 | | 1 |
| Yellow Warbler | *Dendroica petechia* | 1 | 1 | 5 | | 8 | 8 | 23 |
| Yellow-rumped Warbler | *Dendroica coronata* | 7 | 3 | 1 | 4 | | | 15 |
| | ***Total Species #:*** | 21 | 15 | 25 | 17 | 18 | 15 | 47 |
| | ***Total Individuals:*** | 60 | 40 | 64 | 45 | 53 | 36 | 298 |

***Total Species #:*** 47
***Total Individuals:*** 298

# Migratory Landbird Surveys

## ML1 - Fall

**Start UTM:** *18T 0359714 4887186*
**End UTM:** *18T 0360085 4887526*
**Habitat:** Ash lowland

**Obs:** Alan Wormington
Josh Mansell
Brandon Holden

| | **Date:** | 1-Sep-11 | 8-Sep-11 | 22-Sep-11 | 29-Sep-11 | 6-Oct-11 | 13-Oct-11 | 21-Oct-11 | |
|---|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **9:50** | **7:14** | **9:00** | **9:25** | **9:30** | **7:10** | **9:04** | |
| | **End time:** | **10:15** | **7:31** | **9:40** | **10:00** | **10:15** | **7:33** | **9:37** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** | | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | | | | | | 2 | 2 | 4 |
| American Redstart | *Setophaga ruticilla* | | | 3 | | | | | 3 |
| American Robin | *Turdus migratorius* | | 7 | | 2 | | 2 | 2 | 13 |
| Black-capped Chickadee | *Poecile atricapillus* | | | 6 | | 4 | | | 10 |
| Blackpoll Warbler | *Dendroica striata* | | | | 1 | | | | 1 |
| Blue Jay | *Cyanocitta cristata* | 1 | 1 | 5 | 2 | 1 | 6 | | 16 |
| Canada Goose | *Branta canadensis* | | | | | | | 25 | 25 |
| Common Grackle | *Quiscalus quiscula* | | | | 18 | | | | 18 |
| Downy Woodpecker | *Picoides pubescens* | | | | | 2 | | | 2 |
| Eastern Phoebe | *Sayornis phoebe* | | | | | | 1 | | 1 |
| Eastern Wood-Pewee | *Contopus virens* | 2 | 2 | 2 | | | | | 6 |
| European Starling | *Sturnus vulgaris* | | | 12 | 7 | | | 20 | 39 |
| Golden-crowned Kinglet | *Regulus satrapa* | | | | | 4 | 3 | | 7 |
| Magnolia Warbler | *Dendroica magnolia* | | | 2 | | | | | 2 |
| Red-eyed Vireo | *Vireo olivaceus* | | | 2 | | | | | 2 |
| Ruby-crowned Kinglet | *Regulus calendula* | | | | | | 3 | | 3 |
| Rusty Blackbird | *Euphagus carolinus* | | | | | | 2 | | 2 |
| Song Sparrow | *Melospiza melodia* | | | | | | 1 | 1 | 2 |
| Thrush Sp. | | | | 4 | | 1 | | | 5 |
| Warbler Sp. | | | | | 4 | | | | 4 |
| White-breasted Nuthatch | *Sitta carolinensis* | | | 1 | | 6 | | | 7 |
| White-throated Sparrow | *Zonotrichia albicollis* | | | | | 2 | 4 | | 6 |
| Woodpecker Sp. | | | | 1 | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Total Species** | 2 | 3 | 10 | 6 | 7 | 9 | 5 | **23** |
| **Total Individuals** | 3 | 10 | 38 | 34 | 20 | 24 | 50 | **179** |

| | |
|---|---|
| **Total Species** | 23 |
| **Total Individuals** | 179 |

# Migratory Landbird Surveys

## ML2 - Fall

**Start UTM:** *18T 0363296 4888955*
**End UTM:** *18T 0363041 4888494*
**Habitat:** SWD Bur Oak and Shagbark Hickory

**Obs:** Brandon Holden

| | **Date:** | 2-Sep-11 | 8-Sep-11 | 16-Sep-11 | 23-Sep-11 | 30-Sep-11 | 7-Oct-11 | 12-Oct-11 | 20-Oct-11 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **7:55** | **7:39** | **8:55** | **8:23** | **8:54** | **8:29** | **9:34** | **unk** | |
| | **End time:** | **8:19** | **8:09** | **9:19** | **8:47** | **9:20** | **8:58** | **10:02** | **unk** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** | | | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | 2 | 3 | | | | | | | 5 |
| American Goldfinch | *Carduelis tristis* | 2 | | | | 6 | | 5 | | 13 |
| American Robin | *Turdus migratorius* | | | | | 2 | 4 | | 4 | 10 |
| Black-capped Chickadee | *Poecile atricapillus* | | | 3 | 4 | | | 7 | 7 | 21 |
| Blackpoll Warbler | *Dendroica striata* | | | 1 | | 3 | | | | 4 |
| Black-throated Green Warbler | *Dendroica virens* | | | 1 | | | | | | 1 |
| Blue Jay | *Cyanocitta cristata* | 6 | 2 | 5 | 5 | 35 | 7 | | 4 | 64 |
| Blue-headed Vireo | *Vireo solitarius* | | | 4 | | | 1 | | | 5 |
| Cedar Waxwing | *Bombycilla cedrorum* | | | | | | 10 | | 2 | 12 |
| Common Grackle | *Quiscalus quiscula* | | | | | | 2 | | | 2 |
| Common Yellowthroat | *Geothlypis trichas* | | 2 | | | 3 | | | | 5 |
| Cooper's Hawk | *Accipiter cooperii* | | | | | | | | 1 | 1 |
| Downy Woodpecker | *Picoides pubescens* | | | | | | 1 | 1 | 1 | 3 |
| Eastern Phoebe | *Sayornis phoebe* | | | | 1 | | 1 | | | 2 |
| Eastern Wood-Pewee | *Contopus virens* | | | 2 | | | | | | 2 |
| Golden-crowned Kinglet | *Regulus satrapa* | | | | | | | | 4 | 4 |
| Gray Catbird | *Dumetella carolinensis* | 1 | | | | | | | | 1 |
| Hermit Thrush | *Catharus guttatus* | | | | | | 1 | | | 1 |
| House Wren | *Troglodytes aedon* | | 1 | 1 | | 1 | | | | 3 |
| Lincoln's Sparrow | *Melospiza lincolnii* | | | | | 1 | | | | 1 |
| Magnolia Warbler | *Dendroica magnolia* | | | 1 | | | | | | 1 |
| Mourning Dove | *Zenaida macroura* | 2 | | | | | | | | 2 |
| Nashville Warbler | *Vermivora ruficapilla* | | | | | 1 | | | | 1 |
| Northern Flicker | *Colaptes auratus* | | | | | | | | 1 | 1 |
| Northern Parula | *Parula americana* | | | | | 1 | | | | 1 |
| Philadelphia Vireo | *Vireo philadelphicus* | | | 1 | | | | | | 1 |
| Pine Siskin | *Carduelis pinus* | | | | | | | 5 | | 5 |
| Red-breasted Nuthatch | *Sitta canadensis* | | | | | | | 1 | | 1 |
| Red-eyed Vireo | *Vireo olivaceus* | | | 1 | | 1 | | | | 2 |
| Red-tailed Hawk | *Buteo jamaicensis* | | | 1 | | | | | | 1 |
| Red-winged Blackbird | *Agelaius phoeniceus* | | | | | 4 | | | | 4 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | | 1 | | | | | | | 1 |
| Ruby-crowned Kinglet | *Regulus calendula* | | | | | | 2 | | 3 | 5 |
| Ruby-throated Hummingbird | *Archilochus colubris* | | 1 | | | | | | | 1 |
| Rusty Blackbird | *Euphagus carolinus* | | | | | | | | 2 | 2 |
| Sharp-shinned Hawk | *Accipiter striatus* | | | | | 1 | | | | 1 |
| Song Sparrow | *Melospiza melodia* | 3 | 3 | 3 | 2 | 4 | | 3 | 8 | 26 |
| Swamp Sparrow | *Melospiza georgiana* | | | | | 1 | | | 1 | 2 |
| Upland Sandpiper | *Bartramia longicauda* | 1 | | | | | | | | 1 |
| White-breasted Nuthatch | *Sitta carolinensis* | | | | | | | | 1 | 1 |
| White-crowned Sparrow | *Zonotrichia leucophrys* | | | | | 5 | | | 8 | 13 |
| White-throated Sparrow | *Zonotrichia albicollis* | | | | | 13 | | | 10 | 23 |
| Winter Wren | *Troglodytes troglodytes* | | | | | | | | 1 | 1 |
| Yellow-bellied Sapsucker | *Sphyrapicus varius* | | | | | 1 | | | | 1 |
| Yellow-rumped Warbler | *Dendroica coronata* | | | | | 2 | | 1 | 2 | 5 |
| | **Total Species #:** | 7 | 7 | 12 | 4 | 18 | 9 | 7 | 17 | **45** |
| | **Total Individuals:** | 17 | 13 | 24 | 12 | 85 | 29 | 23 | 60 | **263** |

| | |
|---|---|
| **Total Species** | 45 |
| **Total Individuals** | 263 |

# Migratory Landbird Surveys
## ML3 - Fall

**Start UTM:** *18T 0365038 4887960*
**End UTM:** *18T 0365002 4888463*
**Habitat:** Ash Swamp

**Obs:** Brandon Holden

| | **Date:** | 2-Sep-11 | 8-Sep-11 | 16-Sep-11 | 23-Sep-11 | 30-Sep-11 | 7-Oct-11 | 12-Oct-11 | 20-Oct-11 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **6:41** | **6:38** | **8:12** | **9:12** | **8:11** | **9:35** | **8:41** | **9:07** | |
| | **End time:** | **7:21** | **7:06** | **8:34** | **9:34** | **8:29** | **10:03** | **9:08** | **9:31** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** | | | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | | 2 | | | 2 | | | | 4 |
| American Goldfinch | *Carduelis tristis* | 4 | 4 | 1 | | | | | | 9 |
| American Kestrel | *Falco sparverius* | | 1 | | | | | | | 1 |
| American Redstart | *Setophaga ruticilla* | | | 1 | | | | | | 1 |
| American Robin | *Turdus migratorius* | | | | 2 | 10 | | 2 | | 14 |
| Black-capped Chickadee | *Poecile atricapillus* | 2 | 3 | | | | | | | 5 |
| Blackpoll Warbler | *Dendroica striata* | | | | | 2 | | | | 2 |
| Blue Jay | *Cyanocitta cristata* | | | 2 | | | 8 | | | 10 |
| Blue-headed Vireo | *Vireo solitarius* | | | | 1 | 1 | 1 | | | 3 |
| Bobolink* | *Dolichonyx oryzivorus* | 6 | | | | | | | | 6 |
| Brown Creeper | *Certhia americana* | | | 1 | | | | | 1 | 2 |
| Cedar Waxwing | *Bombycilla cedrorum* | | | | | | | 4 | | 4 |
| Common Yellowthroat | *Geothlypis trichas* | 1 | 4 | 1 | 1 | | | | | 7 |
| Dark-eyed Junco | *Junco hyemalis* | | | | | | | 2 | | 2 |
| Downy Woodpecker | *Picoides pubescens* | | | | | 1 | | | | 1 |
| Eastern Phoebe | *Sayornis phoebe* | | | | | 1 | 1 | | | 2 |
| Eastern Wood-Pewee | *Contopus virens* | 1 | | 1 | | 1 | | | | 3 |
| European Starling | *Sturnus vulgaris* | 5 | | 1 | | 2 | | | | 8 |
| House Wren | *Troglodytes aedon* | | 2 | 2 | | | | | | 4 |
| Magnolia Warbler | *Dendroica magnolia* | | | 1 | | 1 | | | | 2 |
| Nashville Warbler | *Vermivora ruficapilla* | | | 1 | | 3 | | 1 | | 5 |
| Northern Cardinal | *Cardinalis cardinalis* | | | | | | 2 | | | 2 |
| Northern Flicker | *Colaptes auratus* | | 1 | 1 | | 3 | 1 | | | 6 |
| Northern Harrier | *Circus cyaneus* | | | | | | | | 1 | 1 |
| Red-breasted Nuthatch | *Sitta canadensis* | | | | | | 1 | | | 1 |
| Red-eyed Vireo | *Vireo olivaceus* | | | 1 | | | 1 | | | 2 |
| Red-tailed Hawk | *Buteo jamaicensis* | | | | | 1 | | | | 1 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 6 | | | | | | 5 | | 11 |
| Ruby-crowned Kinglet | *Regulus calendula* | | | | | | 2 | 2 | 2 | 6 |
| Song Sparrow | *Melospiza melodia* | 3 | 7 | 7 | 6 | 6 | | 3 | 4 | 36 |
| Swamp Sparrow | *Melospiza georgiana* | 2 | 1 | | 1 | | 1 | 2 | | 7 |
| White-breasted Nuthatch | *Sitta carolinensis* | | | 2 | 1 | | | 1 | | 4 |
| White-crowned Sparrow | *Zonotrichia leucophrys* | | | | | | 10 | 10 | | 20 |
| White-throated Sparrow | *Zonotrichia albicollis* | | | 1 | | | 12 | 8 | 6 | 27 |
| Yellow-rumped Warbler | *Dendroica coronata* | | | | | 1 | 2 | 3 | 1 | 7 |
| | **Total Species #:** | 9 | 9 | 16 | 6 | 14 | 12 | 12 | 8 | **38** |
| | **Total Individuals:** | 30 | 25 | 25 | 12 | 35 | 42 | 43 | 17 | **229** |

**Total Species:** 35
**Total Individuals:** 229

# Migratory Landbird Surveys

## ML4 - Fall

**Start UTM:** *18T 0365066 4890713*
**End UTM:** *18T 0365567 4890662*
**Habitat:** FOD lowland ash, SWT

**Obs:** Alan Wormington
Matthew Ross
Josh Mansell
Zoé Lebrun-Southcott

| | **Date:** | 2-Sep-11 | 9-Sep-11 | 16-Sep-11 | 23-Sep-11 | 30-Sep-11 | 7-Oct-11 | 12-Oct-11 | 20-Oct-11 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **7:02** | **7:20** | **8:10** | **7:30** | **7:15** | **7:30** | **8:35** | **8:33** | |
| | **End time:** | **7:30** | **7:50** | **8:52** | **8:30** | **8:30** | **8:30** | **9:32** | **9:25** | **Total** |
| **COMMON NAME** | **SCIENTIFIC NAME** | | | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | | 2 | | | | | 2 | | 4 |
| American Goldfinch | *Carduelis tristis* | | 5 | 8 | 1 | | 1 | 2 | | 17 |
| American Robin | *Turdus migratorius* | | 2 | 1 | | 50 | 11 | 8 | 8 | 80 |
| American Woodcock | *Scolopax minor* | | 4 | | | | 1 | | 4 | 9 |
| Blackbird Sp. | | | | | | | | 9 | | 9 |
| Blackburnian Warbler | *Dendroica fusca* | | | 1 | | | | | | 1 |
| Black-capped Chickadee | *Poecile atricapillus* | | 2 | 1 | 1 | | 1 | 3 | 3 | 11 |
| Blackpoll Warbler | *Dendroica striata* | | | | | 4 | | | | 4 |
| Black-throated Blue Warbler | *Dendroica caerulescens* | | | | | 1 | | | | 1 |
| Blue Jay | *Cyanocitta cristata* | | 5 | 15 | 2 | 6 | 1 | 4 | 1 | 34 |
| Blue-headed Vireo | *Vireo solitarius* | | | | 1 | | | | | 1 |
| Canada Goose | *Branta canadensis* | | | | | | | | 8 | 8 |
| Cedar Waxwing | *Bombycilla cedrorum* | | | | | 4 | 3 | | | 7 |
| Common Grackle | *Quiscalus quiscula* | | | | 3 | 1 | | | 13 | 17 |
| Common Raven | *Corvus corax* | | | 1 | | | | | | 1 |
| Common Yellowthroat | *Geothlypis trichas* | | | 3 | | | | | | 3 |
| Downy Woodpecker | *Picoides pubescens* | | | 1 | 1 | | | | 2 | 4 |
| Eastern Meadowlark | *Sturnella magna* | | | | | | | 1 | | 1 |
| Eastern Phoebe | *Sayornis phoebe* | | | | | 1 | | | | 1 |
| Eastern Towhee | *Pipilo erythrophthalmus* | | | | | | 3 | | 1 | 4 |
| European Starling | *Sturnus vulgaris* | | | 4 | 3 | | 40 | 40 | 11 | 98 |
| Fox Sparrow | *Passerella iliaca* | | | | | | | | 1 | 1 |
| Golden-crowned Kinglet | *Regulus satrapa* | | | | | 6 | 4 | | 4 | 14 |
| Gray Catbird | *Dumetella carolinensis* | | 2 | 2 | 3 | 2 | | | | 9 |
| Hairy Woodpecker | *Picoides villosus* | | | | | | | | 2 | 2 |
| Hermit Thrush | *Catharus guttatus* | | | | | | 2 | 2 | 2 | 6 |
| House Wren | *Troglodytes aedon* | | 1 | | | 2 | | | | 3 |
| Magnolia Warbler | *Dendroica magnolia* | | | | | 1 | | | | 1 |
| Nashville Warbler | *Vermivora ruficapilla* | | | | | 3 | | | | 3 |
| Northern Flicker | *Colaptes auratus* | | | 2 | | 40 | | 2 | 2 | 46 |
| Palm Warbler | *Dendroica palmarum* | | | | 1 | | | | | 1 |
| Pileated Woodpecker | *Dryocopus pileatus* | | 1 | | | | | | | 1 |
| Red-winged Blackbird | *Agelaius phoeniceus* | | | | 6 | 1 | 14 | 3 | 9 | 33 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | | 1 | | | | | | | 1 |
| Ruby-crowned Kinglet | *Regulus calendula* | | | | | 2 | 7 | 6 | 6 | 21 |
| Song Sparrow | *Melospiza melodia* | | 1 | 1 | 4 | 1 | 1 | 3 | 3 | 14 |
| Swamp Sparrow | *Melospiza georgiana* | | | | 1 | 2 | | 1 | 7 | 11 |
| Thrush Sp. | | | | | | | 1 | | | 1 |
| Warbler Sp. | | | | 4 | | | | 1 | | 5 |
| White-breasted Nuthatch | *Sitta carolinensis* | | | | | | 1 | | | 1 |
| White-throated Sparrow | *Zonotrichia albicollis* | | | 1 | | 28 | 3 | 7 | 16 | 55 |
| Wilson's Snipe | *Gallinago delicata* | | | 1 | | | | | 7 | 8 |
| Winter Wren | *Troglodytes troglodytes* | | | | | | | | 2 | 2 |
| Woodpecker Sp. | | | | | 1 | | | | | 1 |
| Yellow-rumped Warbler | *Dendroica coronata* | | | | | 4 | 13 | | | 17 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Total Species #:** | 0 | 11 | 15 | 13 | 19 | 17 | 16 | 21 | **45** |
| **Total Individuals:** | 0 | 26 | 46 | 28 | 159 | 107 | 94 | 112 | **572** |

| | |
|---|---|
| **Total Species:** | 45 |
| **Total Individuals:** | 572 |

# Migratory Landbird Surveys

## ML5 - Fall

**Start UTM:** *18T 0368127 4891747*
**End UTM:** *18T 0367858 4892170*
**Habitat:** SWT, Grey Dogwood

**Obs:** Brandon Holden

| | **Date:** | 1-Sep-11 | 9-Sep-11 | 15-Sep-11 | 22-Sep-11 | 29-Sep-11 | 6-Oct-11 | 12-Oct-11 | 20-Oct-11 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Start time:** | **7:15** | **unk** | **7:31** | **7:06** | **7:55** | **7:50** | **7:58** | **8:10** | |
| | **End time:** | **7:36** | **unk** | **7:59** | **7:33** | **8:20** | **8:18** | **8:21** | **8:38** | **Total** |
| ***COMMON NAME*** | ***SCIENTIFIC NAME*** | | | | | | | | | |
| American Crow | *Corvus brachyrhynchos* | 1 | 2 | | | 1 | 2 | 2 | 1 | 9 |
| American Goldfinch | *Carduelis tristis* | 4 | 1 | | | 5 | 3 | | 2 | 15 |
| American Kestrel | *Falco sparverius* | 1 | | | 1 | | | | | 2 |
| American Pipit | *Anthus rubescens* | | | | | | | | 10 | 10 |
| American Redstart | *Setophaga ruticilla* | 1 | | 3 | | | | | | 4 |
| American Robin | *Turdus migratorius* | 1 | 2 | 3 | 1 | 4 | 3 | 1 | 2 | 17 |
| Baltimore Oriole | *Icterus galbula* | 1 | | | | | | | | 1 |
| Bay-breasted Warbler | *Dendroica castanea* | | | | 1 | | | | | 1 |
| Blackburnian Warbler | *Dendroica fusca* | 1 | | | | | | | | 1 |
| Black-capped Chickadee | *Poecile atricapillus* | 4 | 5 | 6 | | | 2 | 3 | 13 | 33 |
| Blackpoll Warbler | *Dendroica striata* | 1 | | | | | 2 | | | 3 |
| Blue Jay | *Cyanocitta cristata* | 1 | | | 1 | 3 | 2 | | 7 | 14 |
| Blue-headed Vireo | *Vireo solitarius* | | | | | | | | 1 | 1 |
| Bobolink* | *Dolichonyx oryzivorus* | 5 | 3 | | | | | | | 8 |
| Brown Thrasher | *Toxostoma rufum* | | | | | 1 | | | | 1 |
| Canada Goose | *Branta canadensis* | 2 | | | | | | | | 2 |
| Cedar Waxwing | *Bombycilla cedrorum* | | | | | | | | 5 | 5 |
| Common Grackle | *Quiscalus quiscula* | | | | | | | 1 | | 1 |
| Common Yellowthroat | *Geothlypis trichas* | 3 | 3 | 7 | 1 | 7 | | | 1 | 22 |
| Dark-eyed Junco | *Junco hyemalis* | | | | | | | | 5 | 5 |
| Downy Woodpecker | *Picoides pubescens* | | | | | 1 | | | | 1 |
| Eastern Bluebird | *Sialia sialis* | | | | | | | | 2 | 2 |
| Eastern Meadowlark | *Sturnella magna* | | | | 1 | | | | | 1 |
| Eastern Phoebe | *Sayornis phoebe* | | | | | | 1 | 1 | 1 | 3 |
| Eastern Towhee | *Pipilo erythrophthalmus* | 1 | 1 | 1 | | 2 | 1 | 1 | | 7 |
| European Starling | *Sturnus vulgaris* | 1 | 10 | 1 | 1 | | 1 | 2 | 5 | 21 |
| Field Sparrow | *Spizella pusilla* | | | | | | | | 1 | 1 |
| Golden-crowned Kinglet | *Regulus satrapa* | | | | | | 3 | 1 | 4 | 8 |
| Gray Catbird | *Dumetella carolinensis* | 2 | 1 | 2 | | 3 | | | | 8 |
| Hermit Thrush | *Catharus guttatus* | | | | | | | | 6 | 6 |
| House Wren | *Troglodytes aedon* | 1 | 2 | 1 | 1 | 1 | | | | 6 |
| Least Flycatcher | *Empidonax minimus* | 1 | | | | | | | | 1 |
| Lincoln's Sparrow | *Melospiza lincolnii* | | | | | 1 | | | 2 | 3 |
| Magnolia Warbler | *Dendroica magnolia* | 1 | | | | | | | | 1 |
| Merlin | *Falco columbarius* | | | 1 | | | | | | 1 |
| Nashville Warbler | *Vermivora ruficapilla* | | | | | 2 | | | 1 | 3 |
| Northern Cardinal | *Cardinalis cardinalis* | 1 | | | | | | | | 1 |
| Northern Flicker | *Colaptes auratus* | | 1 | 2 | 3 | 3 | 1 | | 3 | 13 |
| Northern Harrier | *Circus cyaneus* | | 1 | | 1 | 1 | | | 1 | 4 |
| Orange-crowned Warbler | *Vermivora celata* | | | | | | 1 | | 1 | 2 |
| Palm Warbler | *Dendroica palmarum* | | | | 1 | 4 | | | 2 | 7 |
| Pine Siskin | *Carduelis pinus* | | | | | | 10 | | | 10 |
| Red-breasted Nuthatch | *Sitta canadensis* | | | | | | 1 | | | 1 |
| Red-eyed Vireo | *Vireo olivaceus* | 3 | | | | | | | | 3 |
| Red-winged Blackbird | *Agelaius phoeniceus* | | | | | 25 | 2 | | | 27 |
| Ruby-crowned Kinglet | *Regulus calendula* | | | | | | 1 | 1 | 17 | 19 |
| Rusty Blackbird | *Euphagus carolinus* | | | | | | 20 | | | 20 |
| Savannah Sparrow | *Passerculus sandwichensis* | | | | 1 | | | | 1 | 2 |
| Sharp-shinned Hawk | *Accipiter striatus* | | | 1 | | | | | 1 | 2 |
| Song Sparrow | *Melospiza melodia* | 4 | 5 | 6 | 1 | 23 | 14 | 2 | 28 | 83 |
| Swainson's Thrush | *Catharus ustulatus* | | | 2 | | | | | | 2 |
| Swamp Sparrow | *Melospiza georgiana* | | | | | 2 | 1 | 1 | 9 | 13 |
| White-crowned Sparrow | *Zonotrichia leucophrys* | | | | | 4 | 25 | 3 | 21 | 53 |
| White-throated Sparrow | *Zonotrichia albicollis* | | | 4 | | 15 | 2 | 4 | 35 | 60 |
| Wilson's Warbler | *Wilsonia pusilla* | 1 | | | | | | | | 1 |
| Winter Wren | *Troglodytes troglodytes* | | | | | | | | 1 | 1 |
| Yellow Warbler | *Dendroica petechia* | 4 | | | | | | | | 4 |
| Yellow-bellied Flycatcher | *Empidonax flaviventris* | | 1 | | | | | | | 1 |
| Yellow-rumped Warbler | *Dendroica coronata* | | | | | | 1 | 1 | 8 | 10 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ***Total Species #:*** | 24 | 14 | 14 | 13 | 20 | 22 | 14 | 31 | **59** |
| ***Total Individuals:*** | 46 | 38 | 40 | 15 | 108 | 99 | 24 | 197 | **567** |

| | |
|---|---|
| ***Total Species #:*** | 59 |
| ***Total Individuals:*** | 567 |

## Table F: Amphibian Breeding Surveys

| **CSWH** | **FIELD STATION #** | **DATE** | **SPECIES** | | | | | | | | **NOTES** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northern Leopard Frog (NOFL) | Wood Frog (WOFR) | Spring Peeper (SPPE) | Western Chorus Frog (CHFR) | American Toad (AMTO) | Green Frog (GRFR) | Gray Treefrog (GRTR) | Bullfrog (BULL) | |
| ABWO1 | 10 | April | | | | | | | | | |
| | | May | | | X | | X | | | | all species recorded in |
| | | June | | | | | | | | | |
| ABWO2 | 4 | April | | | | X | | | | | CHFR recorded in and out |
| | | May | | | | | | | | | |
| | | June | | | | X | | X | | | all species rec. in and out |
| ABWO2 | 5 | April | | | X | X | | | | | SPPE recorded in and out |
| | | May | | | X | | X | X | | | SPPE recorded in and out |
| | | June | | | | | | | | | |
| ABWO2 | 6 | April | | X | X | X | | | | | SPPE recorded in and out |
| | | May | | | | | | | | | |
| | | June | | | | X | | X | | | GRFR rec. out, CHFR rec. in and out |
| ABWO2 | 7 | April | | | | | | | | | |
| | | May | | | X | | | | | | sppe recorded in |
| | | June | | | | | | | | | |
| ABWO3 | A | April | | | X | X | | | | | CHFR (30 frogs) and SPPE (10 frogs) |
| | | May | | | | | | | X | | 3 individuals heard |
| | | June | | | | | | | X | | 4 individuals heard |
| ABWE1 | 9 | April | | | | | | | | | |
| | | May | | | X | X | X | | | | all species recorded in |
| | | June | | | | | | | | | |
| ABWE1 | 12 | April | X | | X | X | | | | | CHFR and SPPE recorded in and out |
| | | May | | | X | X | X | | | | |
| | | June | | | | X | | | | X | all species rec. in and out |
| ABWE1 | 15 | April | | | X | X | | | | | All species recorded in and out |
| | | May | | | X | | X | | | | AMTO recorded out |
| | | June | | | | X | | X | | X | CHFR rec. in, all others rec. in and out |
| ABWE1 | 16 | April | | | | | | | | | |
| | | May | | | | | | | | | |
| | | June | | | | X | | X | | X | chorus frog recorded in, BULL and GRFR in and out |
| ABWE1 | 23 | April | X | | X | X | | | | | All species recorded in and out |
| | | May | | | X | | | | | | SPPE recorded in and out |
| | | June | | | | X | | X | | X | BULL rec. out, all others rec. in and out |
| ABWE2 | 21 | April | | | X | X | X | | | | SPPE recorded out |
| | | May | | | | | | | | | |
| | | June | | | | | | | | | |

## Table G: Grassland Breeding Bird Surveys (includes Open Country Breeding Birds and Short-eared Owl Breeding Surveys)

| Legend | |
|---|---|
| **CSWH** | **Location (map)** |
| OCB1 | G9 |
| OCB2 | G12, G13, G14, G15, G16, G17, G18, G21, G24, |
| OCB3 | G11, G42, G19 |
| OCB4 | G22, G23 |
| OCB5 | G20, G26, G27, G28 |
| OCB6 | G30, G31, G32 |
| OCB7 | G29, G33, G34 |
| OCB8 | G36, G37, G38, G39, G41 |
| OCB9, WP1 | G40, G43 |

| COMMON NAME | SCIENTIFIC NAME | ONTARIO STATUS | GLOBAL STATUS | COSSARO | COSEWIC | OCB1 | OCB2 | | | | | | | | | | OCB3 | | | OCB4 | | OCB5 | | | | OCB6 | | | OCB7 | | | OCB8 | | | | | OCB9 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | G9 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G21 | G24 | G25 | G11 | G19 | G42 | G22 | G23 | G20 | G26 | G27 | G28 | G30 | G31 | G32 | G29 | G33 | G34 | G36 | G37 | G38 | G39 | G41 | G40 | G43 |
| Alder Flycatcher | *Empidonax alnorum* | S5B | G5 | | | X | | | | | | X | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| American Bittern | *Botaurus lentiginosus* | S4B | G4 | | | X | | | | | | | | | | | | | | | X | | | | | | | | | | | | X | X | | | | |
| American Crow | *Corvus brachyrhynchos* | S5B | G5 | | | X | X | X | | | | X | X | X | X | X | | | X | | X | X | X | | | | X | X | | | X | X | X | X | | | | |
| American Goldfinch | *Carduelis tristis* | S5B | G5 | | | X | | X | X | X | X | X | X | X | | | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X |
| American Kestrel | *Falco sparverius* | S5B | G5 | | | X | | | | | X | | | | | X | | | | | | | | | | | X | | | | | | | | | | | |
| American Robin | *Turdus migratorius* | S5B | G5 | | | X | | X | X | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Baltimore Oriole | *Icterus galbula* | S4B | G5 | | | X | | X | | X | | | X | X | X | | X | | | X | | X | X | | | | | | | | X | | X | | | | | |
| Barn Swallow | *Hirundo rustica* | S4B | G5 | | THR-NS | X | X | X | | X | X | X | X | X | X | X | X | X | | | X | X | X | X | | X | X | X | X | X | | X | X | X | X | X | X | X |
| Belted Kingfisher | *Ceryle alcyon* | S4B | G5 | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Black-billed Cuckoo | *Coccyzus erythropthalmus* | S5B | G5 | | | | | | | | | | | | | | | | | X | | | | | | | X | | | | | | | | | | | |
| Black-capped Chickadee | *Poecile atricapillus* | S5 | G5 | | | | | X | | | | | | | | | | | | | | X | | | | | | | | | | | X | | | | | |
| Blue Jay | *Cyanocitta cristata* | S5 | G5 | | | | | X | | | | | | | | | | | | X | | | | | | | | | X | | | | X | | | | | |
| Bobolink | *Dolichonyx oryzivorus* | S4B | G5 | THR | THR-NS | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X |
| Brown Thrasher | *Toxostoma rufum* | S4B | G5 | | | X | | | | | | | | | | | X | X | X | X | X | | | | | X | X | | | X | | X | X | | X | | | |
| Brown-headed Cowbird | *Molothrus ater* | S4B | G5 | | | X | | X | | | X | X | | | X | | X | | | X | X | X | | | | | X | | X | | | | X | X | | | | X |
| Canada Goose | *Branta canadensis* | S5 | G5 | | | X | | X | | | | | | | | | | | X | | | X | X | | X | | X | | X | | X | X | X | | | | X | |
| Cedar Waxwing | *Bombycilla cedrorum* | S5B | G5 | | | X | | | | X | | | X | X | | | | | X | | | X | | | X | X | X | | | X | X | | | | | | | X |
| Chipping Sparrow | *Spizella passerina* | S5B | G5 | | | X | | | | | | | X | | | | X | | | X | | X | | | | | | | | | | | X | | | | | |
| Clay-colored Sparrow | *Spizella pallida* | S4B | G5 | | | | | | | | | X | | | | | | | | X | | | | | | | | | | | X | | | | | | | |
| Cliff Swallow | *Petrochelidon pyrrhonota* | S4B | G5 | | | X | | | | | | | | | | | | X | | | | | | | | | | X | | | | | | | | | | |
| Common Grackle | *Quiscalus quiscula* | S5B | G5 | | | X | | X | | | X | | | | X | X | X | | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | | X | X |
| Common Loon | *Gavia immer* | S5B,S5N | G5 | NAR | NAR | | | | | | | | | | | | | | X | X | | | | | | X | | | X | | | | | | | | X | |
| Common Merganser | *Mergus merganser* | S5B,S5N | G5 | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Common Raven | *Corvus corax* | S5 | G5 | | | | | | | | X | | | | | | | X | | X | X | | | | | | | X | | X | X | | | | | | | |
| Common Yellowthroat | *Geothlypis trichas* | S5B | G5 | | | X | X | X | X | | | X | X | X | X | | X | | X | X | X | X | X | X | | | X | | X | X | X | X | X | | X | | | |
| Double-crested Cormorant | *Phalacrocorax auritus* | S5B | G5 | NAR | NAR | | X | X | | | | | | X | | | | | | | X | | | | | | | | | | | | X | X | | | X | |
| Downy Woodpecker | *Picoides pubescens* | S5 | G5 | | | | | X | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eastern Kingbird | *Tyrannus tyrannus* | S4B | G5 | | | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Eastern Meadowlark | *Sturnella magna* | S4B | G5 | | THR-NS | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X |
| Eastern Phoebe | *Sayornis phoebe* | S5B | G5 | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Eastern Towhee | *Pipilo erythrophthalmus* | S4B | G5 | | | X | | | | | | | | | | | | X | | | | | | | | | | X | | | X | | | | | | | |
| European Starling | *Sturnus vulgaris* | SNA | G5 | | | X | X | X | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Field Sparrow | *Spizella pusilla* | S4B | G5 | | | X | | | | | | | | | | | X | | | X | X | | | | | | | | | | | X | | | | | | |
| Gadwall | *Anas strepera* | S4 | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Grasshopper Sparrow | *Ammodramus savannarum* | S4B | G5 | | | X | X | | X | X | X | X | X | | | | X | | X | X | X | | | X | X | | | | X | | | X | | | | | | |
| Gray Catbird | *Dumetella carolinensis* | S4B | G5 | | | X | | | X | X | | | | | | | | | X | | X | | | | | | | | | X | X | X | | | | | | |
| Great Blue Heron | *Ardea herodias* | S5 | G5 | | | | | X | | | X | | | | | | X | | | | | | | | | | | | X | | | | | X | | | | |
| Great Crested Flycatcher | *Myiarchus crinitus* | S4B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Green Heron | *Butorides virescens* | S4B | G5 | | | X | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | X | |
| Hairy Woodpecker | *Picoides villosus* | S5 | G5 | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Horned Lark | *Eremophila alpestris* | S5B | G5 | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| House Finch | *Carpodacus mexicanus* | SNA | G5 | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| House Sparrow | *Passer domesticus* | SNA | G5 | | | | | | | X | | | | | | | | | | | | X | | X | | | | | | | | | X | X | | | X | |
| House Wren | *Troglodytes aedon* | S5B | G5 | | | X | | | | | | | X | | | | X | | | | X | X | | | X | | | | | X | | X | X | | | X | | |
| Indigo Bunting | *Passerina cyanea* | S4B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Killdeer | *Charadrius vociferus* | S5B, S5N | G5 | | | | | | | | | | X | X | X | | X | | X | | X | X | | X | X | X | | X | | | | X | X | | X | X | | X |
| Mallard | *Anas platyrhynchos* | S5 | G5 | | | X | X | X | | | | | | | X | | | | X | X | X | | | | | | | | | | | | | | | | X | |
| Merlin | *Falco columbarius* | S5B | G5 | NAR | NAR | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mourning Dove | *Zenaida macroura* | S5 | G5 | | | X | | X | X | | | X | | X | X | X | | | | X | X | X | X | X | X | | X | X | | X | | | X | | X | | | |
| Mourning Warbler | *Oporornis philadelphia* | S4B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Northern Cardinal | *Cardinalis cardinalis* | S5 | G5 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Northern Flicker | *Colaptes auratus* | S4B | G5 | | | X | | | | | | | X | | | | X | | | | | | | | X | | | X | | | X | | X | | | | | X |
| Northern Harrier | *Circus cyaneus* | S4B | G5 | NAR | NAR | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | | X | | | X | X | X | X | X | | X | | X | X | X |
| Northern Rough-winged Swallow | *Stelgidopteryx serripennis* | S4B | G5 | | | | | | | | | | | | | | | | X | | | | | | | | | | | X | | | | X | | | | |
| Orchard Oriole | *Icterus spurius* | S4B | G5 | | | | | | | | | | X | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Osprey | *Pandion haliaetus* | S5B | G5 | | | X | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | X | |
| Ovenbird | *Seiurus aurocapilla* | S4B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purple Martin | *Progne subis* | S4B | G5 | | | | | | | | | | | | | | X | | | X | | X | | | | | | | | | | | | X | | | X | |
| Red-eyed Vireo | *Vireo olivaceus* | S5B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Red-tailed Hawk | *Buteo jamaicensis* | S5 | G5 | NAR | NAR | | | X | | | | X | X | | X | | X | | | | | | | | | | | X | X | X | | X | X | | | | X | |
| Red-winged Blackbird | *Agelaius phoeniceus* | S5 | G5 | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Ring-billed Gull | *Larus delawarensis* | S5B,S4N | G5 | | | | | X | | | X | | | | | | X | X | X | | X | | X | | X | | | X | | | | X | X | X | | | | |
| Ring-necked Pheasant | *Phasianus colchicus* | SNA | G5 | | | | | | | | | X | X | | | | | | | | | X | | X | X | | | | | | X | | | X | | | | |
| Rock Pigeon | *Columba livia* | SNA | G5 | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | S4B | G5 | | | | | | X | | | | | | | | | | X | | | | X | | X | | | | | | | | | | | | | |
| Ruby-throated Hummingbird | *Archilochus colubris* | S5B | G5 | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Savannah Sparrow | *Passerculus sandwichensis* | S4B | G5 | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Sedge Wren | *Cistothorus platensis* | S4B | G5 | NAR | NAR | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Song Sparrow | *Melospiza melodia* | S5B | G5 | | | X | | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Spotted Sandpiper | *Actitis macularia* | S5 | G5 | | | | | | | | | | | | | | | | | | | | | | | X | | X | | | | | | X | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Swamp Sparrow | *Melospiza georgiana* | S5B | G5 | | | X | | X | | X | | X | | | | | | | | | X | X | | X | | | X | X | X | | | X | | | X | | | |
| Tree Swallow | *Tachycineta bicolor* | S4B | G5 | | | X | X | X | | X | | X | X | X | X | | X | X | | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | | X | X | X |
| Turkey Vulture | *Cathartes aura* | S5B | G5 | | | X | X | | X | | | | | | X | X | | | | | | X | | | | | | | X | | | | X | | | | | |
| Upland Sandpiper | *Bartramia longicauda* | S4B | G5 | | | X | | X | | | | X | X | X | X | | X | X | | X | | | | | X | | X | X | | X | X | | X | X | X | X | X | X |
| Veery | *Catharus fuscescens* | S4B | G5 | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Warbling Vireo | *Vireo gilvus* | S5B | G5 | | | | | X | X | | | | | X | | | | | | | | X | X | | | | X | | | | | X | X | | | | | X |
| White-breasted Nuthatch | *Sitta carolinensis* | S5 | G5 | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Willow Flycatcher | *Empidonax traillii* | S5B | G5 | | | X | | X | X | X | | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | X | X | | X |
| Wilson's Phalarope | *Phalaropus tricolor* | S3B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Wilson's Snipe | *Gallinago delicata* | S5B | G5 | | | X | X | X | | | | | X | X | | X | | | | | | | | X | | | | X | | X | | X | X | X | X | X | X | X |
| Wilson's Warbler | *Wilsonia pusilla* | S4B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wood Thrush | *Hylocichla mustelina* | S4B | G5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow Warbler | *Dendroica petechia* | S5B | G5 | | | X | | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | | X | X | X | X | X | X | X | X | | X |
| **Total** | | | | | | **44** | **54** | | | | | | | | | | **43** | | | **41** | | **40** | | | | **39** | | | **40** | | | **47** | | | | | **33** | |

# Table G: Marsh Breeding Birds

| Legend | |
|---|---|
| **CSWH** | **Location (map)** |
| **MBB1** | M3 |

| COMMON NAME | SCIENTIFIC NAME | S-RANK | COSSARO | COSEWIC | M3 |
|---|---|---|---|---|---|
| American Bittern | *Botaurus lentiginosus* | S4B | | | X |
| American Goldfinch | *Carduelis tristis* | S5B | | | X |
| American Robin | *Turdus migratorius* | S5B | | | X |
| Baltimore Oriole | *Icterus galbula* | S4B | | | X |
| Barn Swallow | *Hirundo rustica* | S4B | | THR-NS | X |
| Black-capped Chickadee | *Poecile atricapillus* | S5 | | | X |
| Bobolink | *Dolichonyx oryzivorus* | S4B | THR | THR-NS | X |
| Canada Goose | *Branta canadensis* | S5 | | | X |
| Common Grackle | *Quiscalus quiscula* | S5B | | | X |
| Common Loon | *Gavia immer* | S5B,S5N | NAR | NAR | X |
| Common Yellowthroat | *Geothlypis trichas* | S5B | | | X |
| Double-crested Cormorant | *Phalacrocorax auritus* | S5B | NAR | NAR | X |
| Eastern Kingbird | *Tyrannus tyrannus* | S4B | | | X |
| European Starling | *Sturnus vulgaris* | SNA | | | X |
| Great Blue Heron | *Ardea herodias* | S5 | | | X |
| Green Heron | *Butorides virescens* | S4B | | | X |
| Mallard | *Anas platyrhynchos* | S5 | | | X |
| Marsh Wren | *Cistothorus palustris* | S4B | | | X |
| Mourning Dove | *Zenaida macroura* | S5 | | | X |
| Red-winged Blackbird | *Agelaius phoeniceus* | S5 | | | X |
| Ring-billed Gull | *Larus delawarensis* | S5B,S4N | | | X |
| Song Sparrow | *Melospiza melodia* | S5B | | | X |
| Swamp Sparrow | *Melospiza georgiana* | S5B | | | X |
| Tree Swallow | *Tachycineta bicolor* | S4B | | | X |
| Turkey Vulture | *Cathartes aura* | S5B | | | X |
| Virginia Rail | *Rallus limicola* | S5B | | | X |
| Warbling Vireo | *Vireo gilvus* | S5B | | | X |
| Willow Flycatcher | *Empidonax traillii* | S5B | | | X |
| Wilson's Snipe | *Gallinago delicata* | S5B | | | X |
| Wood Duck | *Aix sponsa* | S5 | | | X |
| Yellow Warbler | *Dendroica petechia* | S5B | | | X |
| **Total** | | | | | 31 |

## Table G: Woodland Breeding Bird Surveys (includes Area-Sensitive Breeding Birds, Shrub and Early Successional Breeding Birds, Waterfowl Nesting, and Louisiana Waterthrush Habitats)

**Legend**

| CSWH | Location (map) |
|---|---|
| BE1 | W3 |
| BE2 | W15 |
| WR1 | W15 |
| WR2 | W38 |
| ABB1 | W15 |
| ABB2 | W38 |
| SSB1 | W3 |
| SSB2 | W20 |
| SSB3 | W43 |
| SSB4 | W38 |
| SSB5 | W24, W25 |
| WN1 | W34 |
| LW1 | W15 |
| LW2 | W33 |
| LW3 | W34 |

| COMMON NAME | SCIENTIFIC NAME | ONTARIO STATUS | GLOBAL STATUS | COSSARO | COSEWIC | W3 | W15 | W20 | W24 | W25 | W33 | W34 | W38 | W43 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alder Flycatcher | *Empidonax alnorum* | S5B | G5 | | | X | X | | | | X | | X | |
| American Crow | *Corvus brachyrhynchos* | S5B | G5 | | | X | X | | X | X | | | X | X |
| American Goldfinch | *Carduelis tristis* | S5B | G5 | | | X | X | | X | X | X | | X | X |
| American Kestrel | *Falco sparverius* | S5B | G5 | | | X | | | | | | | | |
| American Redstart | *Setophaga ruticilla* | S5B | G5 | | | | X | | X | | | X | X | |
| American Robin | *Turdus migratorius* | S5B | G5 | | | X | X | X | X | X | X | X | X | X |
| American Woodcock | *Scolopax minor* | S4B | G5 | | | X | X | | X | | X | X | X | X |
| Baltimore Oriole | *Icterus galbula* | S4B | G5 | | | X | X | X | | X | X | X | X | X |
| Black-billed Cuckoo | *Coccyzus erythropthalmus* | S5B | G5 | | | X | | X | | | X | | X | |
| Black-capped Chickadee | *Poecile atricapillus* | S5 | G5 | | | X | X | X | X | | X | X | X | X |
| Black-throated Green Warbler | *Dendroica virens* | S5B | G5 | | | | X | | | | | | | |
| Blue Jay | *Cyanocitta cristata* | S5 | G5 | | | X | X | | X | X | X | | X | X |
| Bobolink | *Dolichonyx oryzivorus* | S4B | G5 | THR | THR-NS | | X | X | | | | | X | |
| Brown Creeper | *Certhia americana* | S5B | G5 | | | X | X | | | | | X | | |
| Brown Thrasher | *Toxostoma rufum* | S4B | G5 | | | X | | | X | X | X | | X | X |
| Brown-headed Cowbird | *Molothrus ater* | S4B | G5 | | | X | X | X | X | | X | X | X | X |
| Cedar Waxwing | *Bombycilla cedrorum* | S5B | G5 | | | X | X | X | X | X | X | | X | X |
| Chestnut-sided Warbler | *Dendroica pensylvanica* | S5B | G5 | | | | | | | | | | | X |
| Chipping Sparrow | *Spizella passerina* | S5B | G5 | | | | | | X | | X | | | |
| Common Grackle | *Quiscalus quiscula* | S5B | G5 | | | X | X | | X | X | X | X | X | X |
| Common Loon | *Gavia immer* | S5B,S5N | G5 | NAR | NAR | | | X | | | | | | |
| Common Raven | *Corvus corax* | S5 | G5 | | | X | X | | X | | | | | X |
| Common Yellowthroat | *Geothlypis trichas* | S5B | G5 | | | X | X | X | X | X | X | X | X | X |
| Downy Woodpecker | *Picoides pubescens* | S5 | G5 | | | | X | | X | | X | | X | |
| Eastern Kingbird | *Tyrannus tyrannus* | S4B | G5 | | | X | X | X | X | X | X | X | X | X |
| Eastern Phoebe | *Sayornis phoebe* | S5B | G5 | | | X | | | | | | | | |
| Eastern Towhee | *Pipilo erythrophthalmus* | S4B | G5 | | | X | X | X | X | X | X | | X | X |
| Eastern Wood-Pewee | *Contopus virens* | S4B | G5 | | | X | X | X | X | X | X | X | X | X |
| European Starling | *Sturnus vulgaris* | SNA | G5 | | | X | X | | X | | X | X | X | X |
| Field Sparrow | *Spizella pusilla* | S4B | G5 | | | X | | | X | X | | | | |
| Gray Catbird | *Dumetella carolinensis* | S4B | G5 | | | X | X | X | X | X | X | | X | X |
| Great Crested Flycatcher | *Myiarchus crinitus* | S4B | G5 | | | X | X | X | X | | X | X | X | |
| Great Horned Owl | *Bubo virginianus* | S5 | G5 | | | | | | X | | | | | X |
| Green Heron | *Butorides virescens* | S4B | G5 | | | X | | | | | | | | |
| Hairy Woodpecker | *Picoides villosus* | S5 | G5 | | | | | | | | X | X | X | |
| Hermit Thrush | *Catharus guttatus* | S5B | G5 | | | X | | | | | | | | |
| House Wren | *Troglodytes aedon* | S5B | G5 | | | X | X | X | X | X | X | X | X | X |
| Indigo Bunting | *Passerina cyanea* | S4B | G5 | | | X | | | | | X | | | |
| Least Flycatcher | *Empidonax minimus* | S4B | G5 | | | | X | X | X | | X | X | X | |
| Mourning Dove | *Zenaida macroura* | S5 | G5 | | | X | X | | X | | X | | | |
| Northern Cardinal | *Cardinalis cardinalis* | S5 | G5 | | | X | X | | X | | X | | X | |
| Northern Flicker | *Colaptes auratus* | S4B | G5 | | | X | X | X | | | X | X | X | X |
| Northern Harrier | *Circus cyaneus* | S4B | G5 | NAR | NAR | | X | | | | | | X | X |
| Northern Waterthrush | *Seiurus noveboracensis* | S5B | G5 | | | | X | | | | | | | |
| Orchard Oriole | *Icterus spurius* | S4B | G5 | | | | | | X | | | | | X |
| Ovenbird | *Seiurus aurocapilla* | S4B | G5 | | | X | | | | | | | | |
| Pine Warbler | *Dendroica pinus* | S5B | G5 | | | X | | | | | | | | |
| Purple Martin | *Progne subis* | S4B | G5 | | | X | | | X | | | | X | |
| Red-bellied Woodpecker | *Melanerpes carolinus* | S4 | G5 | | | | X | X | X | | | | X | |
| Red-eyed Vireo | *Vireo olivaceus* | S5B | G5 | | | X | X | X | X | X | X | X | X | X |
| Red-headed Woodpecker | *Melanerpes erythrocephalus* | S4B | G5 | SC | THR | | | | | | | X | | |
| Red-tailed Hawk | *Buteo jamaicensis* | S5 | G5 | NAR | NAR | | X | | | | X | X | X | |
| Red-winged Blackbird | *Agelaius phoeniceus* | S5 | G5 | | | | X | X | X | X | X | X | X | X |
| Ring-billed Gull | *Larus delawarensis* | S5B,S4N | G5 | | | X | | | | | | | | |
| Ring-necked Pheasant | *Phasianus colchicus* | SNA | G5 | | | | | | | | | X | | X |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | S4B | G5 | | | X | X | X | X | X | X | X | X | |
| Ruby-throated Hummingbird | *Archilochus colubris* | S5B | G5 | | | X | | | | | | X | | |
| Savannah Sparrow | *Passerculus sandwichensis* | S4B | G5 | | | | X | | | | | | | |
| Scarlet Tanager | *Piranga olivacea* | S4B | G5 | | | | X | | | | | | | |
| Sharp-shinned Hawk | *Accipiter striatus* | S5 | G5 | NAR | NAR | X | | | | | | | | |
| Song Sparrow | *Melospiza melodia* | S5B | G5 | | | X | X | X | X | X | X | X | X | X |
| Swamp Sparrow | *Melospiza georgiana* | S5B | G5 | | | | X | | | X | | X | X | |
| Tree Swallow | *Tachycineta bicolor* | S4B | G5 | | | X | X | | X | X | X | X | X | |
| Turkey Vulture | *Cathartes aura* | S5B | G5 | | | | | | | | | X | X | X |
| Veery | *Catharus fuscescens* | S4B | G5 | | | | X | | | | X | | X | |
| Warbling Vireo | *Vireo gilvus* | S5B | G5 | | | X | X | | X | X | X | X | X | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| White-breasted Nuthatch | *Sitta carolinensis* | S5 | G5 | | | | X | | X | | X | X | | |
| Willow Flycatcher | *Empidonax traillii* | S5B | G5 | | | X | X | X | X | X | X | | X | X |
| Wilson's Snipe | *Gallinago delicata* | S5B | G5 | | | X | | | | | | X | | |
| Wilson's Warbler | *Wilsonia pusilla* | S4B | G5 | | | X | | | | | | | | |
| Winter Wren | *Troglodytes hiemalis* | S5B | G5 | | | | | | | | | | X | |
| Wood Duck | *Aix sponsa* | S5 | G5 | | | | X | | | | X | | | |
| Wood Thrush | *Hylocichla mustelina* | S4B | G5 | | | X | X | | X | | X | | X | X |
| Yellow Warbler | *Dendroica petechia* | S5B | G5 | | | X | X | X | X | X | X | X | X | X |
| Yellow-bellied Sapsucker | *Sphyrapicus varius* | S5B | G5 | | | | X | | | | X | | X | X |
| Yellow-billed Cuckoo | *Coccyzus americanus* | S4B | G5 | | | | | | | | | | X | |

**Table H: Point Count Densities** f=forest, m=marsh, g=grassland

|  | **Point Count:** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMON NAME** | **SCIENTIFIC NAME** | **f** | **f** | **m** | **g** | **f** | **g** | **g** | **m** | **g** | **g** | **m** | **f** | **f** | **f** | **g** | **g** | **g** | **g** | **f** | **g** | **g** | **g** | **g** | **g** | **g** | **f** | **g** | **m** | **g** | **f** | **g** | **f** |
| Bobolink | *Dolichonyx oryzivorus* | 0 | 0 | 0 | 4 | 0 | 2 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 5 | 12 | 5 | 3 | 0 | 4 | 5 | 4 | 2 | 14 | 8 | 1 | 4 | 0 | 5 | 3 | 4 | 0 |
| Savannah Sparrow | *Passerculus sandwichensis* | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 3 | 6 | 7 | 3 | 0 | 3 | 7 | 7 | 2 | 0 | 0 | 1 | 3 | 0 | 4 | 0 | 10 | 0 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 1 | 0 | 8 | 6 | 0 | 3 | 0 | 5 | 5 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 1 | 1 | 5 | 1 | 5 | 6 | 0 |
| European Starling | *Sturnus vulgaris* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 8 | 2 | 1 |
| Song Sparrow | *Melospiza melodia* | 4 | 2 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 2 | 1 | 0 |
| Tree Swallow | *Tachycineta bicolor* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| Yellow Warbler | *Dendroica petechia* | 2 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | **1** | **2** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 1 | 3 | 0 | 3 | 0 | 0 |
| American Robin | *Turdus migratorius* | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 1 |
| Eastern Kingbird | *Tyrannus tyrannus* | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Eastern Meadowlark | *Sturnella magna* | 0 | 0 | 0 | 4 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Swamp Sparrow | *Melospiza georgiana* | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| Common Grackle | *Quiscalus quiscula* | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 5 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Ring-billed Gull | *Larus delawarensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mallard | *Anas platyrhynchos* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Yellowthroat | *Geothlypis trichas* | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |
| Herring Gull | *Larus argentatus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 |
| Gray Catbird | *Dumetella carolinensis* | 2 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| American Goldfinch | *Carduelis tristis* | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 |
| Red-eyed Vireo | *Vireo olivaceus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Blue Jay | *Cyanocitta cristata* | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Wilson's Snipe | *Gallinago delicata* | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eastern Wood-Pewee | *Contopus virens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| House Wren | *Troglodytes aedon* | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Willow Flycatcher | *Empidonax traillii* | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 0 |
| Mourning Dove | *Zenaida macroura* | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Killdeer | *Charadrius vociferus* | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grasshopper Sparrow | *Ammodramus savannarum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Baltimore Oriole | *Icterus galbula* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| American Wigeon | *Anas americana* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northern Harrier | *Circus cyaneus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Cedar Waxwing | *Bombycilla cedrorum* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 |
| Brown-headed Cowbird | *Molothrus ater* | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Great Crested Flycatcher | *Myiarchus crinitus* | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Barn Swallow | *Hirundo rustica* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood Thrush | *Hylocichla mustelina* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wilson's Phalarope | *Phalaropus tricolor* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bank Swallow | *Riparia riparia* | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Canada Goose | *Branta canadensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gadwall | *Anas strepera* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upland Sandpiper | *Bartramia longicauda* | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Downy Woodpecker | *Picoides pubescens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Warbling Vireo | *Vireo gilvus* | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| American Crow | *Corvus brachyrhynchos* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Black-capped Chickadee | *Poecile atricapilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| marsh Wren | *Cistothorus palustris* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northern Cardinal | *Cardinalis cardinalis* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Yellow-bellied Sapsucker | *Sphyrapicus varius* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Magnolia Warbler | *Dendroica magnolia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Virginia Rail | *Rallus limicola* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| Spotted Sandpiper | *Actitis macularia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Least Sandpiper | *(Calidris minutilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Caspian Tern | *Sterna caspia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Black-billed Cuckoo | *Coccyzus erythropthalmus* | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hairy Woodpecker | *Picoides villosus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Brown Thrasher | *Toxostoma rufum* | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eastern Towhee | *Pipilo erythrophthalmus* | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lesser Yellowlegs | *Tringa flavipes* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Semi-palmated sandpiper | *Calidris pusilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northern Flicker | *Colaptes auratus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Alder Flycatcher | *Empidonax alnorum* | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Least Flycatcher | *Empidonax minimus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northern Rough-winged Swallow | *Stelgidopteryx serripennis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| White-breasted Nuthatch | *Sitta carolinensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Field Sparrow | *Spizella pusilla* | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood Duck | *Aix sponsa* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northern Pintail | *Anas acuta* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Green-winged Teal | *Anas crecca* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Green Heron | *Butorides virescens* | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Red-tailed Hawk | *Buteo jamaicensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Black-bellied Plover | *Pluvialis squatarola* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| White-rumped sandpiper | *Calidris fuscicollis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| American Woodcock | *Scolopax minor* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Brown Creeper | *Certhia americana* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Veery | *Catharus fuscescens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nashville Warbler | *Vermivora ruficapilla* | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ovenbird | *Seiurus aurocapilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scarlet Tanager | *Piranga olivacea* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chipping Sparrow | *Spizella passerina* | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clay-colored Sparrow | *Spizella pallida* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Orchard Oriole | *Icterus spurius* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| House Finch | *Carpodacus mexicanus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| House Sparrow | *Passer domesticus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

### Table H: Point Count Densities

| | Point Count: | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMON NAME** | **SCIENTIFIC NAME** | **g** | **g** | **g** | **g** | **g** | **g** | **g** | **f** | **g** | **g** | **g** | **g** | **g** | **f** | **f** | **g** | **g** | **f** | **g** | **f** | **g** | **g** | **g** | **f** | **g** | **g** | **g** | **g** | **m** | **m** | **f** | **totals** | **Avg/pc** | **Density 10/ha** |
| Bobolink | *Dolichonyx oryzivorus* | 2 | 9 | 8 | 5 | 6 | 6 | 8 | 0 | 1 | 5 | 5 | 9 | 10 | 0 | 0 | 8 | 5 | 0 | 6 | 0 | 1 | 3 | 9 | 0 | 12 | 0 | 12 | 7 | 1 | 0 | 0 | 231 | 3.666666667 | 11.67728238 |
| Savannah Sparrow | *Passerculus sandwichensis* | 5 | 2 | 3 | 1 | 6 | 7 | 1 | 0 | 2 | 2 | 1 | 4 | 2 | 0 | 0 | 6 | 2 | 0 | 7 | 0 | 2 | 0 | 1 | 0 | 4 | 5 | 2 | 3 | 5 | 0 | 0 | 140 | 2.222222222 | 7.077140835 |
| Red-winged Blackbird | *Agelaius phoeniceus* | 3 | 3 | 1 | 3 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 2 | 0 | 4 | 1 | 5 | 0 | 1 | 4 | 9 | 2 | 0 | 11 | 11 | 131 | 2.079365079 | 6.622181781 |
| European Starling | *Sturnus vulgaris* | 5 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 5 | 0 | 30 | 0 | 0 | 78 | 1.238095238 | 3.942978465 |
| Song Sparrow | *Melospiza melodia* | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 2 | 1 | 0 | 2 | 0 | 2 | 1 | 0 | 2 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 56 | 0.888888889 | 2.830856334 |
| Tree Swallow | *Tachycineta bicolor* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 5 | 0 | 2 | 1 | 44 | 0.698412698 | 2.224244262 |
| Yellow Warbler | *Dendroica petechia* | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 40 | 0.634920635 | 2.022040239 |
| American Robin | *Turdus migratorius* | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 38 | 0.603174603 | 1.920938227 |
| Eastern Kingbird | *Tyrannus tyrannus* | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 33 | 0.523809524 | 1.668183197 |
| Eastern Meadowlark | *Sturnella magna* | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 28 | 0.444444444 | 1.415428167 |
| Swamp Sparrow | *Melospiza georgiana* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 27 | 0.428571429 | 1.364877161 |
| Common Grackle | *Quiscalus quiscula* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 25 | 0.396825397 | 1.263775149 |
| Ring-billed Gull | *Larus delawarensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 6 | 0 | 0 | 21 | 0.333333333 | 1.061571125 |
| Mallard | *Anas platyrhynchos* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 1 | 1 | 20 | 0.317460317 | 1.011020119 |
| Common Yellowthroat | *Geothlypis trichas* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 19 | 0.301587302 | 0.960469113 |
| Herring Gull | *Larus argentatus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0.285714286 | 0.909918107 |
| Rose-breasted Grosbeak | *Pheucticus ludovicianus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 17 | 0.26984127 | 0.859367101 |
| Gray Catbird | *Dumetella carolinensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0.238095238 | 0.758265089 |
| American Goldfinch | *Carduelis tristis* | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 15 | 0.238095238 | 0.758265089 |
| Red-eyed Vireo | *Vireo olivaceus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 14 | 0.222222222 | 0.707714084 |
| Blue Jay | *Cyanocitta cristata* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0.222222222 | 0.707714084 |
| Wilson's Snipe | *Gallinago delicata* | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 13 | 0.206349206 | 0.657163078 |
| Eastern Wood-Pewee | *Contopus virens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 0.206349206 | 0.657163078 |
| House Wren | *Troglodytes aedon* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 0.206349206 | 0.657163078 |
| Willow Flycatcher | *Empidonax traillii* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 12 | 0.19047619 | 0.606612072 |
| Mourning Dove | *Zenaida macroura* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 0.158730159 | 0.50551006 |
| Killdeer | *Charadrius vociferus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 9 | 0.142857143 | 0.454959054 |
| Grasshopper Sparrow | *Ammodramus savannarum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0.142857143 | 0.454959054 |
| Baltimore Oriole | *Icterus galbula* | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 9 | 0.142857143 | 0.454959054 |
| American Wigeon | *Anas americana* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0.126984127 | 0.404408048 |
| Northern Harrier | *Circus cyaneus* | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0.126984127 | 0.404408048 |
| Cedar Waxwing | *Bombycilla cedrorum* | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0.126984127 | 0.404408048 |
| Brown-headed Cowbird | *Molothrus ater* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0.126984127 | 0.404408048 |
| Great Crested Flycatcher | *Myiarchus crinitus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0.111111111 | 0.353857042 |
| Barn Swallow | *Hirundo rustica* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 7 | 0.111111111 | 0.353857042 |
| Wood Thrush | *Hylocichla mustelina* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0.111111111 | 0.353857042 |
| Wilson's Phalarope | *Phalaropus tricolor* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0.095238095 | 0.303306036 |
| Bank Swallow | *Riparia riparia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 6 | 0.095238095 | 0.303306036 |
| Canada Goose | *Branta canadensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 5 | 0.079365079 | 0.25275503 |
| Gadwall | *Anas strepera* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0.079365079 | 0.25275503 |
| Upland Sandpiper | *Bartramia longicauda* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.079365079 | 0.25275503 |
| Downy Woodpecker | *Picoides pubescens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.079365079 | 0.25275503 |
| Warbling Vireo | *Vireo gilvus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0.079365079 | 0.25275503 |
| American Crow | *Corvus brachyrhynchos* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0.079365079 | 0.25275503 |
| Black-capped Chickadee | *Poecile atricapilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.079365079 | 0.25275503 |
| marsh Wren | *Cistothorus palustris* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | 0.079365079 | 0.25275503 |
| Northern Cardinal | *Cardinalis cardinalis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.079365079 | 0.25275503 |
| Yellow-bellied Sapsucker | *Sphyrapicus varius* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.063492063 | 0.202204024 |
| Magnolia Warbler | *Dendroica magnolia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 0.063492063 | 0.202204024 |
| Virginia Rail | *Rallus limicola* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Spotted Sandpiper | *Actitis macularia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Least Sandpiper | *(Calidris minutilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Caspian Tern | *Sterna caspia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Black-billed Cuckoo | *Coccyzus erythropthalmus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Hairy Woodpecker | *Picoides villosus* | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Brown Thrasher | *Toxostoma rufum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Eastern Towhee | *Pipilo erythrophthalmus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.047619048 | 0.151653018 |
| Lesser Yellowlegs | *Tringa flavipes* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| Semi-palmated sandpiper | *Calidris pusilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| Northern Flicker | *Colaptes auratus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| Alder Flycatcher | *Empidonax alnorum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| Least Flycatcher | *Empidonax minimus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| Northern Rough-winged Swallow | *Stelgidopteryx serripennis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| White-breasted Nuthatch | *Sitta carolinensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| Field Sparrow | *Spizella pusilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.031746032 | 0.101102012 |
| Wood Duck | *Aix sponsa* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Northern Pintail | *Anas acuta* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Green-winged Teal | *Anas crecca* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Green Heron | *Butorides virescens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Red-tailed Hawk | *Buteo jamaicensis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Black-bellied Plover | *Pluvialis squatarola* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| White-rumped sandpiper | *Calidris fuscicollis* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| American Woodcock | *Scolopax minor* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Brown Creeper | *Certhia americana* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Veery | *Catharus fuscescens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Nashville Warbler | *Vermivora ruficapilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Ovenbird | *Seiurus aurocapilla* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Scarlet Tanager | *Piranga olivacea* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Chipping Sparrow | *Spizella passerina* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Clay-colored Sparrow | *Spizella pallida* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| Orchard Oriole | *Icterus spurius* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| House Finch | *Carpodacus mexicanus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |
| House Sparrow | *Passer domesticus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.015873016 | 0.050551006 |

## Table I: Staging Swallow Surveys

| | | | | | | If flying… | | |
|---|---|---|---|---|---|---|---|---|
| Location | Date | Time | Species | # of individuals | Location/Habitat | Height (m) | Direction | Behaviour |
| 1 | 8-Jul-11 | 12:30 | BANS | 5 | gravel bar/marsh | | | flying & feeding |
| 2 | 8-Jul-11 | 12:49 | BANS | 10 | KFN marsh cell | | | flying & feeding |
| 3 | 8-Jul-11 | 13:10 | BANS | 5 | pasture/shore; PUMA nesting houses | | | perched & feeding |
| 7 | 8-Jul-11 | 14:11 | BANS | 1 | on wires, hayfield | | | perched |
| 13 | 8-Jul-11 | 15:01 | BANS | 10 | on wires & ground (pasture) | | | 50% perched; 50% flying |
| 14 | 8-Jul-11 | 15:20 | BANS | 150 | on wires/road (hayfield) | | | perched and feeding over fresh cut hayfield |
| 17 | 8-Jul-11 | 15:50 | BANS | 10 | on wires above pasture | | | |
| 1 | 8-Jul-11 | 12:30 | BARS | 15 | gravel bar/marsh | | | flying & feeding |
| 2 | 8-Jul-11 | 12:49 | BARS | 10 | KFN marsh cell | | | flying & feeding |
| 3 | 8-Jul-11 | 13:10 | BARS | 20 | pasture/shore; PUMA nesting houses | | | perched & feeding |
| 4 | 8-Jul-11 | 13:35 | BARS | 15 | on wire (fallow pasture) | | | 50% flying/feeding, 50% perched on telephone wire |
| 5 | 8-Jul-11 | 13:47 | BARS | 30 | near barns/pasture | | | feeding; many likely nested locally |
| 6 | 8-Jul-11 | 14:05 | BARS | 7 | on wires, hayfield | | | perched; 1 juv? BARS dead on road |
| 7 | 8-Jul-11 | 14:11 | BARS | 10 | on wires, hayfield | | | perched |
| 8 | 8-Jul-11 | 14:20 | BARS | 25 | on wires @ community pasture | | | perched |
| 9 | 8-Jul-11 | 14:23 | BARS | 15 | on wires @ house 4725 (hay/pasture) | | | 50% perched; 50% feeding |
| 10 | 8-Jul-11 | 14:42 | BARS | 20 | on wires near metal barn (marsh/hay) | | | 50% perched; 50% feeding |
| 11 | 8-Jul-11 | 14:44 | BARS | 10 | on wires @ 8850 (shore/hay) | | | |
| 12 | 8-Jul-11 | 14:46 | BARS | 5 | on wires @ house 9345 (hay/woods) | | | |
| 13 | 8-Jul-11 | 15:01 | BARS | 30 | on wires & ground (pasture) | | | 50% perched; 50% flying |
| 14 | 8-Jul-11 | 15:20 | BARS | 100 | on wires/road (hayfield) | | | perched and feeding over fresh cut hayfield |
| 15 | 8-Jul-11 | 15:25 | BARS | 30 | on wire (hay) | | | |
| 17 | 8-Jul-11 | 15:50 | BARS | 50 | on wires above pasture | | | |
| 3 | 8-Jul-11 | 13:10 | NRWS | 1 | pasture/shore; PUMA nesting houses | | | perched & feeding |
| 10 | 8-Jul-11 | 14:42 | NRWS | 1 | on wires near metal barn (marsh/hay) | | | 50% perched; 50% feeding |
| 12 | 8-Jul-11 | 14:46 | NRWS | 6 | on wires @ house 9345 (hay/woods) | | | |
| 14 | 8-Jul-11 | 15:20 | NRWS | 5 | on wires/road (hayfield) | | | perched and feeding over fresh cut hayfield |
| 16 | 8-Jul-11 | 15:40 | NRWS | 1 | on wire (pasture) | | | |
| 17 | 8-Jul-11 | 15:50 | NRWS | 1 | on wires above pasture | | | |
| 1 | 8-Jul-11 | 12:30 | PUMA | 2 | gravel bar/marsh | | | flying & feeding |
| 3 | 8-Jul-11 | 13:10 | PUMA | 30 | pasture/shore; PUMA nesting houses | | | perched & feeding |
| 11 | 8-Jul-11 | 14:44 | PUMA | 1 | on wires @ 8850 (shore/hay) | | | |
| 14 | 8-Jul-11 | 15:20 | PUMA | 2 | on wires/road (hayfield) | | | perched and feeding over fresh cut hayfield |
| 1 | 8-Jul-11 | 12:30 | TRES | 20 | gravel bar/marsh | | | flying & feeding |
| 2 | 8-Jul-11 | 12:49 | TRES | 10 | KFN marsh cell | | | flying & feeding |
| 3 | 8-Jul-11 | 13:10 | TRES | 20 | pasture/shore; PUMA nesting houses | | | perched & feeding |
| 4 | 8-Jul-11 | 13:35 | TRES | 25 | on wire (fallow pasture) | | | 50% flying/feeding, 50% perched on telephone wire |
| 6 | 8-Jul-11 | 14:05 | TRES | 5 | on wires, hayfield | | | perched |
| 7 | 8-Jul-11 | 14:11 | TRES | 30 | on wires, hayfield | | | perched |
| 8 | 8-Jul-11 | 14:20 | TRES | 5 | on wires @ community pasture | | | perched |
| 9 | 8-Jul-11 | 14:23 | TRES | 15 | on wires @ house 4725 (hay/pasture) | | | 50% perched; 50% feeding |
| 10 | 8-Jul-11 | 14:42 | TRES | 20 | on wires near metal barn (marsh/hay) | | | 50% perched; 50% feeding |
| 11 | 8-Jul-11 | 14:44 | TRES | 4 | on wires @ 8850 (shore/hay) | | | |
| 13 | 8-Jul-11 | 15:01 | TRES | 40 | on wires & ground (pasture) | | | 50% perched; 50% flying |
| 14 | 8-Jul-11 | 15:20 | TRES | 500 | on wires/road (hayfield) | | | perched and feeding over fresh cut hayfield |
| 16 | 8-Jul-11 | 15:40 | TRES | 30 | on wire (pasture) | | | |
| 17 | 8-Jul-11 | 15:50 | TRES | 75 | on wires above pasture | | | |
| 18 | 13-Jul-11 | 11:45 | BANS | 10 | KFN property | 50 | | feeding |
| 19 | 13-Jul-11 | 12:30 | BANS | 50 | behind large tree | 5 | | feeding post thunderstorm |
| 21 | 13-Jul-11 | 12:57 | BANS | 20 | on wires | 5 | | perched |
| 23 | 13-Jul-11 | 13:26 | BANS | 20 | on wires | 5 | | perched - possible evening roost site? |
| 10 | 13-Jul-11 | 14:16 | BANS | 5 | on wires, near shore | 5 | | perched |
| 11 | 13-Jul-11 | 14:24 | BANS | 100 | on wires | 5 | | perched |
| 25 | 13-Jul-11 | 14:32 | BANS | 10 | on wires | 5 | | perched |
| 18 | 13-Jul-11 | 11:45 | BARS | 20 | KFN property | 50 | | feeding |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 19 | 13-Jul-11 | 12:30 | BARS | 50 | behind large tree | 5 | | feeding post thunderstorm |
| 21 | 13-Jul-11 | 12:57 | BARS | 20 | on wires | 5 | | perched |
| 22 | 13-Jul-11 | 13:19 | BARS | 30 | on wires | 5 | | perched |
| 24 | 13-Jul-11 | 13:50 | BARS | 30 | on wires | 5 | | perched |
| 10 | 13-Jul-11 | 14:16 | BARS | 40 | on wires, near shore | 5 | | perched |
| 11 | 13-Jul-11 | 14:24 | BARS | 10 | on wires | 5 | | perched |
| 25 | 13-Jul-11 | 14:32 | BARS | 70 | on wires | 5 | | perched |
| 7 | 13-Jul-11 | 14:40 | BARS | 10 | on wires/hayfields | 5 | | perched |
| 6 | 13-Jul-11 | 14:42 | BARS | 20 | on wires/hayfields | 5 | | perched |
| 19 | 13-Jul-11 | 12:30 | CLSW | 2 | behind large tree | 5 | | feeding post thunderstorm |
| 11 | 13-Jul-11 | 14:24 | NRWS | 5 | on wires | 5 | | perched |
| 18 | 13-Jul-11 | 11:45 | TRES | 40 | KFN property | 50 | | feeding |
| 19 | 13-Jul-11 | 12:30 | TRES | 100 | behind large tree | 5 | | feeding post thunderstorm |
| 20 | 13-Jul-11 | 12:40 | TRES | 100 | behind large tree | 5 | | feeding |
| 21 | 13-Jul-11 | 12:57 | TRES | 10 | on wires | 5 | | perched |
| 22 | 13-Jul-11 | 13:19 | TRES | 15 | on wires | 5 | | perched |
| 23 | 13-Jul-11 | 13:26 | TRES | 60 | on wires | 5 | | perched - possible evening roost site? |
| 24 | 13-Jul-11 | 13:50 | TRES | 10 | on wires | 5 | | perched |
| 10 | 13-Jul-11 | 14:16 | TRES | 20 | on wires, near shore | 5 | | perched |
| 11 | 13-Jul-11 | 14:24 | TRES | 20 | on wires | 5 | | perched |
| 25 | 13-Jul-11 | 14:32 | TRES | 20 | on wires | 5 | | perched |
| 7 | 13-Jul-11 | 14:40 | TRES | 20 | on wires/hayfields | 5 | | perched |
| 6 | 13-Jul-11 | 14:42 | TRES | 120 | on wires/hayfields | 5 | | perched |
| 26 | 13-Jul-11 | 14:44 | TRES | 40 | on wires/hayfields | 5 | | perched |
| 27 | 23-Jul-11 | 11:15 | BANS | 20 | far end of KFN | | | feeding/roosting |
| 4 | 23-Jul-11 | 11:49 | BANS | 100 | on wires | | | feeding/roosting |
| 22 | 23-Jul-11 | 12:19 | BANS | 150 | on wires | | | |
| 27 | 23-Jul-11 | 11:15 | BARS | 30 | far end of KFN | | | feeding/roosting |
| 4 | 23-Jul-11 | 11:49 | BARS | 40 | on wires | | | feeding/roosting |
| 22 | 23-Jul-11 | 12:19 | BARS | 40 | on wires | | | |
| 14 | 23-Jul-11 | 13:00 | BARS | 30 | on wires & over lake | | | |
| 28 | 23-Jul-11 | 14:16 | BARS | 20 | on wires near barn | | | |
| 4 | 23-Jul-11 | 11:49 | CLSW | 1 | on wires | | | feeding/roosting |
| 14 | 23-Jul-11 | 13:00 | NRWS | 10 | on wires & over lake | | | |
| 27 | 23-Jul-11 | 11:15 | PUMA | 20 | far end of KFN | | | feeding/roosting |
| 14 | 23-Jul-11 | 13:00 | PUMA | 10 | on wires & over lake | | | |
| 27 | 23-Jul-11 | 11:15 | TRES | 100 | far end of KFN | | | feeding/roosting |
| 4 | 23-Jul-11 | 11:49 | TRES | 200 | on wires | | | feeding/roosting |
| 22 | 23-Jul-11 | 12:19 | TRES | 150 | on wires | | | |
| 14 | 23-Jul-11 | 13:00 | TRES | 60 | on wires & over lake | | | |
| 28 | 23-Jul-11 | 14:16 | TRES | 40 | on wires near barn | | | |
| 30 | 27-Jul-11 | 9:00 | BANS | 50 | on wires | | | perching/feeding |
| 2 | 27-Jul-11 | 10:00 | BANS | 25 | marsh | | | feeding |
| 4 | 27-Jul-11 | 10:35 | BANS | 150 | on wires | | | |
| 32 | 27-Jul-11 | 11:10 | BANS | 50 | on wires | | | |
| 14 | 27-Jul-11 | 11:13 | BANS | 5 | on wires | | | |
| 5 | 27-Jul-11 | 8:40 | BARS | 30 | on wires near barns | | | feeding |
| 29 | 27-Jul-11 | 8:50 | BARS | 10 | on wires | | | perched/resting |
| 30 | 27-Jul-11 | 9:00 | BARS | 40 | on wires | | | perching/feeding |
| 2 | 27-Jul-11 | 10:00 | BARS | 5 | marsh | | | feeding |
| 4 | 27-Jul-11 | 10:35 | BARS | 50 | on wires | | | |
| 17 | 27-Jul-11 | 10:50 | BARS | 50 | on wires & cattails | | | |
| 31 | 27-Jul-11 | 11:00 | BARS | 25 | near barns | | | feeding |
| 32 | 27-Jul-11 | 11:10 | BARS | 50 | on wires | | | |
| 14 | 27-Jul-11 | 11:13 | BARS | 30 | on wires | | | |
| 14 | 27-Jul-11 | 11:13 | NRWS | 5 | on wires | | | |
| 30 | 27-Jul-11 | 9:00 | PUMA | 10 | on wires | | | perching/feeding |
| 5 | 27-Jul-11 | 8:40 | TRES | 10 | on wires near barns | | | feeding |
| 29 | 27-Jul-11 | 8:50 | TRES | 40 | on wires | | | perched/resting |
| 30 | 27-Jul-11 | 9:00 | TRES | 200 | on wires | | | perching/feeding |
| 2 | 27-Jul-11 | 10:00 | TRES | 70 | marsh | | | feeding |
| 4 | 27-Jul-11 | 10:35 | TRES | 300 | on wires | | | |
| 17 | 27-Jul-11 | 10:50 | TRES | 200 | on wires & cattails | | | |
| 31 | 27-Jul-11 | 11:00 | TRES | 5 | near barns | | | feeding |
| 32 | 27-Jul-11 | 11:10 | TRES | 100 | on wires | | | |
| 14 | 27-Jul-11 | 11:13 | TRES | 20 | on wires | | | |
| 33 | 3-Aug-11 | 12:30 | BANS | 100 | over cows in pasture | | | feeding low |
| 4 | 3-Aug-11 | 12:50 | BANS | 40 | tall grass/pasture | | | feeding low |
| 34 | 3-Aug-11 | 12:55 | BANS | 250 | on ground/wires | | | feedling low/roosting |
| 20 | 3-Aug-11 | 13:00 | BANS | 250 | on wires | | | roosting |
| 35 | 3-Aug-11 | 13:06 | BANS | 50 | on wires | | | roosting |
| 16 | 3-Aug-11 | 13:14 | BANS | 100 | on wires/tall grass | | | perching/feeding low |
| 36 | 3-Aug-11 | 13:16 | BANS | 50 | on wires/tall grass | | | |
| 17 | 3-Aug-11 | 13:19 | BANS | 150 | on wires near house/tall grass | | | |
| 30 | 3-Aug-11 | 12:10 | BARS | 50 | on wires | | | roosting |
| 33 | 3-Aug-11 | 12:30 | BARS | 200 | over cows in pasture | | | feeding low |
| 4 | 3-Aug-11 | 12:50 | BARS | 50 | tall grass/pasture | | | feeding low |
| 34 | 3-Aug-11 | 12:55 | BARS | 100 | on ground/wires | | | feedling low/roosting |
| 20 | 3-Aug-11 | 13:00 | BARS | 20 | on wires | | | roosting |
| 35 | 3-Aug-11 | 13:06 | BARS | 40 | on wires | | | roosting |
| 16 | 3-Aug-11 | 13:14 | BARS | 80 | on wires/tall grass | | | perching/feeding low |
| 36 | 3-Aug-11 | 13:16 | BARS | 25 | on wires/tall grass | | | |
| 17 | 3-Aug-11 | 13:19 | BARS | 20 | on wires near house/tall grass | | | |
| 37 | 3-Aug-11 | 13:29 | BARS | 20 | on wire | | | roosting |
| 25 | 3-Aug-11 | 14:10 | BARS | 40 | on wires near barn | | | roosting |
| 11 | 3-Aug-11 | 14:17 | BARS | 10 | on wires | | | roosting |
| 17 | 3-Aug-11 | 13:19 | PUMA | 10 | on wires near house/tall grass | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 37 | 3-Aug-11 | 13:29 | PUMA | 10 | on wire | | | roosting |
| 38 | 3-Aug-11 | 13:58 | PUMA | 15 | on wires | | | roosting |
| 11 | 3-Aug-11 | 14:17 | PUMA | 15 | on wires | | | roosting |
| 30 | 3-Aug-11 | 12:10 | TRES | 50 | on wires | | | roosting |
| 33 | 3-Aug-11 | 12:30 | TRES | 300 | over cows in pasture | | | feeding low |
| 4 | 3-Aug-11 | 12:50 | TRES | 150 | tall grass/pasture | | | feeding low |
| 34 | 3-Aug-11 | 12:55 | TRES | 150 | on ground/wires | | | feedling low/roosting |
| 20 | 3-Aug-11 | 13:00 | TRES | 100 | on wires | | | roosting |
| 35 | 3-Aug-11 | 13:06 | TRES | 100 | on wires | | | roosting |
| 16 | 3-Aug-11 | 13:14 | TRES | 90 | on wires/tall grass | | | perching/feeding low |
| 36 | 3-Aug-11 | 13:16 | TRES | 75 | on wires/tall grass | | | |
| 17 | 3-Aug-11 | 13:19 | TRES | 160 | on wires near house/tall grass | | | |
| 37 | 3-Aug-11 | 13:29 | TRES | 30 | on wire | | | roosting |
| 25 | 3-Aug-11 | 14:10 | TRES | 30 | on wires near barn | | | roosting |
| 11 | 3-Aug-11 | 14:17 | TRES | 10 | on wires | | | roosting |
| 30 | 9-Aug-11 | 14:16 | BANS | 200 | on wires | | | roosting (limited feeding) |
| 34 | 9-Aug-11 | 14:38 | BANS | 200 | on wires | | | roosting (limited feeding) |
| 23 | 9-Aug-11 | 15:02 | BANS | 200 | on wires & cattails | | | roosting (limited feeding) |
| 30 | 9-Aug-11 | 14:16 | BARS | 50 | on wires | | | roosting (limited feeding) |
| 34 | 9-Aug-11 | 14:38 | BARS | 40 | on wires | | | roosting (limited feeding) |
| 23 | 9-Aug-11 | 15:02 | BARS | 100 | on wires & cattails | | | roosting (limited feeding) |
| 23 | 9-Aug-11 | 15:02 | NRWS | 5 | on wires & cattails | | | roosting (limited feeding) |
| 30 | 9-Aug-11 | 14:16 | PUMA | 15 | on wires | | | roosting (limited feeding) |
| 34 | 9-Aug-11 | 14:38 | PUMA | 5 | on wires | | | roosting (limited feeding) |
| 30 | 9-Aug-11 | 14:16 | TRES | 500 | on wires | | | roosting (limited feeding) |
| 34 | 9-Aug-11 | 14:38 | TRES | 300 | on wires | | | roosting (limited feeding) |
| 23 | 9-Aug-11 | 15:02 | TRES | 800 | on wires & cattails | | | roosting (limited feeding) |
| 5 | 16-Aug-11 | 14:05 | BANS | 2 | on wires; residential/field | | | resting/foraging |
| 34 | 16-Aug-11 | 14:45 | BANS | 15 | on wire; pasure & shoreline @ barn | | | resting/foraging |
| 39 | 16-Aug-11 | 16:19 | BANS | 3 | wire along road near barn | | | resting |
| 40 | 16-Aug-11 | 16:55 | BANS | 3 | wire; fields near road | | | resting/foraging |
| 26 | 16-Aug-11 | 17:25 | BANS | 10 | wire; fields near road | | | resting/foraging |
| 42 | 16-Aug-11 | 17:42 | BANS | 8 | wire along road | | | resting |
| 43 | 16-Aug-11 | 17:48 | BANS | 10 | wire along road/field | | | resting/foraging |
| 44 | 16-Aug-11 | 17:55 | BANS | 60 | wire along road/field | | | resting/foraging |
| 45 | 16-Aug-11 | | BANS | 25 | wire near road | | | resting/preening |
| 5 | 16-Aug-11 | 14:05 | BARS | 10 | on wires; residential/field | | | resting/foraging |
| 34 | 16-Aug-11 | 14:45 | BARS | 40 | on wire; pasure & shoreline @ barn | | | resting/foraging |
| 31 | 16-Aug-11 | 15:45 | BARS | 100 | on wire; field near residential | | | resting/foraging; all chased off by MERL |
| 39 | 16-Aug-11 | 16:19 | BARS | 11 | wire along road near barn | | | resting |
| 40 | 16-Aug-11 | 16:55 | BARS | 25 | wire; fields near road | | | resting/foraging |
| 26 | 16-Aug-11 | 17:25 | BARS | 40 | wire; fields near road | | | resting/foraging |
| 41 | 16-Aug-11 | 17:38 | BARS | 19 | wire along road | | | resting |
| 42 | 16-Aug-11 | 17:42 | BARS | 15 | wire along road | | | resting |
| 43 | 16-Aug-11 | 17:48 | BARS | 30 | wire along road/field | | | resting/foraging |
| 44 | 16-Aug-11 | 17:55 | BARS | 40 | wire along road/field | | | resting/foraging |
| 45 | 16-Aug-11 | | BARS | 15 | wire near road | | | resting/preening |
| 31 | 16-Aug-11 | 15:45 | NRWS | 60 | on wire; field near residential | | | resting/foraging; all chased off by MERL |
| 44 | 16-Aug-11 | 17:55 | NRWS | 10 | wire along road/field | | | resting/foraging |
| 5 | 16-Aug-11 | 14:05 | PUMA | 12 | on wires; residential/field | | | resting/foraging |
| 40 | 16-Aug-11 | 16:55 | PUMA | 3 | wire; fields near road | | | resting/foraging |
| 5 | 16-Aug-11 | 14:05 | TRES | 4 | on wires; residential/field | | | resting/foraging |
| 31 | 16-Aug-11 | 15:45 | TRES | 40 | on wire; field near residential | | | resting/foraging; all chased off by MERL |
| 40 | 16-Aug-11 | 16:55 | TRES | 12 | wire; fields near road | | | resting/foraging |
| 26 | 16-Aug-11 | 17:25 | TRES | 100 | wire; fields near road | | | resting/foraging |
| 43 | 16-Aug-11 | 17:48 | TRES | 3 | wire along road | | | resting |
| 43 | 16-Aug-11 | 17:48 | TRES | 20 | wire along road/field | | | resting/foraging |
| 44 | 16-Aug-11 | 17:55 | TRES | 90 | wire along road/field | | | resting/foraging |
| 45 | 16-Aug-11 | | TRES | 30 | wire near road | | | resting/preening |
| 46 | 26-Aug-11 | 9:25 | BARS | 15 | pasture | | | foraging |
| 47 | 26-Aug-11 | 9:50 | BARS | 10 | hayfield/wire | | | perching/foraging |
| 48 | 26-Aug-11 | 9:55 | BARS | 1 | wire/hayfield | | | perching |
| 48 | 26-Aug-11 | 9:55 | TRES | 14 | wire/hayfield | | | perching |
| 49 | 2-Sep-11 | 11:27 | BARS | 20 | on wires | 3 | | |
| 49 | 2-Sep-11 | 11:27 | TRES | 10 | on wires | 3 | | |
| 16 | 2-Sep-11 | 12:01 | TRES | 50 | on wires/marsh | 5 | | |

**Summary**

| Date | Bank Swallow | Barn Swallow | Cliff Swallow | Northern Rough-winged Swallow | Purple Martin | Tree Swallow | Total |
|---|---|---|---|---|---|---|---|
| 7/8/2011 | 191 | 392 | | 15 | 35 | 799 | 1432 |
| 7/13/2011 | 215 | 300 | 2 | 5 | | 575 | 1097 |
| 7/23/2011 | 270 | 160 | 1 | 10 | 30 | 550 | 1021 |
| 7/27/2011 | 280 | 290 | | 5 | 10 | 945 | 1530 |
| 8/3/2011 | 990 | 655 | | | 50 | 1245 | 2940 |
| 8/9/2011 | 600 | 190 | | 5 | 20 | 1600 | 2415 |
| 8/16/2011 | 136 | 345 | | 70 | 15 | 299 | 865 |
| 8/26/2011 | | 26 | | | | 14 | 40 |
| 9/2/2011 | | 20 | | | | 60 | 80 |
| Total | 2682 | 2378 | 3 | 110 | 160 | 6087 | 11420 |

# Appendix G

## Evaluation of Significance Methods

## Appendix G: Detailed Survey Methods

### Waterfowl Stopover and Staging Areas (Terrestrial and Aquatic)

To understand whether waterfowl use the candidate habitats in or within 120 m of the Project Location as migratory stopover areas for resting and feeding surveys were conducted in spring and fall 2011. Survey dates, times and weather conditions are summarized in **Table 4B, Appendix B**. Spring surveys began on March 24, 2011, ending on May 25, 2011, with a total of 10 surveys. Fall surveys began on September 1, 2011, ending on December 21, 2011, with a total of 19 surveys.

Driving transects involved driving the main roads within the Study Area during the day at slow speeds (i.e., 30-40km/h) to achieve maximum coverage of the site. The fields and woodlands were scanned using binoculars to detect birds. A spotting scope was used for closer inspection of stationary birds where suitable, candidate habitat occurred. Point counts involved 10-minute counts, identifying waterfowl to species, at flooded areas during migration, identified as candidate waterfowl stopover and staging areas.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), location, species observed, total number of individuals of each species, and behaviour. Birds documented as flyovers or otherwise not using the habitat as a feeding or roosting habitat were clearly indicated at the time of observation.

### Raptor Winter Feeding and Roosting Areas

To characterize the diversity and abundance of raptors that were using the Amherst Island Study Area driving surveys were conducted. Ten driving winter raptor surveys were completed between November 9, 2011 and March 7, 2012. Survey dates, times and weather conditions are summarized in **Table 4B, Appendix B**. Each survey involved driving the main roads within the Study Area during the day at slow speeds (i.e., 30-40km/h) to achieve maximum coverage of the site. The fields and woodlands were scanned using binoculars to detect birds. A spotting scope was used for closer inspection of stationary birds.

In addition to driving surveys, walking transect surveys were conducted in the specific feature identified as candidate significant wildlife habitat for a winter raptor feeding and roosting area (i.e. open habitat with winter cover 20 ha or greater in proximity to woodlots)., in proximity to project components. Walking transect surveys occurred approximately twice weekly between November 9, 2011 and March 7, 2012. Two surveyors traversed through the open field in transects spaced approximately 250 m apart. Significant effort was also expended searching conifer trees found in the adjacent densely-treed area for roosting owls such as Northern Saw-whet Owls or Long-eared Owls.

Survey dates, times and weather conditions are summarized in **Table 4B, Appendix B**. All raptor and owl observations were recorded on a field map of the candidate habitat, as well as the appropriate field data form.

Observers recorded the following information: date, names of observers, time (start and end for each transect), duration of time it took to walk the transects, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), location, species observed, total number of individuals of each species, behavior, and height. Birds documented as flyovers or otherwise not using the woodland as a roosting habitat were clearly indicated at the time of observation.

### Shorebird Migratory Stopover Area

To understand whether shorebirds use the candidate habitats in or within 120 m of the Project Location as migratory stopover areas for resting and feeding, surveys were conducted in spring 2011. Survey dates, times and weather conditions are summarized in **Table 4B, Appendix B**. Spring surveys began on May 3, 2011, ending on May 26, 2011, with a total of 6 surveys.

Driving transects involved driving the main roads within the Study Area during the day at slow speeds (i.e., 30-40km/h) to achieve maximum coverage of the site. Where suitable, candidate habitat occurred, the fields and shorelines were scanned using binoculars to detect birds. A spotting scope was used for closer inspection of stationary birds. Point counts involved 10-minute counts, identifying shorebirds to species, at flooded areas during migration, identified as candidate waterfowl stopover and staging areas.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), location, species observed, total number of individuals of each species, and behaviour. Birds documented as flyovers or otherwise not using the habitat as a feeding or roosting habitat were clearly indicated at the time of observation.

### Landbird Migratory Stopover Areas

The candidate woodlots were surveyed weekly for 8 weeks in the spring and 7 weeks in the fall of 2011. The surveys were carried out between April 27-May 26 and September 1-October 21, 2011. Visits began approximately at sunrise and extended no more than 4 hours after sunrise. Severe weather events were avoided, which include high winds and/or heavy precipitation, to minimize any survey bias associated with variability in weather conditions. Survey dates, times, weather conditions and personnel are summarized in **Table 4B, Appendix B**.

Routes were chosen that corresponded to the major habitats likely to be utilized by migratory songbirds and consisted of 500m transects.

Survey methods consisted of slowly walking linear transects through and along the edges of the habitat. The pre-selected transect routes are shown on the maps associated with the field notes in **Appendix C.** The transect routes were flagged and delineated in the field using handheld GPS units.

Observers recorded the following information: date, names of observers, time (start and end for each transect), duration of time it took to walk the transect, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), GPS track of each transect, species observed, total number of individuals of each species, behavior (foraging, mobbing, migration, flying, perching, perched on ground, swimming), and height category (using woodlot or fly-over). Although these surveys targeted landbirds, all bird observations were recorded. All birds documented as flyovers or otherwise not using the woodland as a stopover habitat were clearly indicated at the time of observation.

### Migratory Butterfly Stopover Areas

Presence of butterflies was recorded during all field surveys conducted during the fall migration period for butterflies, with targeted surveys conducted in conjunction with swallow migration surveys in the fall 2011. A total of 9 dates were surveyed through September 2011 with two surveyors present onsite. Survey dates, times and weather conditions are summarized in **Table 4B, Appendix B**.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), species observed, total number of individuals of each species, location/habitat description, and behavior (roosting, feeding).

### Migratory Swallow Surveys

The candidate open country habitats were surveyed between July 8 and September 2, 2011, for a total of 9 surveys. Visits were conducted in the afternoons when swallows were foraging and feeding. Severe weather events were avoided, which include high winds and/or heavy precipitation, to minimize any survey bias associated with variability in weather conditions. Survey dates, times, weather conditions and personnel are summarized in **Table 4B, Appendix B**.

Surveys involved driving the main roads within the Study Area during the day at slow speeds (i.e., 30-40km/h) to achieve maximum coverage of the site. The fields and woodlands were scanned using binoculars to detect birds. A spotting scope was used for closer inspection of stationary birds. Point counts involved 10-minute counts, identifying swallows to species, in open country habitats during migration, identified as candidate swallow staging areas.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), location, species observed, total number of individuals of each species, and behaviour. Birds documented as flyovers or otherwise not using the habitat as a feeding or roosting habitat were clearly indicated at the time of observation.

### Waterfowl Nesting Area

To understand whether waterfowl use the candidate habitats in or within 120 m of the Project Location as nesting areas during breeding season, surveys were conducted in spring/summer 2011 – included in the breeding bird surveys indicated in the survey dates, times and weather conditions summarized in **Table 4B, Appendix B**. Spring surveys in these candidate habitats occurred in early June.

Surveys were comprised of area searches through the Study Area. Surveys began at, or within, half an hour of sunrise and were completed by 10:00 a.m. Weather conditions (i.e., precipitation and visibility) were within the parameters required by monitoring programs such as Environment Canada's Breeding Bird Survey or the Ontario Forest Bird Monitoring Program, and are provided in **Table 4B, Appendix B**.

Area searches were conducted in candidate habitat to identify as many breeding bird species as possible that were utilizing the Study Area. All species observed were recorded along with which habitat type(s) the species was observed in as well as the level of breeding evidence detected.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), location, species observed, total number of individuals of each species, and behaviour.

### Bald Eagle Nesting Habitat

Candidate Bald Eagle nesting habitat was identified in two woodlands on Amherst Island by the St. Lawrence Bald Eagle Working Group in the document, *Conserving Lake Ontario and Upper St. Lawrence Bald Eagle Habitats* (2008). These two woodlands were searched during Ecological Land Classification (ELC) surveys for stick nests which would indicate nesting Bald Eagles, as well as any observations of Bald Eagles were recorded during all surveys, including breeding bird surveys in these woodlands.

Breeding bird surveys were conducted in these candidate habitats on May 30-31, June 2, June 3, June 5, June 14-17, June 27, June 29-30, July 2-3, and July 7, for a total of 15 surveys. Breeding bird surveys followed the following methods. Surveys were comprised of area searches through the Study Area. Surveys began at, or within, half an hour of sunrise and were completed by 10:00 a.m. Weather conditions (i.e., precipitation and visibility) were within the parameters required by monitoring programs such as Environment Canada's Breeding Bird Survey or the Ontario Forest Bird Monitoring Program, and are provided in **Table 4B, Appendix B**.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), GPS track of each transect, species observed, total number of individuals of each species, and behaviour. Although these surveys targeted breeding birds, all bird observations were recorded. All birds documented as flyovers or otherwise not using the habitat as a nesting habitat were clearly indicated at the time of observation.

### Woodland Raptor Nesting Habitat

During site investigation, two woodlands were identified that contain the amount of interior habitat required for woodland raptor nesting. These two woodlands were searched during ELC surveys for stick nests which would indicate nesting woodland raptors, as well as any observations of woodland raptors were recorded during all surveys, including breeding bird surveys in these woodlands.

Breeding bird surveys were conducted in these candidate habitats on May 31, June 2-3, June 5, June 7-9, June 14, June 16-17, June 20, June 22-23, June 29, July 2-3, July 7-8, and July 10 for a total of 19 surveys. Breeding bird surveys followed the following methods. Surveys were comprised of point counts and were augmented by area searches through the Study Area. Surveys began at, or within, half an hour of sunrise and were completed by 10:00 a.m. Weather conditions (i.e., precipitation and visibility) were within the parameters required by monitoring programs such as Environment Canada's Breeding Bird Survey or the Ontario Forest Bird Monitoring Program, and are provided in **Table 4B, Appendix B**.

Point counts were conducted in compliance with Environment Canada's "Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds" (Environment Canada 2007b). Ten minute point counts were conducted twice at each station, in early June and late June. Bird observations were recorded at four distance regimes, within a 50 m radius, 50 to 100 m, outside the 100 m radius, or flyovers. For each point count, a record was made of the start time and a hand held GPS unit was used to georeference its location. A brief description of the habitat was made for each point count. To standardize the data, densities per 10 ha were calculated for each point count.

Area searches were conducted to identify as many breeding bird species as possible that were utilizing the Study Area. All main habitat types found within 120 m of the Project Location were traversed on foot during each visit. All species observed were recorded along with which habitat type(s) the species was observed in as well as the level of breeding evidence detected.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), location, species observed, total number of individuals of each species, and behaviour. Although these surveys targeted breeding raptors, all bird observations were recorded. All birds documented as flyovers or otherwise not using the habitat as a nesting habitat were clearly indicated at the time of observation.

### Amphibian Breeding Habitat (Woodland and Wetland)

Amphibian call count surveys were conducted between April 19, 2011 and June 19, 2011 over a total of 7 survey dates. A total of 24 stations within the Study Area were surveyed, although not all stations were located in the Zone of Investigation for the Project. One survey was conducted in each of April, May, and June 2011 at most stations. Survey dates, times, weather conditions and field personnel are summarized in **Table 4B, Appendix B**. Calling amphibian surveys followed the protocols identified in the Marsh Monitoring Program Manual (Bird Studies Canada, 1994) and the Amphibian Road Call-Counts Participants Manual (Environment Canada, 1997). Surveys were conducted between one-half hour after sunset and midnight.

The protocol involved the surveyor standing at each selected station and listening for three minutes. Amphibians were recorded to be within each surveyed station if they were within 100 metres of the surveyor. Consistent with the Marsh Monitoring Program protocol, all calling activity was ranked using one of the following three abundance code categories: (1) calls not simultaneous – number of individuals can be accurately counted; (2) some calls simultaneous –

number of individuals can be reliably estimated; and (3) full chorus – calls continuous and overlapping, so number of individuals cannot be reliably estimated.

In addition, visual inspections of all areas containing standing water that occurred in and within 120 m of the Project Location were conducted; estimated size and depth of aquatic habitat, presence of egg masses or tadpoles and amphibian presence were recorded from April to June 2011.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), GPS point of each survey, species observed, total number of individuals of each species, and direction. Although these surveys targeted amphibians, all wildlife observations were recorded.

### Breeding Bird Habitat

Breeding bird surveys were conducted in all habitat types, and encompassed a variety of candidate significant wildlife habitats for birds, including: open country breeding birds, marsh breeding birds, shrub/early successional breeding birds, and area-sensitive woodland breeding birds. Also included were targeted surveys for Short-eared Owl.

Three rounds of surveys for breeding birds were conducted in woodland, shrub, marsh and grassland habitats. These surveys were conducted between May 30 and July 12, 2011, for a total of 44 survey dates. A total of 64 point count locations were surveyed over these dates.

Surveys were comprised of point counts and were augmented by area searches through the Study Area. Surveys began at, or within, half an hour of sunrise and were completed by 10:00 a.m. Weather conditions (i.e., precipitation and visibility) were within the parameters required by monitoring programs such as Environment Canada’s Breeding Bird Survey or the Ontario Forest Bird Monitoring Program, and are provided in **Table 4B, Appendix B**.

Point counts were conducted in compliance with Environment Canada’s “Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds” (Environment Canada 2007b). Ten minute point counts were conducted twice at each station, in early June and late June. Bird observations were recorded at four distance regimes, within a 50 m radius, 50 to 100 m, outside the 100 m radius, or flyovers. For each point count, a record was made of the start time and a hand held GPS unit was used to georeference its location. A brief description of the habitat was made for each point count. To standardize the data, densities per 10 ha were calculated for each point count.

Area searches were conducted to identify as many breeding bird species as possible that were utilizing the Study Area. All main habitat types found within 120 m of the Project Location were traversed on foot during each visit. All species observed were recorded along with which habitat type(s) the species was observed in as well as the level of breeding evidence detected.

Observers recorded the following information: date, names of observers, time, weather conditions (temperature, % cloud cover, Beaufort wind scale, visibility, precipitation), location, species observed, total number of individuals of each species, and behaviour. Although these surveys targeted breeding birds, all bird observations were recorded. All birds documented as flyovers or otherwise not using the habitat as a nesting habitat were clearly indicated at the time of observation.

Presence of breeding Short-eared Owls was assessed during the early morning grassland breeding bird surveys (described above). In Stantec's experience, early morning surveys in June (when owls are more actively hunting to feed their young) are very effective at detecting this species. However, to provide additional opportunity of detecting this species, dusk surveys were also conducted. Monitoring stations were established in suitable candidate habitat in proximity to proposed project components. Each monitoring stations was surveyed in in each of May, early June and later June, 2011. Surveys consisted of 20 minute point counts to detect Short-eared Owls by sight or by call. Location, behaviour (i.e. perched, flying, hunting), age (adult or juvenile) and height were noted for each Short-eared Owl observation.

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May 12, 2011
File: 160960595

Ontario Ministry of Natural Resources
Southern Region Planning Unit
4th Floor S, P.O. Box 7000
300 Water Street
Peterborough ON K9J 8M5

**Attention: Mr. Eric Prevost, Southern Region Renewable Energy Coordinator**

Mr. Prevost:

**Reference: Amherst Island Wind Energy Project**
**Natural Heritage Data Request and Proposed Site Investigation Work Program**

Windlectric Inc. (Windlectric) is proposing to develop, construct, and operate the 56-75 megawatt (MW) Amherst Island Wind Energy Project (referred to herein as "the Project"). The Project was approved under the Feed-in-Tariff (FIT) program, and Windlectric is currently undertaking the Renewable Energy Approval (REA) process according to Ontario Regulation 359/09 of the *Environmental Protection Act*. At this time, there are no known 'triggers' of the *Canadian Environmental Assessment Act*.

The purpose of this letter is to formally request any relevant natural heritage data available for the Study Area of the Project, and to outline our proposed site investigation work program for MNR's review and endorsement.

## INTRODUCTION

The Project will be is located on Amherst Island and on a portion of land located on the mainland, with the exception of a submarine cable. The Project will be entirely within Loyalist Township in the County of Lennox and Addington in eastern Ontario. It will include the construction and operation of approximately 31-42 wind turbine generators with a total installed name plate capacity of approximately 56-75 MW. The Project will also include electrical collection lines, a submarine cable, an operations and maintenance building, a substation, a transformer station, a meteorological tower (met tower), an access road to the met tower site, and turbine access roads. Temporary components during construction may include a temporary dock, storage and staging areas at the turbine locations, crane pads or mats, staging areas along access roads, delivery truck turnaround areas, central laydown areas, crane paths and associated watercourse crossings.

O. Reg. 359/09 requires that a natural heritage assessment (NHA) be completed for wind power projects. This is comprised of a records review, site investigation, and evaluation of significance of each natural feature identified in the course of the records review and site investigation. This work program is intended to provide a comprehensive overview of all natural heritage requirements under the approval process.

Site investigations based on this work program will be conducted in and within 120 m of the project location for the purpose of determining:

- Whether the results of the records review are correct or require correction;

- Whether any additional natural features or water bodies exist, which were not documented in the records review;
- The boundaries, located within 120m of the project location, of any natural feature or water body identified in the records review or site investigation; and,
- The distance from the project location to the boundaries of each natural feature or water body.

## DATA REQUEST

Stantec has initiated a records review to identify natural features and potentially present significant wildlife habitat in the vicinity of the project. A draft natural features map is attached, identifying the Study Area. The 'project location' is considered to be the land within the Study Area in which the Project is proposed; at this time, the 'project location' has not been defined.

We would appreciate receiving any available information related to natural features, species at risk, and bat hibernacula for the Study Area. We would also welcome any other relevant data.

## BACKGROUND INFORMATION / SITE CONTEXT

The Study Area generally consists of agricultural fields, predominately hay and pasture. Scattered woodland communities occur throughout the Study Area, including areas of green ash swamp and red cedar scrub. Large coastal wetlands occur in the southwestern portion of the Study Area. The Study Area also includes offshore areas adjacent to the island and along the proposed submarine cable route between Amherst Island and the mainland.

A preliminary review of available background information indicates the Study Area contains the following known natural features:

- Provincially significant wetlands (PSWs);
- Unevaluated wetlands;
- Woodlands;
- Provincially significant Life Science Areas of Natural and Scientific Interest (ANSIs);
- Fisheries habitat; and
- Other designated natural features (e.g., Amherst Island Important Bird Area, Owl Woods).

The Loyalist County Official Plan (2010) identifies "Environmental Sensitive Area", which collectively includes natural heritage features (e.g. significant valleylands, significant woodlands, unevaluated wetlands, linkages and corridors). Provincial guidelines of the Natural Heritage Reference Manual (NHRM) (MNR, 2010d) will be used to assess the significance of each of these features independently.

A preliminary assessment was undertaken to identify the potential for features that may be designated as significant wildlife habitat (i.e. seasonal concentration areas, rare vegetation communities or specialized habitats, movement corridors and habitats of species of conservation concern) within the Study Area. Each feature, which background information indicates could reasonably be found in the Study Area, will be assessed through the site investigations and the evaluation of significance, based on criteria as outlined in the Significant Wildlife Habitat Technical Guide (SWHTG) (MNR, 2000).

### Seasonal Concentration Areas

The Study Area occurs within the Amherst Island Important Bird Area (IBA), which has been designated as globally and continentally significant for congregatory species, including spring and fall staging waterfowl and wintering raptors and owls (IBA Canada, undated). Other records within the IBA include concentrations of staging shorebirds during their spring migration and concentrations of staging landbirds, specifically Tree Swallows, during their late summer migration.

A known area of particularly high landbird concentration is located approximately 18 km southwest of the Study Area, at the Prince Edward Point Bird Observatory, located within the Prince Edward Point Important Bird Area. Unpublished radar studies and area searches for spring and fall migrants conducted within the south shore of Prince Edward County indicate that passerine migrants use forested landscapes along the Lake Ontario shoreline in south Prince Edward County. Recent radar studies in the Great Lakes Basin showed that migrants select forested areas in close proximity to water (Bonter *et al.*, 2008). Similarly, Ewart *et al.* (2006) research along Lake Erie found that landbirds may be particularly concentrated in riparian woodland located within 0.4 km of the lakeshore. Given Amherst Island's location along Lake Ontario's northern shoreline and its proximity to a known landbird concentration area, features on the island have the potential to support concentrations of landbirds during spring and fall migration. Site investigations will assess the significant of features in the Study Area for staging landbirds.

The potential for the Study Area to be considered significant wildlife habitat based on concentrations of migratory raptors, vultures and eagles (including Golden Eagles), will be assessed during site investigations (fall raptor migration surveys). In addition, the site investigation will assess the potential for significant migratory butterfly stopover areas.

There are records of Eastern Milksnake (species of special concern), as well as other common snakes from the Study Area. Potential reptile hibernacula features will be identified during site investigations.

No known bat hibernacula have been identified within the Study Area (Renewable Energy Atlas, 2011). Any information MNR has on known bat hibernacula or candidate features within the Study Area would be appreciated. Site investigations will determine whether additional candidate bat significant wildlife habitat features are present in the Study Area (e.g. caves). No bat monitoring is proposed as projects sited more than 320 m from bat hibernacula do not require field studies to support an evaluation of significance (MNR, 2010a).

### Rare Vegetation Communities or Specialized Habitats

Based on an assessment of the habitat in the Study Area and historic species records, two specialized habitats have the potential to occur to some degree in the project location: habitat for area-sensitive species, and amphibian woodland breeding ponds. The presence and extent to which these specialized habitats are present within the Study Area will be confirmed through the site investigation program.

### Movement Corridors

Animal movement corridors are parts of the landscape used by animals to move from one habitat to another (SWHTG, MNR, 2000).

The Loyalist County Official Plan (2010) identifies linkages and movement corridors within the Study Area associated with natural vegetation cover. The site investigation will include habitat assessment to assess the significance of movement corridors identified within the Official Plan in addition to other candidate features within the Study Area.

Criteria for confirming bat and bird migration corridors are not currently defined in the Significant Wildlife Habitat Technical Guide meaning that the evaluation and confirmation of significant wildlife habitat is not possible for these categories (MNR, 2010b).

### Species of Conservation Concern

The Study Area is likely to support moderate to high relative densities of Ontario Partners in Flight priority species associated with grassland and shrubland/successional habitats (Ontario PIF, 2008). The decline of grassland birds has been identified as a conservation concern (Cadman *et al.*, 2007), and areas containing healthy populations of species belonging to these guilds would be considered for designation of significant wildlife habitat. The presence and densities of these species will be assessed through the site investigation program.

Records of species on conservation concern (including Short-eared Owl, Common Nighthawk, Black Tern, Eastern Milksnake, Snapping Turtle, Map Turtle and Monarch) also occur from the vicinity of the Study Area, the habitat of which will be identified during the site investigation.

### Summary

The following features that could be significant wildlife habitat were identified, requiring site investigations to confirm their presence and extent:

- Seasonal concentrations (migratory waterfowl, landbirds, shorebirds, raptors and butterflies, wintering raptors and owls, reptile hibernacula);
- Rare Vegetation Communities or Specialized habitats (area-sensitive species, amphibian breeding);
- Movement Corridors; and
- Habitat for Species of Conservation Concern (grassland and/or shrubland/successional breeding birds, species of special concern).

## THREATENED AND ENDANGERED SPECIES

Historic records of endangered and threatened species also occur from the Study Area, including Blanding's Turtle, Whip-poor-will, Least Bittern and Henslow's Sparrow. Site investigations in 2011 will assess the presence and identify habitat of these species. If required by MNR, additional detailed studies could be completed in 2012 to assure compliance under the *Endangered Species Act* (2007) and to facilitate the permitting process. In the event that threatened or endangered species are found to be present, MNR will be consulted regarding requirements for additional studies and specific study designs.

## PROPOSED SITE INVESTIGATION WORK PROGRAM

### 1) Winter Raptor Survey (Ten surveys, November to March):

Ten bi-weekly driving surveys will be conducted between November 2011 and mid-March 2012. Surveys will be conducted by teams of two qualified surveyors driving all accessible roads within the Study Area at slow speeds (i.e. 30-40 km/h) in order to achieve maximum coverage of the site. The fields and woodlots will be scanned using binoculars to detect birds, and a spotting scope will be used for closer inspection of stationary birds. When raptors or owls are observed, the location, species, number, behaviour (i.e. perched, flying, hunting) and height will be noted. The locations of raptors will be mapped on a feature by feature base. Other bird and wildlife observations will also be recorded and mapped. The same route will be repeated shortly before and at dusk to more accurately assess the presence and numbers of wintering Short-eared Owls. Surveys will be conducted by two teams to achieve sufficient coverage of the Study Area during the dusk period.

**2) Staging and foraging spring waterfowl surveys (Eight surveys, April to May):**

Monitoring will consist of eight weekly foraging surveys, undertaken by driving all roads in the Study Area and recording the location, numbers and habitat of all waterfowl flocks. Driving surveys will target both inland and offshore flocks of waterfowl. These surveys have been initiated and are ongoing in the spring of 2011.

**3) Spring landbird stopover surveys (Five surveys, late April – May):**

Monitoring will consist of five weekly surveys. These surveys will include visiting each area of potential landbird stopover habitat (area of tree or shrub cover) to characterize the abundance and diversity of landbirds using the feature. These surveys have been initiated and are ongoing in the spring of 2011.

**4) Spring shorebirds (Four surveys, May):**

Surveys for staging shorebirds will be conducted once weekly for four weeks in May. These surveys consist of daytime driving all roads in the Study Area and mapping of the locations and composition (number and species) of all flocks of shorebirds staging in flooded fields, along the shoreline or other wet features. These surveys have been initiated and are ongoing in the spring of 2011.

**5) Grassland breeding bird surveys (Three rounds, late May to early July):**

Three rounds of breeding bird surveys will be conducted from late May to early July, as required under MNR's Birds and Bird Habitats Guidelines for Wind Power Projects. Ten minute point counts will be conducted as per the guidelines and the height of all birds observed during point counts will be recorded. Area searches will be used to complement the point count surveys by collecting a comprehensive species list. The guidelines recommend 20 point counts be placed in each habitat type. However, considering the extent of grassland habitat within the Study Area, approximately 40 point counts are proposed with grassland habitat.

**6) Woodland breeding bird surveys (Three rounds, late May to early July):**

Three rounds of breeding bird surveys will be conducted in woodlands suitable to support area sensitive species (i.e. greater than 30 hectares in size). Surveys will consist of point counts (as described above) in conjunction with area searches to compile comprehensive species list on a feature by feature bases. Up to 20 point counts will be placed in suitable woodland habitat, where this habitat type occurs within or adjacent to optioned lands.

**7) Marsh breeding bird surveys (Three rounds, late May to early July):**

Three rounds of breeding bird surveys will be conducted where marsh habitat occurs within or adjacent to optioned lands. Surveys will consist of standard point counts (as described above) in conjunction with playback surveys. Playback surveys will target less conspicuous species including Pied-billed Grebe, American Bittern, American Coot, Common Moorhen and Virginia Rail. During the breeding bird surveys, bird nesting colonies (e.g. heronries) within the Study Area will be located and characterized as to abundance and species diversity.

### 8) Whip-poor-will (Three surveys, May and June):

Whip-poor-will surveys will be conducted in suitable forested habitat. Surveys will be conducted in late May, mid June, and late June, comprised of six minute point counts at monitoring stations placed in suitable habitat and spaced approximately 1 km apart. Surveys will begin approximately 30 minutes after sunset within appropriate weather conditions (not in high winds, persistent rain or an overcast sky). Surveys in late May and June will coincide with the full moon.

### 9) Short-eared Owl surveys (Three surveys, May and June):

Presence of breeding Short-eared Owls will be assessed during the early morning grassland breeding bird surveys (described above). In our experience, early morning surveys in June (when owls are more actively hunting to feed their young) are very effective at detecting this species. However, to provide additional opportunity of detecting this species, dusk surveys are also proposed. Monitoring stations will be established at good vantage points of suitable grassland habitat within the optioned lands. Each monitoring stations will be surveyed in each of May, early June and later June. Surveys will consist of 20 minute point counts to detect Short-eared Owls by sight or by call. Should Short-eared Owls be observed, the location, species, behaviour (i.e. perched, flying, hunting), age (adult or juvenile) and height will be noted. These surveys have been initiated and are ongoing in the spring of 2011.

### 10) Least Bittern (Three rounds, late May to early July):

Three rounds of Least Bittern surveys will be conducted in suitable marsh habitat. The surveys will be based on the methods and use the playback recordings of Canadian Wildlife Service's National Least Bittern Survey Protocol (Bazin *et al.*, 2010).

### 11) Henslow's Sparrow Surveys (two visits in June, 2010):

The presence of Henslow's Sparrow will be assessed during the early morning grassland breeding bird surveys (described above). In addition to the early morning surveys, two rounds of evening surveys will also be conducted in June. Approximately 20 monitoring stations will be established within suitable grassland habitat throughout the Study Area. The surveys will take place at or after dusk and will utilize a playback recording to elicit a response.

### 12) Staging Swallow Surveys (mid July-August):

Weekly surveys for staging swallows are proposed starting the 2nd week of July through to the end of August. Surveys will consist of driving all roads in the study area, identifying presence and relatively abundance of staging swallows.

### 13) Staging and foraging fall waterfowl surveys (Seventeen surveys, September to December):

Monitoring will consist of seventeen weekly foraging surveys, utilizing the same methodology as the spring waterfowl surveys.

### 14) Fall Staging Raptor Survey (Twelve surveys from September to late November):

Monitoring will consist of twelve weekly surveys to record presence of staging raptors. Surveys will be conducted by a team of two qualified surveyors driving all accessible roads within the Study Area at slow speeds (i.e. 30-40 km/h) in order to achieve maximum coverage of the site. The fields and woodlots will be scanned using binoculars to detect birds, and a spotting scope will be used for closer inspection of stationary birds. When raptors or owls are observed, the location, species, number, behaviour (i.e. perched, flying, hunting) and height will be noted. Location of raptors will be recorded on a feature by feature base. Staging raptor surveys will extend through to the end of November capturing the peak timing of Golden Eagle migration, thus allowing for an assessment this specie's use of the Study Area during migration.

### 15) Amphibian Surveys (Three visits, April, May, June):

Amphibian surveys will consist of call counts at potential woodland breeding habitat conducted in each of April, May, and June. Calling amphibian surveys followed the protocol for the Marsh Monitoring Program (Bird Studies Canada, 1994). Surveys will be conducted between one-half hour after sunset and midnight, during appropriate weather conditions. These surveys have been initiated and are ongoing in the spring of 2011.

### 16) Migratory Butterfly Stopover Surveys (August):

Weekly surveys for migratory butterflies will be conducted in August. Surveys will be conducted mostly from the roadside, identifying concentrations of butterflies foraging in open habitat or roosts of butterflies in trees.

### 17) Ecological Land Classification (ELC) and rare flora and rare vegetation communities surveys (July and August):

Vegetation communities within and adjacent to optioned lands or potential locations of project components (e.g. collector lines) will be delineated on aerial photographs and subsequently checked in the field; community characterizations (ecosites) will be based on the ELC system (Lee *et al.*, 1998). Site visits will occur between July through September. The information collected during these visits will be used to identify rare vegetation communities and plant species at risk, detect unevaluated wetlands, and confirm designation of significant woodlands. A surveyor trained in both ELC and OWES will conduct the surveys.

### 18) Candidate significant wildlife habitat features assessment:

Surveyors will identify the presence of potentially significant habitat features, such as potential bat hibernacula and maternity roosts, vernal pools, and reptile hibernacula features during all visits.

Upon completion of the site investigation field program, an evaluation of significance for the natural heritage assessment will be conducted in accordance with the Natural Heritage Reference Manual (MNR, 2010d), and Significant Wildlife Habitat Technical Guide (MNR, 2000). The Natural Heritage Assessment Report will be produced and submitted to the MNR, and will include mapping of the project in relation to identified natural features.

**Reference: Amherst Island Wind Energy Project**
**Natural Heritage Data Request and Proposed Site Investigation Work Program**

We look forward to discussing this work program with you. Please do not hesitate to contact the undersigned should you require further information.

Sincerely,

**STANTEC CONSULTING LTD.**

Andrew Taylor

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Att: Draft Study Area and Natural Heritage Mapping

c.c. Sean Fairfield, Algonquin Power Co. (for Windlectric Inc.)
Rob Rowland, Stantec

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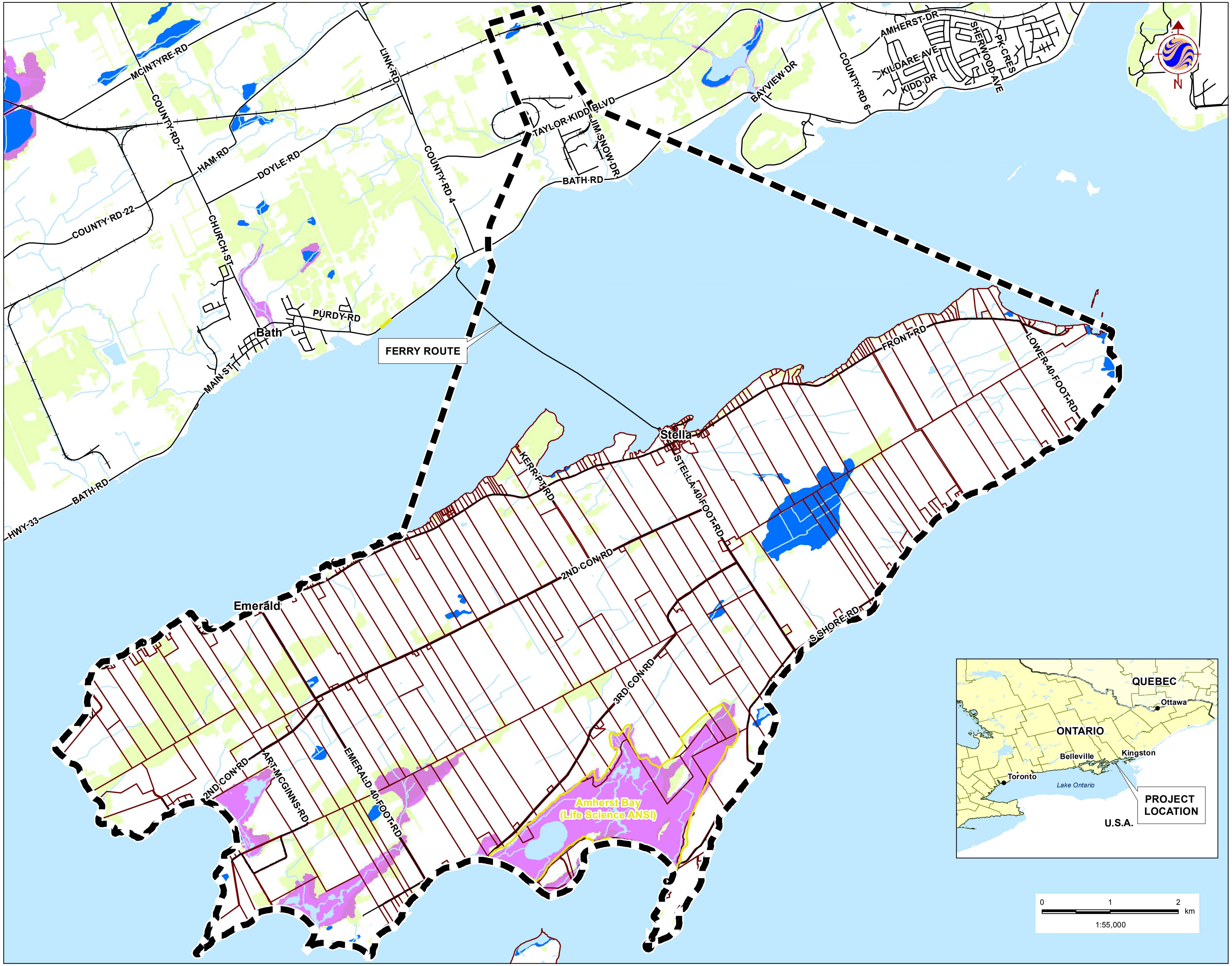

## Legend

- Project Study Area
- Road
- Railway
- Watercourse
- ☐ Property Boundaries
- 🟩 Wooded Area
- 🟦 Waterbody
- 🟦 Unevaluated Wetland
- 🟪 Provincially Significant Wetland
- 🟨 ANSI Boundary

## Notes

1. Coordinate System: UTM NAD 83 - Zone 18 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

Stantec

May 2011
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Client/Project

WINDLECTRIC INC.
AMHERST ISLAND WIND ENERGY PROJECT

Figure No.
1

Title
# PROJECT STUDY AREA

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Revised on: 2011-05-03 By: dharvey