Amherst Island Wind Project
2022 Post-Construction Bat Mortality Monitoring Report

Prepared for:
Windlectric, Inc
354 Davis Road
Oakville, ON
L6J 2X1

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NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Amherst Island Wind Project
2022 Post-Construction Bat Mortality Monitoring Report

Project Team:

Staff	Role
Andrew Ryckman	Project Advisor/Senior Biologist
Shelby Hofstetter	Project Manager/Biologist
Daniel Riley	Biologist
Hana Thompson	Biologist
Maria Alexandrou	Biologist
Michael Dungey	Biologist
Kaitlin Filippov	GIS Technician

Report submitted on March 29, 2023

Shelby Hofstetter
Terrestrial and Wetland Biologist

415 Phillip Street, Unit C, Waterloo, Ontario, N2K 4M8 **Tel:** (519) 725-2227 **Fax:** (519) 725-2575 **Web:** www.nrsi.on.ca **Email:** info@nrsi.on.ca

Executive Summary

Natural Resource Solutions Inc. was retained to conduct a fourth year of post-construction bat monitoring at the operational Amherst Island Wind Project, located in Loyalist Township, Lennox and Addington County, Ontario. This wind energy facility has a generating capacity of 74.3MW and consists of 26 turbines in an agricultural landscape dominated by pasture. Occasional wooded habitats, wetlands, and aquatic features are also present in the areas surrounding the project infrastructure. This report provides the detailed methods and results from the fourth year of post-construction monitoring for bat mortality conducted at the Amherst Island Wind Project in 2022.

This fourth year of monitoring for bat mortalities was conducted as a result of the facility exceeding the provincial threshold of 10 bats/turbine/year in the 2020 monitoring year (10.15 bats/turbine/year). This monitoring year (2022) represents the second year of the three (3)-year (2021-2023) effectiveness monitoring program, after implementation of operational mitigation. Bird and raptor mortality data are not presented herein, as three (3) years of required baseline monitoring for bird and raptor mortality have already been completed (2019-2021), and any subsequent requirements are being addressed under separate cover.

During twice-weekly searches from May 1 to October 31, 2022, a total of 44 bat mortalities were documented within the search areas around the subset of 10 turbines. Bat mortalities of both migratory and resident species were documented, including Hoary Bat (*Lasiurus cinereus*), Silver-haired Bat (*Lasionycteris noctivagans*), Eastern Red Bat (*Lasiurus borealis*), Big Brown Bat (*Eptesicus fuscus*), and Little Brown Myotis (*Myotis lucifugus*). The first three (3) species above are considered long-distance migratory species which over-winter outside of Ontario, and accounted for 73**%** of the total bat mortality observations at the Amherst Island Wind Project in 2022. Using correction factors for searcher efficiency, scavenger removal, and proportion of area searched, an estimated bat mortality rate of 8.98 bats/turbine/year (3.13 bats/MW/year) was determined for the Amherst Island Wind Project. This is below the provincial threshold of 10 bats/turbine/year.

With the completion of this second year of bat mitigation effectiveness monitoring with an estimated bat mortality rate below the provincial threshold of 10 bats/turbine/year, one (1) final year of bat effectiveness monitoring is required in 2023. Following the completion of the full three (3)-year bat effectiveness monitoring program without exceeding the provincial threshold, no further monitoring of bat mortality will be required under the conditions of the Project's Renewable Energy Approval.

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1.0 Introduction

Natural Resource Solutions Inc. (NRSI) was retained to conduct a fourth year of post-construction bat monitoring at the operational Amherst Island Wind Project (Amherst Island WP), which is located within Loyalist Township in Lennox and Addington County, Ontario. The Amherst Island WP consists of 26 wind energy generating turbines with a total nameplate capacity of 74.3MW. The project area and turbine locations can be seen on Map 1.

Post-construction mortality monitoring at the Amherst Island WP in 2022 included bat mortality monitoring, searcher efficiency trials, scavenger removal trials, and visibility class mapping of substrates searched. These surveys were conducted in accordance with provincial guidelines and project approval conditions to assess the potential impacts of this wind energy generating facility on local and migratory bat species.

The purpose of this report is to provide the detailed methods and results from the fourth year of post-construction mortality monitoring conducted at the Amherst Island WP. It also reflects the second year of the three (3)-year (2021-2023) effectiveness monitoring program, specific to bats, as a result of the Amherst Island WP exceeding the provincial threshold of 10 bats/turbine/year in 2020 and implementing operational mitigation beginning during the 2021 monitoring year. Bird and raptor mortality data is not presented herein, as three (3) years of required baseline monitoring for birds and raptors has already been completed (2019-2021), and any subsequent requirements are being addressed under separate cover.

For the purposes of this report, NRSI will frequently use the terms ‘mortality’ and ‘carcass’. The term ‘mortality’ will refer to dead bats that were found in the vicinity of turbines at the Amherst Island WP. The term ‘carcass’ will refer to dead birds and bats that have been placed beneath wind turbines by NRSI staff for the purposes of searcher efficiency and/or scavenger removal trials.

2.0 Mortality Monitoring Methodology

2.1 Mortality Monitoring

2.1.1 Sample Locations

Since the Amherst Island WP consists of more than 10 turbines, a subset of at least 30% of turbines (minimum 10 turbines) is required to be monitored (OMNR 2011). In accordance with these requirements, a subset of 10 turbines (38.5%) were selected by Stantec Consulting Ltd. in consultation with the Ministry of Natural Resources and Forestry (MNRF; Stantec 2013). NRSI conducted mortality monitoring at the subset of 10 turbines in 2022, following the monitoring period and search frequency described below. The subset of turbines that were monitored at the Amherst Island WP in 2022 is shown on Map 1.

2.1.2 Monitoring Period and Search Frequency

NRSI conducted twice-weekly (i.e. three (3) and four (4) day intervals) mortality monitoring for bats at the subset of 10 turbines during the entire monitoring period of May 1 to October 31, 2022. For the purposes of this monitoring program, searches in May and June are considered to have been completed in Spring, July and August in Summer, and September and October in Fall.

As a result of inclement weather, turbine maintenance, and searcher illness, some turbines could not be searched on certain monitoring dates. These relatively minor adjustments to the monitoring protocol are not expected to impact the overall results or the conclusions presented in this report. The dates when turbines were not able to be searched are listed in Table 1.

Table 1. Summary of Regular Search Days When Turbines Could Not Be Searched (2022)

Date (2022)	Date Turbine Next Searched (2022)[1]	Turbine(s)	Rationale
May 16	May 17	S07, S18, S28	Inclement Weather (Thunderstorms)
June 23	June 27	S03	Turbine Maintenance
June 27	June 30	S22	Turbine Maintenance
June 30	July 4	S36	Turbine Maintenance
July 14	July 18	S14	Turbine Maintenance
August 18	August 22	S18	Inclement Weather

Date (2022)	Date Turbine Next Searched (2022)[1]	Turbine(s)	Rationale
			(Thunderstorms)
August 25	August 29	S02, S07, S14, S18, S28	Searcher Illness
September 19	September 22	S28	Inclement Weather (Thunderstorms)

[1] *Due to a variety of factors which may include weather conditions, the location of the project, and/or staff availability, some turbines could not be searched again until the next regularly scheduled search day.*

2.1.3 Sample Area and Survey Duration

NRSI conducted mortality searches within a 50m radius of each turbine. Mortality searches were conducted using linear transects, spaced approximately 5m apart. Any mortality that was incidentally observed beyond the formal search parameters was still documented, photographed, and collected, but is not included in formal calculations of estimated mortality rates and is not discussed further in this report. In order to maintain a consistent search effort, mortality searches followed a consistent search time of 30 minutes per turbine throughout the entirety of the monitoring period.

2.1.4 Data Collection

During each visit to conduct mortality searches, all appropriate information was documented, including weather conditions, date, time, and observer. The mortality monitoring data collection sheet has been provided in Appendix I.

In addition to general information collected on each visit, a variety of specific information was recorded upon encountering any mortality. This detailed information collected for each mortality, as shown on the data sheet provided in Appendix I, included species (if identifiable), sex of the individual (if identifiable), condition, estimated time since death, any apparent injuries, direction and distance from the turbine, substrate type and visibility class, and a unique mortality identification number for future reference. Specific UTM coordinates and photographs were also taken for each specimen to allow for further analysis, if necessary.

2.2 Scavenger Removal Trials

Scavenger removal trials were conducted in each of the Spring, Summer, and Fall seasons of mortality monitoring. A minimum of 10 carcasses were placed in each

monitoring season. No more than five (5) carcasses were placed at one time and no more than one (1) carcass was placed at any single turbine during each placement event. These measures were taken to minimize potential bias that might result from saturation of carcasses and the resulting attraction of scavengers. Carcasses were placed throughout the range of habitats and substrate types being searched during each season. Species, UTM coordinates, direction and distance from the turbine, substrate, and visibility class were all noted on a data sheet during the placement of each specimen. The scavenger removal data sheet has been provided in Appendix I.

Carcasses placed included both bird and bat specimens, with each trial consisting of at least one-third representation of each of bird and bat carcasses. Bird carcasses included species commonly encountered in this region of the province and ranged in size from very small to moderate-sized carcasses. Migratory bat carcasses were used in each seasonal scavenger removal trial and included Hoary Bat (*Lasiurus cinereus*), Eastern Red Bat (*Lasiurus borealis*), and Silver-haired Bat (*Lasionycteris noctivagans*). Carcasses used in scavenger removal trials were obtained from the Royal Ontario Museum and/or were collected from operational wind energy facilities within Ontario. A list of the bird and bat species used during scavenger removal trials has been provided in Appendix II.

During each scavenger removal trial, the bird and bat carcasses were left for up to 14 days and were checked at the same frequency as mortality searches, approximately twice per week, to note any scavenging or signs of scavenger presence. Following completion of the scavenger removal trials after 14 days, all remaining test carcasses were retrieved and disposed of appropriately.

2.3 Searcher Efficiency Trials

In conjunction with mortality searches, NRSI conducted searcher efficiency trials on staff that conducted mortality searches at the Amherst Island WP. Similar to scavenger removal trials, searcher efficiency trials must be conducted at least once per season (Spring, Summer, and Fall), and must be conducted for each searcher and in each visibility class that was searched by that searcher during that season. During each trial, searchers were tested without their knowledge through the placement of a minimum of

10 test carcasses per visibility class searched (class 1 and 2), with no more than three (3) carcasses placed on any one date. Carcasses were placed randomly within the search radius throughout the subset of 10 turbines at the Amherst Island WP. Distance and direction from the turbine, visibility class and substrate type, and UTM coordinates were recorded for each test carcass placed. Each found specimen was later compared to the total number of carcasses placed within the project area and the locations of their placement. The data sheet used for searcher efficiency trials has been provided in Appendix I.

In order to meet the understood intent of the MNRF guidelines (OMNR 2011) to limit searcher bias, NRSI has not physically marked carcasses at this project, as it could influence the results of the trial and alert the searcher to an ongoing searcher efficiency trial. Instead, NRSI biologists collect detailed location information of the trial carcass with date placed, UTM coordinates, distance and direction from the turbine, and mapped location of the carcass. All collected carcasses are compared to these detailed date, location and species information to distinguish between trial carcasses and actual turbine mortalities. These steps have been taken to ensure that the location of the carcass, along with species information, is well-documented for future reference if there is uncertainty about whether or not an observed carcass is a turbine-related fatality or a trial carcass.

Searcher efficiency carcasses included both bird and bat specimens, with each trial consisting of at least one-third representation of each of bird and bat carcasses. Bird carcasses used in the searcher efficiency trials included species commonly encountered in this region of the province and varied in size from very small to moderate-sized carcasses. Bat carcasses used during searcher efficiency trials consisted of the three (3) migratory species known to occur within Ontario, including Hoary Bat, Eastern Red Bat, and Silver-haired Bat. One exception was a single Big Brown Bat (*Eptesicus fuscus*) carcass that was used during the June searcher efficiency trial. Carcasses used in searcher efficiency trials were obtained from the Royal Ontario Museum and/or were collected from operational wind energy facilities within Ontario. A list of the bird and bat species used during searcher efficiency trials has been provided in Appendix III.

2.4 Proportion of Area Searched

Following MNRF guidelines, visibility class maps were completed by searchers at a minimum frequency of once per season (OMNR 2011). Due to the potential for changing conditions, NRSI completed visibility class maps once per month from May to October to provide additional information to increase the accuracy of the estimated mortality rates.

Visibility class mapping was completed for the 50m search radius at each turbine. This mapping categorized habitats according to visibility classes recommended by the MNRF (OMNR 2011). These include visibility classes 1 through 4, in addition to areas which may be deemed "unsearchable", such as aquatic features, areas deemed safety hazards, or other areas where searching was not possible. Mapping of these visibility classes within each search radius was conducted and calculated as per a repeatable methodology using a combination of these visibility class field maps, review of aerial photographs, and use of Geographic Information System (GIS) software. The data sheet used to record visibility class mapping has been provided in Appendix I.

In order to help increase the accuracy of searcher efficiency rates and minimize the influence of the proportion of area searched on the bat mortality estimate, the majority of the search radii at the subset of 10 turbines were maintained at visibility class 1 and 2 through occasional mowing, as needed, for the duration of the growing season (May through October). When small and temporary areas of other visibility classes were present, they were searched thoroughly until scheduled vegetation maintenance could occur. As a result, the majority of the 50m radius at each turbine was searched for the duration of the 2022 monitoring period. Some areas were determined to reflect visibility classes that were not searched as part of this monitoring program (e.g. visibility classes 3 and 4), such as hedgerows. In these cases, the appropriate proportion of area searched was calculated and used for final mortality estimates. Visibility class maps of each turbine in each month are provided in Appendix VI.

Maintenance of the 50m search radius was only completed when necessary to maintain appropriate visibility and it also followed a strict schedule developed by NRSI that ensured the maintenance activities were completed in a manner to minimize or eliminate

any potential negative influence on the mortality monitoring, searcher efficiency trials and scavenger removal trials. The maintenance of the search areas is expected to increase the accuracy of the final estimated mortality rates at the Amherst Island WP.

3.0 Scavenger Removal Trial Results

Scavenging activity at the Amherst Island WP was generally moderate throughout the monitoring seasons. Table 2 shows the results from the seasonal scavenger removal trials conducted at the Amherst Island WP. Details on the date placed, species, distance and direction from turbine, visibility class, dates checked and by whom, UTM coordinates, and whether the carcass was scavenged have been provided in Appendix II.

Table 2. Number of Carcasses Remaining During Scavenger Removal Trials at the Amherst Island WP (2022)

Number of Carcasses Remaining					
Spring Trial (May/June)					
Turbine	**Visit 0**	**Visit 1**	**Visit 2**	**Visit 3**	**Visit 4**
S01	2	0	0	0	0
S02	1	0	0	0	0
S05	1	1	0	0	0
S07	1	1	1	0	0
S14	1	0	0	0	0
S18	1	0	0	0	0
S22	1	1	1	1	1
S28	1	0	0	0	0
S36	1	1	1	1	0
Total	**10**	**4**	**3**	**2**	**1**
Summer Trial (July/August)					
Turbine	**Visit 0**	**Visit 1**	**Visit 2**	**Visit 3**	**Visit 4**
S01	1	0	0	0	0
S02	1	1	1	1	1
S03	1	0	0	0	0
S05	1	1	0	0	0
S07	1	0	0	0	0
S14	1	1	1	1	0
S18	1	0	0	0	0
S22	1	0	0	0	0
S28	1	1	1	1	0
S36	1	1	1	1	0
Total	**10**	**5**	**4**	**4**	**1**
Fall Trial (September/October)					
Turbine	**Visit 0**	**Visit 1**	**Visit 2**	**Visit 3**	**Visit 4**
S01	1	0	0	0	0
S02	1	0	0	0	0

Number of Carcasses Remaining					
S03	1	0	0	0	0
S05	1	1	1	1	1
S07	1	1	1	0	0
S14	1	0	0	0	0
S18	1	1	1	1	1
S22	1	1	1	0	0
S28	1	0	0	0	0
S36	1	1	0	0	0
Total	**10**	**5**	**4**	**2**	**2**

To address the scavenger removal rates for each of the specific monitoring periods, NRSI has used the following equation recommended by the MNRF:

$$Sc = \frac{n_{visit1} + n_{visit2} + n_{visit3}\ldots}{n_{visit0} + n_{visit1} + n_{visit2}\ldots}$$

Sc: proportion of carcasses not removed by scavengers
n_{visit0}: total number of carcasses placed
$n_{visit1} – n_{visit3}\ldots$: numbers of carcasses remaining on visits 1 through 3 etc.

Using the scavenger removal results presented in Table 2, and the equation provided by the MNRF, the seasonal scavenger removal rates have been determined as follows:

Sc_{Spring} = (4 + 3 + 2 + 1) / (10 + 4 + 3 + 2)
= 10 / 19
= **0.53**

Sc_{Summer} = (5 + 4 + 4 + 1) / (10 + 5 + 4 + 4)
= 14 / 23
= **0.61**

Sc_{Fall} = (5 + 4 + 2 + 2) / (10 + 5 + 4 + 2)
= 13 / 21
= **0.62**

The above scavenger removal rates represent the proportion of carcasses still remaining from one visit to the next. These values generally represent moderate scavenging activity throughout the year. The above scavenger removal rates will be used to calculate the estimated bat mortality rate in Section 6.0.

4.0 Searcher Efficiency Trial Results

Searcher efficiency rates at the Amherst Island WP during the 2022 monitoring season were generally high in each of the Spring, Summer, and Fall. Results of the seasonal searcher efficiency trials are summarized in Table 3. Details on the searcher and tester, species, distance and direction from turbine, habitat, substrate, visibility class, UTM coordinates, and whether the carcass was found or scavenged have been provided in Appendix III.

Table 3. Results of Searcher Efficiency Trials at the Amherst Island WP (2022)

Searcher	Carcasses Found	Carcasses Placed	Carcasses Scavenged	Searcher Efficiency	Proportion of Turbines Searched
Spring 2022					
Searcher A	15	21	4	0.88	1.0
Summer 2022					
Searcher A	14	20	2	0.78	0.97
Searcher B[1]	N/A	N/A	N/A	0.78	0.03
Fall 2022					
Searcher A	15	21	5	0.94	1.0

[1] This searcher searched on one (1) date in the identified season and therefore could not be properly tested for searcher efficiency following MNRF guidelines (i.e., seven (7) search days are required for proper testing in two (2) visibility classes as no more than three (3) carcasses can be placed at a time). In these circumstances, the average result obtained by the other regular searchers in each season was used for this searcher.

Based on the information collected during detailed searcher efficiency trials and the equations recommended by the MNRF, overall searcher efficiency (SeO) was calculated for each of the monitoring seasons as follows:

$$Se = \frac{\text{number of test carcasses found}}{\text{number of test carcasses placed} - \text{number of carcasses scavenged}}$$

$SeO = Se_A(\text{proportion of turbines searched}) + Se_B(\text{proportion of turbines searched})\ldots$

$SeO_{Spring} = 0.88\ (1.0) = \mathbf{0.88}$

$SeO_{Summer} = 0.78\ (0.97) + 0.78\ (0.03) = \mathbf{0.78}$

$SeO_{Fall} = 0.94\ (1.0) = \mathbf{0.94}$

These searcher efficiency values represent generally high efficiency rates, likely due to the steps taken to keep the search areas in low visibility classes (i.e., clear and more easily searched) to increase the accuracy of the estimated mortality rate. These values will be used to calculate the estimated bat mortality rate in Section 6.0.

5.0 Proportion of Area Searched

Visibility class mapping was completed every month from May to October within the 50m search radius of each of the 10 subset turbines in order to reflect any changes in groundcover and resulting visibility classes. All visibility class maps have been provided in Appendix VI.

Visibility class mapping was used in combination with GIS software to determine the specific area and sizes of each of the applicable visibility classes identified with the turbine search areas. During the 2022 monitoring program, NRSI searched all areas of visibility class 1 and 2, which is reflected in the proportion of area searched (Ps) calculated for all 10 turbines during each of those monitoring months, as shown in Table 4. These values will be used to calculate the estimated bat mortality rate in Section 6.0.

Table 4. Proportion of Area Searched at the Amherst Island WP (2022)

Month	Total Searched Area (m^2)	Total Search Radius (m^2)	Proportion of Area Searched (Ps)
May	78,167	78,500	1.00
June	78,167	78,500	1.00
July	78,167	78,500	1.00
August	78,167	78,500	1.00
September	78,167	78,500	1.00
October	78,167	78,500	1.00

6.0 Bat Mortality Results

6.1 Bat Mortalities

During the 2022 mortality monitoring period at the Amherst Island WP, NRSI documented 44 bat mortalities within the 50m search radius of the subset of 10 turbines. Bat mortalities represented five (5) different species, including the resident species Big Brown Bat and Little Brown Myotis (*Myotis lucifugus*), as well as all three (3) long-distance migratory species; Hoary Bat, Eastern Red Bat, and Silver-haired Bat. The most abundant species observed was Silver-haired Bat (n=12), followed by Big Brown Bat (n=11), Eastern Red Bat (n=10), Hoary Bat (n=10), and Little Brown Myotis (n=1). Observed mortalities of the three (3) migratory bat species combine to represent 73% of all documented mortalities.

A detailed examination of bat mortalities at the Amherst Island WP is included in the following sections. Detailed information regarding each bat mortality observed during carcass searches has been provided in Appendix IV.

6.2 Temporal Distribution of Bat Mortalities

Bat mortalities were observed throughout the majority of the monitoring period, occurring from late May to mid-September, but were most commonly observed during the month of August (n=32) which accounted for 73% of all bat mortalities. The greatest number of bat mortalities documented on a single search date was nine (9), as observed on August 25, 2022 (see Figure 1).

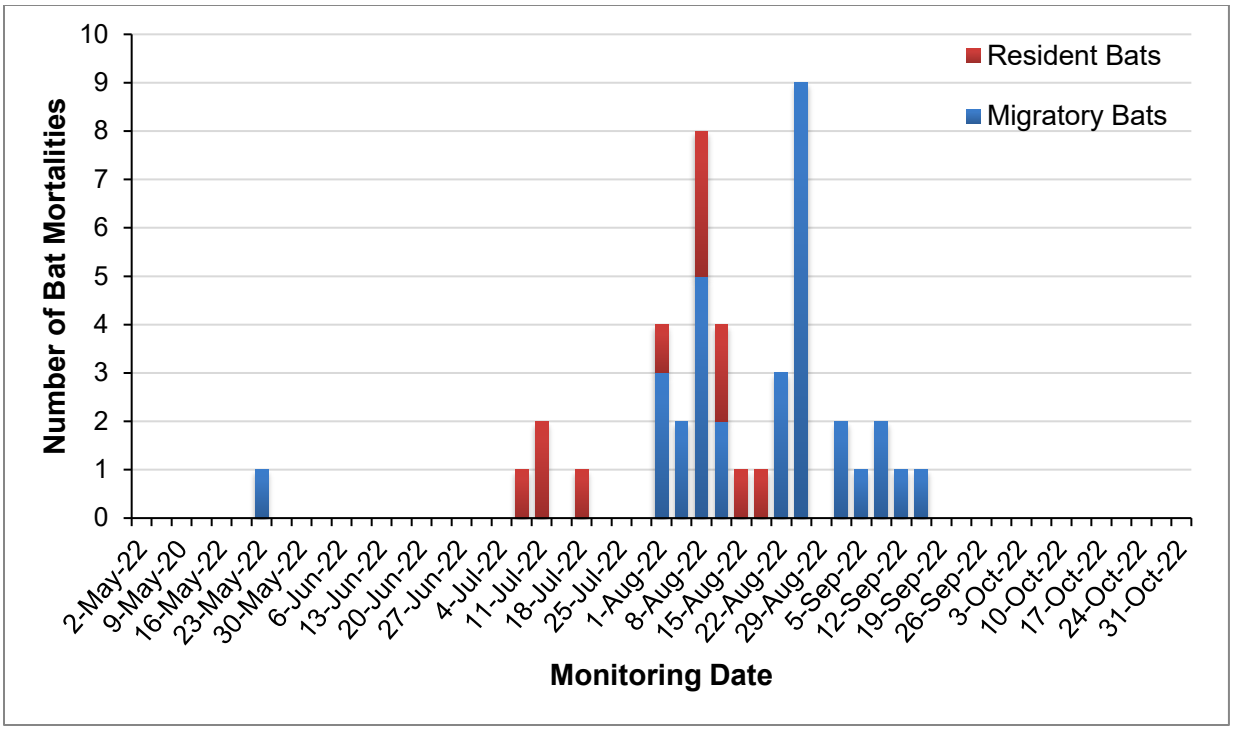


Figure 1. Bat Mortalities Observed by Date at the Amherst Island WP (2022)

The observed patterns of migratory bat mortalities appear to be generally consistent with the expected migratory time periods for these species, with increases in migratory bat mortalities during the mid- to late-summer, which generally corresponds to the fall dispersal and migration period for bats.

6.3 Spatial Distribution of Bat Mortalities

Bat mortalities were observed at nine (9) of the 10 subset turbines at the Amherst Island WP in 2022. The number of mortalities observed at each of the 10 turbines ranged from zero (0) mortalities at turbine S18 to eight (8) mortalities at turbine S36 (Figure 2).

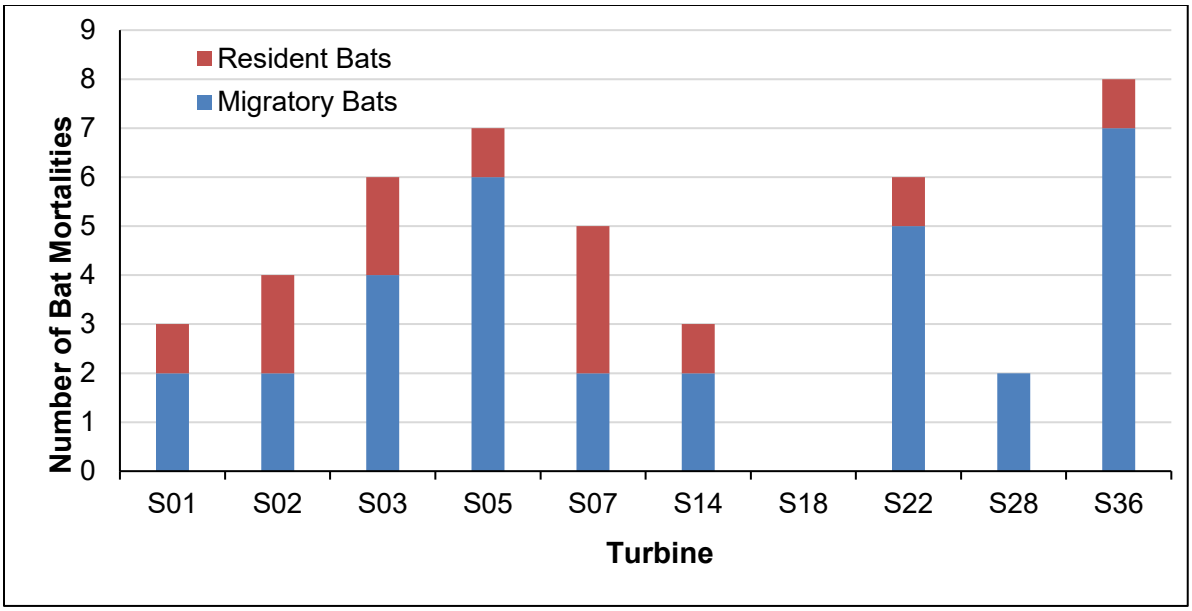


Figure 2. Bat Mortalities Observed by Turbine at the Amherst Island WP (2022)

Distance and direction of bat mortalities from each of the turbines were also documented for each observed mortality. Bat mortalities were found throughout the area searched by NRSI biologists, ranging in distance from 2m to 48m from the turbine, and averaging approximately 29m from the turbine. The overall distribution of mortalities by distance class can be seen in Figure 3. Maps identifying the locations of each observed mortality by turbine are included in Appendix V.

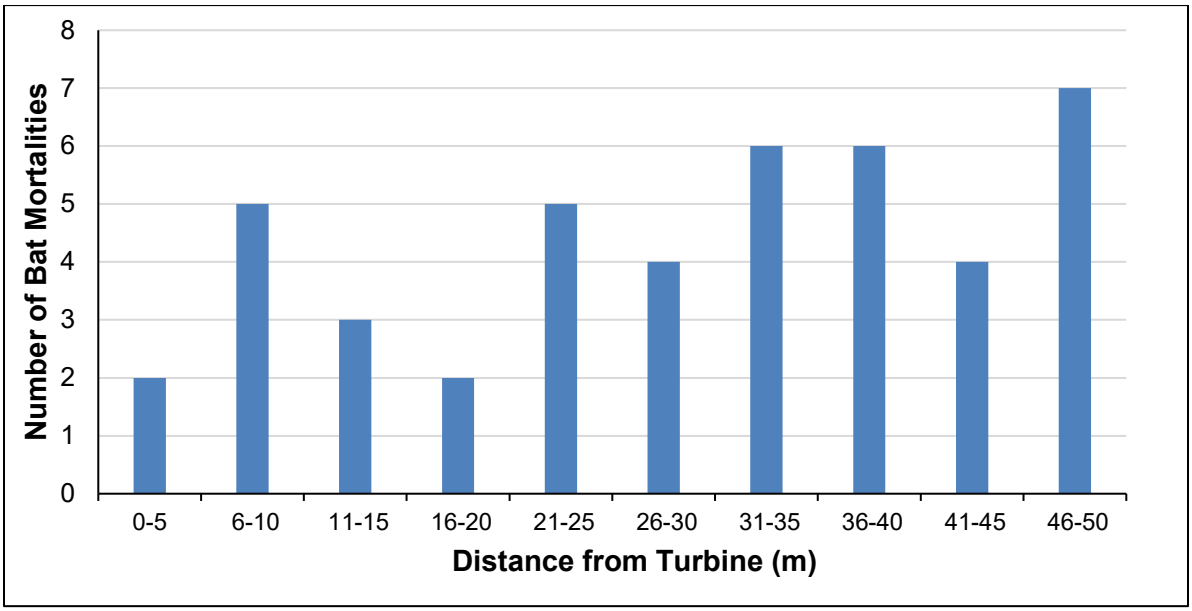


Figure 3. Bat Mortalities Observed by Distance from Turbine at the Amherst Island WP (2022)

6.4 Corrected (Estimated) Bat Mortality

Based on the field observations at the Amherst Island WP, NRSI biologists have compiled the appropriate searcher efficiency trials, scavenger removal trials, proportion of area searched, and direct mortality values in an equation that will be used to estimate the total bat mortality at the Amherst Island WP in 2022. The equation recommended by the MNRF is found below:

C = c / (Se*Sc*Ps)

C: Corrected (Estimated) Mortality Rate
c: actual observed mortalities
Se: overall searcher efficiency
Sc: proportion of remaining carcasses
Ps: proportion of area searched

Using the equation and variables described above, the estimated bat mortality rates by month have been presented below:

C_{May} = 1 / (0.88*0.53*1.00) = 1 / 0.4664 = **2.14 bats**
= **0.21 bats/turbine** (0.07 bats/MW)

C_{June} = 0 / (0.88*0.53*1.00) = 0 / 0.4664 = **0.00 bats**
= **0.00 bats/turbine** (0.00 bats/MW)

C_{July} = 4 / (0.78*0.61*1.00) = 4 / 0.4758 = **8.41 bats**
= **0.84 bats/turbine** (0.29 bats/MW)

C_{August} = 32 / (0.78*0.61*1.00) = 32 / 0.4758 = **67.26 bats**
= **6.73 bats/turbine** (2.35 bats/MW)

$C_{September}$ = 7 / (0.94*0.62*1.00) = 7 / 0.5828 = **12.01 bats**
= **1.20 bats/turbine** (0.42 bats/MW)

$C_{October}$ = 0 / (0.94*0.62*1.00) = 0 / 0.5828 = **0.00 bats**
= **0.00 bats/turbine** (0.00 bats/MW)

Total **= 8.98 bats/turbine** (3.13 bats/MW)

Using the appropriate variables and recommended equations provided by the MNRF, NRSI has determined the corrected (estimated) bat mortality of the Amherst Island WP in 2022. Each of the corrected monthly rates and the corrected annual mortality rate for the Amherst Island WP can be seen in Table 3.

Table 3. Corrected Bat Mortality Rates Based on Mortality Monitoring at the Amherst Island WP (2022)

Month (2022)	Observed Bat Mortalities	Corrected Mortality (bats/turbine)	Corrected Mortality (bats/MW)
May	1	0.21	0.07
June	0	0.00	0.00
July	4	0.84	0.29
August	32	6.73	2.35
September	7	1.20	0.42
October	0	0.00	0.00
TOTAL	**44**	**8.98**	**3.13**

Based on the information collected during the 2022 post-construction monitoring period, the anticipated impact of this facility on bats is characterized by a corrected mortality rate of **8.98 bats/turbine/year** (3.13 bats/MW/year).

7.0 Comparative Annual Results

Mortality monitoring conducted by NRSI in 2022 represents the fourth year of post-construction monitoring conducted at the Amherst Island WP, and the second year of the three (3)-year (2021-2023) effectiveness monitoring program, after the implementation of operational mitigation measures prior to the 2021 monitoring season. In each of the first two (2) years of effectiveness monitoring, the estimated bat mortality rate has remained below the provincial threshold of 10 bats/turbine/year. The following section provides a comparison of the 2019, 2020, 2021, and 2022 post-construction mortality monitoring results.

Table 4 below provides an abbreviated summary of total bat mortalities, monitoring periods, and corrected (estimated) mortality rates for each of the four (4) years of mortality monitoring conducted to-date at the Amherst Island WP. Further details of the 2022 bat mortality results can be found in Section 6.0 of this report.

Table 4. Comparative Results of Bat Mortality Monitoring Seasons (2019-2022)

Year	Total Mortalities	Monitoring Period	Estimated Mortality Rates	
			Bats/Turbine/Year	Bats/MW/Year
2019	35	May 1 – October 31	5.36	1.88
2020	45	May 1 – October 31	10.15	3.59
2021[1]	66	May 1 – October 31	9.77	3.41
2022[1]	44	May 1 – October 31	8.98	3.13

[1] *Following exceedance of the bat threshold in 2020, operational mitigation was implemented according to Project approval conditions and provincial guidelines in subsequent monitoring years.*

Although a general comparison between the four (4) years of post-construction monitoring data is possible, the differences in searcher efficiency rates, scavenger removal rates, and proportion area searched over these four (4) monitoring years may limit the value of any direct comparative analysis of observed mortalities. Local bat abundance and behaviour will also change annually based on other variables, such as weather conditions, adjacent land uses, food availability, or general variations in local abundance or behaviour patterns, further adding to the challenges of making direct comparisons between monitoring years. In addition, the approach to turbine operation has changed throughout the monitoring years (2019-2022). Beginning in 2021, operational mitigation was implemented, which included feathering all turbine blades below wind speeds of 5.5 m/s from sunset to sunrise during the period of July 15 to

September 30, in accordance with Project approval conditions and MNRF guidelines (OMNR 2011). Consideration of operational mitigation further adds to the challenges of making direct comparisons between monitoring years.

Despite these comparative challenges, general comparisons between the monitoring years show that following a corrected bat mortality rate of 10.15 bats/turbine/year during the 2020 monitoring year, the corrected rate has since decreased in each subsequent monitoring year. This decrease corresponds to the implementation of operational mitigation, which began in 2021, and appears to have a demonstrated effect in estimated bat mortality levels below the provincial threshold of 10 bats/turbine/year.

8.0 Mortality Thresholds and Notifications

In accordance with the appropriate MNRF guidelines, project approval conditions, and other commitments made as part of the monitoring program, several mortality thresholds and notification requirements for the Amherst Island WP have been established. The status of each threshold and confirmation of notifications, where applicable, have been described in the following sections.

8.1 Annual Bat Mortality

The annual bat mortality threshold for the Amherst Island WP is 10 bats/turbine/year. Based on an estimated rate of **8.98 bats/turbine/year**, the Amherst Island WP remains below this threshold. Since the results are below the established threshold, no notification is required.

8.2 Species at Risk Mortality Event

Any Species at Risk (SAR; MECP 2023) mortality documented during post-construction mortality monitoring at the Amherst Island WP requires formal notification to the MNRF and MECP within 24 hours (or next business day) of a confirmed species identification. In accordance with this requirement, notifications were sent to the MNRF and MECP within 24 hours (or next business day) following a confirmed identification of any SAR mortality at the Amherst Island WP, as applicable.

9.0 Summary and Conclusions

NRSI was retained to conduct the fourth year of post-construction bat monitoring at the operational Amherst Island WP. The Amherst Island WP consists of 26 wind energy generating turbines, with a total nameplate capacity of 74.3MW.

Post-construction monitoring at the Amherst Island WP in 2022 included bat mortality monitoring and the corresponding searcher efficiency trials, scavenger removal trials, and visibility class mapping required to calculate estimated mortality rates. These surveys were conducted to assess the potential impacts of this wind energy generating facility on local and migratory bats. Monitoring in 2022 also represents the second year of the three (3)-year (2021-2023) effectiveness monitoring program, specific to bats, which is required as a result of exceeding the provincial threshold in 2020.

A total of 44 bat mortalities were documented during the 2022 mortality monitoring period at the Amherst Island WP. Migratory bat species were the most commonly observed mortalities at the project. Based on the number of observed bat mortalities, searcher efficiency rates, scavenger removal rates, proportion of area searched, and equations recommended by the MNRF, a corrected (estimated) bat mortality rate of **8.98 bats/turbine/year** (3.13 bats/MW/year) has been determined for the Amherst Island WP. This estimated bat mortality rate is below the provincial threshold level of 10 bats/turbine/year established by the MNRF guidelines. Mortality monitoring in 2023 will represent the third year of the three (3)-year effectiveness monitoring program for bat mortality, following the implementation of operational curtailment. If the bat mortality estimate remains below the provincial threshold during this third year of effectiveness monitoring, all bat monitoring commitments associated with the REA will be considered complete.

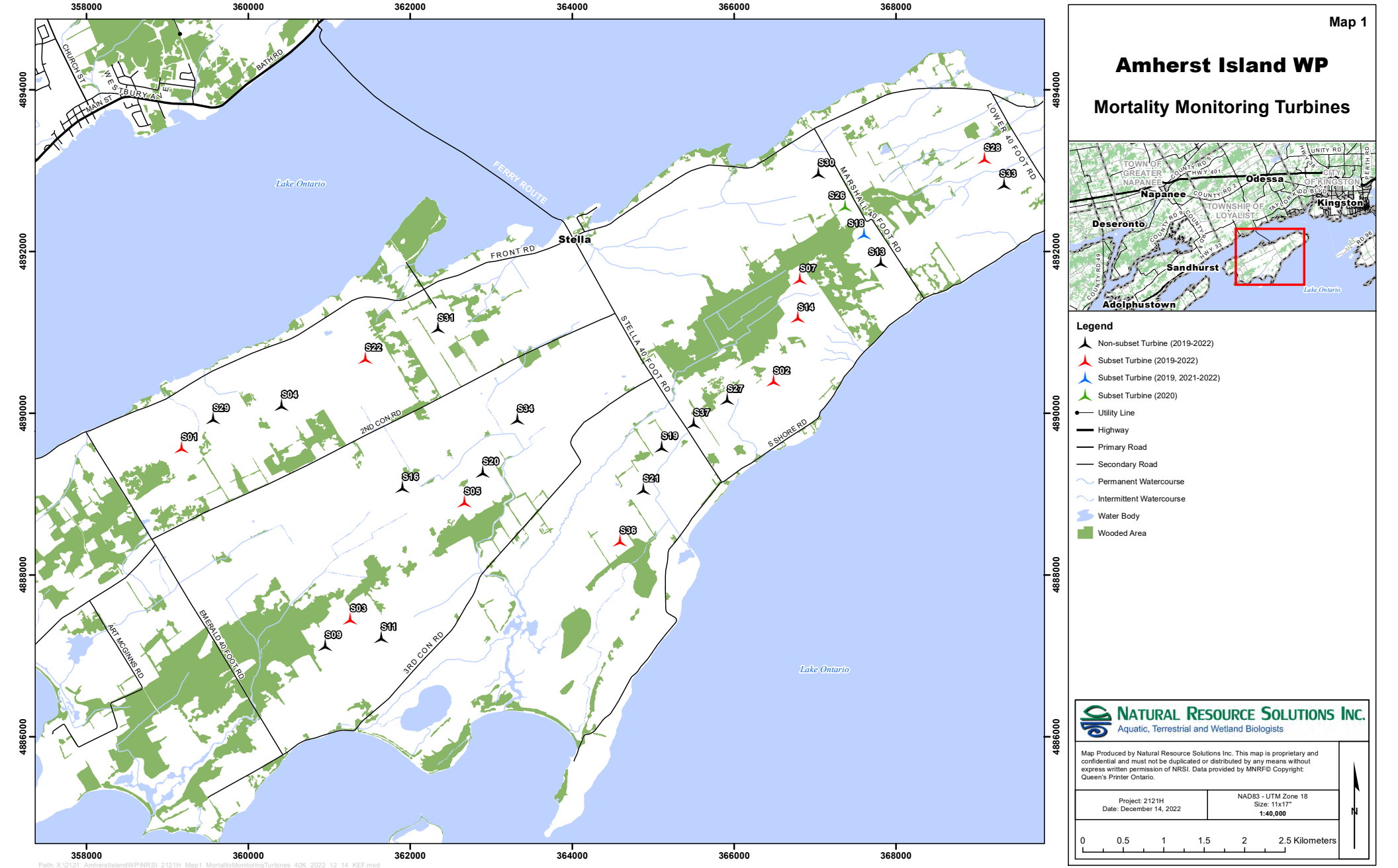
10.0 References

Ontario Ministry of Natural Resources (OMNR). 2011. Bats and Bat Habitats: Guidelines for Wind Power Projects. First Edition. July 2011.

Ministry of Environment, Conservation and Parks (MECP). 2023. Species at Risk in Ontario. Available at: https://www.ontario.ca/page/species-risk-ontario.

Stantec Consulting Ltd. (Stantec). 2013. Amherst Island Wind Energy Project Design and Operations Report, Appendix D Environmental Effects Monitoring Plan (EEMP) for Wildlife. April 2013.

Maps



Map 1

Amherst Island WP

Mortality Monitoring Turbines

Legend

- Non-subset Turbine (2019-2022)
- Subset Turbine (2019-2022)
- Subset Turbine (2019, 2021-2022)
- Subset Turbine (2020)
- Utility Line
- Highway
- Primary Road
- Secondary Road
- Permanent Watercourse
- Intermittent Watercourse
- Water Body
- Wooded Area

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Project: 2121H
Date: December 14, 2022

NAD83 - UTM Zone 18
Size: 11x17"
1:40,000

0 0.5 1 1.5 2 2.5 Kilometers

N

Path: X:\2121_AmherstIslandWP\NRSI_2121H_Map1_MortalityMonitoringTurbines_40K_2022_12_14_KEF.mxd

Appendix I
Post-construction Monitoring Data Sheets

Bird and Bat Mortality Search Summary

Date (dd/mm/yy): ____/____/____ Observer(s): _____ Project Name: _____ Project No: _____

Start Time (24hrs): _____hrs Dog Used? Y N Days Since Last Search (*i.e. Mon to Thurs = 3 days*): _____days

WEATHER

Temp: _____°C Cloud Cover: _____ % Wind Speed: _____ Wind Direction (from): _____ (use N,SW, etc.)

Visibility: High Medium Low Precip: None Rain Fog Weather Comments: _____

Significant Weather before visit?_____

COMMENTS (ex. wildlife notes, landowner interactions, turbine maintenance, unsearchable areas, etc.)

_____

_____

_____

_____

SEARCH RESULTS

Scheduled Search			Mortality Results. Enter "None" if no mortalities found.													
Turbine #	Start Time (24hr)	End Time (24hr)	Sample ID (PROJ#-DDMMYY-TXX-Mortality No.)	Species Found	Bat FA (mm)	Sex (M/F)	UTM		Dist. from Turbine (m)	Dir. from Turbine (°)	CC	Est. Time Since Death (hrs)	Injuries	Substrate/Habitat	VC	Photo No.(s)
							Easting	Northing								

CC = Condition Codes: I: Injured or Dying, F: Fresh, E: Early Decomposition, M: Moderate Decomposition, A: Advanced Decomposition, C: Complete Decomposition, S: Scavenged

Injuries: Describe any injuries to the bird carcass (e.g. none observed, broken neck, broken left wing, decapitated, laceration etc.)

Substrate/Habitat Types: The material upon which the carcass was found (ex. gravel, soy, corn, open soil, mud, standing water, concrete etc.)

VC = Visibility Class Codes: Class 1: >90% bare ground, <15cm tall Class 2: >25% bare ground, <15cm tall Class 3: < 25% bare ground, <25% >30cm tall Class 4: little or no bare ground, >25% >30cm tall

FA (mm) = Forearm Length (mm): Measure the length of the leading edge of the wing between the wrist and the elbow (mm)

Scavenger Removal Data Form

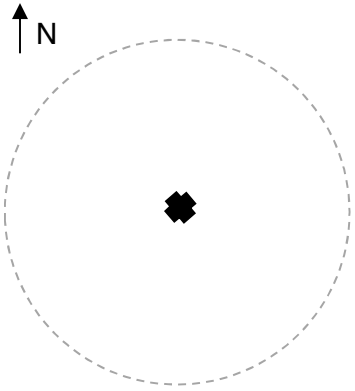
Project Name:_____ **Project #:** _____

Visit #	Day	Date	Obs.	Temp (°C)	Wind Speed	Wind Direction	Precip.	Visibility	Cloud Cover (%)	Cloud Height
0	0									
1										
2										
3										
4										

Turbine No. _____

Specimen 1: Species _____ Dist: _____ Dir: _____ UTM: _____
Visibility Class: _____ Notes:_____

Specimen 2: Species _____ Dist: _____ Dir: _____ UTM: _____
Visibility Class: _____ Notes:_____

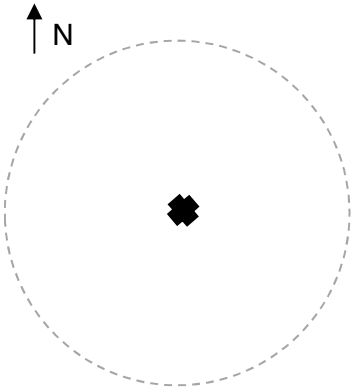


Day	Time	Specimen 1			Specimen 2		
		Present	Signs of Scavenging	Photo No.(s)	Present	Signs of Scavenging	Photo No.(s)

Turbine No. _____

Specimen 1: Species _____ Dist: _____ Dir: _____ UTM: _____
Visibility Class: _____ Notes:_____

Specimen 2: Species _____ Dist: _____ Dir: _____ UTM: _____
Visibility Class: _____ Notes:_____



Day	Time	Specimen 1			Specimen 2		
		Present	Signs of Scavenging	Photo No.(s)	Present	Signs of Scavenging	Photo No.(s)

Searcher Efficiency Data Form

Project Name:_____ **Project #:** _____

Date: _____ Time: _____hrs Searcher: _____ Placed By: _____

Condition of Carcasses: Fresh Thawed Carcasses marked (and how)?_____

WEATHER

Temp: _____ °C *Wind Speed: _____ Wind Direction (*from*): _____ Visibility: High Medium Low

Cloud Cover (%): _____ Cloud Height: High Medium Low Precipitation: Rain Fog Snow None _____

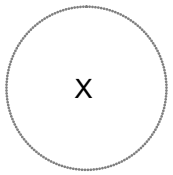
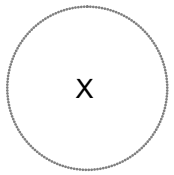
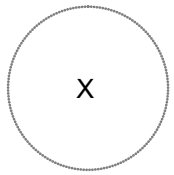
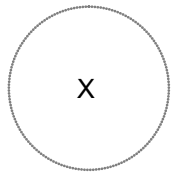
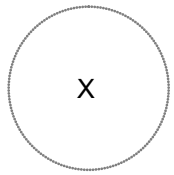
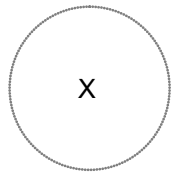
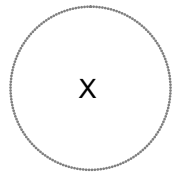
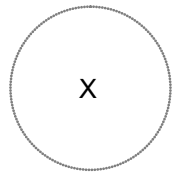
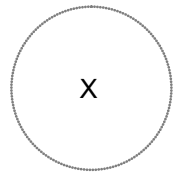
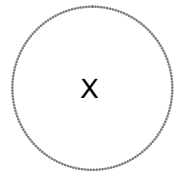
Additional Weather or Other Comments: _____

	Time Placed (24hr)	Turbine #	Species	Distance From Turbine	Direction from Turbine	Habitat/ Substrate	Visibility Class	UTM	Found By Searcher (Y/N)	Scavenged (Y/N)
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

*Beaufort Wind Scale: 0 calm; 1 smoke drifts; 2 wind felt on face; 3 leaves in motion; 4 small branches move; 5 small trees sway; 6 large branches move; 7 whole trees in motion; 8 twigs break off and hard to walk; 9 light structural damage; 10 tree uprooted

Placement Location Sketches (Draw access road for each sketch)

N ↑

1	2	3	4	5	6	7	8	9	10
									
T#___	T#___	T#___	T#___	T#___	T#___	T#___	T#___	T#___	T#___

Visibility Class Map

Project Name:_____ **Project #:** _____ **Turbine #:** _____ **Degree of Slope** _____ **degrees** **Slope Orientation** _____ (e.g. SSW)

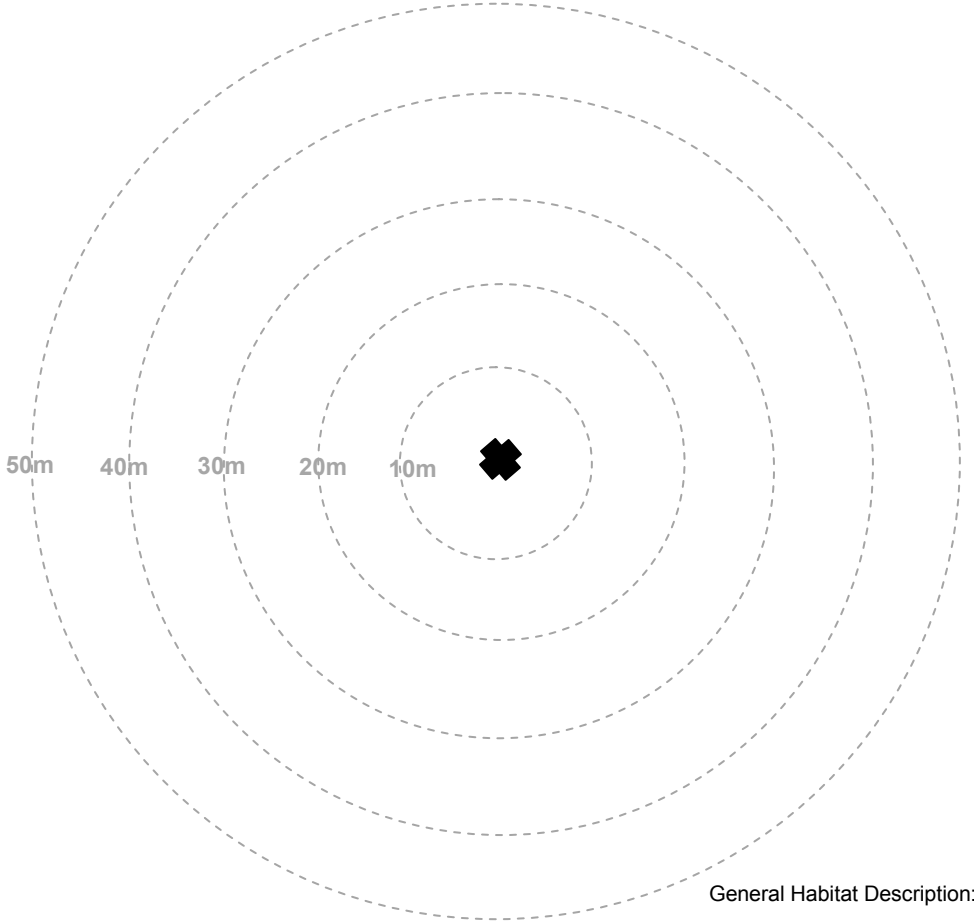
Photo Numbers (from turbine base)
Facing North: _____
Facing East: _____
Facing South: _____
Facing West: _____
(sketch habitat and visibility classes)

Date (DD/MM/YY): ___/____/____

Observer: _____

Monthly/Seasonal
Linear Transect Width: _____m

N



General Habitat Description:
_____

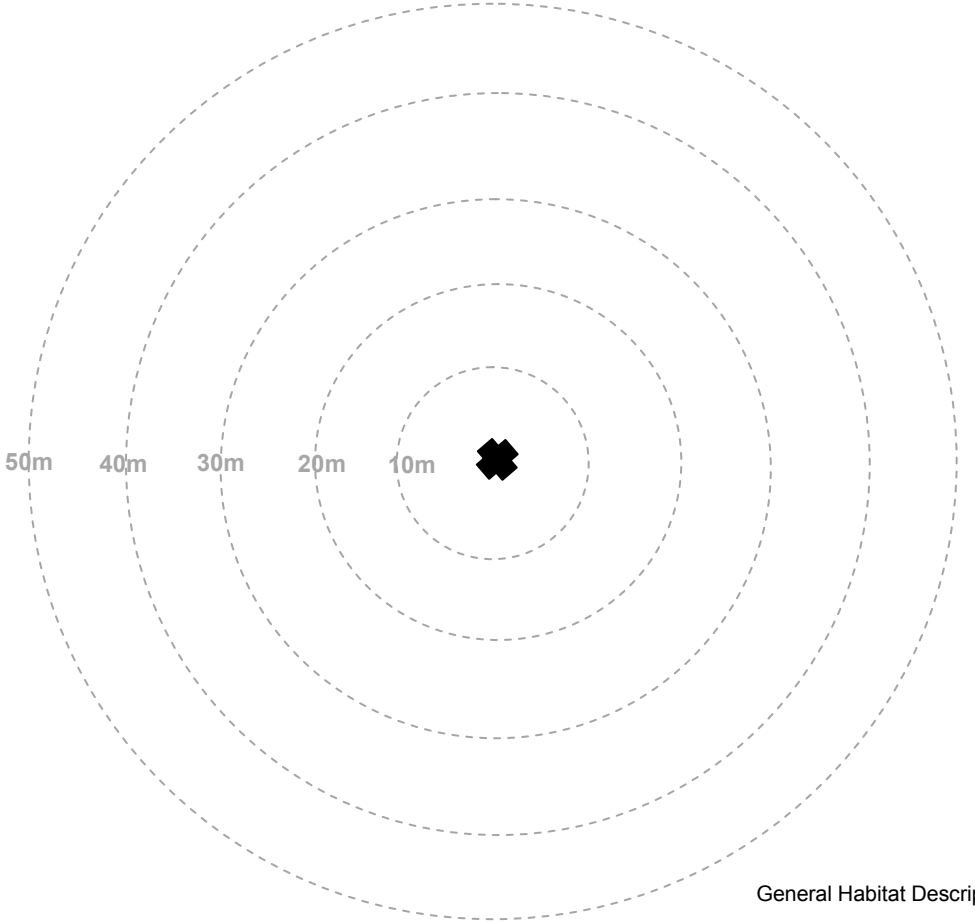
Photo Numbers (from turbine base)
Facing North: _____
Facing East: _____
Facing South: _____
Facing West: _____
(sketch habitat and visibility classes)

Date (DD/MM/YY): ___/____/____

Observer: _____

Monthly/Seasonal
Linear Transect Width: _____m

N



General Habitat Description:
_____

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Appendix II
Scavenger Removal Trial Results

Appendix II
2121H Amherst Island WP
2022 Scavenger Removal Trial Results

Spring (May/June)

Carcass Number	Turbine	Species	Distance from Turbine Base (m)	Direction from Turbine Base (°)	UTM (Zone 18T)		Visibility Class	Test Day	Date	Carcass Present	Signs of Scavenging	Tester
					Easting	Northing						
1	S01	Eastern Red Bat	12	310	359157	4889554	2	Day 0	02-May-22	Y	Carcass placed	Searcher A
								Day 3	05-May-22	N	Carcass removed	Searcher A
								Day 7	09-May-22	N	-	Searcher A
								Day 10	12-May-22	N	-	Searcher A
								Day 14	16-May-22	N	-	Searcher A
2	S05	American Woodcock	30	330	362691	4888858	2	Day 0	02-May-22	Y	Carcass placed	Searcher A
								Day 3	05-May-22	Y	None	Searcher A
								Day 7	09-May-22	N	Carcass removed	Searcher A
								Day 10	12-May-22	N	-	Searcher A
								Day 14	16-May-22	N	-	Searcher A
3	S14	Silver-haired Bat	24	35	366807	4891175	1	Day 0	02-May-22	Y	Carcass placed	Searcher A
								Day 3	05-May-22	N	Carcass removed	Searcher A
								Day 7	09-May-22	N	-	Searcher A
								Day 10	12-May-22	N	-	Searcher A
								Day 14	16-May-22	N	-	Searcher A
4	S18	European Starling	45	150	367615	4892239	1	Day 0	02-May-22	Y	Carcass placed	Searcher A
								Day 3	05-May-22	N	Carcass removed	Searcher A
								Day 7	09-May-22	N	-	Searcher A
								Day 10	12-May-22	N	-	Searcher A
								Day 14	16-May-22	N	-	Searcher A
5	S36	Golden-crowned Kinglet	4	330	364582	4888397	1	Day 0	02-May-22	Y	Carcass placed	Searcher A
								Day 3	05-May-22	Y	None	Searcher A
								Day 7	09-May-22	Y	None	Searcher A
								Day 10	12-May-22	Y	None	Searcher A
								Day 14	16-May-22	N	Carcass removed	Searcher A
6	S01	Hoary Bat	47	105	359217	4889530	2	Day 0	02-Jun-22	Y	Carcass placed	Searcher A
								Day 4	06-Jun-22	N	Carcass removed	Searcher A
								Day 7	09-Jun-22	N	-	Searcher A
								Day 11	13-Jun-22	N	-	Searcher A
								Day 14	16-Jun-22	N	-	Searcher A
7	S02	Veery	15	270	366474	4890370	1	Day 0	02-Jun-22	Y	Carcass placed	Searcher A
								Day 4	06-Jun-22	N	Carcass removed	Searcher A
								Day 7	09-Jun-22	N	-	Searcher A
								Day 11	13-Jun-22	N	-	Searcher A
								Day 14	16-Jun-22	N	-	Searcher A
8	S07	Eastern Red Bat	7	280	366808	4891631	1	Day 0	02-Jun-22	Y	Carcass placed	Searcher A
								Day 4	06-Jun-22	Y	None	Searcher A
								Day 7	09-Jun-22	Y	None	Searcher A
								Day 11	13-Jun-22	N	Carcass removed	Searcher A
								Day 14	16-Jun-22	N	-	Searcher A
9	S22	European Starling	19	298	361428	4890658	2	Day 0	02-Jun-22	Y	Carcass placed	Searcher A
								Day 4	06-Jun-22	Y	Carcass partially scavenged	Searcher A
								Day 7	09-Jun-22	Y	No further signs	Searcher A
								Day 11	13-Jun-22	Y	No further signs	Searcher A
								Day 14	16-Jun-22	Y	No further signs	Searcher A
10	S28	Golden-crowned Kinglet	42	170	369104	4893086	1	Day 0	02-Jun-22	Y	Carcass placed	Searcher A
								Day 4	06-Jun-22	N	Carcass removed	Searcher A
								Day 7	09-Jun-22	N	-	Searcher A
								Day 11	13-Jun-22	N	-	Searcher A
								Day 14	16-Jun-22	N	-	Searcher A

Summer (July/August)

Carcass Number	Turbine	Species	Distance from Turbine Base (m)	Direction from Turbine Base (°)	UTM (Zone 18T)		Visibility Class	Test Day	Date	Carcass Present	Signs of Scavenging	Tester
					Easting	Northing						
1	S01	Hoary Bat	27	75	359198	4889569	2	Day 0	04-Jul-22	Y	Carcass placed	Searcher A
								Day 3	07-Jul-22	N	Carcass removed	Searcher A
								Day 7	11-Jul-22	N	-	Searcher A
								Day 10	14-Jul-22	N	-	Searcher A
								Day 14	18-Jul-22	N	-	Searcher A
2	S03	Wilson's Snipe	14	140	361266	4887421	1	Day 0	04-Jul-22	Y	Carcass placed	Searcher A
								Day 3	07-Jul-22	N	Carcass removed	Searcher A
								Day 7	11-Jul-22	N	-	Searcher A
								Day 10	14-Jul-21	N	-	Searcher A
								Day 14	18-Jul-22	N	-	Searcher A
3	S05	Cedar Waxwing	23	190	362671	4888860	2	Day 0	04-Jul-22	Y	Carcass placed	Searcher A
								Day 3	07-Jul-22	Y	Carcass partially scavenged; feathers remaining	Searcher A
								Day 7	11-Jul-22	N	Carcass removed	Searcher A
								Day 10	14-Jul-22	N	-	Searcher A
								Day 14	18-Jul-22	N	-	Searcher A
4	S14	Eastern Red Bat	44	50	366823	4891191	1	Day 0	04-Jul-22	Y	Carcass placed	Searcher A
								Day 3	07-Jul-22	Y	None	Searcher A
								Day 7	11-Jul-22	Y	None	Searcher A
								Day 10	14-Jul-22	Y	None	Searcher A
								Day 14	18-Jul-22	N	Carcass removed	Searcher A
5	S22	Chestnut-sided Warbler	9	160	361451	4890647	1	Day 0	04-Jul-22	Y	Carcass placed	Searcher A
								Day 3	07-Jul-22	N	Carcass removed	Searcher A
								Day 7	11-Jul-22	N	-	Searcher A
								Day 10	14-Jul-21	N	-	Searcher A
								Day 14	18-Jul-22	N	-	Searcher A
6	S02	Eastern Red Bat	9	280	366480	4890367	1	Day 0	01-Aug-22	Y	Carcass placed	Searcher A
								Day 3	04-Aug-22	Y	None	Searcher A
								Day 7	08-Aug-22	Y	None	Searcher A
								Day 10	11-Aug-22	Y	None	Searcher A
								Day 14	15-Aug-22	Y	None	Searcher A
7	S07	Northern Parula	15	20	366814	4891652	2	Day 0	01-Aug-22	Y	Carcass placed	Searcher A
								Day 3	04-Aug-22	N	Carcass removed	Searcher A
								Day 7	08-Aug-22	N	-	Searcher A
								Day 10	11-Aug-22	N	-	Searcher A
								Day 14	15-Aug-22	N	-	Searcher A
8	S18	Wilson's Snipe	35	290	367571	4892210	2	Day 0	01-Aug-22	Y	Carcass placed	Searcher A
								Day 3	04-Aug-22	N	Carcass removed	Searcher A
								Day 7	08-Aug-22	N	-	Searcher A
								Day 10	11-Aug-22	N	-	Searcher A
								Day 14	15-Aug-22	N	-	Searcher A
9	S28	Black-capped Chickadee	28	200	369098	4893097	1	Day 0	01-Aug-22	Y	Carcass placed	Searcher A
								Day 3	04-Aug-22	Y	None	Searcher A
								Day 7	08-Aug-22	Y	None	Searcher A
								Day 10	11-Aug-22	Y	None	Searcher A
								Day 14	15-Aug-22	N	Carcass removed	Searcher A
10	S36	Hoary Bat	47	310	364544	4888427	2	Day 0	01-Aug-22	Y	Carcass placed	Searcher A
								Day 3	04-Aug-22	Y	None	Searcher A
								Day 7	08-Aug-22	Y	None	Searcher A
								Day 10	11-Aug-22	Y	None	Searcher A
								Day 14	15-Aug-22	N	Carcass removed	Searcher A

Fall (September/October)

Carcass Number	Turbine	Species	Distance from Turbine Base (m)	Direction from Turbine Base (°)	UTM (Zone 18T)		Visibility Class	Test Day	Date	Carcass Present	Signs of Scavenging	Tester
					Easting	Northing						
1	S01	Hermit Thrush	19	320	359155	4889546	2	Day 0	05-Sep-22	Y	Carcass placed	Searcher A
								Day 3	08-Sep-22	N	Carcass removed	Searcher A
								Day 7	12-Sep-22	N	-	Searcher A
								Day 10	15-Sep-22	N	-	Searcher A
								Day 14	19-Sep-22	N	-	Searcher A
2	S02	Eastern Red Bat	29	160	366497	4890342	2	Day 0	05-Sep-22	Y	Carcass placed	Searcher A
								Day 3	08-Sep-22	N	Carcass removed	Searcher A
								Day 7	12-Sep-22	N	-	Searcher A
								Day 10	15-Sep-22	N	-	Searcher A
								Day 14	19-Sep-22	N	-	Searcher A
3	S14	Silver-haired Bat	8	100	366799	4891154	1	Day 0	05-Sep-22	Y	Carcass placed	Searcher A
								Day 3	08-Sep-22	N	Carcass removed	Searcher A
								Day 7	12-Sep-22	N	-	Searcher A
								Day 10	15-Sep-22	N	-	Searcher A
								Day 14	19-Sep-22	N	-	Searcher A
4	S18	Red-winged Blackbird	14	90	367623	4892190	1	Day 0	05-Sep-22	Y	Carcass placed	Searcher A
								Day 3	08-Sep-22	Y	None	Searcher A
								Day 7	12-Sep-22	Y	None	Searcher A
								Day 10	15-Sep-22	Y	None	Searcher A
								Day 14	19-Sep-22	Y	None	Searcher A
5	S36	Swamp Sparrow	36	330	364572	4888432	1	Day 0	05-Sep-22	Y	Carcass placed	Searcher A
								Day 3	08-Sep-22	Y	Carcass moved approximately 2m	Searcher A
								Day 7	12-Sep-22	N	Carcass removed	Searcher A
								Day 10	15-Sep-22	N	-	Searcher A
								Day 14	19-Sep-22	N	-	Searcher A
6	S03	Yellow-bellied Flycatcher	31	135	361285	4887420	1	Day 0	03-Oct-22	Y	Carcass placed	Searcher A
								Day 3	06-Oct-22	N	Carcass removed	Searcher A
								Day 7	10-Oct-22	N	-	Searcher A
								Day 10	13-Oct-22	N	-	Searcher A
								Day 14	17-Oct-22	N	-	Searcher A
7	S05	Eastern Red Bat	15	30	362668	4888899	1	Day 0	03-Oct-22	Y	Carcass placed	Searcher A
								Day 3	06-Oct-22	Y	None	Searcher A
								Day 7	10-Oct-22	Y	None	Searcher A
								Day 10	13-Oct-22	Y	None	Searcher A
								Day 14	17-Oct-22	Y	None	Searcher A
8	S07	Hoary Bat	21	310	366791	4891045	2	Day 0	03-Oct-22	Y	Carcass placed	Searcher A
								Day 3	06-Oct-22	Y	None	Searcher A
								Day 7	10-Oct-22	Y	None	Searcher A
								Day 10	13-Oct-22	N	Carcass removed	Searcher A
								Day 14	17-Oct-22	N	-	Searcher A
9	S22	Black-capped Chickadee	40	240	361421	4890623	2	Day 0	03-Oct-22	Y	Carcass placed	Searcher A
								Day 3	06-Oct-22	Y	None	Searcher A
								Day 7	10-Oct-22	Y	Carcass moved approximately 1m	Searcher A
								Day 10	13-Oct-22	N	Carcass removed	Searcher A
								Day 14	17-Oct-22	N	-	Searcher A
10	S28	Killdeer	41	90	369129	4893143	2	Day 0	03-Oct-22	Y	Carcass placed	Searcher A
								Day 3	06-Oct-22	N	Carcass removed	Searcher A
								Day 7	10-Oct-22	N	-	Searcher A
								Day 10	13-Oct-22	N	-	Searcher A
								Day 14	17-Oct-22	N	-	Searcher A

Appendix III
Searcher Efficiency Trial Results

Appendix III
2121H Amherst Island Wind Project
2022 Searcher Efficiency Trial Results

Spring 2022 Searcher Efficiency Trial

Date	Searcher	No.	Turbine	Species	Distance (m)	Direction (°)	General Habitat	Visibility Class	UTM (18T)		Found (Y/N)	Scavenged (Y/N)
									Easting	Northing		
09-May-22	Searcher A	1	S07	Eastern Red Bat	17	343	Mowed grass	2	366807	4891659	Y	-
		2	S14	Black-and-white Warbler	26	20	Gravel	1	366807	4891187	N	**Y**
		3	S14	White-throated Sparrow	41	82	Bare soil	1	366829	4891160	Y	-
16-May-22	Searcher A	4	S01	Magnolia Warbler	14	283	Mowed grass	2	359155	4889560	N	N
		5	S05	Eastern Red Bat	8	303	Gravel	1	362660	4888887	Y	-
		6	S22	Red-eyed Vireo	32	80	Mowed grass	2	361477	4890666	N	**Y**
26-May-22	Searcher A	7	S02	Northern Parula	22	230	Gravel	1	366465	4890365	Y	-
		8	S03	Silver-haired Bat	35	111	Gravel	1	361291	4887417	Y	-
		9	S36	Hoary Bat	18	140	Mowed grass	2	362660	4888891	Y	-
30-May-22	Searcher A	10	S05	Golden-crowned Kinglet	44	346	Mowed grass	2	362650	4888925	Y	-
		11	S18	Red-eyed Vireo	21	75	Gravel	1	367621	4892189	N	**Y**
		12	S28	Silver-haired Bat	46	103	Gravel	1	369130	4893102	Y	-
02-Jun-22	Searcher A	13	S03	Red-eyed Vireo	9	336	Gravel	1	361263	4887432	Y	-
		14	S18	Silver-haired Bat	27	120	Mowed grass	2	367628	4892209	N	**Y**
		15	S36	Wilson's Snipe	46	30	Gravel	1	364393	4888448	Y	-
16-Jun-22	Searcher A	16	S01	Eastern Red Bat	28	45	Gravel	1	359201	4889533	Y	-
		17	S02	Big Brown Bat	36	258	Gravel	1	366467	4890356	Y	-
		18	S03	Red-winged Blackbird	49	213	Mowed grass	2	361282	4887388	Y	-
20-Jun-22	Searcher A	19	S07	Chestnut-sided Warbler	37	220	Mowed grass	2	366800	4891618	Y	-
		20	S22	White-throated Sparrow	13	36	Mowed grass	2	361459	4890662	N	N
		21	S28	Hoary Bat	44	196	Mowed grass	2	369071	4893087	Y	-

Summer 2022 Searcher Efficiency Trial

Date	Searcher	No.	Turbine	Species	Distance (m)	Direction (°)	General Habitat	Visibility Class	UTM (18T)		Found (Y/N)	Scavenged (Y/N)
									Easting	Northing		
11-Jul-22	Searcher A	1	S05	Red-breasted Nuthatch	46	353	Mowed grass	2	362664	4888928	N	**Y**
		2	S22	Hoary Bat	16	160	Gravel	1	361454	4890642	Y	-
		3	S36	Silver-haired Bat	36	5	Gravel	1	364597	4888435	Y	-
18-Jul-22	Searcher A	4	S01	Red-eyed Vireo	35	156	Gravel	1	359187	4889520	N	N
		5	S02	Golden-crowned Kinglet	17	230	Gravel	1	366477	4890361	Y	-
		6	S03	Yellow Warbler	8	0	Mowed grass	2	361259	4887446	Y	-
25-Jul-22	Searcher A	7	S14	Cedar Waxwing	21	326	Mowed grass	2	366781	4891180	Y	-
		8	S18	Eastern Red Bat	9	356	Gravel	1	367614	4892204	Y	-
		9	S28	Golden-crowned Kinglet	43	148	Gravel	1	369113	4893090	Y	-
04-Aug-22	Searcher A	10	S05	Eastern Red Bat	18	131	Mowed grass	2	362679	4888865	N	N
		11	S36	Yellow-bellied Flycatcher	47	285	Mowed grass	2	364541	4888409	Y	-
08-Aug-22	Searcher A	12	S01	Hoary Bat	43	196	Mowed grass	2	359161	4889512	Y	-
		13	S03	Eastern Red Bat	6	325	Gravel	1	361257	4887430	Y	-
		14	S22	Red-breasted Nuthatch	34	162	Gravel	1	361467	4890629	Y	-
11-Aug-22	Searcher A	15	S07	Black-throated Green Warbler	45	128	Mowed grass	2	366849	4891608	N	N
		16	S18	Silver-haired Bat	17	105	Mowed grass	2	367627	4892185	N	**Y**
		17	S28	Northern Parula	29	96	Mowed grass	2	369121	4893123	N	N
22-Aug-22	Searcher A	18	S01	Black-capped Chickadee	10	82	Gravel	1	359184	4889553	Y	-
		19	S05	Eastern Red Bat	35	82	Mowed grass	2	362703	4888885	Y	-
		20	S22	Hermit Thrush	14	133	Gravel	1	361455	4890647	Y	-

Fall 2022 Searcher Efficiency Trial

Date	Searcher	No.	Turbine	Species	Distance (m)	Direction (°)	General Habitat	Visibility Class	UTM (18T)		Found (Y/N)	Scavenged (Y/N)
									Easting	Northing		
12-Sep-22	Searcher A	1	S02	Silver-haired Bat	24	132	Gravel	1	366504	4890362	Y	-
		2	S07	Hermit Thrush	43	98	Mowed grass	2	366857	4891638	N	**Y**
		3	S36	Golden-crowned Kinglet	19	37	Mowed grass	2	364602	4888412	Y	-
15-Sep-22	Searcher A	4	S02	Hoary Bat	38	260	Mowed grass	2	366452	4890358	N	**Y**
		5	S07	White-throated Sparrow	6	210	Gravel	1	366808	4891633	Y	-
		6	S14	Eastern Red Bat	31	60	Gravel	1	366817	4891179	Y	-
19-Sep-22	Searcher A	7	S01	Eastern Red Bat	33	60	Mowed grass	2	359201	4889569	Y	-
		8	S05	Swainson's Thrush	45	323	Mowed grass	2	362642	4888923	N	**Y**
		9	S22	Red-breasted Nuthatch	8	310	Gravel	1	361439	4890658	Y	-
26-Sep-22	Searcher A	10	S01	Blackburnian Warbler	25	190	Gravel	1	359178	4889528	Y	-
		11	S03	Tree Swallow	43	20	Mowed grass	2	361278	4887476	Y	-
		12	S22	Black-capped Chickadee	11	355	Mowed grass	2	361447	4890669	N	N
29-Sep-22	Searcher A	13	S18	Northern Flicker	9	32	Gravel	1	367614	4892202	Y	-
		14	S28	Killdeer	23	82	Gravel	1	369113	4893127	Y	-
		15	S36	Black-capped Chickadee	46	7	Gravel	1	364596	4888447	Y	-
03-Oct-22	Searcher A	16	S05	Eastern Red Bat	43	116	Mowed grass	2	362707	4888857	N	**Y**
		17	S14	Silver-haired Bat	17	37	Gravel	1	366799	4891175	Y	-
		18	S28	American Woodcock	28	334	Mowed grass	2	369083	4893152	Y	-
17-Oct-22	Searcher A	19	S03	Eastern Red Bat	12	349	Mowed grass	2	361259	4887449	Y	-
		20	S18	Hoary Bat	40	77	Mowed grass	2	367649	4892203	Y	-
		21	S36	Hoary Bat	32	333	Gravel	1	364575	4888429	N	**Y**

Appendix IV
Bat Mortalities

Appendix IV
2121H Amherst Island Wind Project

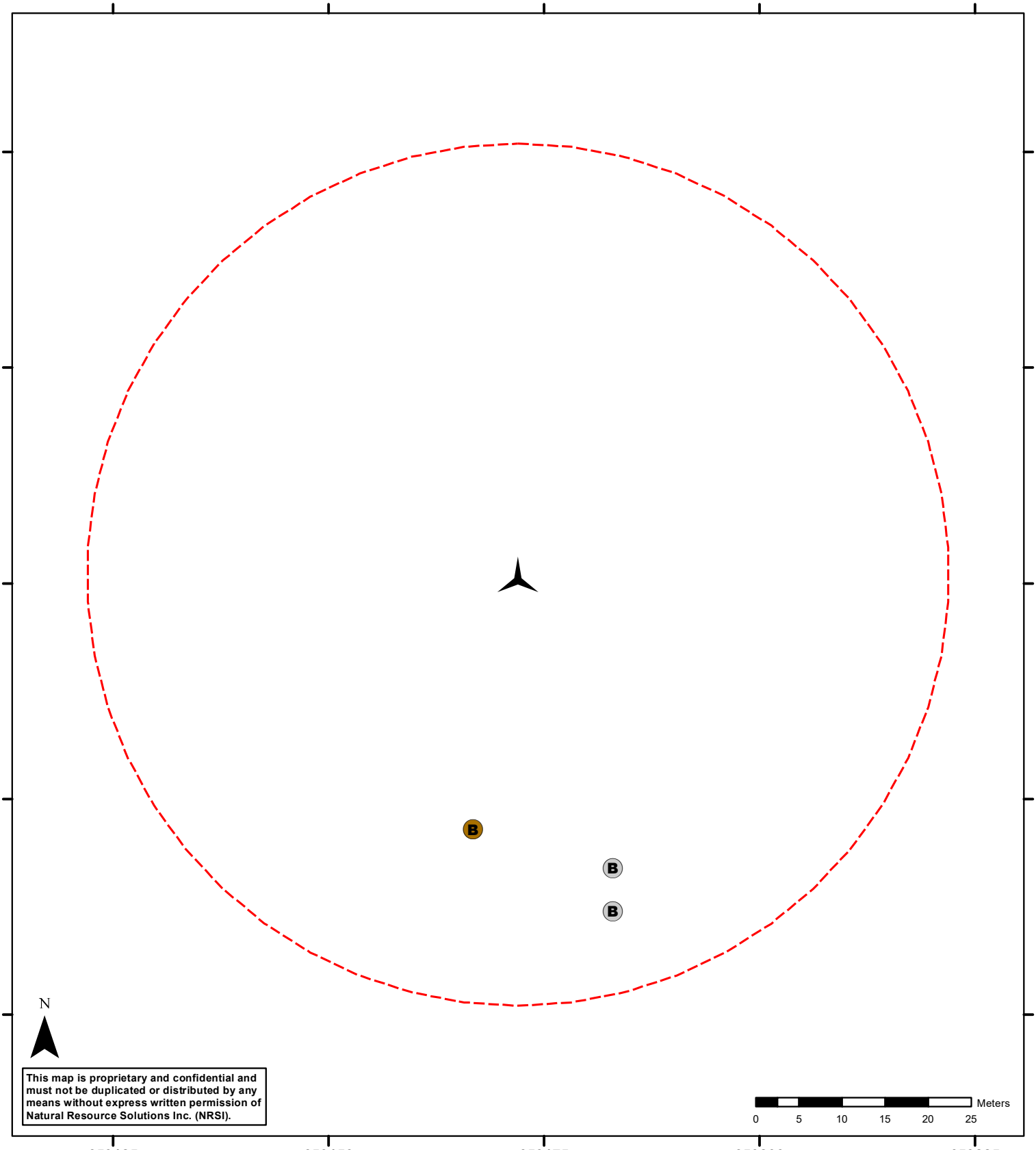
Visibility Class:
1 ≥90% bare ground, vegetation ≤15cm tall
2 ≥25% bare ground, vegetation ≤15cm tall
3 ≤25% bare ground, ≤25% of vegetation is >30cm tall
4 little or no bare ground, ≥ 25% of vegetation is >30cm tall

Condition Code:
I Injured or dying
F Freshly dead
E Early decomposition
M Moderate decomposition
A Advanced decomposition
C Complete decomposition
S Scavenged

2022 Bat Mortalities

Date	Turbine	Start Time	End Time	Dog Used (Y/N)	Days Since Last Search	Temp.	Cloud Cover (%)	Precipitation	Wind Speed (Beaufort Scale)	Wind Direction	Species	Sample ID	Bat FA (mm)	Sex (M/F/U)	Easting	Northing	Distance from Turbine (m)	Direction from Turbine (°)	Condition Code	Estimated Time Since Death (hrs)	Observed Injuries	Substrate/ Habitat	Visibility Class
23-May-22	S28	14:30	15:00	N	3	10	80	None	2	E	Hoary Bat	2121H-230522-S28-01	48	U	369095	4893144	14	45	F	12	Decapitated	Mowed grass	2
7-Jul-22	S22	8:50	9:20	N	3	20	0	None	1	E	Big Brown Bat	2121H-070722-S22-01	42	M	361465	4890693	37	40	F	12	Abdominal laceration	Mowed grass	2
11-Jul-22	S07	12:55	13:25	N	4	18	30	None	3	S	Big Brown Bat	2121H-110722-S07-01	44	U	366793	4891680	47	330	F	12	Broken wing	Mowed grass	2
11-Jul-22	S36	11:00	11:30	N	4	18	30	None	3	S	Big Brown Bat	2121H-110722-S36-01	43	U	364575	4888427	29	340	F	12	Broken neck	Gravel	1
18-Jul-22	S01	10:20	10:50	N	4	19	100	Rain	2	NW	Big Brown Bat	2121H-180722-S01-01	45	U	359167	4889521	30	190	F	12	Abdominal laceration	Mowed grass	2
1-Aug-22	S05	9:35	10:05	N	4	24	75	None	3	W	Eastern Red Bat	2121H-010822-S05-01	43	U	362689	4888881	20	80	F	12	Broken wing	Gravel	1
1-Aug-22	S07	14:05	14:35	N	4	24	75	None	3	W	Big Brown Bat	2121H-010822-S07-01	44	U	366816	4891628	9	190	F	12	Abdominal laceration	Gravel	1
1-Aug-22	S07	14:05	14:35	N	4	24	75	None	3	W	Hoary Bat	2121H-010822-S07-02	50	U	366819	4891684	42	40	E	36	Broken wing	Mowed grass	2
1-Aug-22	S36	12:10	12:40	N	4	24	75	None	3	W	Eastern Red Bat	2121H-010822-S36-01	41	U	364620	4888405	37	110	F	12	Broken wing	Mowed grass	2
4-Aug-22	S02	11:30	12:00	N	3	23	100	Rain	1	W	Silver-haired Bat	2121H-040822-S02-01	39	U	366482	4890372	24	320	F	12	None apparent	Mowed grass	2
4-Aug-22	S03	10:05	10:35	N	3	23	100	Rain	1	W	Hoary Bat	2121H-040822-S03-01	46	U	361304	4887442	48	80	E	36	Broken wing	Gravel	1
8-Aug-22	S02	12:50	13:20	N	4	30	80	None	3	W	Big Brown Bat	2121H-080822-S02-01	43	U	366501	4890348	26	200	M	60	Decomposed	Gravel	1
8-Aug-22	S02	12:50	13:20	N	4	30	80	None	3	W	Eastern Red Bat	2121H-080822-S02-02	40	U	366481	4890384	14	330	F/S	12	Broken neck; partially scavenged	Mowed grass	2
8-Aug-22	S02	12:50	13:20	N	4	30	80	None	3	W	Big Brown Bat	2121H-080822-S02-03	42	U	366473	4890405	35	350	F	12	Head injury	Mowed grass	2
8-Aug-22	S03	11:10	11:40	N	4	30	80	None	3	W	Eastern Red Bat	2121H-080822-S03-01	37	U	361225	4887449	32	280	E	36	Neck laceration	Mowed grass	2
8-Aug-22	S07	15:25	15:55	N	4	30	80	None	3	W	Big Brown Bat	2121H-080822-S07-01	43	U	366827	4891651	22	90	E	36	Broken wing	Mowed grass	2
8-Aug-22	S14	14:50	15:20	N	4	30	80	None	3	W	Hoary Bat	2121H-080822-S14-01	54	U	366815	4891187	35	40	F	12	Broken wing	Gravel	1
8-Aug-22	S36	11:55	12:25	N	4	30	80	None	3	W	Hoary Bat	2121H-080822-S36-01	46	U	364583	4888389	8	290	E	36	Broken wing	Mowed grass	2
8-Aug-22	S36	11:55	12:25	N	4	30	80	None	3	W	Hoary Bat	2121H-080822-S36-02	51	U	364577	4888375	23	220	E	36	Abdominal injury	Mowed grass	2
11-Aug-22	S03	10:10	10:40	N	3	20	90	None	3	NW	Hoary Bat	2121H-110822-S03-01	54	U	361293	4887429	34	110	F/S	12	Broken neck; partially scavenged	Gravel	1
11-Aug-22	S03	10:10	10:40	N	3	20	90	None	3	NW	Big Brown Bat	2121H-110822-S03-02	42	M	361298	4887407	46	130	F	12	Abdominal laceration	Mowed grass	2
11-Aug-22	S05	8:15	8:45	N	3	20	90	None	3	NW	Big Brown Bat	2121H-110822-S05-01	44	M	362690	4888855	33	170	F	12	Broken wing	Mowed grass	2
11-Aug-22	S07	12:40	13:10	N	3	20	90	None	3	NW	Eastern Red Bat	2121H-110822-S07-01	43	U	366779	4891668	41	330	M/S	60	Partially scavenged, only wings remaining	Mowed grass	2
15-Aug-22	S14	12:10	12:40	N	4	24	10	None	3	E	Little Brown Myotis	2121H-150822-S14-01	34	U	366780	4891113	46	170	M	84	Abdominal laceration	Mowed grass	2
18-Aug-22	S28	13:40	14:10	N	3	19	30	None	3	NW	Big Brown Bat	2121H-180822-S28-01	44	U	369059	4893162	47	310	M/S	84	Partially scavenged	Mowed grass	2
22-Aug-22	S22	10:00	10:30	N	4	23	100	Rain	3	SE	Silver-haired Bat	2121H-220822-S22-01	38	U	361474	4890689	39	60	E	36	Broken wing	Mowed grass	2
22-Aug-22	S22	10:00	10:30	N	4	23	100	Rain	3	SE	Silver-haired Bat	2121H-220822-S22-02	43	U	361483	4890689	46	70	M	60	Broken wing	Mowed grass	2
22-Aug-22	S36	16:00	16:30	N	4	23	100	Rain	3	SE	Eastern Red Bat	2121H-220822-S36-01	37	U	364624	4888401	36	100	E	36	Broken wing	Mowed grass	2
25-Aug-22	S01	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S01-01	43	F	359183	4889512	40	155	M	60	Broken left forearm	Gravel	1
25-Aug-22	S01	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S01-02	41	M	359183	4889517	32	150	F	12	None apparent	Gravel	1
25-Aug-22	S05	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S05-01	40	M	362673	4888891	8	345	E	36	Abdominal laceration	Gravel	1
25-Aug-22	S05	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S05-02	41	F	362668	4888894	15	323	E	36	Abdominal laceration	Gravel	1
25-Aug-22	S05	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S05-03	41	F	362654	4888899	19	341	E	36	Broken left forearm	Gravel	1
25-Aug-22	S22	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S22-01	41	M	361454	4890654	7	52	F	12	None apparent	Gravel	1
25-Aug-22	S22	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S22-02	41	F	361458	4890661	10	42	E	36	None apparent	Mowed grass	2
25-Aug-22	S36	13:15	13:45	N	3	23	5	None	3	E	Hoary Bat	2121H-250822-S36-01	52	U	364608	4888433	39	27	S	60	Partially scavenged	Mowed grass	2
25-Aug-22	S36	13:15	13:45	N	3	23	5	None	3	E	Silver-haired Bat	2121H-250822-S36-02	40	M	364610	4888425	29	43	E	36	None apparent	Mowed grass	2
1-Sep-22	S03	11:10	11:40	N	3	16	10	None	3	NW	Hoary Bat	2121H-010922-S03-01	50	U	361302	4887442	46	80	F	12	Abdominal laceration	Gravel	1
1-Sep-22	S14	13:15	13:45	N	3	16	10	None	3	NW	Eastern Red Bat	2121H-010922-S14-01	37	U	366832	4891183	45	60	E	36	Back laceration	Gravel	1
5-Sep-22	S05	9:20	9:50	N	4	14	100	None	3	NE	Eastern Red Bat	2121H-050922-S05-01	38	U	362655	4888899	21	340	F	12	Shoulder laceration	Gravel	1
8-Sep-22	S22	10:00	10:30	N	3	21	10	None	1	E	Eastern Red Bat	2121H-080922-S22-01	40	U	361442	4890653	5	300	F	12	Broken right wing	Gravel	1
8-Sep-22	S36	12:40	13:10	N	3	21	10	None	1	E	Hoary Bat	2121H-080922-S36-01	50	U	364572	4888382	21	240	F	12	Broken neck	Mowed grass	2
12-Sep-22	S03	14:50	15:20	N	4	18	100	None	2	NE	Eastern Red Bat	2121H-120922-S03-01	40	U	361252	4887434	2	330	M	60	Broken neck	Concrete	1
15-Sep-22	S05	9:15	9:45	N	3	8	10	None	3	N	Silver-haired Bat	2121H-150922-S05-01	41	U	363675	4888839	43	170	F	12	Lacerated, only upper torso remaining	Mowed grass	2

Appendix V
Locations of Bat Mortalities



Legend

- Turbine
- Search Radius
- Big Brown Bat
- Silver-haired Bat

Appendix V

Amherst Island WP

Turbine S01 Mortalities 2022

NAD83 - UTM Zone 18
Scale: 1:600 (8.5x11")

Date: March 2, 2023
Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

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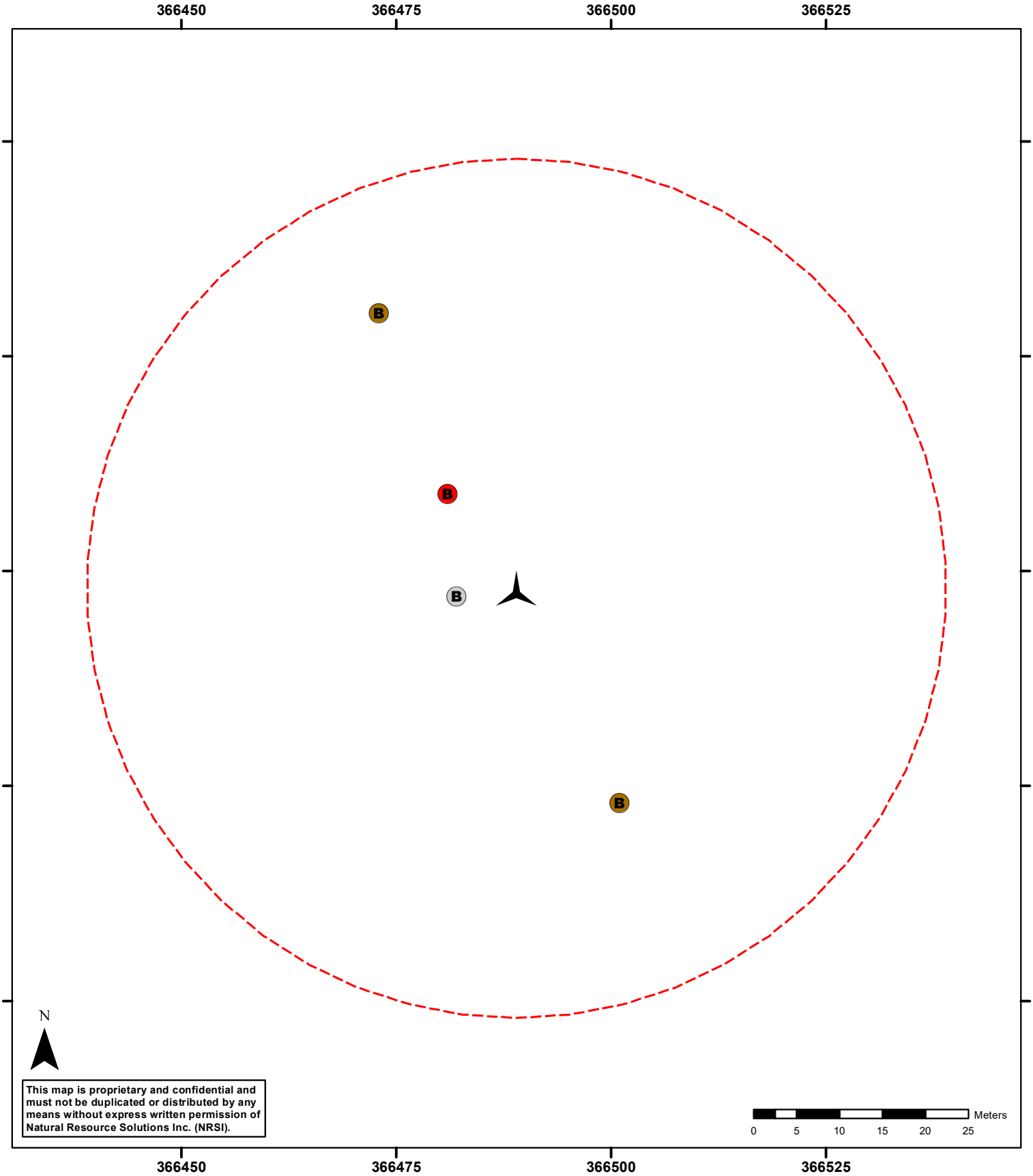


Legend

- Turbine
- Search Radius
- Big Brown Bat
- Eastern Red Bat
- Silver-haired Bat

Appendix V

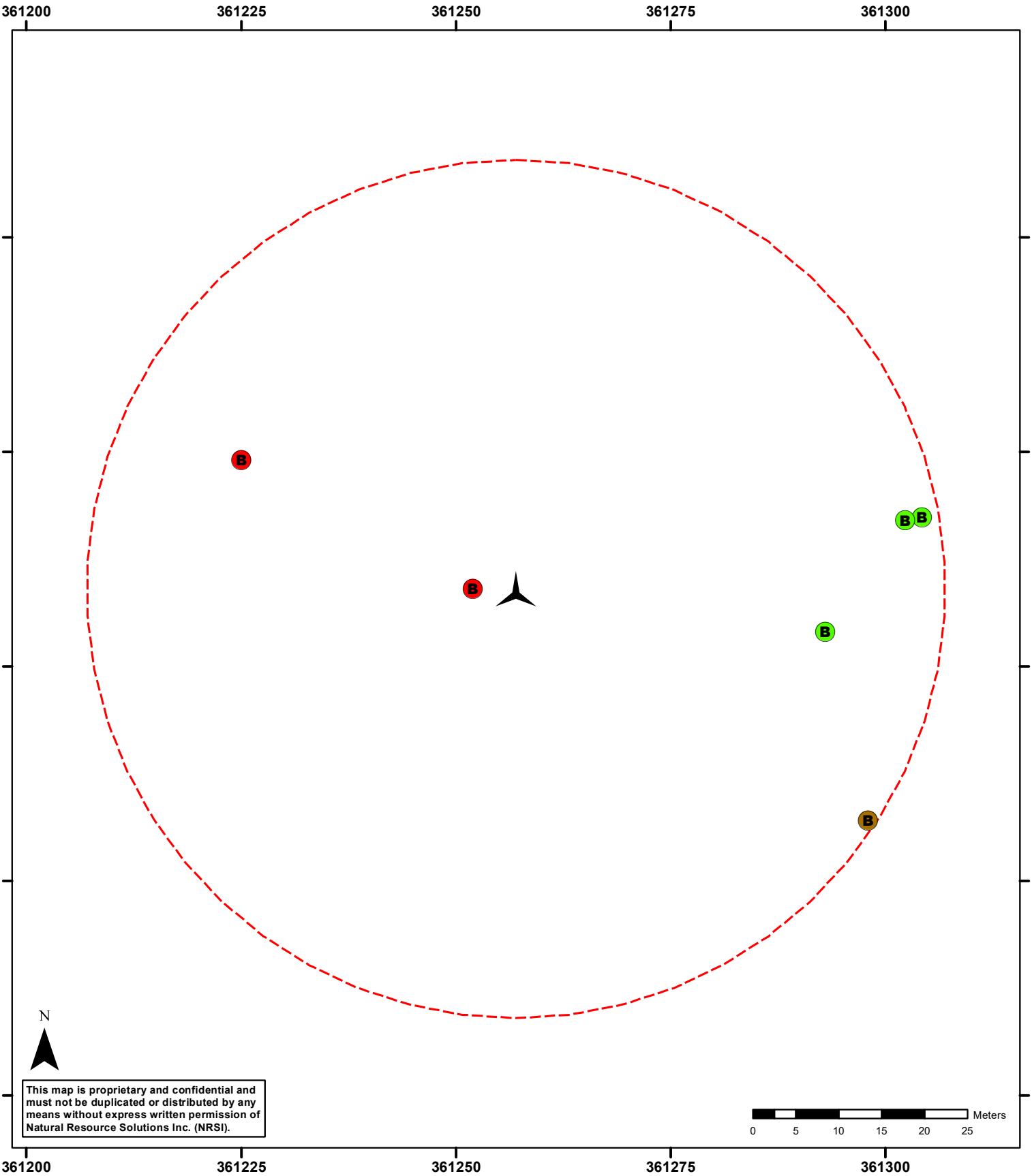
Amherst Island WP

Turbine S02 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius
- Big Brown Bat
- Eastern Red Bat
- Hoary Bat

Appendix V

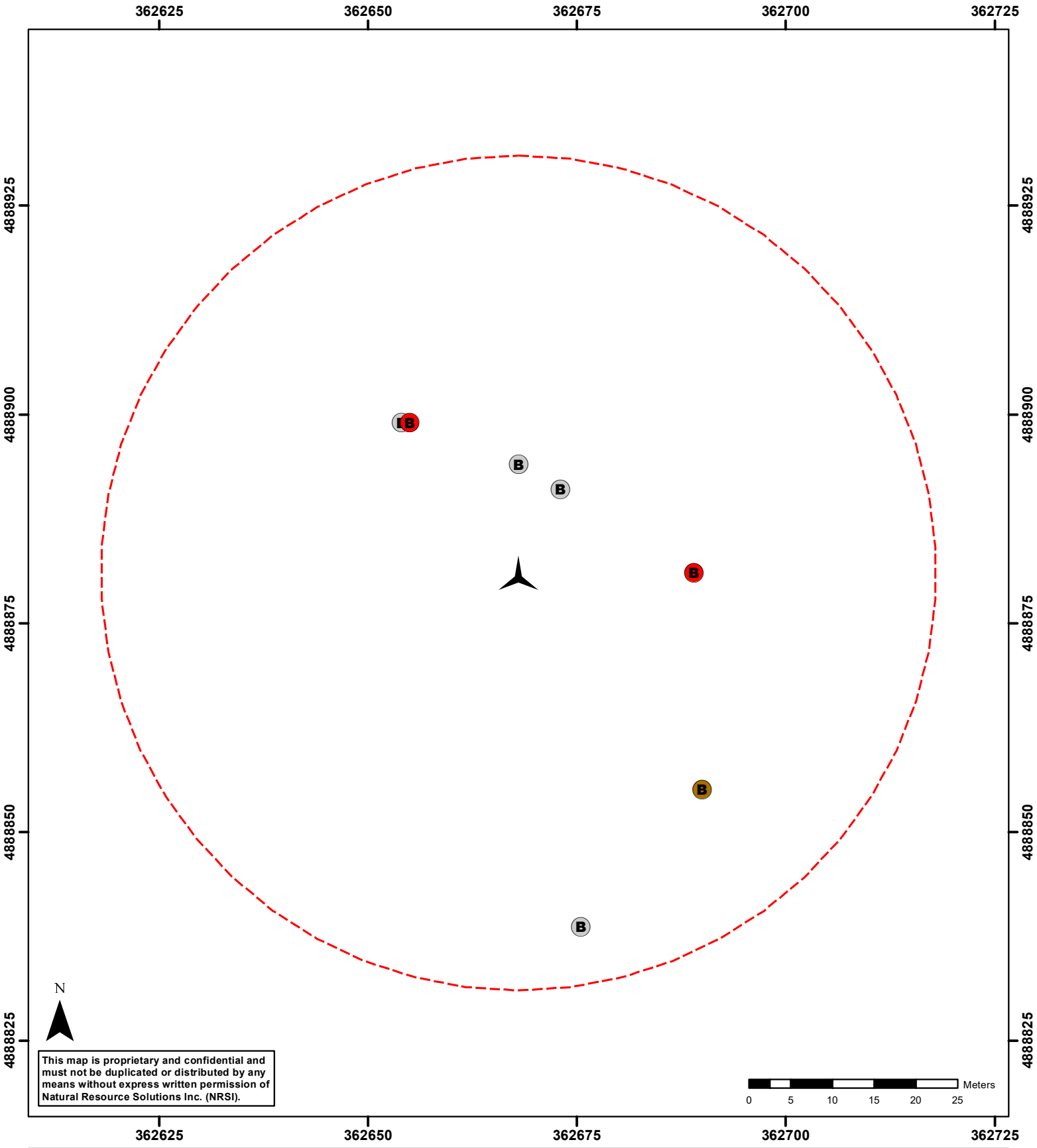
Amherst Island WP

Turbine S03 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius
- Big Brown Bat
- Eastern Red Bat
- Silver-haired Bat

Appendix V

Amherst Island WP

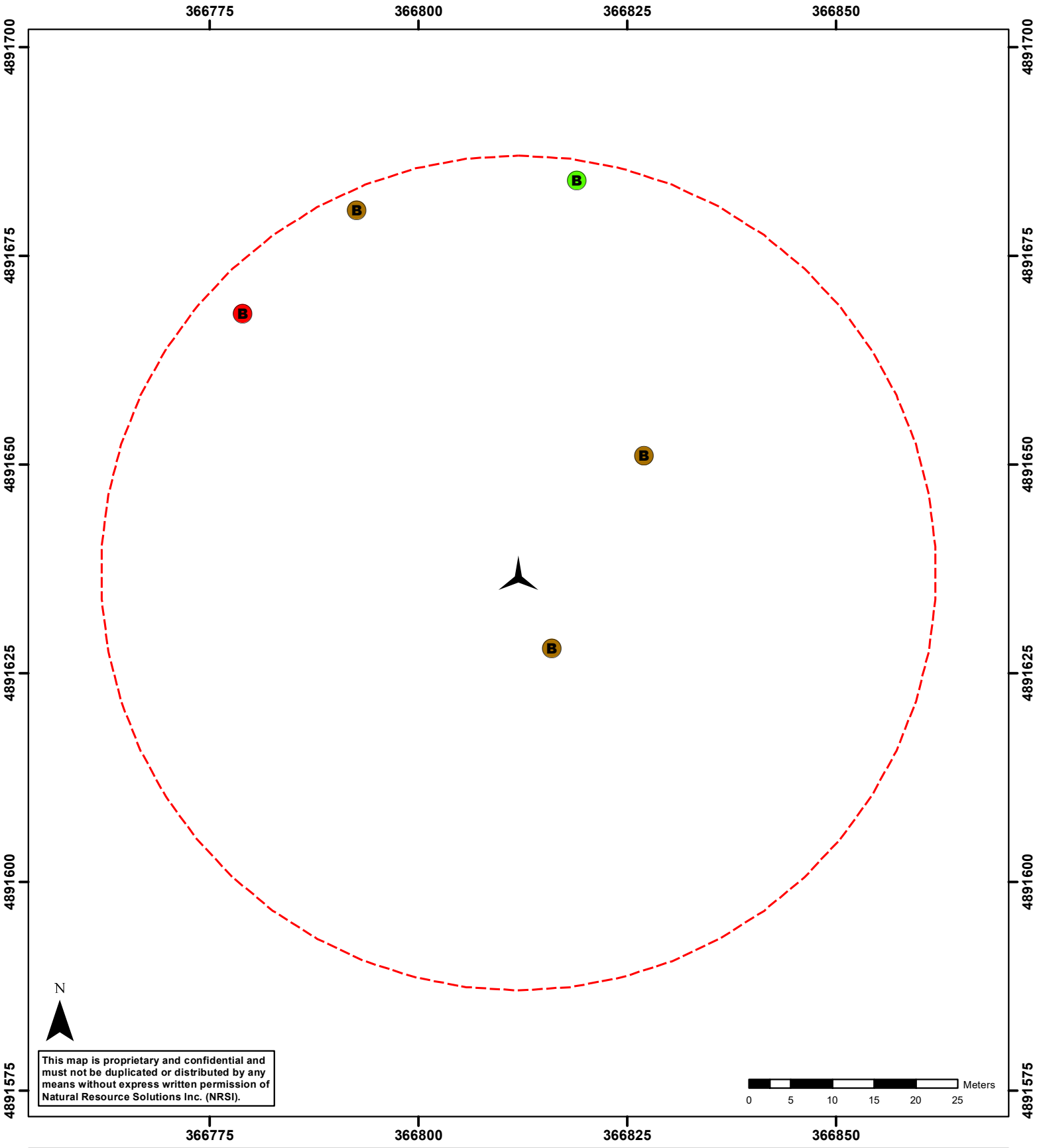
Turbine S05 Mortalities 2022

NAD83 - UTM Zone 18
Scale: 1:600 (8.5x11")

Date: March 2, 2023
Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius
- Big Brown Bat
- Eastern Red Bat
- Hoary Bat

Appendix V

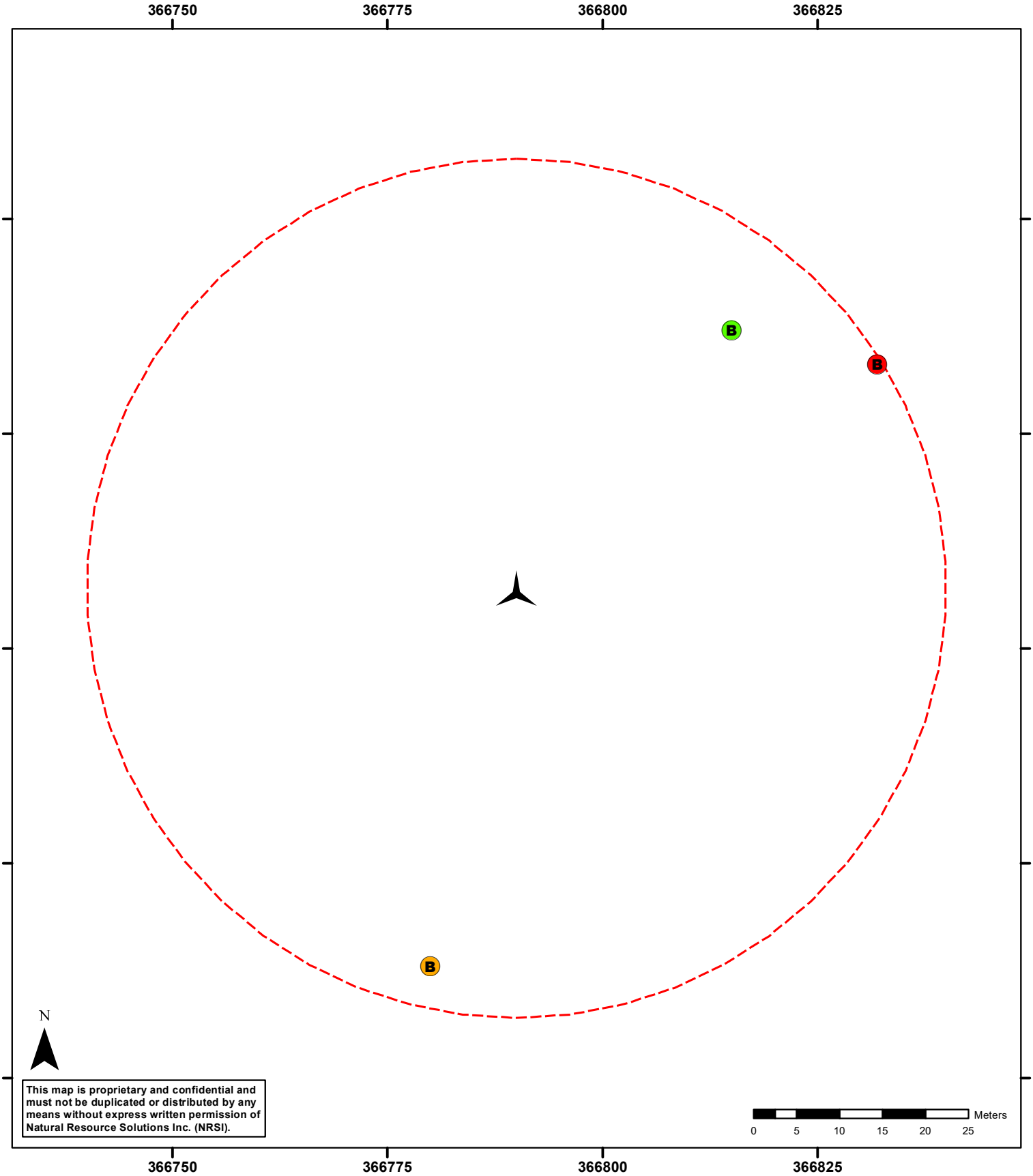
Amherst Island WP

Turbine S07 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius
- B — Eastern Red Bat
- B — Hoary Bat
- B — Little Brown Myotis

Appendix V

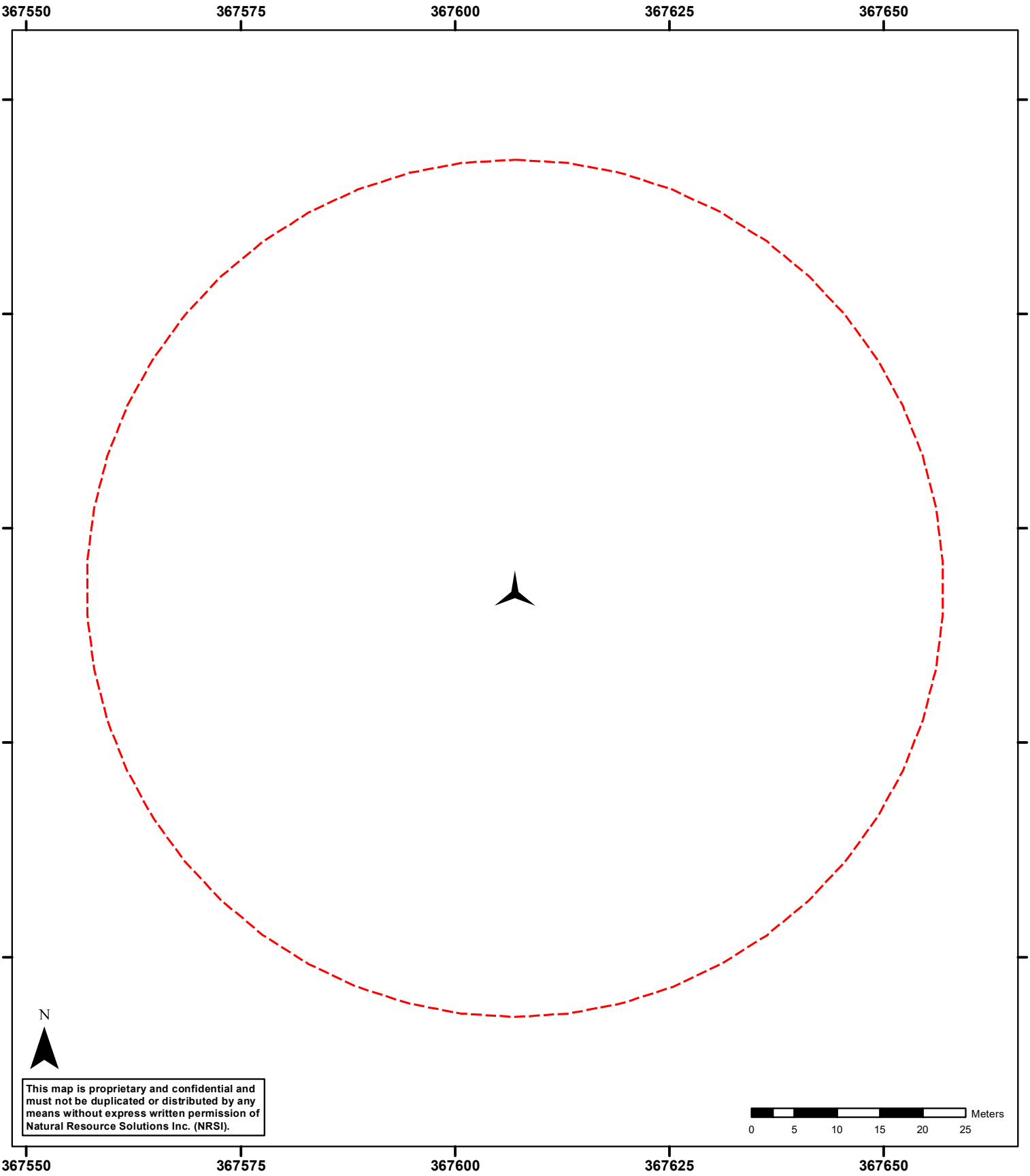
Amherst Island WP

Turbine S14 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius

Appendix V

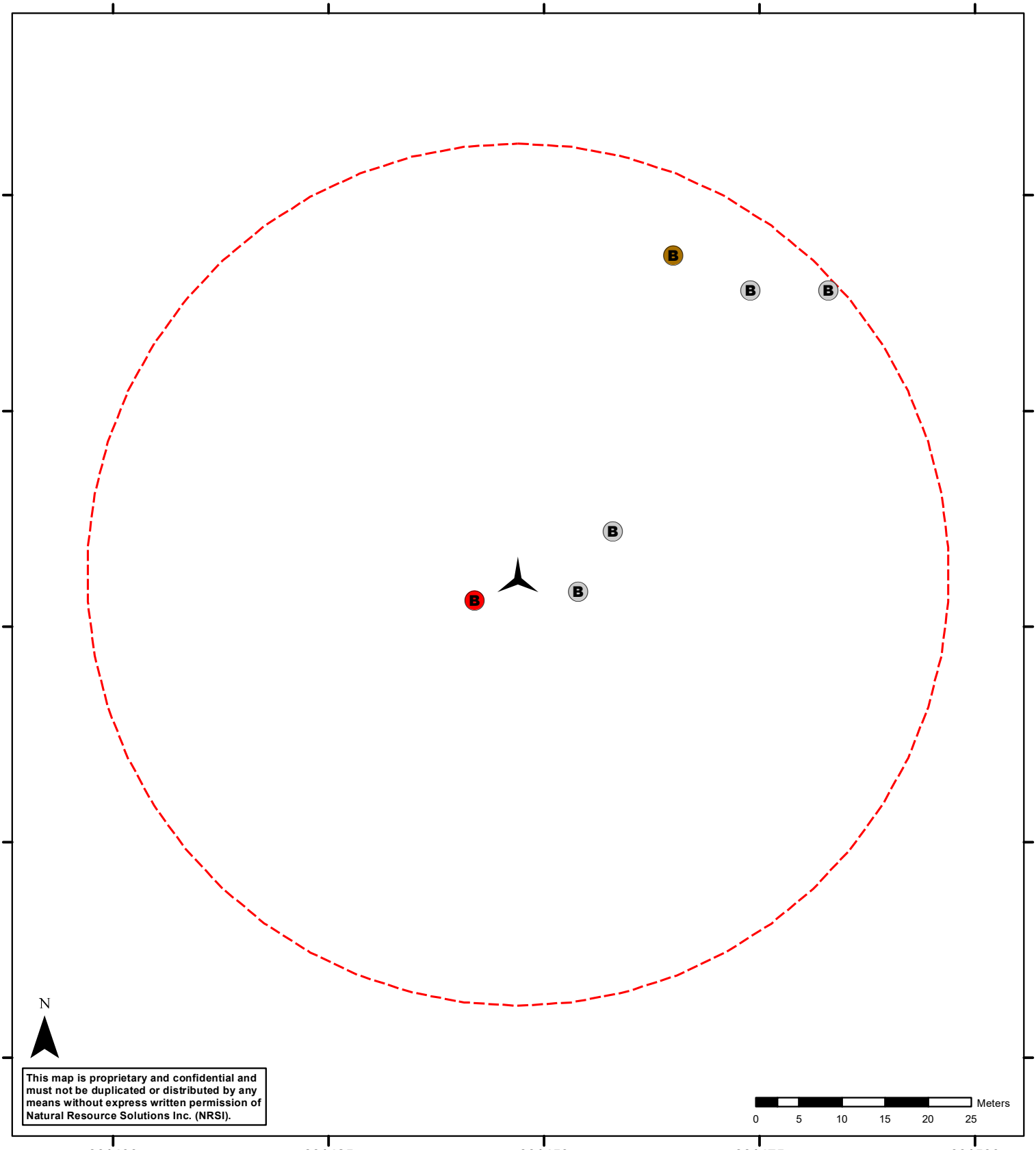
Amherst Island WP

Turbine S18 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius
- Big Brown Bat
- Eastern Red Bat
- Silver-haired Bat

Appendix V

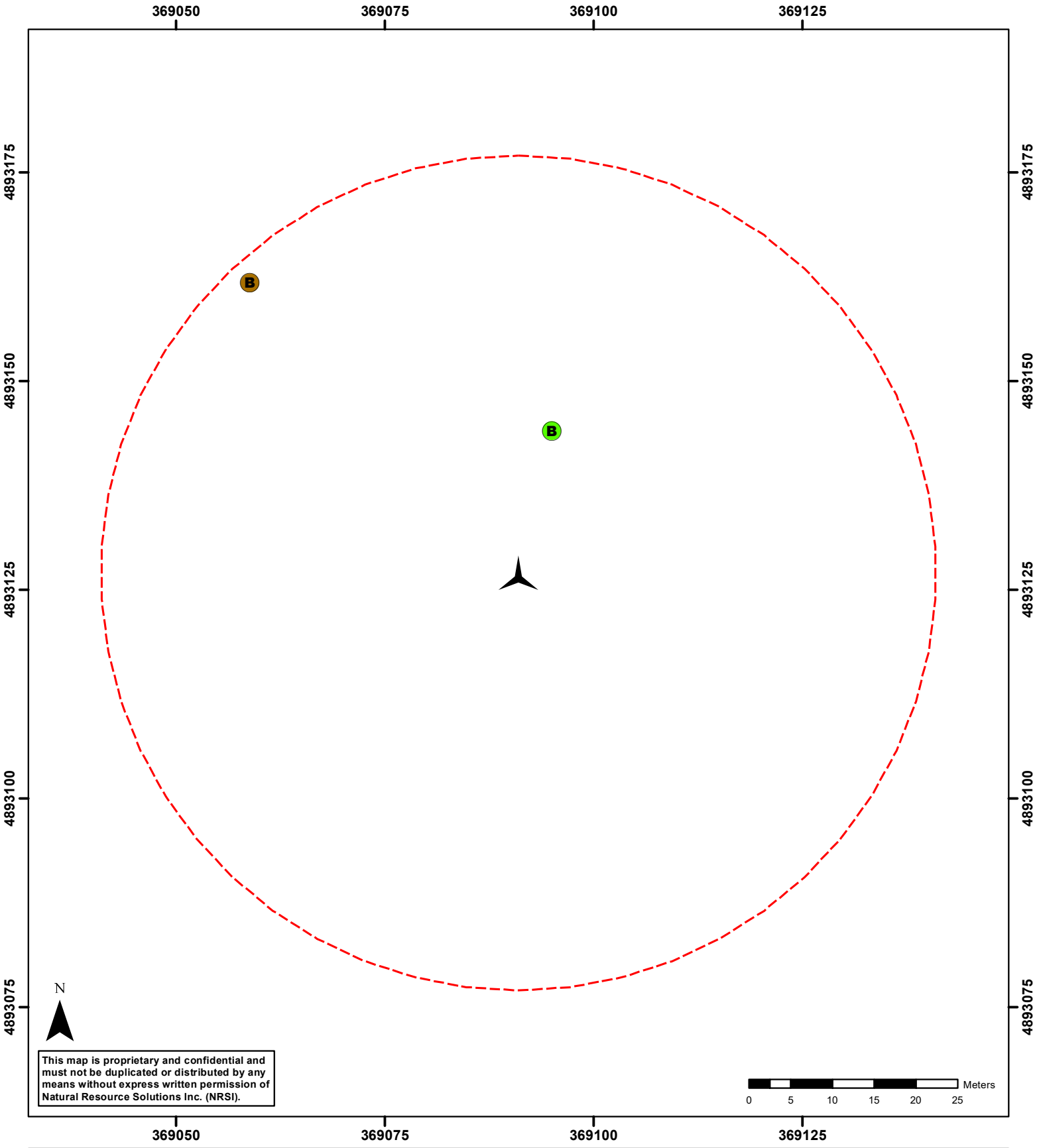
Amherst Island WP

Turbine S22 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius
- Big Brown Bat
- Hoary Bat

Appendix V

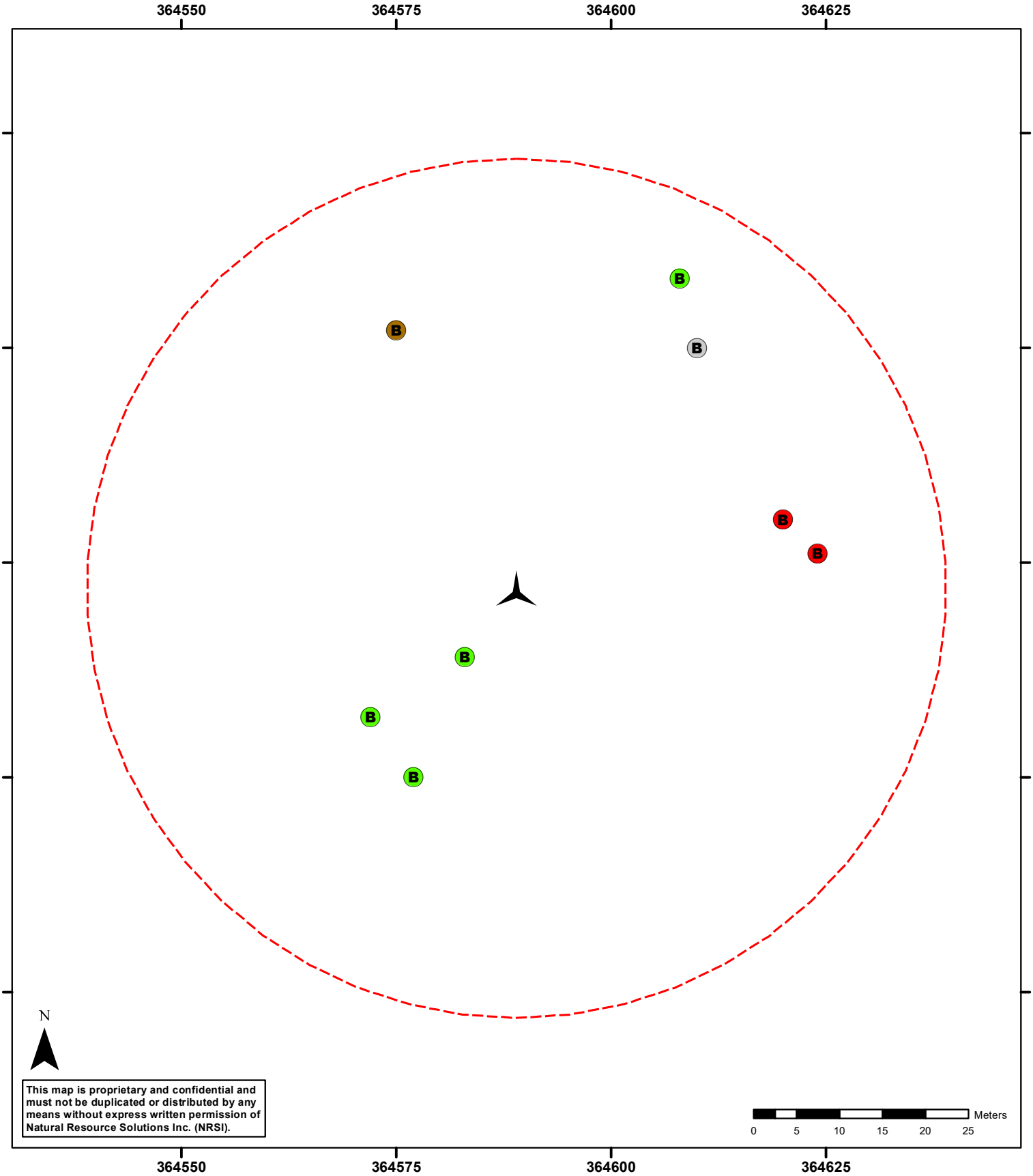
Amherst Island WP

Turbine S28 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd



Legend

- Turbine
- Search Radius
- Big Brown Bat
- Eastern Red Bat
- Hoary Bat
- Silver-haired Bat

Appendix V

Amherst Island WP

Turbine S36 Mortalities 2022

NAD83 - UTM Zone 18 Scale: 1:600 (8.5x11")	Date: March 2, 2023 Project: 2121H

Natural Resource Solutions Inc.
Aquatic, Terrestrial and Wetland Biologists

Path: X:\2121_AmherstIslandWP\NRSI_2121H_AppendV_TurbineMortalities2022_2023_03_02_JAS.mxd

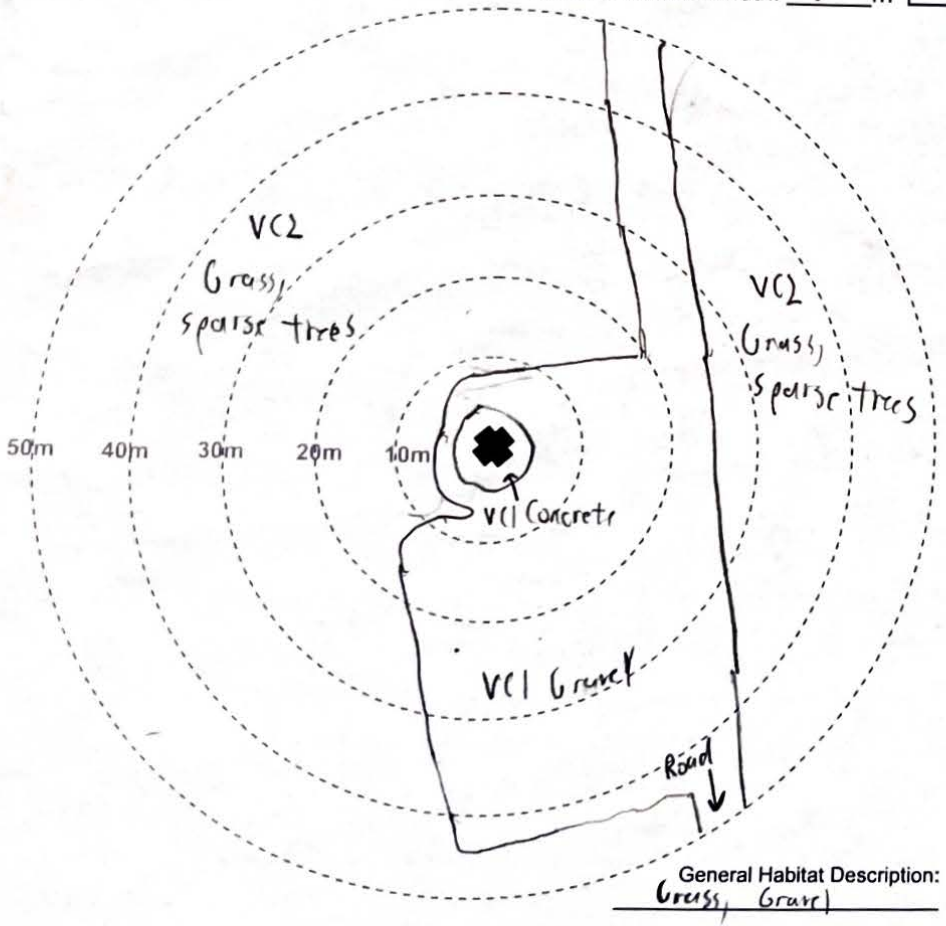
Appendix VI
Visibility Class Mapping

Visibility Class Map

Project Name: Amherst Island Wind **Project #:** 2621H **Turbine #:** S01 **Degree of Slope** +0.5 **degrees** **Slope Orientation** N (e.g. SSW)

Photo Numbers (from turbine base)
Facing North: 11
Facing East: 12
Facing South: 13
Facing West: 14
(sketch habitat and visibility classes)

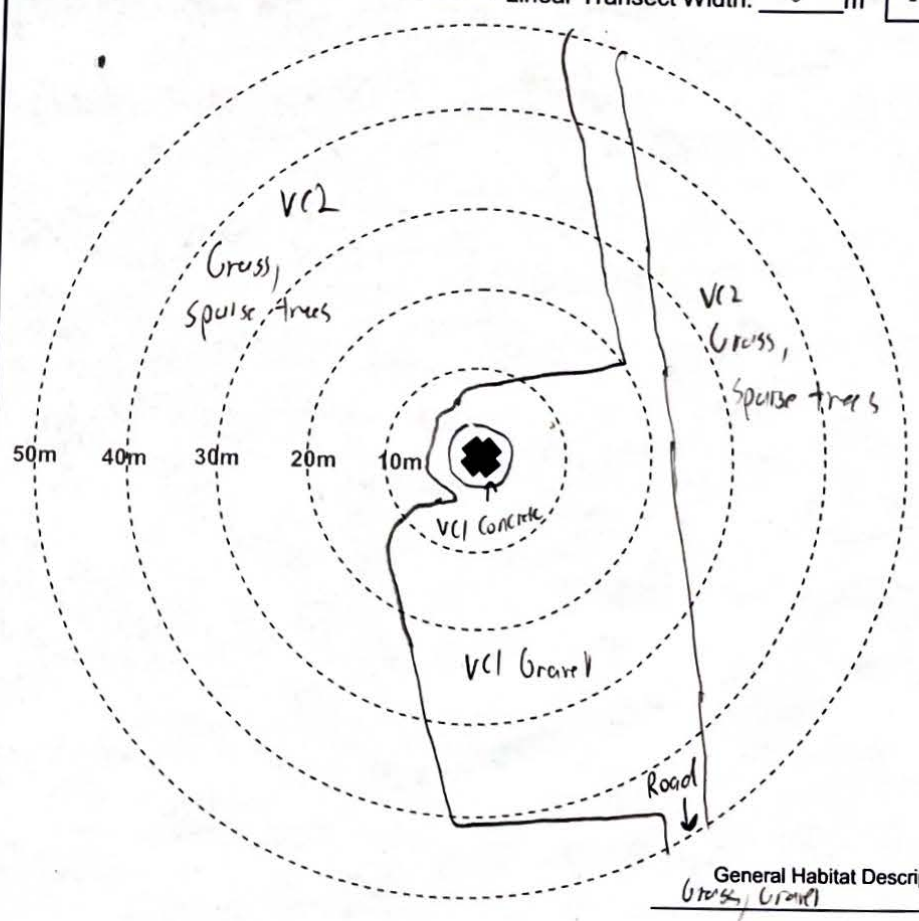
Date (DD/MM/YY): 09/05/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Grass, Gravel

Photo Numbers (from turbine base)
Facing North: 13
Facing East: 14
Facing South: 15
Facing West: 16
(sketch habitat and visibility classes)

Date (DD/MM/YY): 06/06/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Grass, Gravel

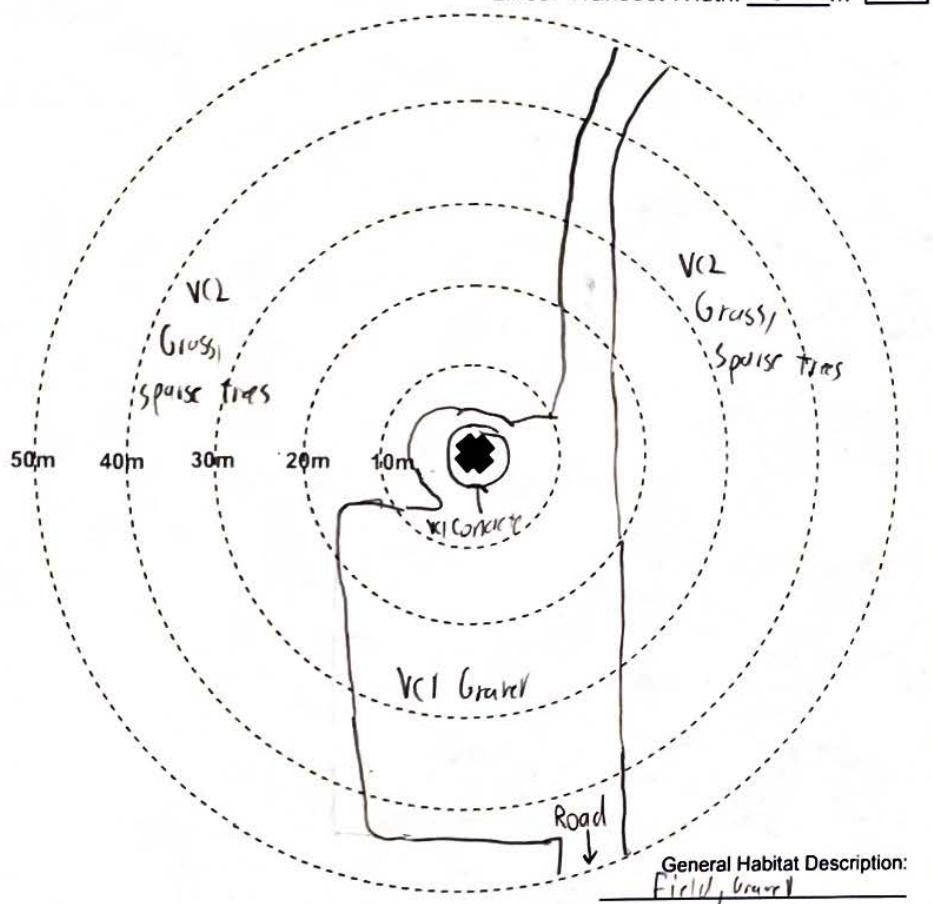
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall

Visibility Class Map

Project Name: AIWP **Project #:** 2121H **Turbine #:** SD1

Photo Numbers (from turbine base)
Facing North: 09
Facing East: 10
Facing South: 11
Facing West: 12
(sketch habitat and visibility classes)

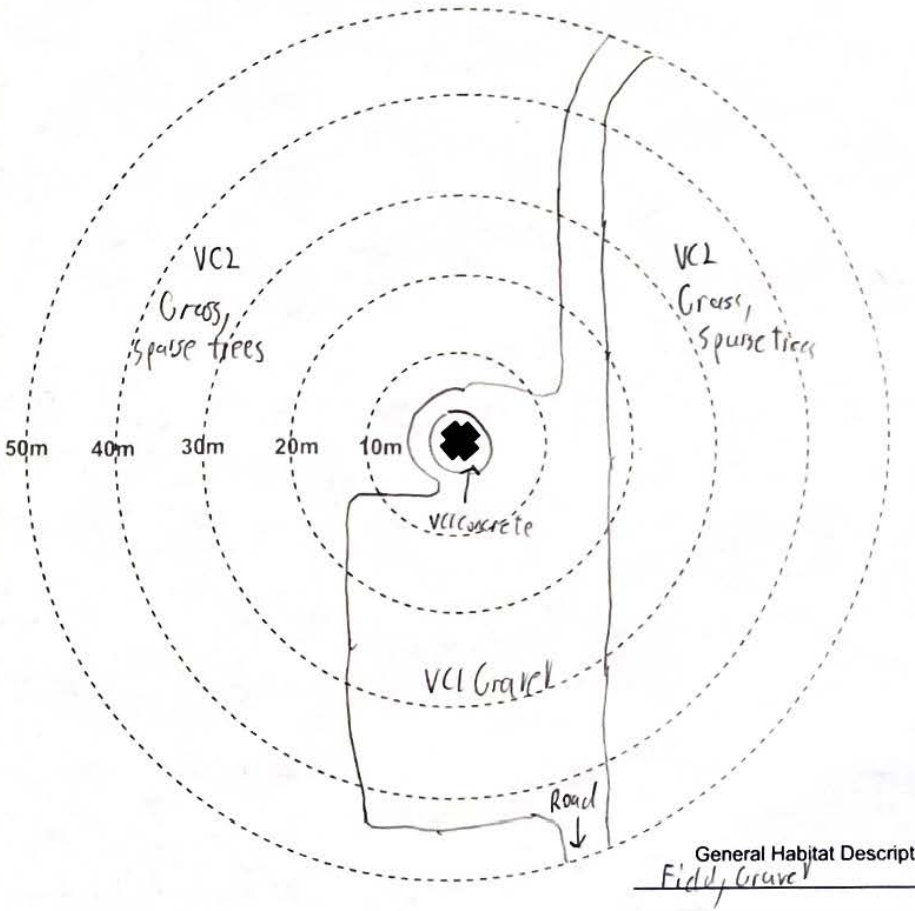
Date (DD/MM/YY): 11/07/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

Photo Numbers (from turbine base)
Facing North: 13
Facing East: 14
Facing South: 15
Facing West: 16
(sketch habitat and visibility classes)

Date (DD/MM/YY): 08/08/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

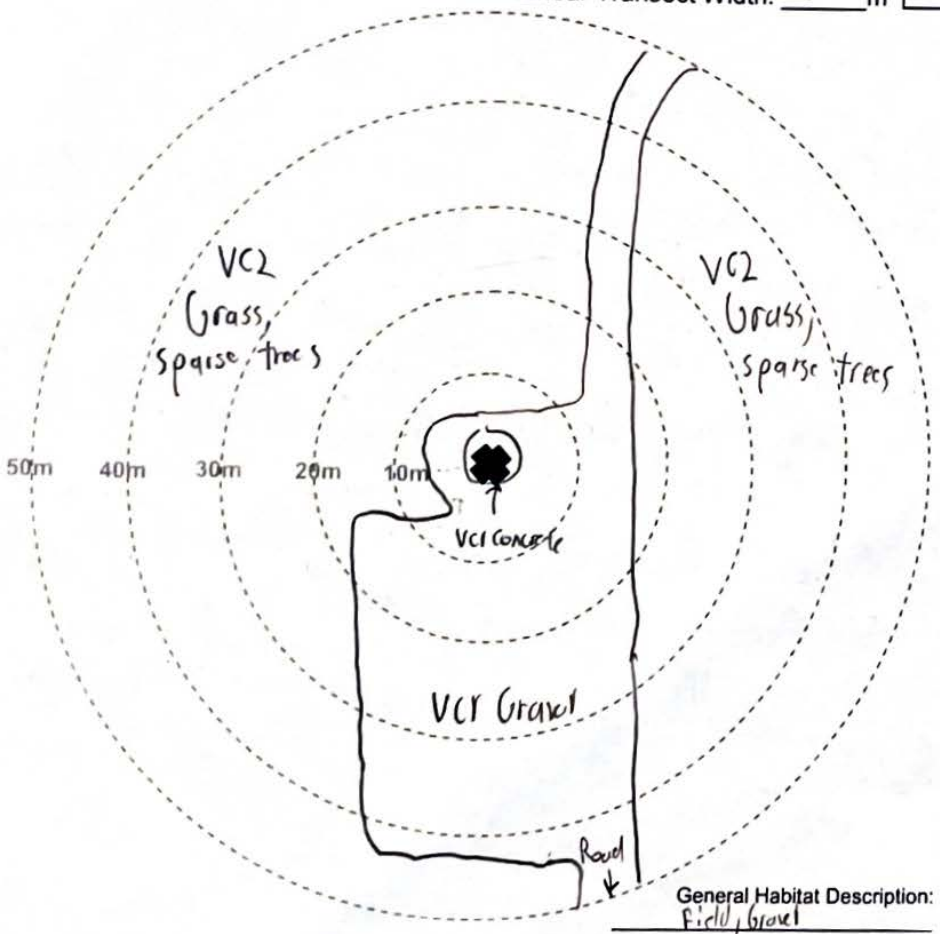
Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S01

Photo Numbers (from turbine base)
Facing North: 13
Facing East: 14
Facing South: 15
Facing West: 16
(sketch habitat and visibility classes)

Date (DD/MM/YY): 12/09/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



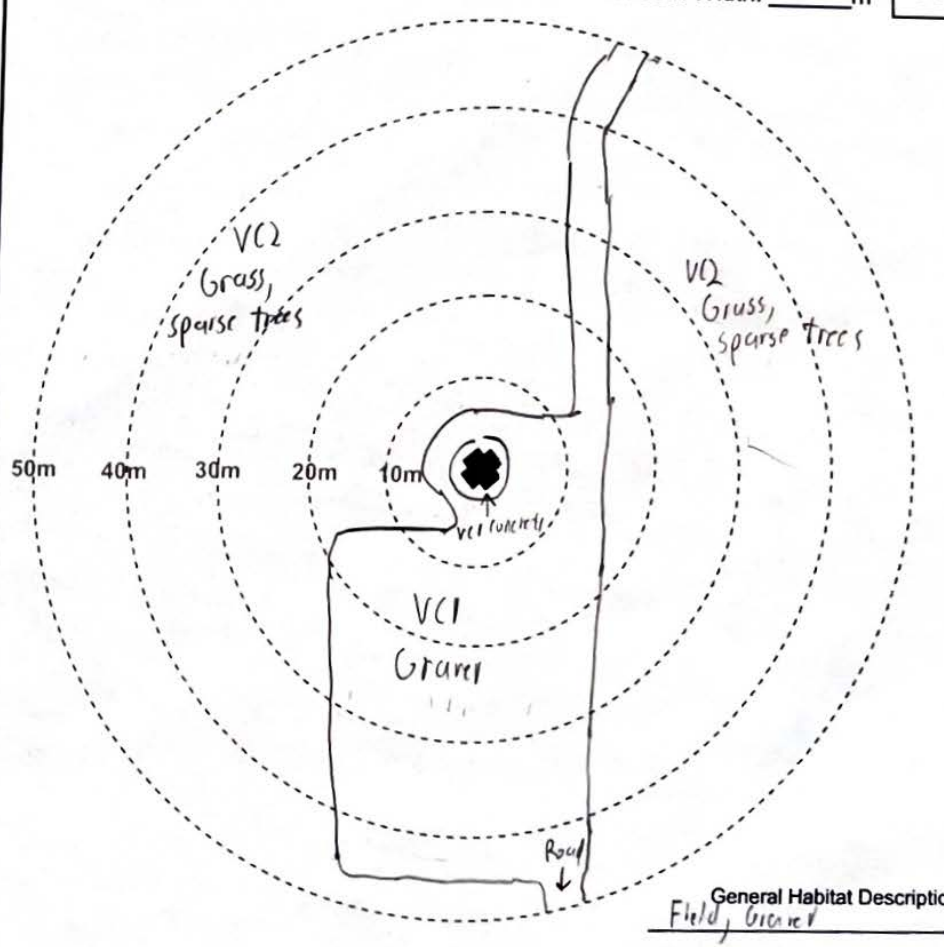
General Habitat Description: Field, Gravel

Photo Numbers (from turbine base)
Facing North: 11
Facing East: 12
Facing South: 13
Facing West: 14
(sketch habitat and visibility classes)

Date (DD/MM/YY): 17/10/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S02 **Degree of Slope** +1.75 **degrees** **Slope Orientation** SE (e.g. SSW)

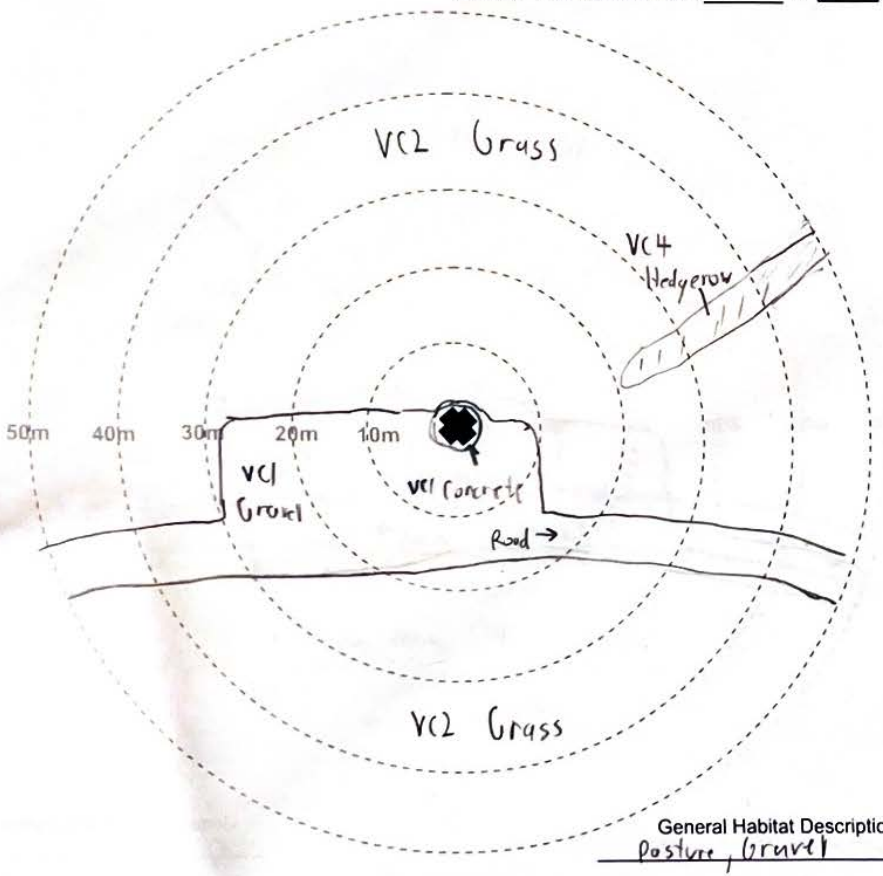
Photo Numbers (from turbine base)
Facing North: 03
Facing East: 04
Facing South: 05
Facing West: 06
(sketch habitat and visibility classes)

Date (DD/MM/YY): 12/05/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Pasture, Gravel

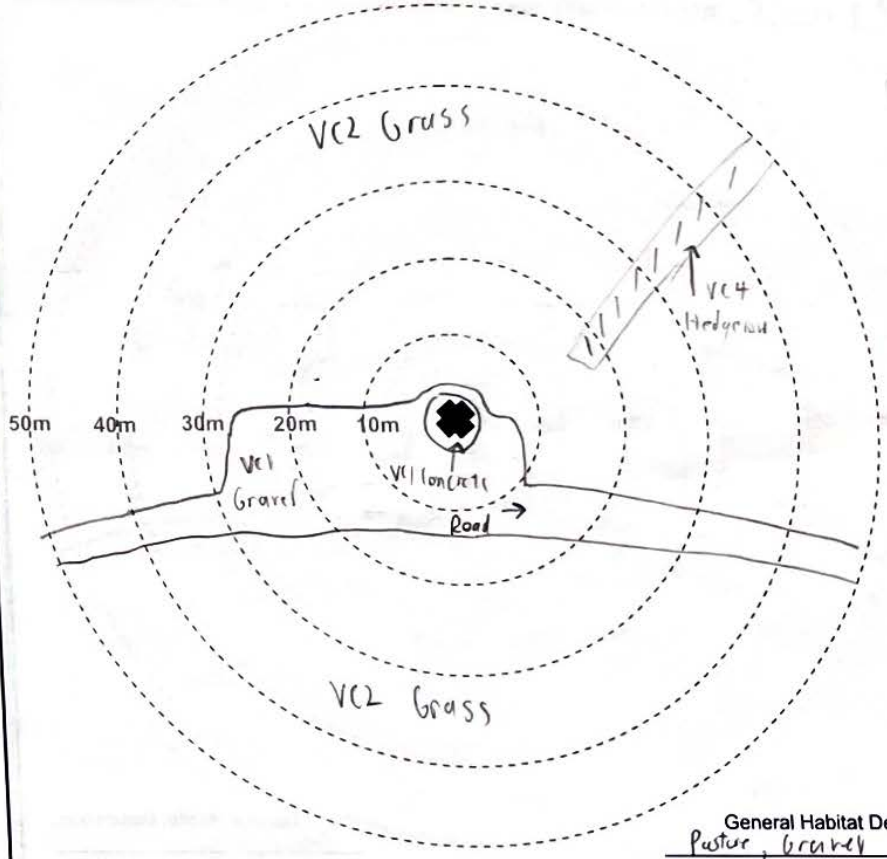
Photo Numbers (from turbine base)
Facing North: 03
Facing East: 04
Facing South: 05
Facing West: 06
(sketch habitat and visibility classes)

Date (DD/MM/YY): 09/06/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Pasture, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** SD2

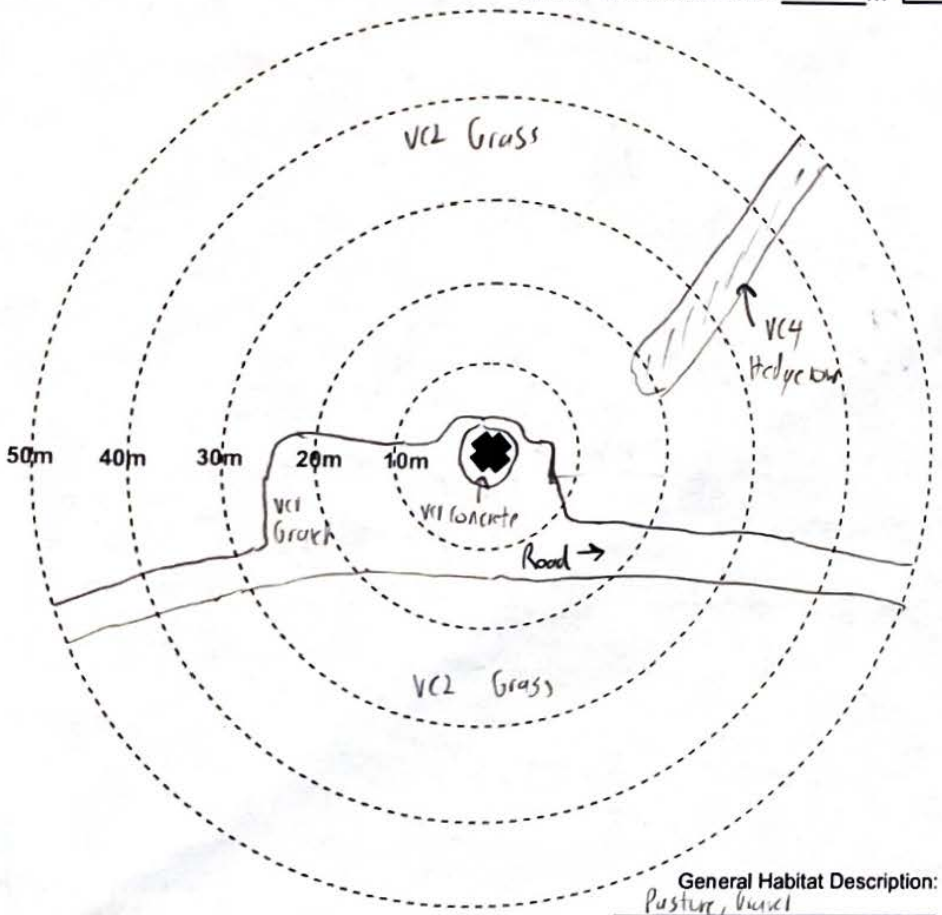
Photo Numbers (from turbine base)
Facing North: 31
Facing East: 32
Facing South: 33
Facing West: 34
(sketch habitat and visibility classes)

Date (DD/MM/YY): 11/07/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Pasture, Gravel

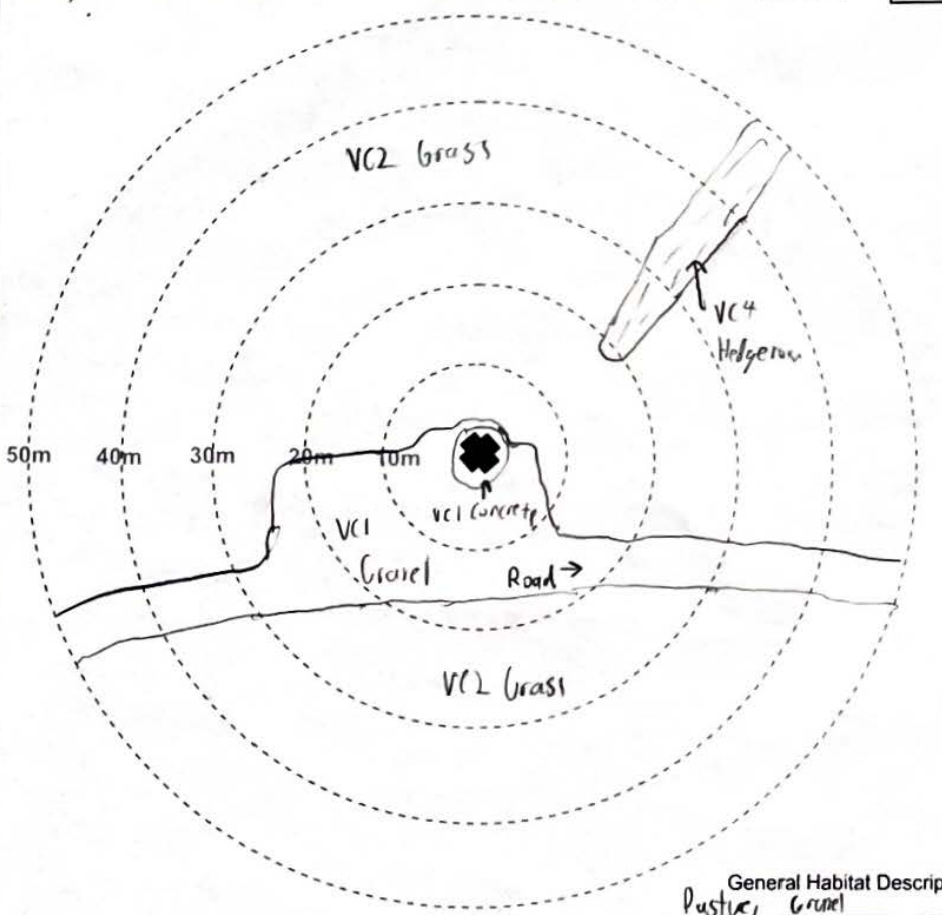
Photo Numbers (from turbine base)
Facing North: 09
Facing East: 10
Facing South: 11
Facing West: 12
(sketch habitat and visibility classes)

Date (DD/MM/YY): 15/08/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Pasture, Gravel

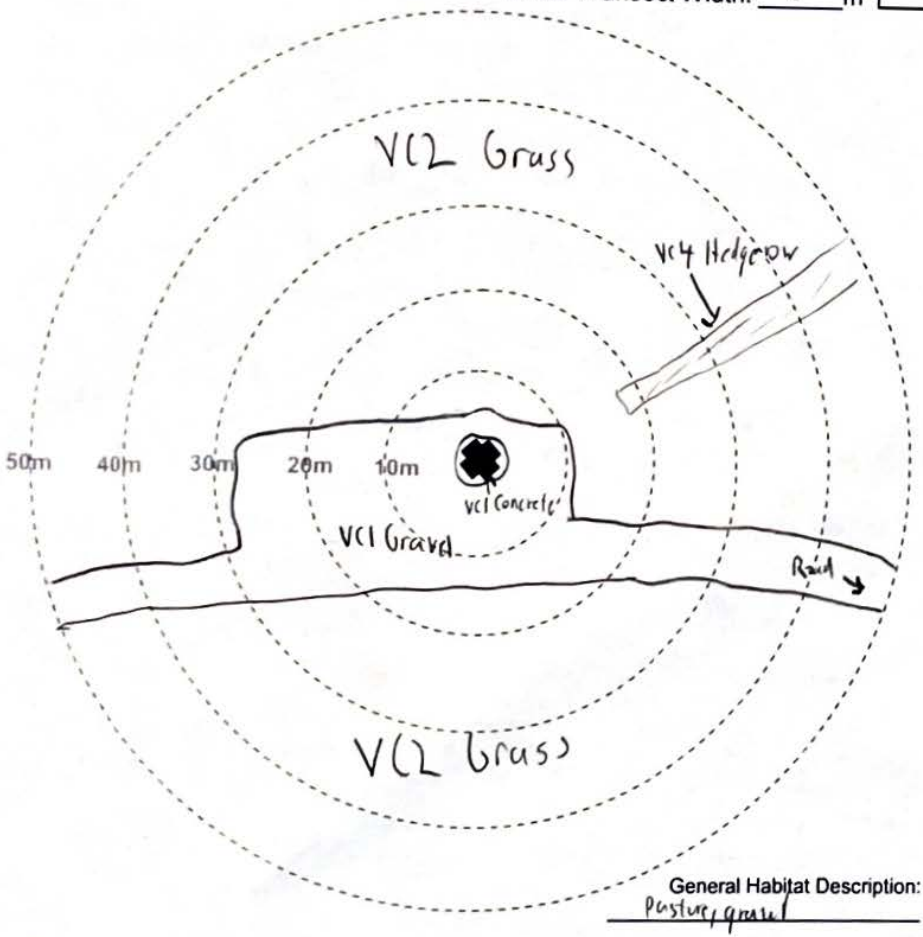
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21214 **Turbine #:** S02

Photo Numbers (from turbine base)
Facing North: 05
Facing East: 06
Facing South: 07
Facing West: 08
(sketch habitat and visibility classes)

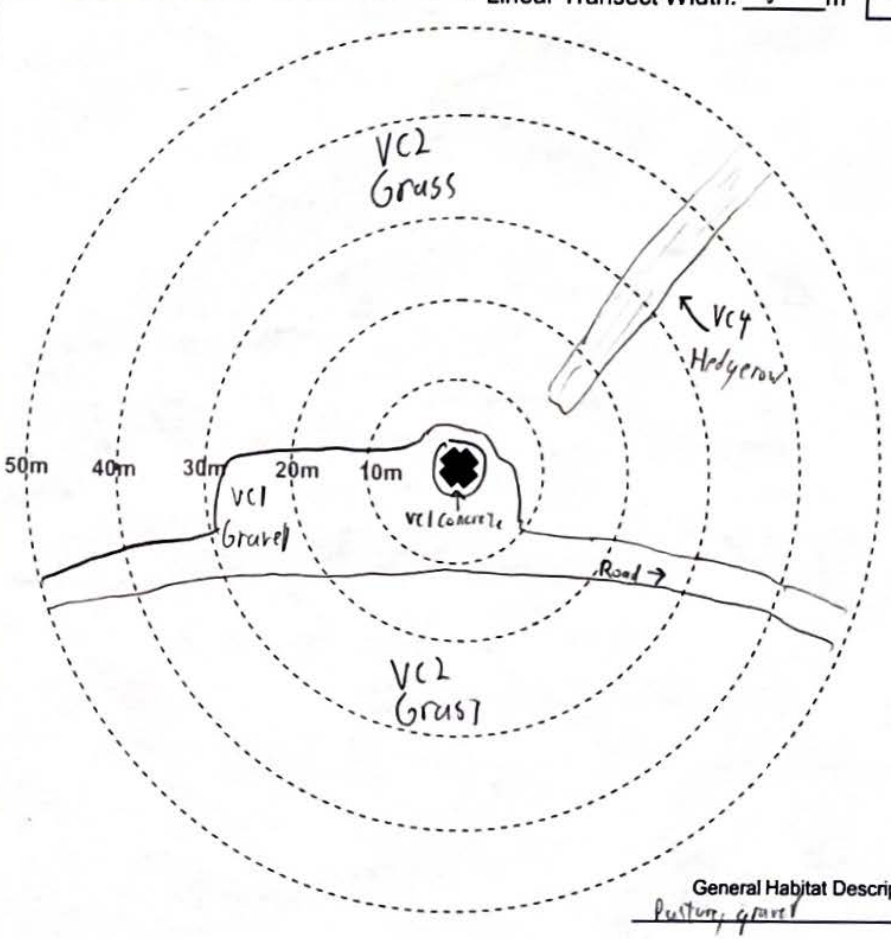
Date (DD/MM/YY): 15/09/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture, gravel

Photo Numbers (from turbine base)
Facing North: 01
Facing East: 02
Facing South: 03
Facing West: 04
(sketch habitat and visibility classes)

Date (DD/MM/YY): 20/10/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture, gravel

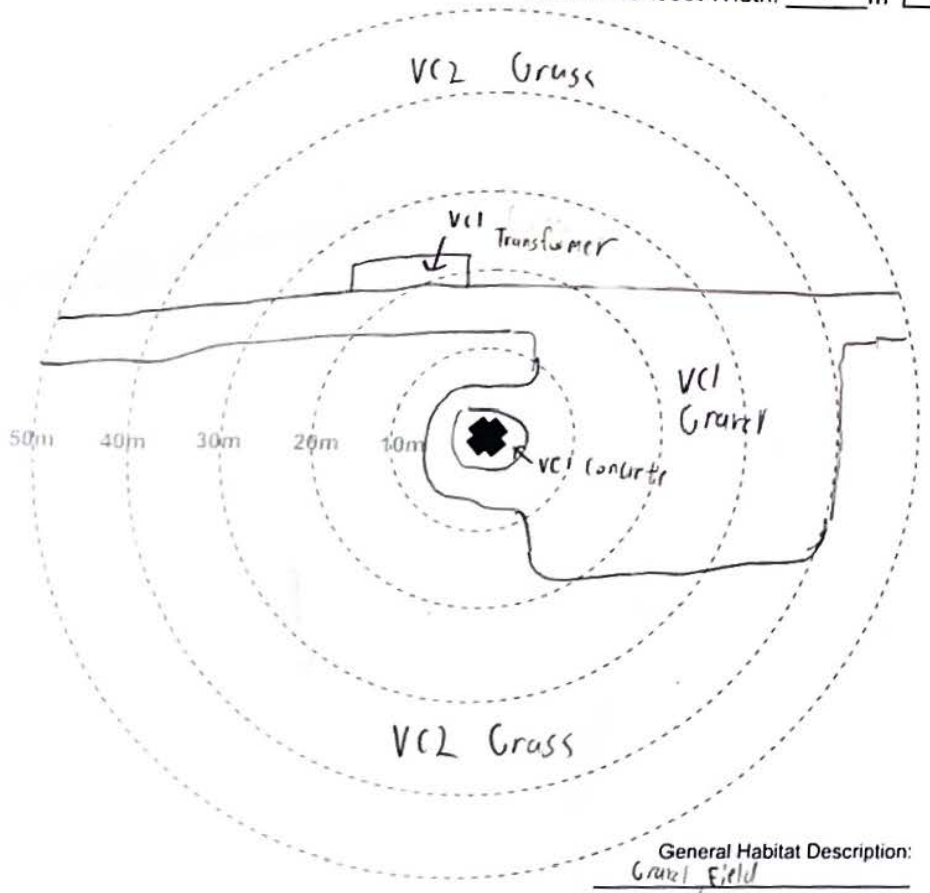
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21211 **Turbine #:** S03 **Degree of Slope** +2.0 degrees **Slope Orientation** SW (e.g. SSW)

Photo Numbers (from turbine base)
Facing North: 15
Facing East: 16
Facing South: 17
Facing West: 18
(sketch habitat and visibility classes)

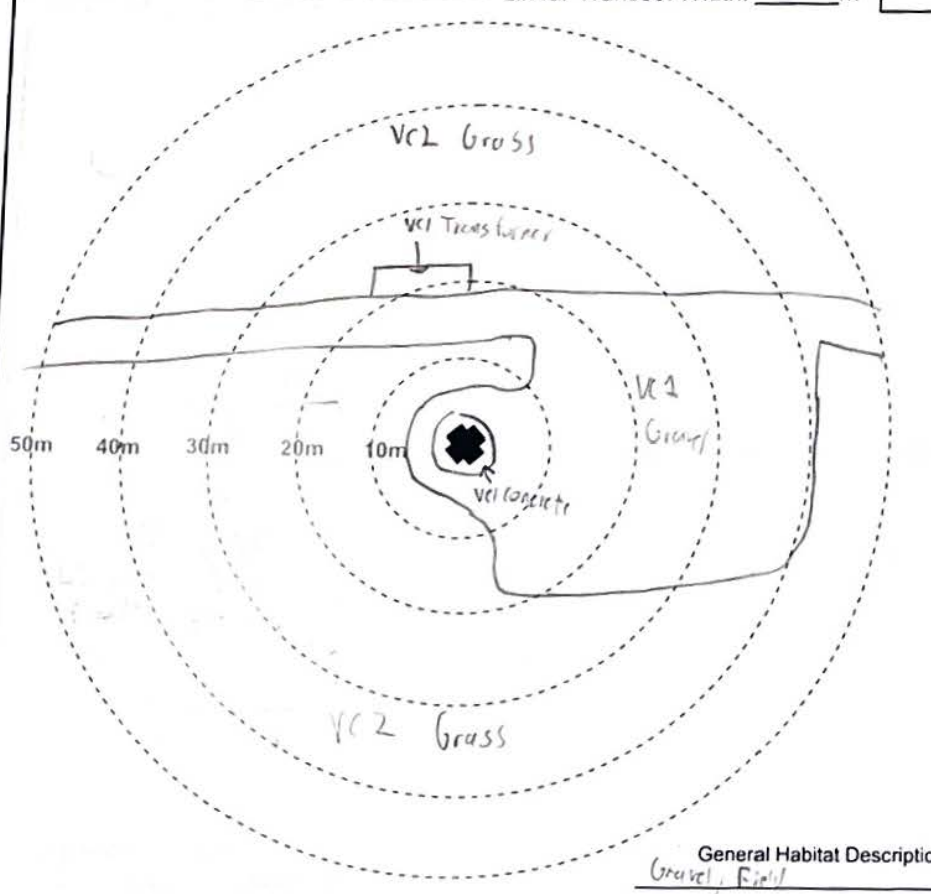
Date (DD/MM/YY): 09/05/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Gravel Field

Photo Numbers (from turbine base)
Facing North: 17
Facing East: 18
Facing South: 19
Facing West: 20
(sketch habitat and visibility classes)

Date (DD/MM/YY): 06/06/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Gravel Field

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

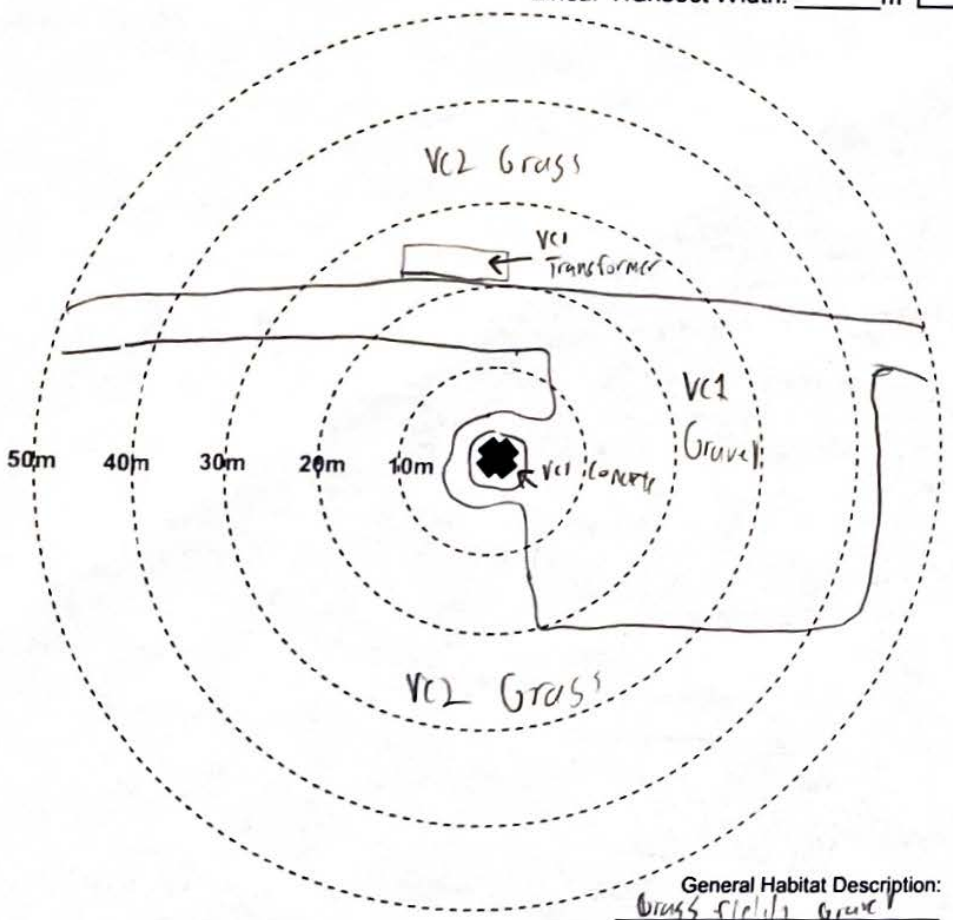
Project Name: Amherst Island WP **Project #:** 21211 **Turbine #:** S03

Photo Numbers (from turbine base)
Facing North: 13
Facing East: 14
Facing South: 15
Facing West: 16
(sketch habitat and visibility classes)

Date (DD/MM/YY): 11/07/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



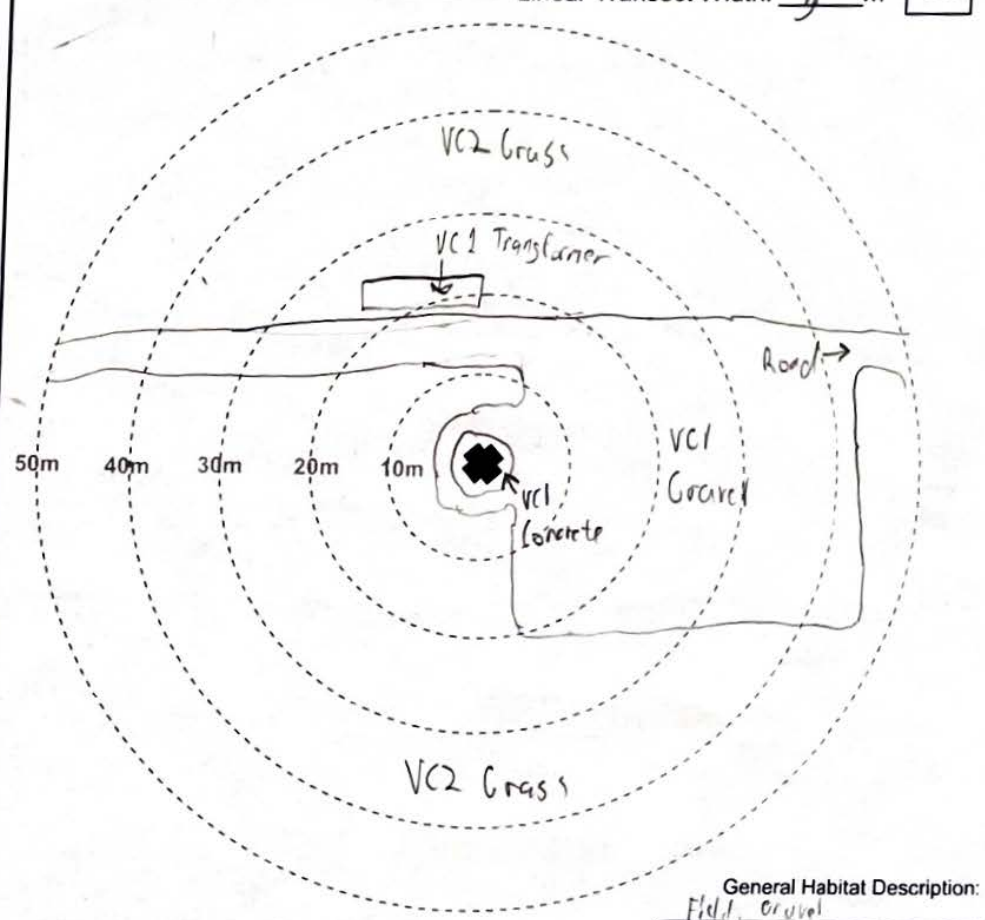
General Habitat Description: Grass field, Gravel

Photo Numbers (from turbine base)
Facing North: 17
Facing East: 18
Facing South: 19
Facing West: 20
(sketch habitat and visibility classes)

Date (DD/MM/YY): 08/08/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S03

Photo Numbers (from turbine base)	
Facing North:	17
Facing East:	18
Facing South:	19
Facing West:	20

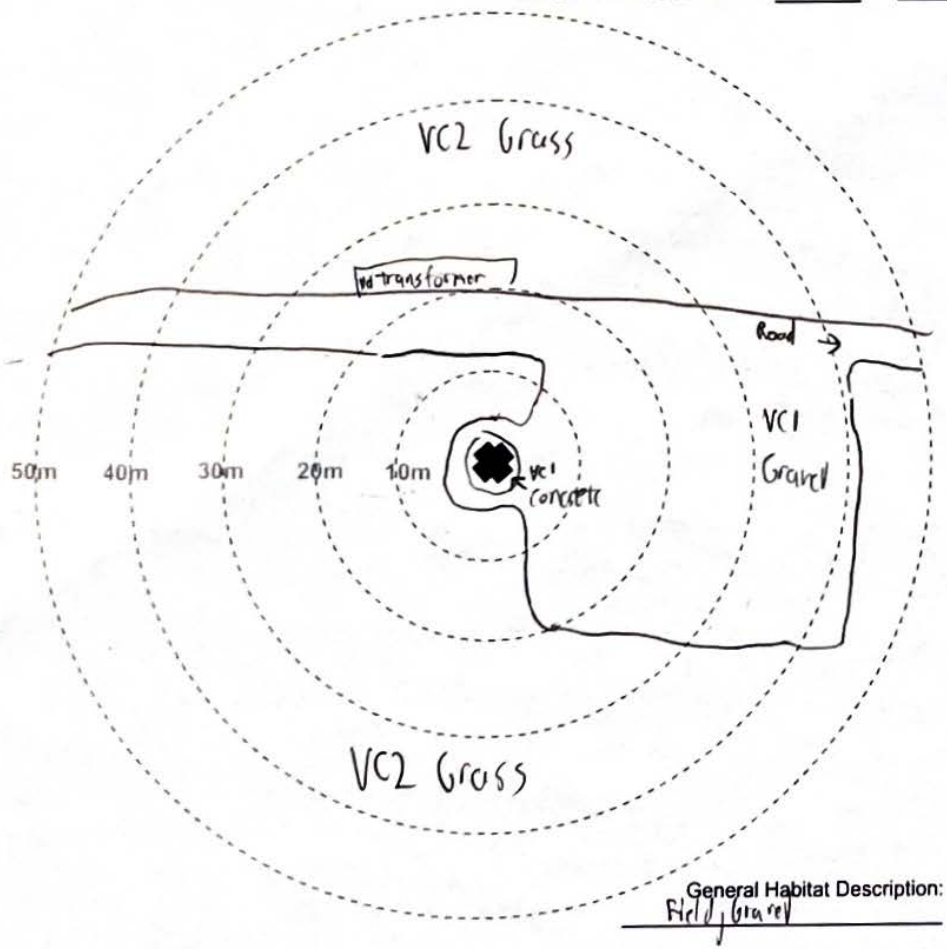
(sketch habitat and visibility classes)

Date (DD/MM/YY): 12/09/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

Photo Numbers (from turbine base)	
Facing North:	15
Facing East:	16
Facing South:	17
Facing West:	18

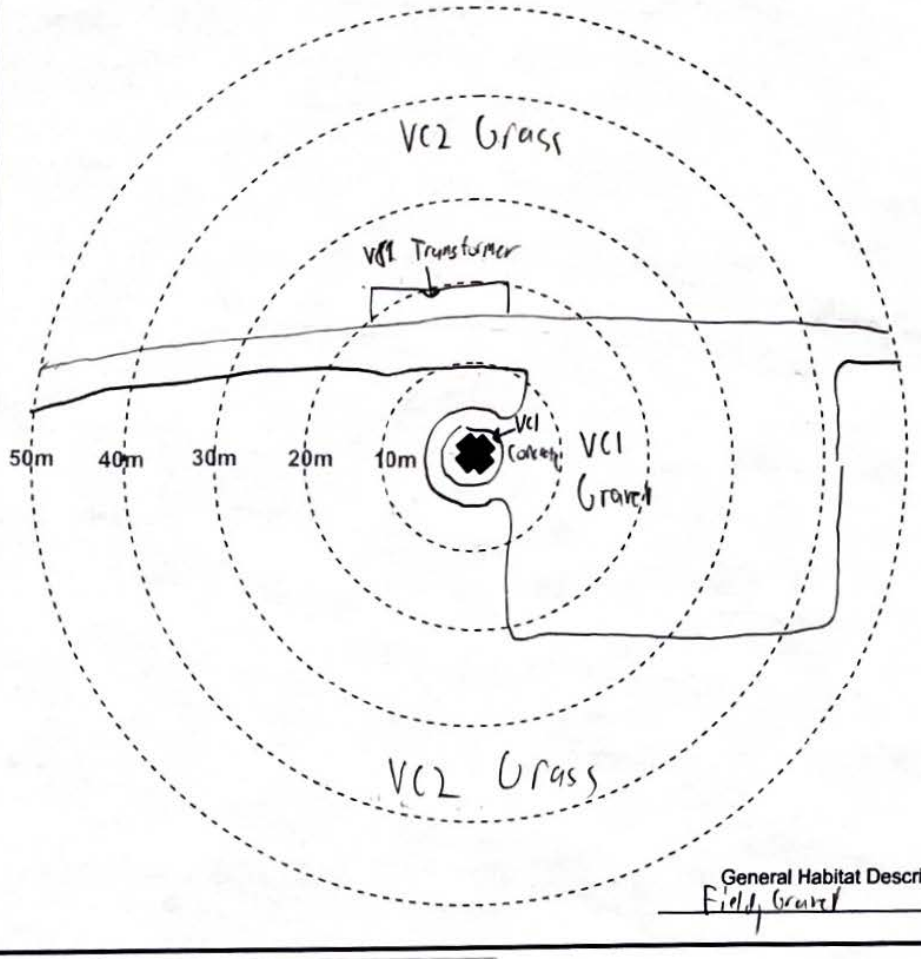
(sketch habitat and visibility classes)

Date (DD/MM/YY): 17/10/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

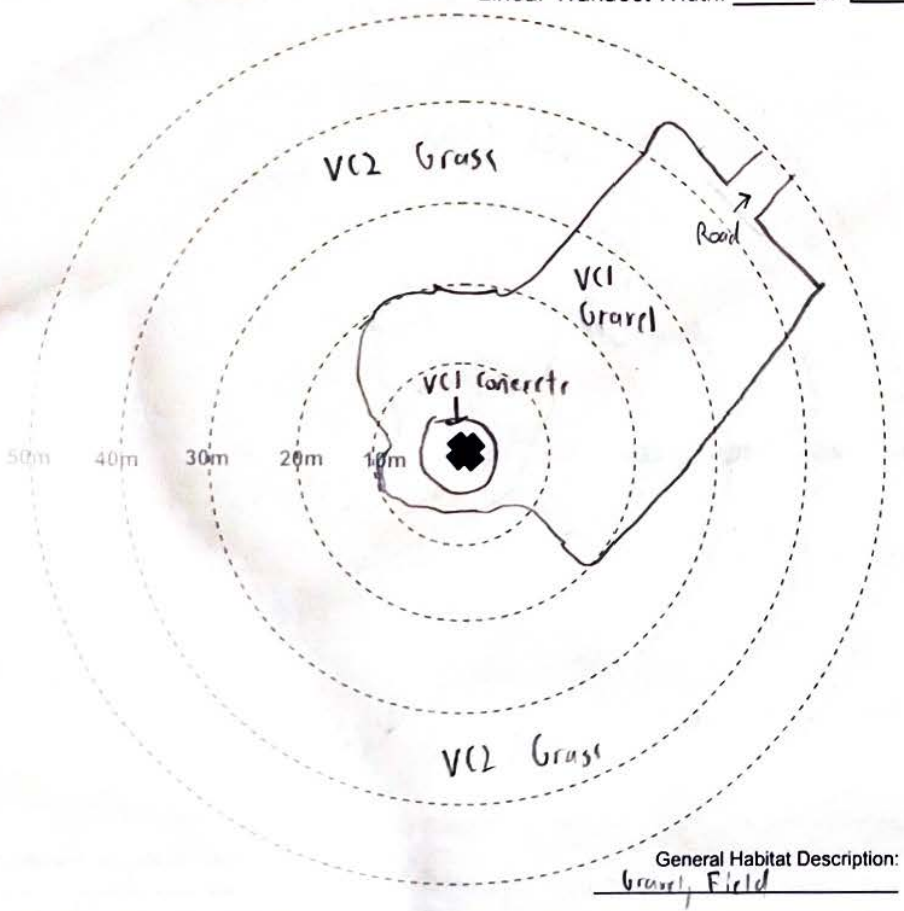
Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21214 **Turbine #:** S05 **Degree of Slope** +1.5 **degrees** **Slope Orientation** S (e.g. SSW)

Photo Numbers (from turbine base)
Facing North: 01
Facing East: 02
Facing South: 03
Facing West: 04
(sketch habitat and visibility classes)

Date (DD/MM/YY): 09/05/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m

N

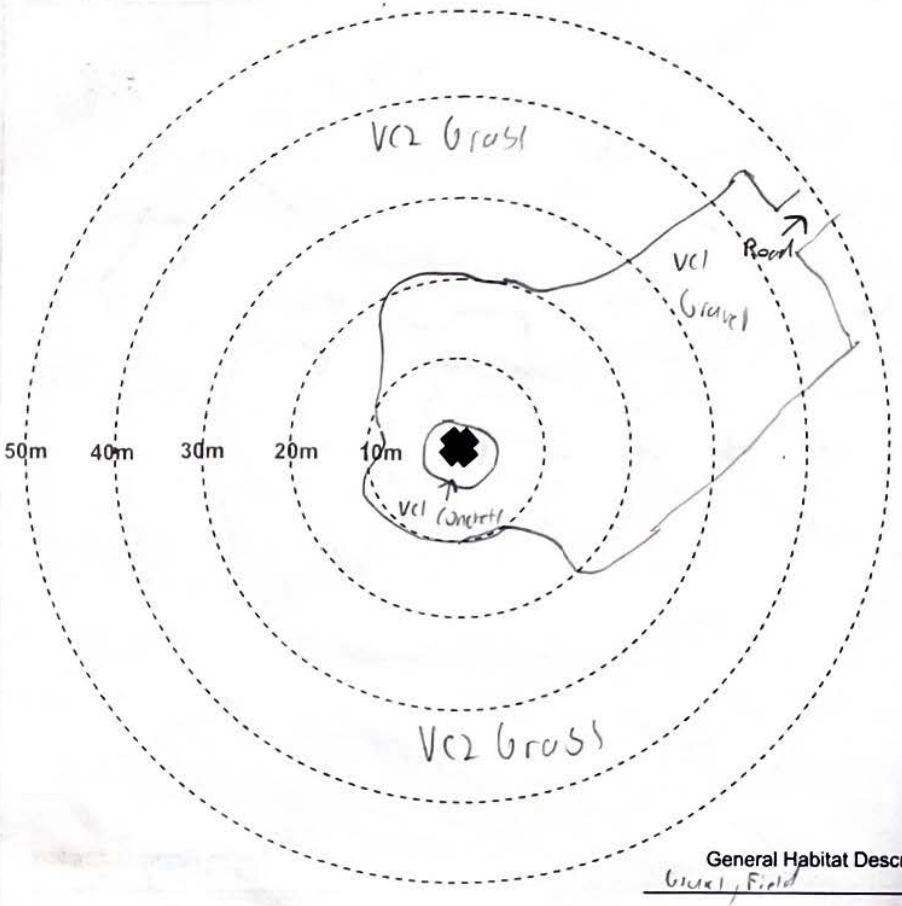


General Habitat Description: Gravel, Field

Photo Numbers (from turbine base)
Facing North: 01
Facing East: 02
Facing South: 03
Facing West: 04
(sketch habitat and visibility classes)

Date (DD/MM/YY): 06/06/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Gravel, Field

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

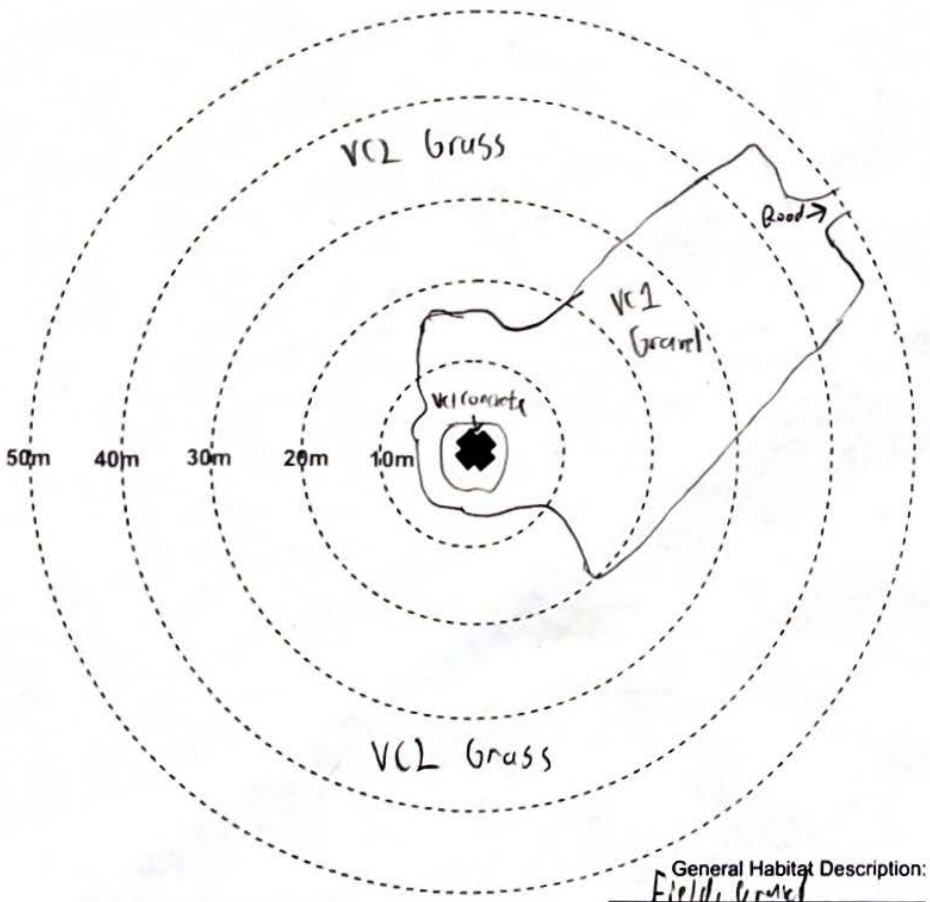
Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S05

Photo Numbers (from turbine base)
Facing North: 01
Facing East: 02
Facing South: 03
Facing West: 04
(sketch habitat and visibility classes)

Date (DD/MM/YY): 14/07/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



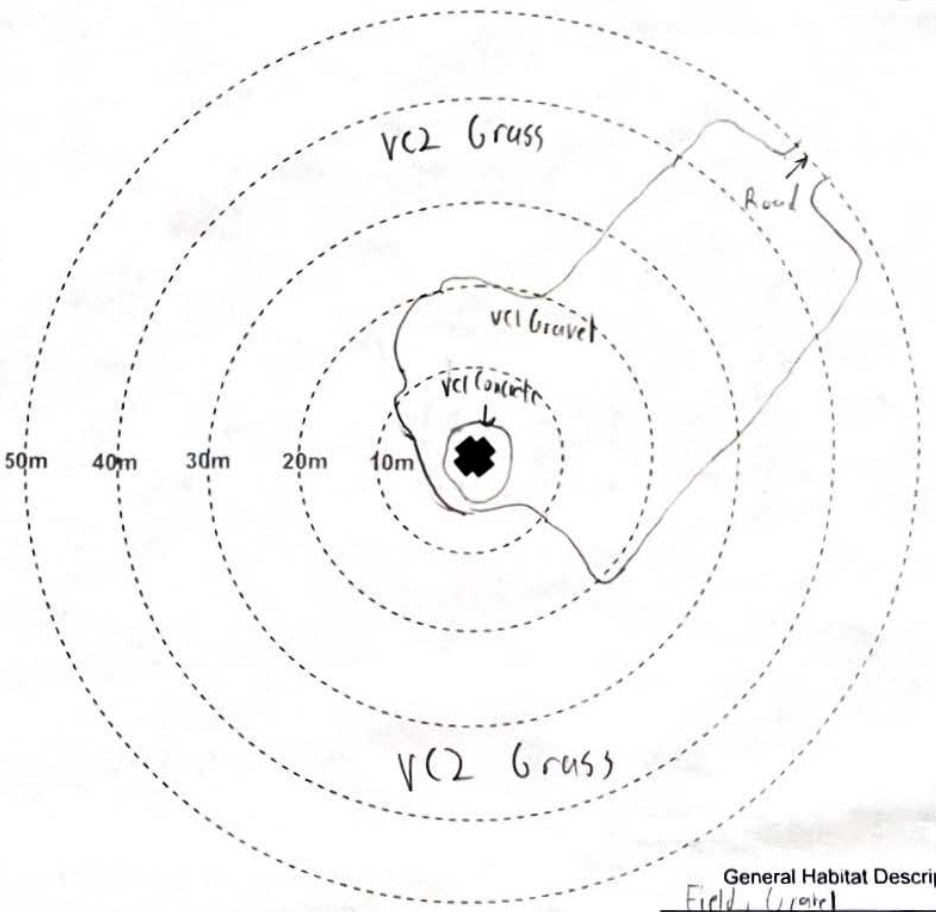
General Habitat Description: Field, Gravel

Photo Numbers (from turbine base)
Facing North: 01
Facing East: 02
Facing South: 03
Facing West: 04
(sketch habitat and visibility classes)

Date (DD/MM/YY): 08/08/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S05

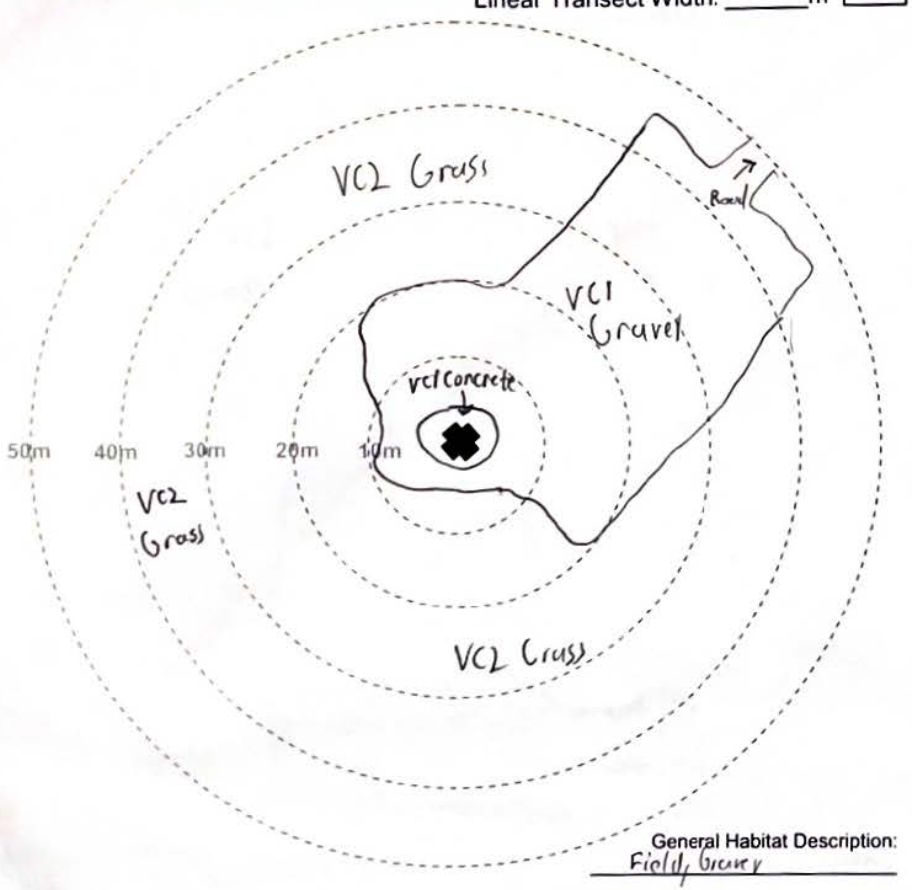
Photo Numbers (from turbine base)	
Facing North:	05
Facing East:	06
Facing South:	07
Facing West:	08
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 12/09/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

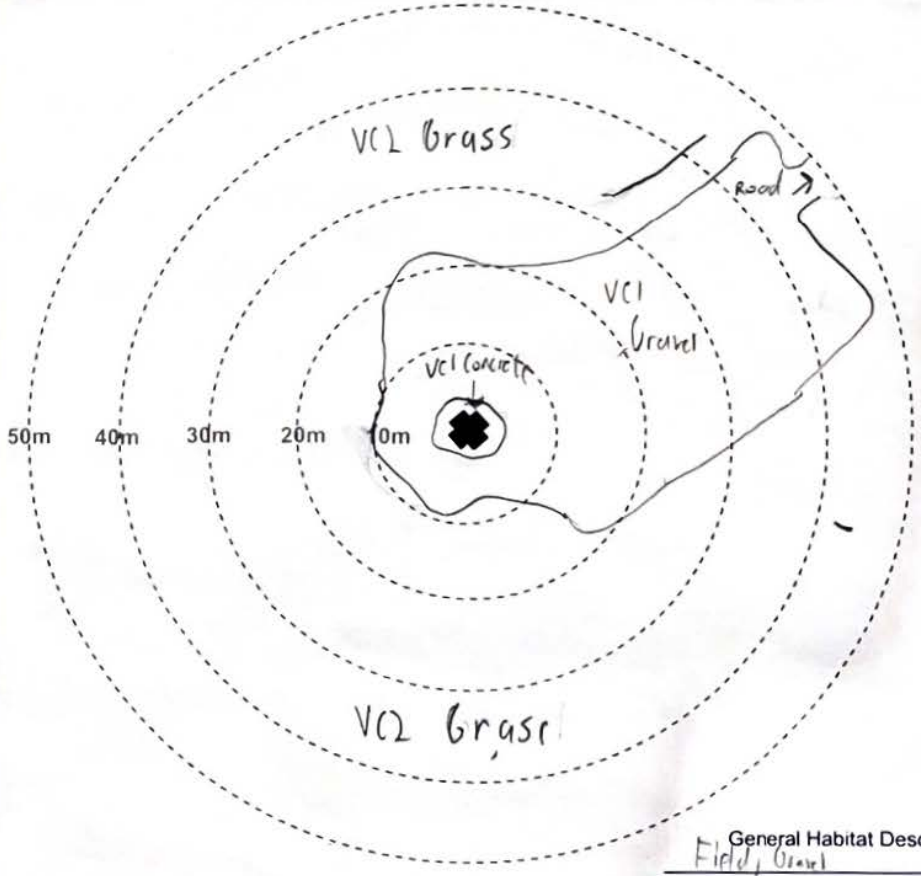
Photo Numbers (from turbine base)	
Facing North:	03
Facing East:	04
Facing South:	05
Facing West:	06
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 17/10/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

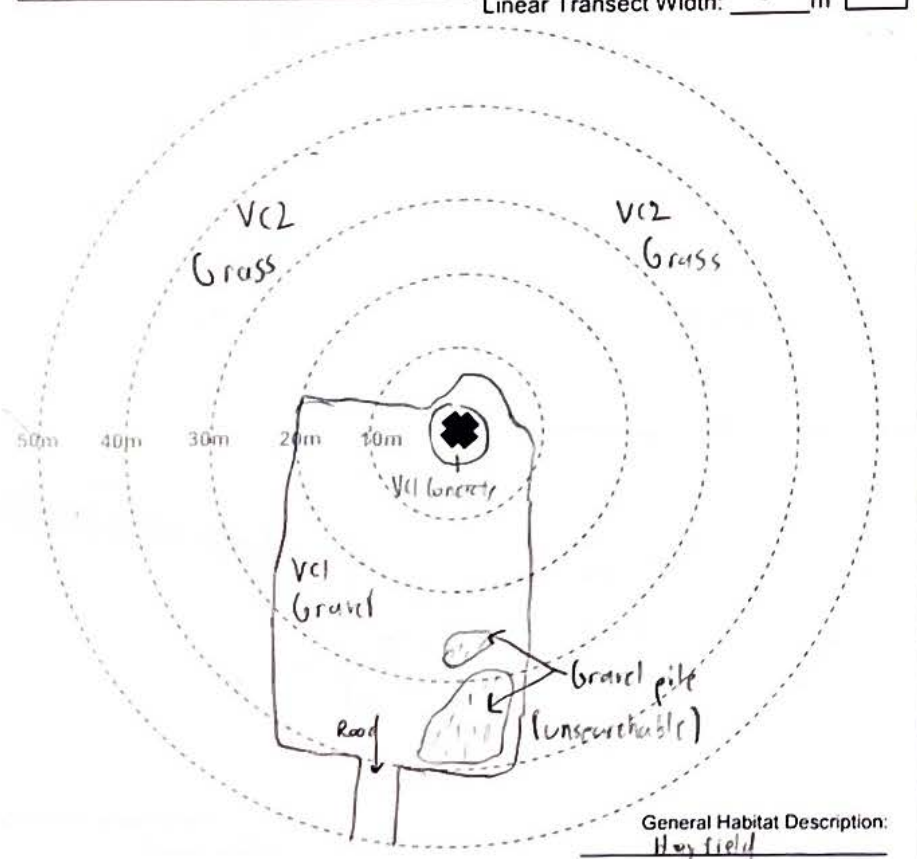
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21214 **Turbine #:** S07 **Degree of Slope** +2.0 **degrees** **Slope Orientation** NE **(e.g. SSW)**

Photo Numbers (from turbine base)
Facing North: 11
Facing East: 12
Facing South: 13
Facing West: 14
(sketch habitat and visibility classes)

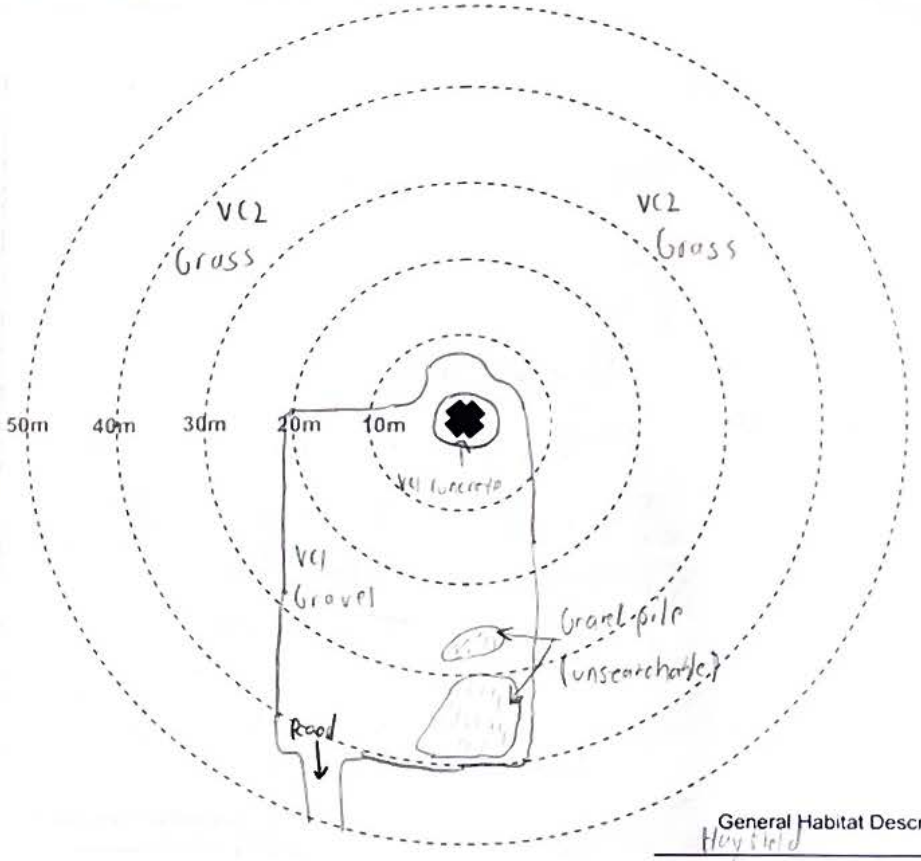
Date (DD/MM/YY): 12/05/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Hay field

Photo Numbers (from turbine base)
Facing North: 13
Facing East: 14
Facing South: 15
Facing West: 16
(sketch habitat and visibility classes)

Date (DD/MM/YY): 07/06/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Hay field

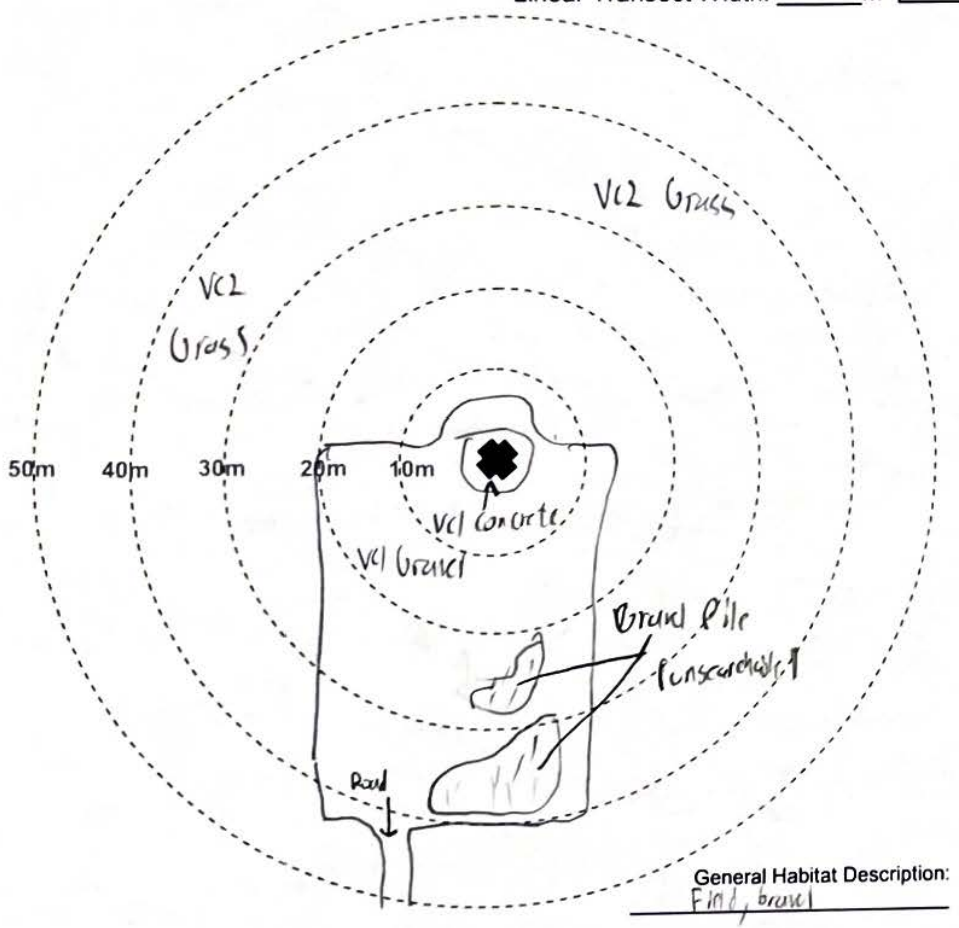
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21214 **Turbine #:** S07

Photo Numbers (from turbine base)
Facing North: 04
Facing East: 06
Facing South: 09
Facing West: 08
(sketch habitat and visibility classes)

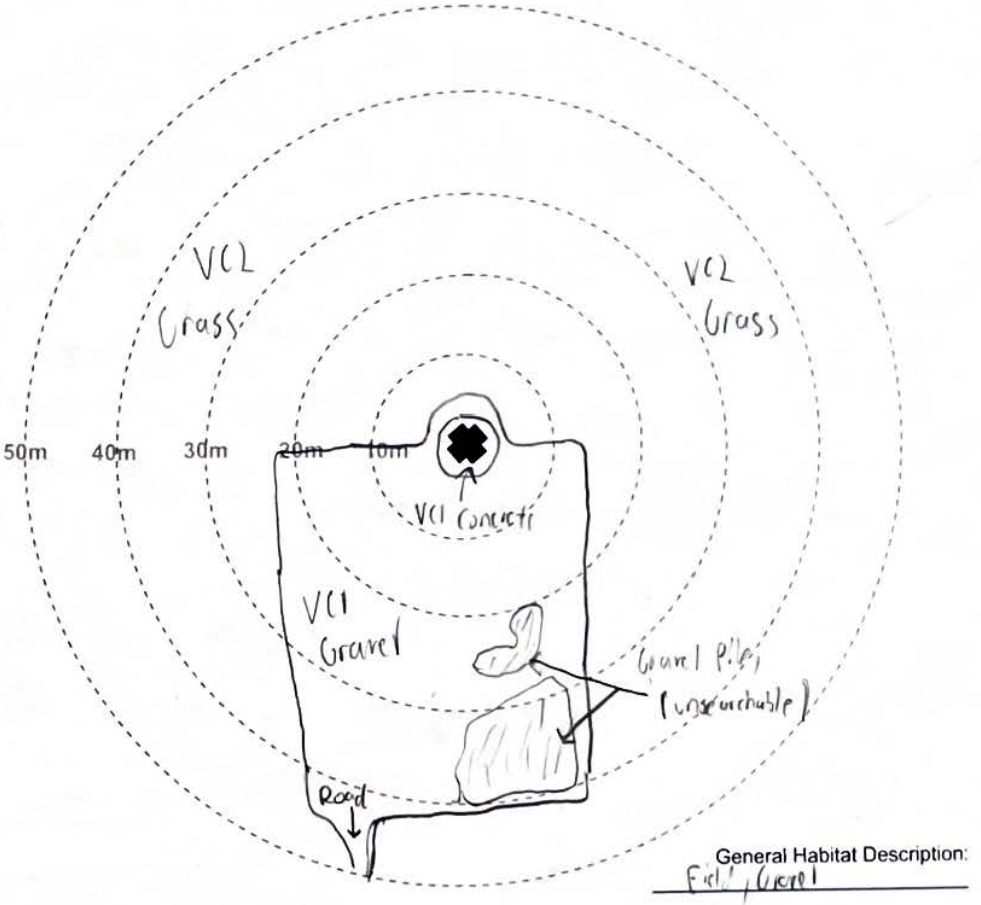
Date (DD/MM/YY): 14/07/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, gravel

Photo Numbers (from turbine base)
Facing North: 27
Facing East: 28
Facing South: 29
Facing West: 30
(sketch habitat and visibility classes)

Date (DD/MM/YY): 15/08/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

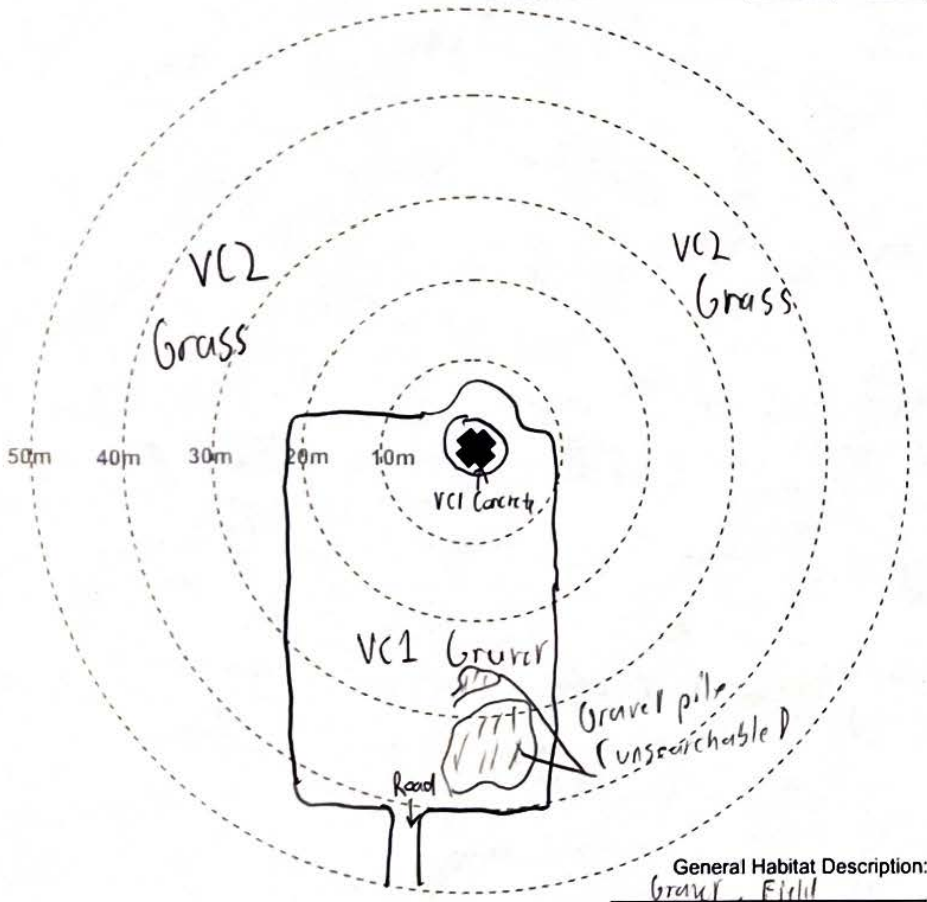
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S07

Photo Numbers (from turbine base)
Facing North: 13
Facing East: 14
Facing South: 15
Facing West: 16
(sketch habitat and visibility classes)

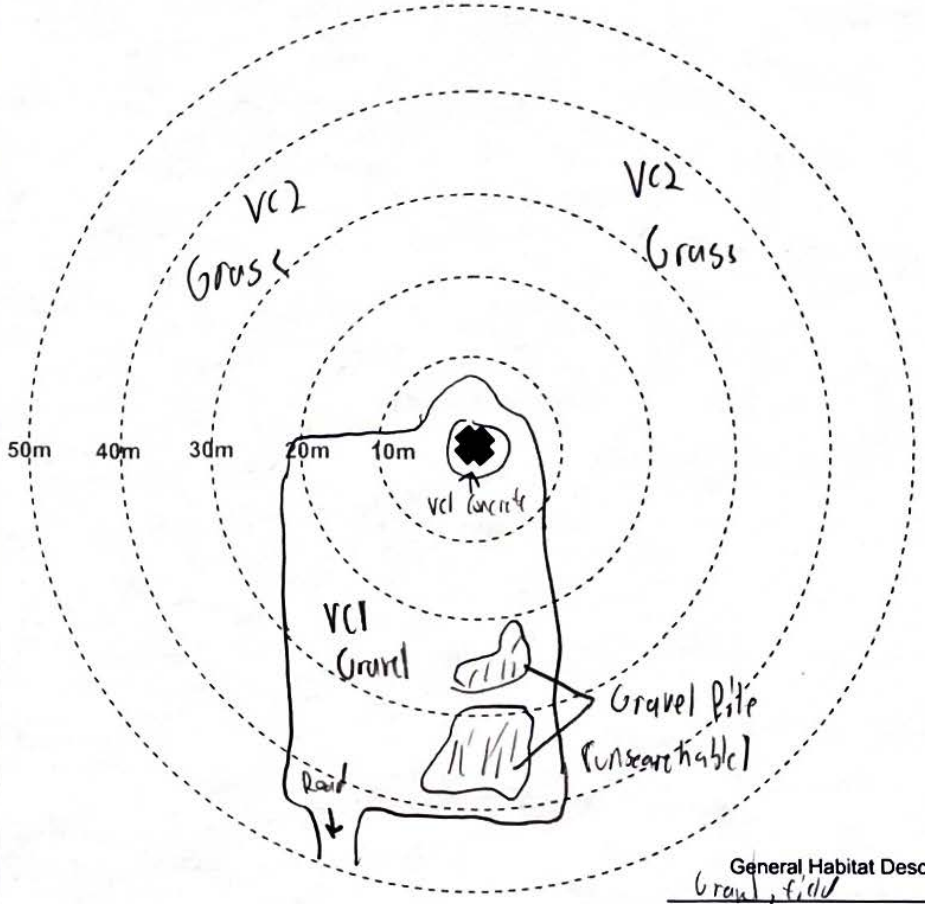
Date (DD/MM/YY): 15/09/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Gravel, Field

Photo Numbers (from turbine base)
Facing North: 09
Facing East: 10
Facing South: 11
Facing West: 12
(sketch habitat and visibility classes)

Date (DD/MM/YY): 20/10/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Gravel, field

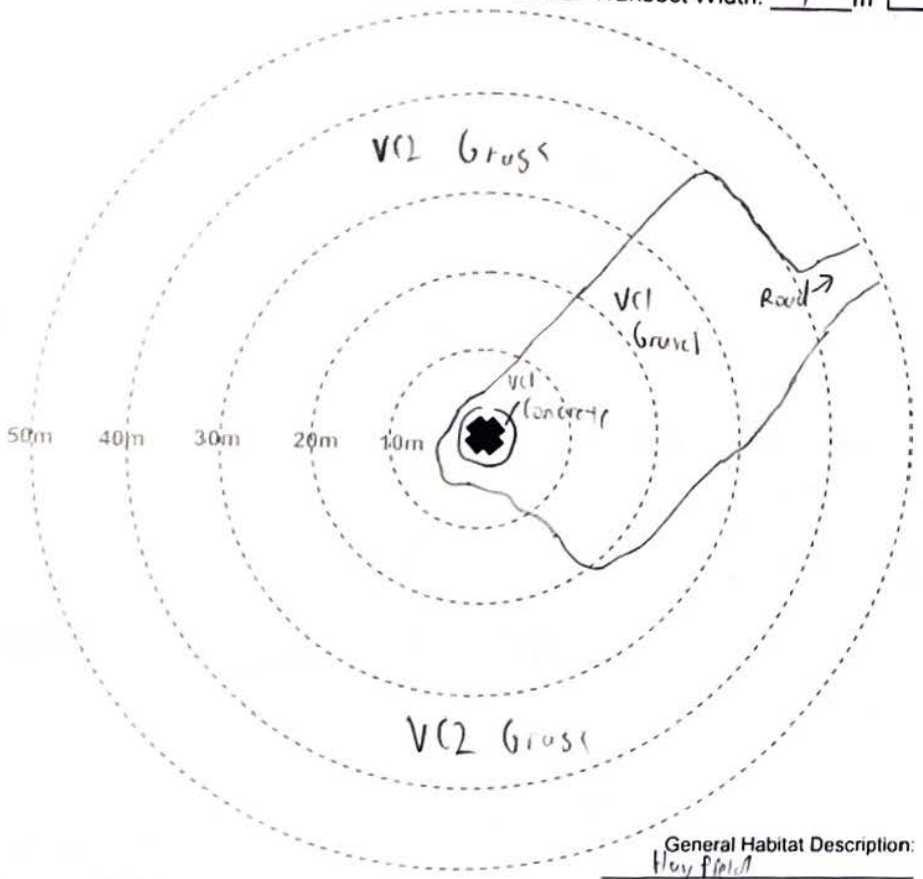
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island **Project #:** 21211 **Turbine #:** S14 **Degree of Slope** +1.5 **degrees** **Slope Orientation** NW (e.g. SSW)

Photo Numbers (from turbine base)
Facing North: 07
Facing East: 08
Facing South: 09
Facing West: 10
(sketch habitat and visibility classes)

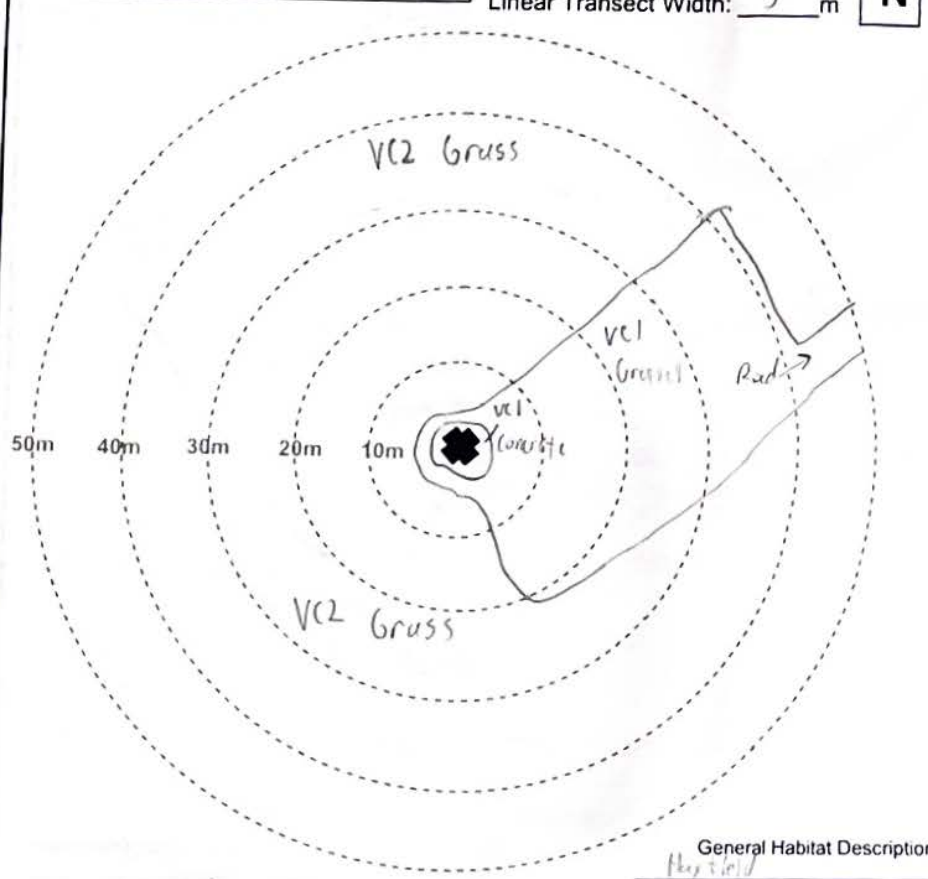
Date (DD/MM/YY): 12/05/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Hay Field

Photo Numbers (from turbine base)
Facing North: 07
Facing East: 08
Facing South: 09
Facing West: 10
(sketch habitat and visibility classes)

Date (DD/MM/YY): 09/06/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Hay field

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

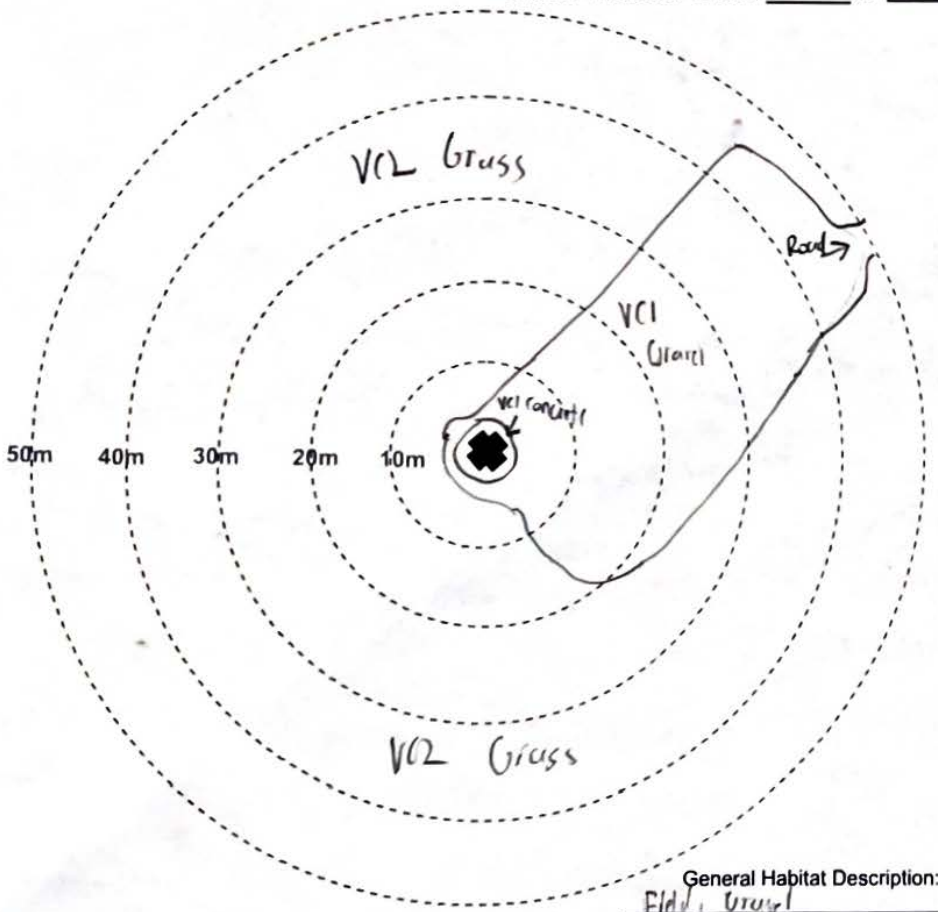
Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S04

Photo Numbers (from turbine base)
Facing North: 12
Facing East: 13
Facing South: 14
Facing West: 15
(sketch habitat and visibility classes)

Date (DD/MM/YY): 18/07/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



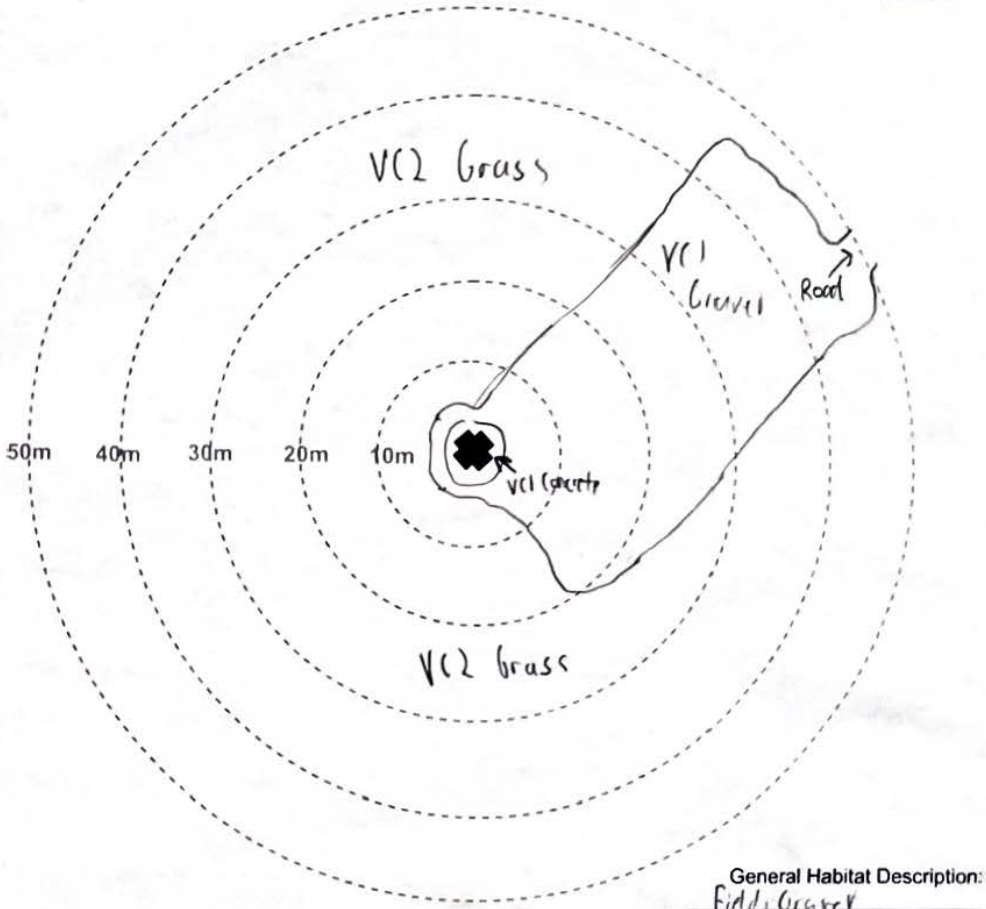
General Habitat Description: Field, Gravel

Photo Numbers (from turbine base)
Facing North: 23
Facing East: 24
Facing South: 25
Facing West: 26
(sketch habitat and visibility classes)

Date (DD/MM/YY): 15/08/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Grasses

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

...ility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S14

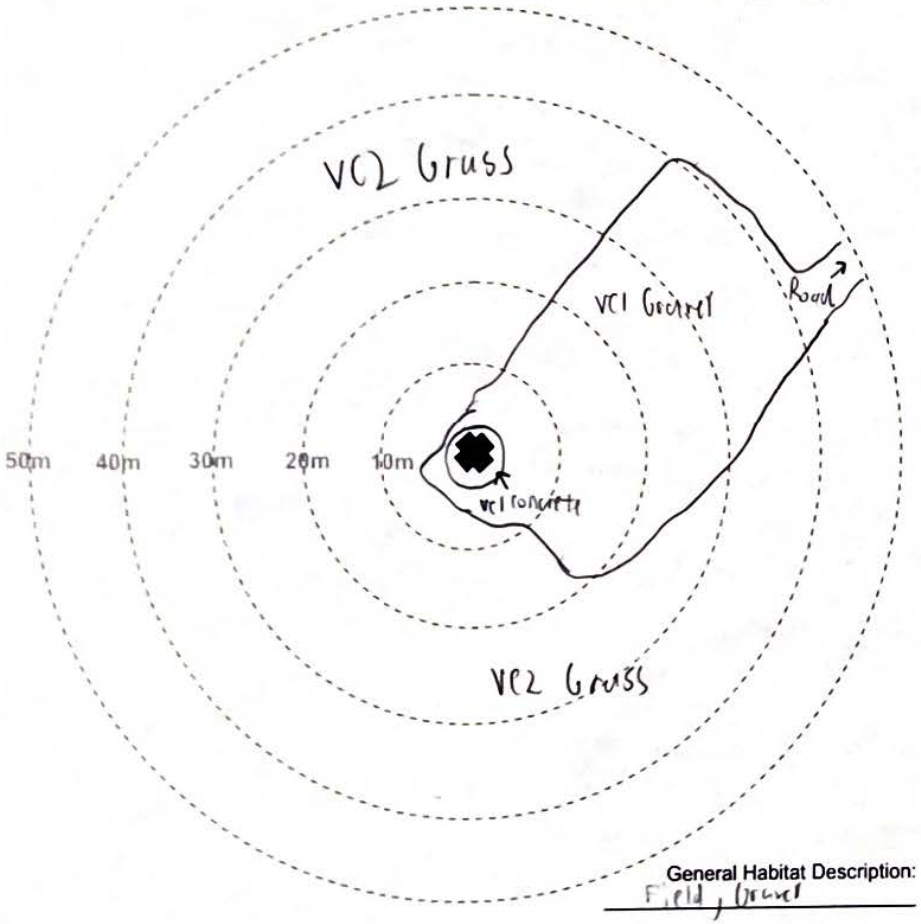
Photo Numbers (from turbine base)	
Facing North:	09
Facing East:	10
Facing South:	11
Facing West:	12
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 15/09/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

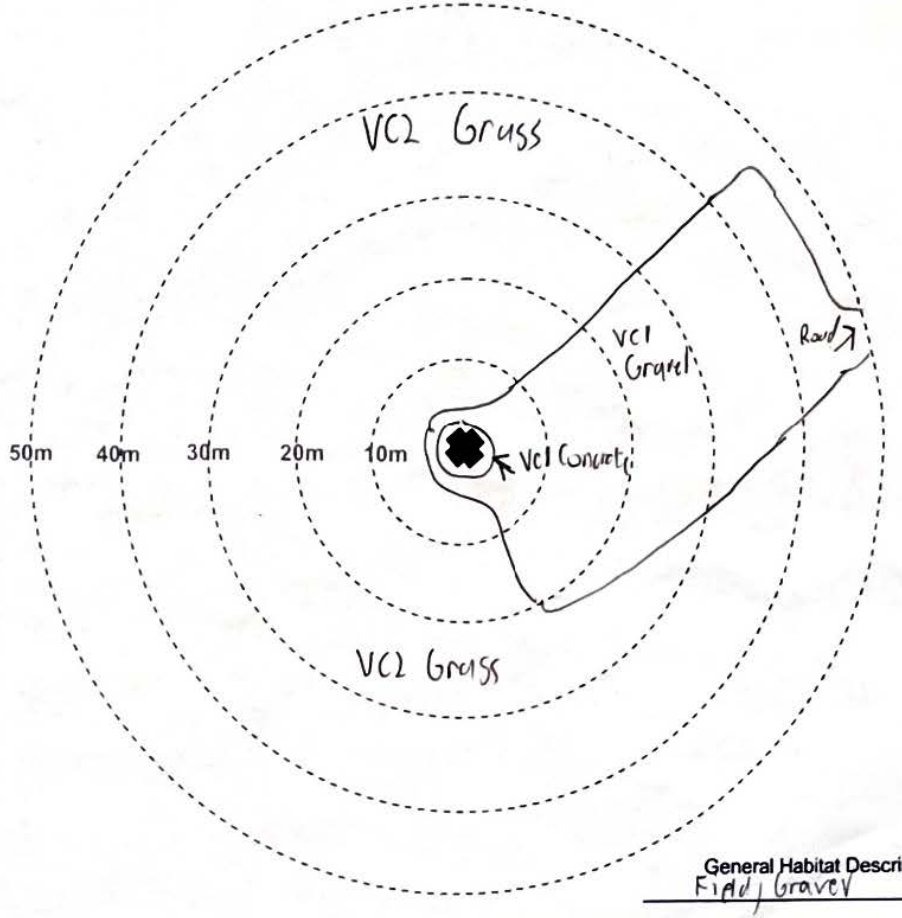
Photo Numbers (from turbine base)	
Facing North:	05
Facing East:	06
Facing South:	07
Facing West:	08
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 20/10/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

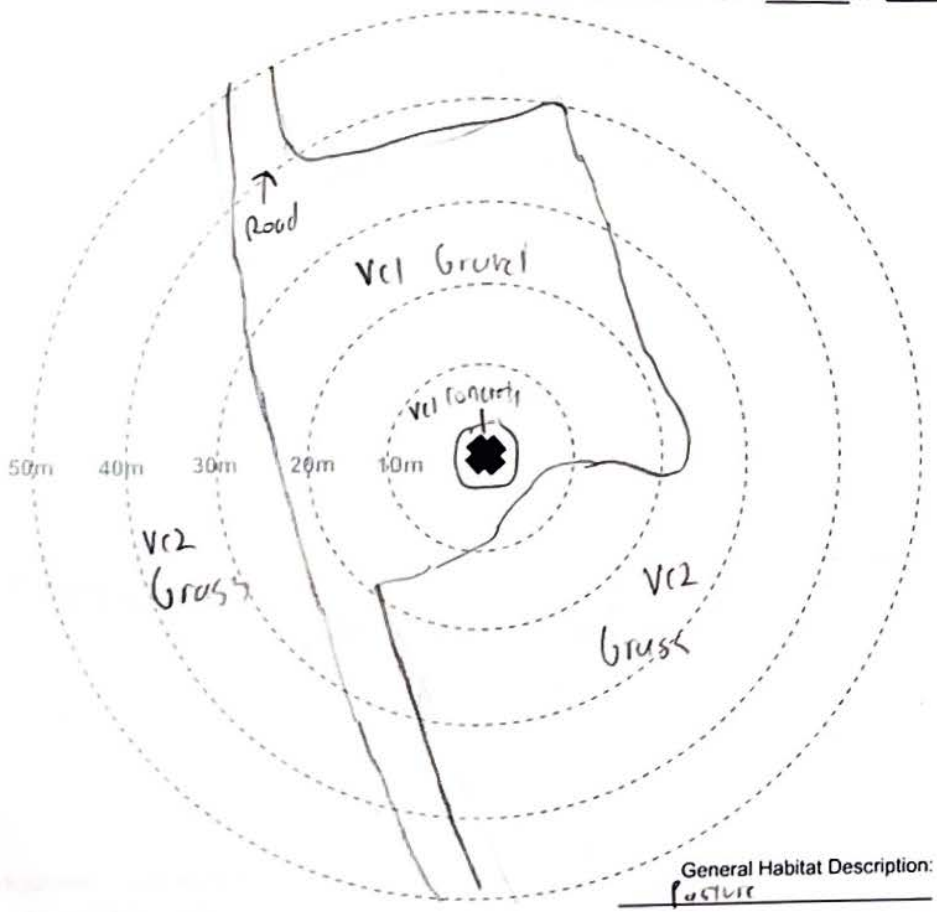
Project Name: Amherst Island WP **Project #:** 21211 **Turbine #:** S18 **Degree of Slope** +1.0 **degrees** **Slope Orientation** S (e.g. SSW)

Photo Numbers (from turbine base)	
Facing North:	27
Facing East:	28
Facing South:	29
Facing West:	30
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 12/05/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



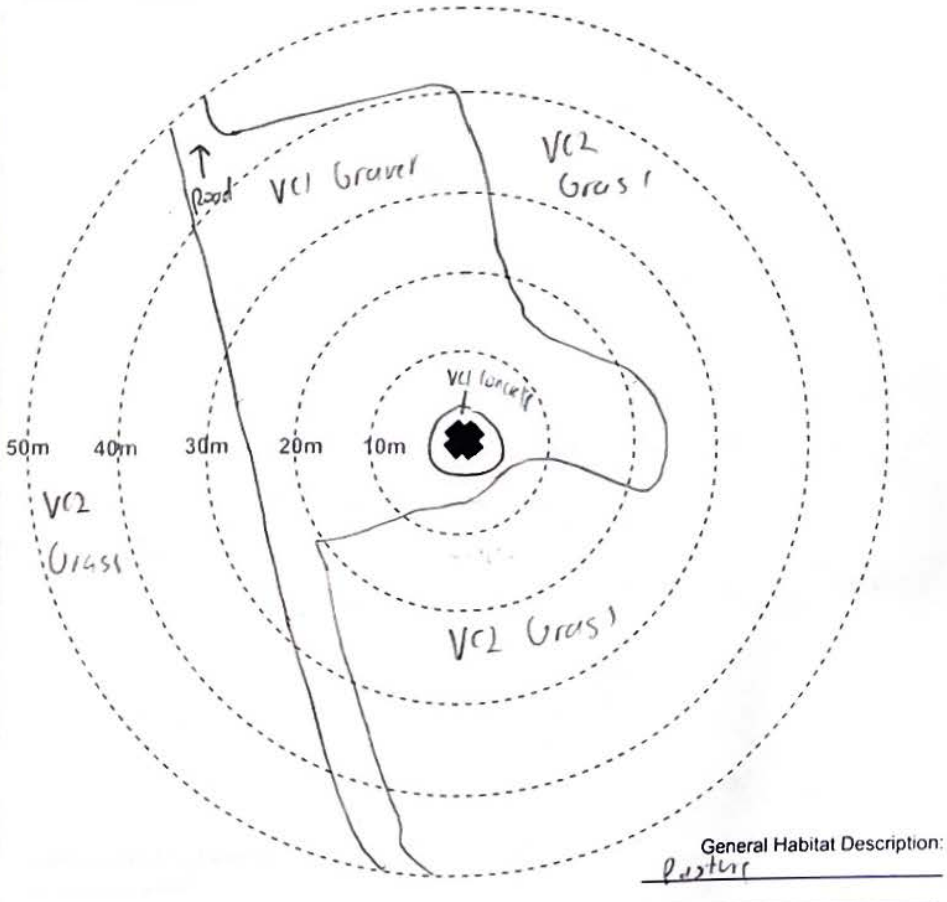
General Habitat Description: pasture

Photo Numbers (from turbine base)	
Facing North:	17
Facing East:	18
Facing South:	19
Facing West:	20
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 09/06/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: pasture

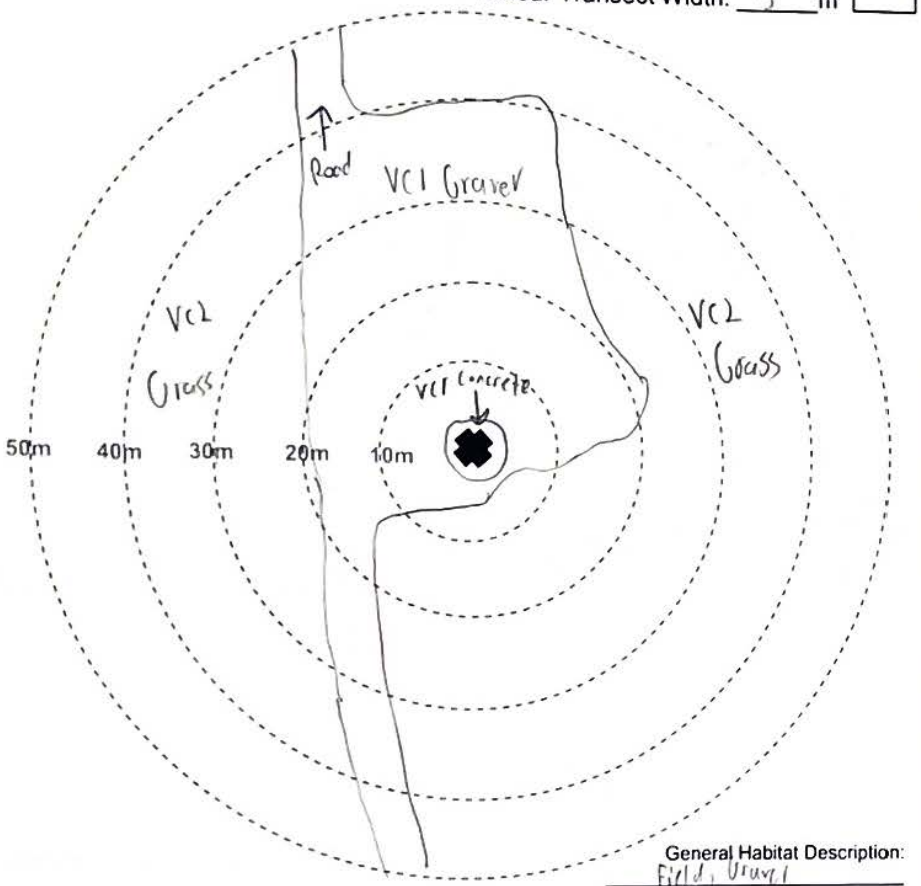
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S18

Photo Numbers (from turbine base)
Facing North: 19
Facing East: 20
Facing South: 21
Facing West: 22
(sketch habitat and visibility classes)

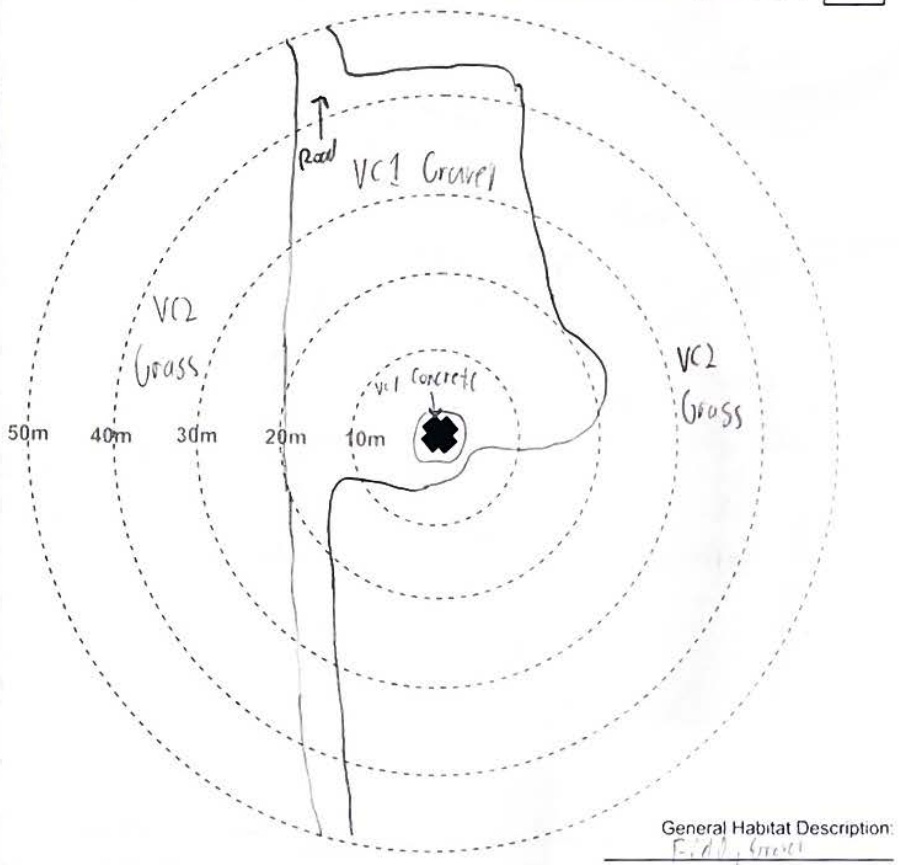
Date (DD/MM/YY): 14/07/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

Photo Numbers (from turbine base)
Facing North: 31
Facing East: 32
Facing South: 33
Facing West: 34
(sketch habitat and visibility classes)

Date (DD/MM/YY): 15/08/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21214 **Turbine #:** S18

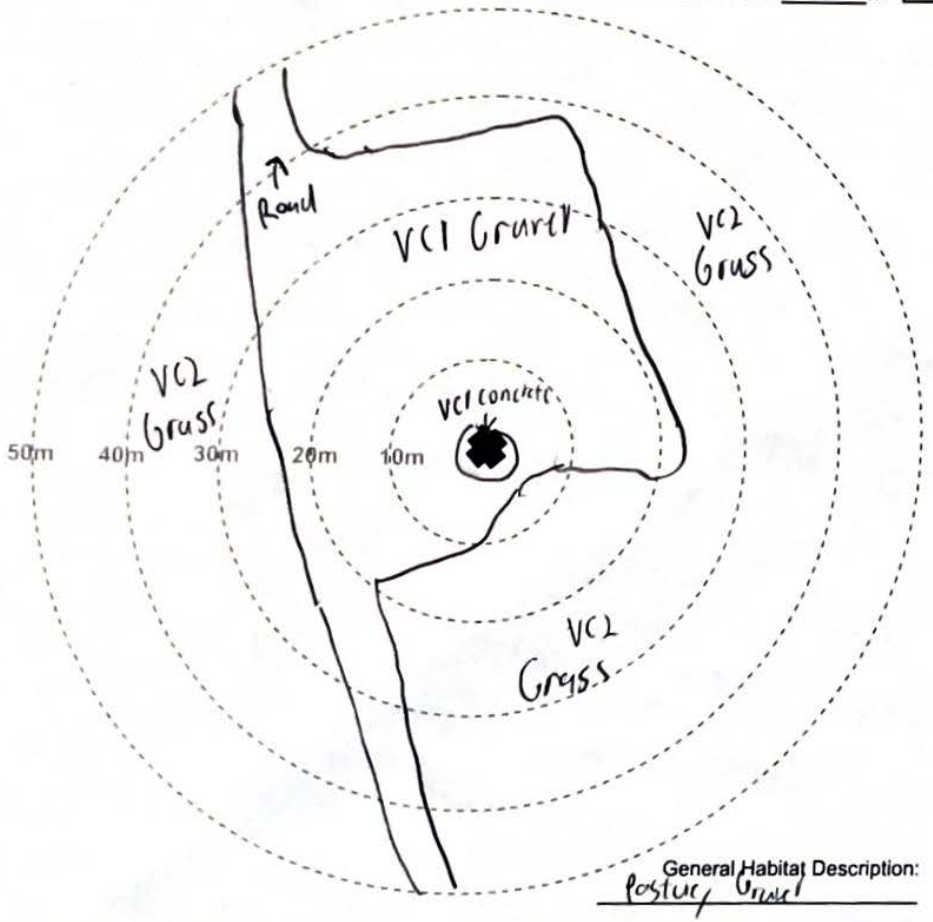
Photo Numbers (from turbine base)	
Facing North:	27
Facing East:	28
Facing South:	29
Facing West:	30

(sketch habitat and visibility classes)

Date (DD/MM/YY): 15/09/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture, Gravel

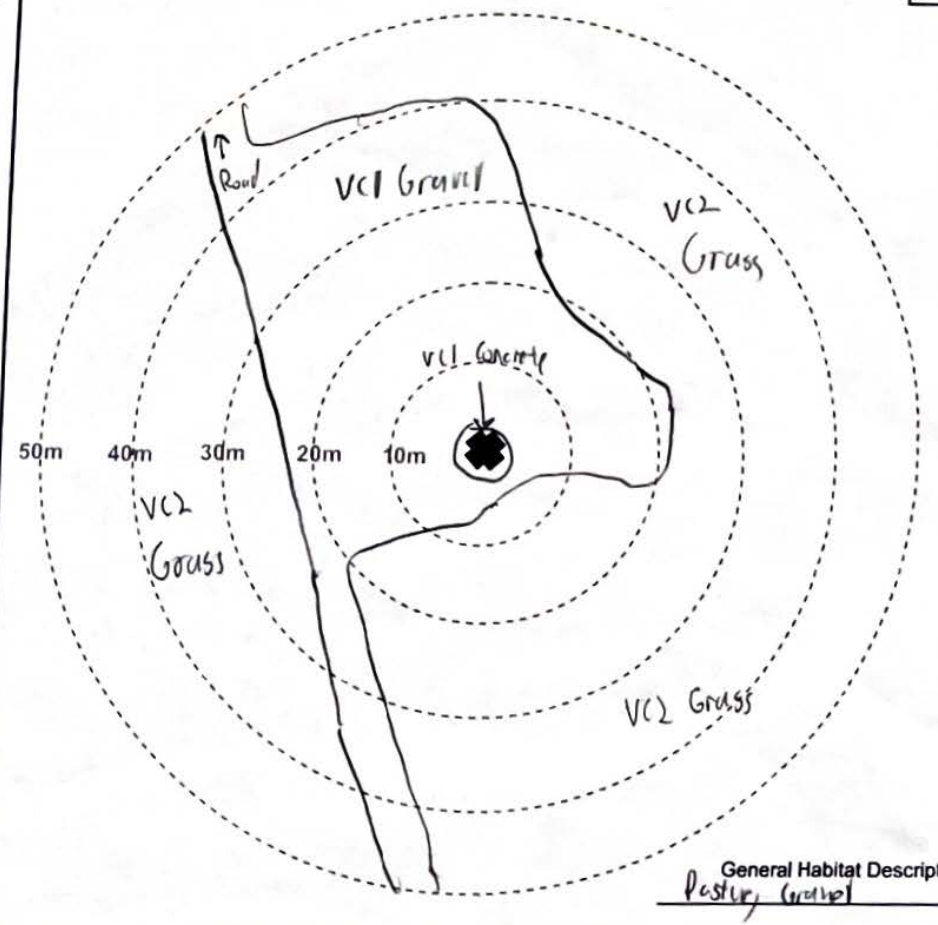
Photo Numbers (from turbine base)	
Facing North:	17
Facing East:	18
Facing South:	19
Facing West:	20

(sketch habitat and visibility classes)

Date (DD/MM/YY): 20/10/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture, Gravel

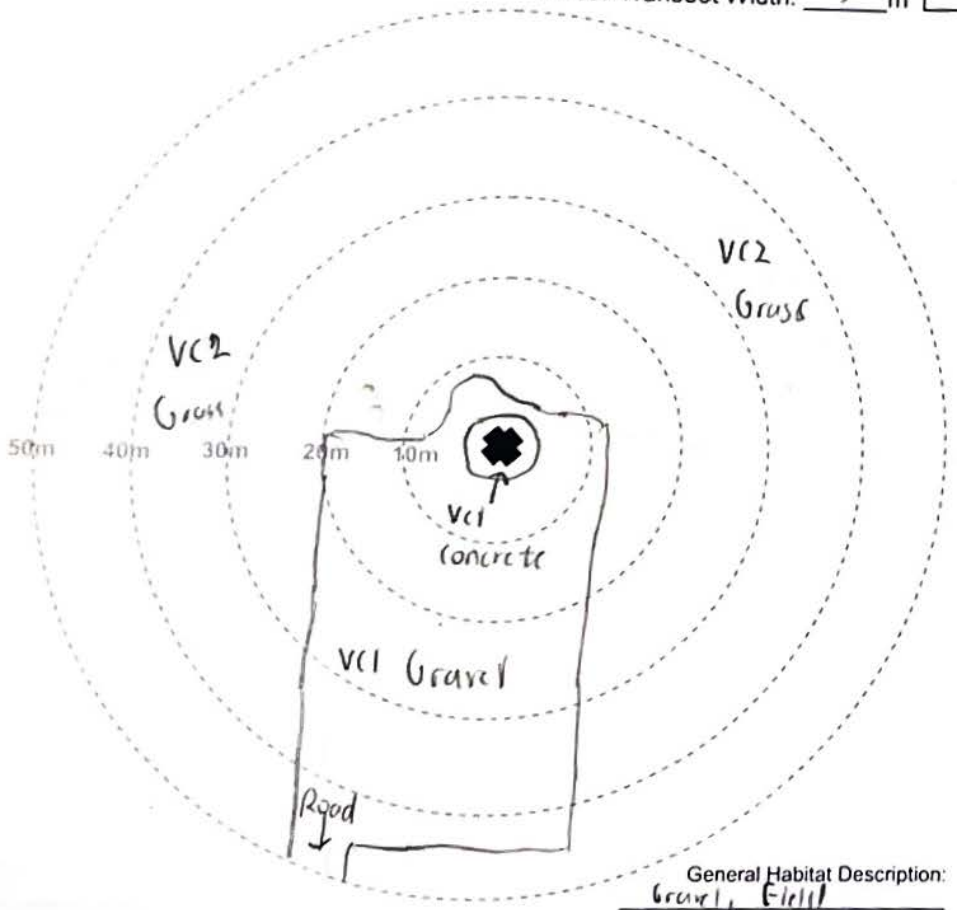
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S22 **Degree of Slope** 10.5 degrees **Slope Orientation** NW (e.g. SSW)

Photo Numbers (from turbine base)
Facing North: 07
Facing East: 08
Facing South: 09
Facing West: 10
(sketch habitat and visibility classes)

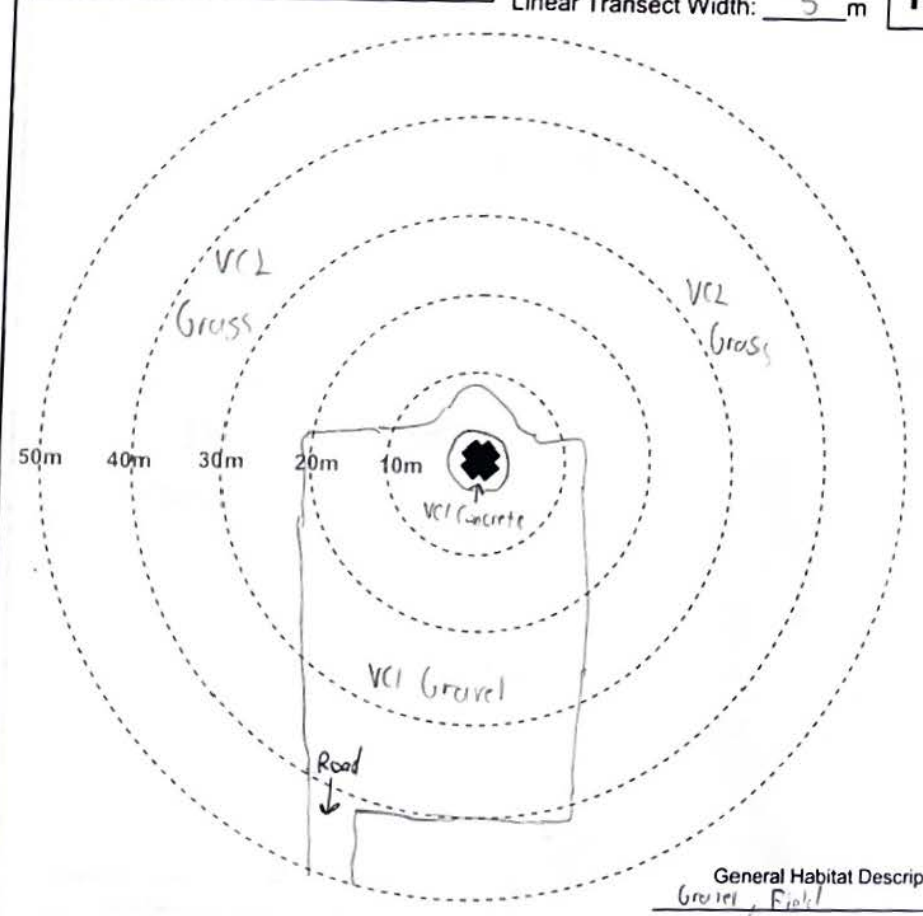
Date (DD/MM/YY): 09/05/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Gravel, Field

Photo Numbers (from turbine base)
Facing North: 07
Facing East: 08
Facing South: 09
Facing West: 10
(sketch habitat and visibility classes)

Date (DD/MM/YY): 06/06/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Gravel, Field

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21211 **Turbine #:** S22

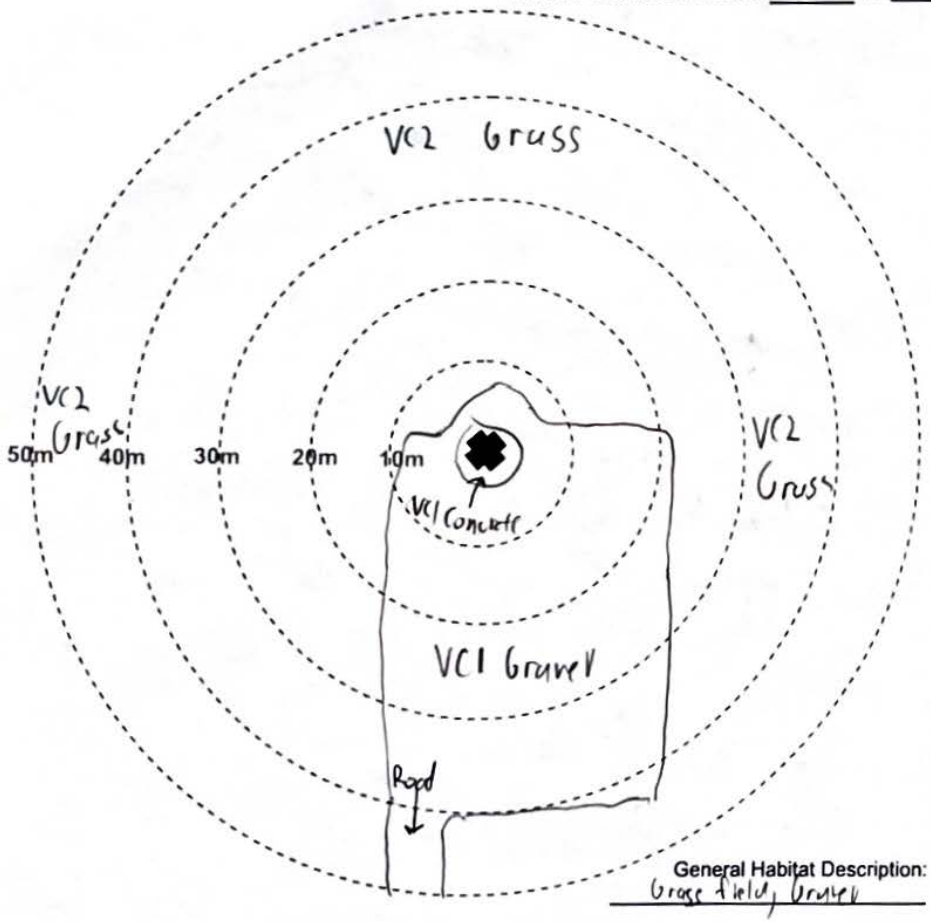
Photo Numbers (from turbine base)	
Facing North:	05
Facing East:	06
Facing South:	07
Facing West:	08
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 11/07/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Grass field, Gravel

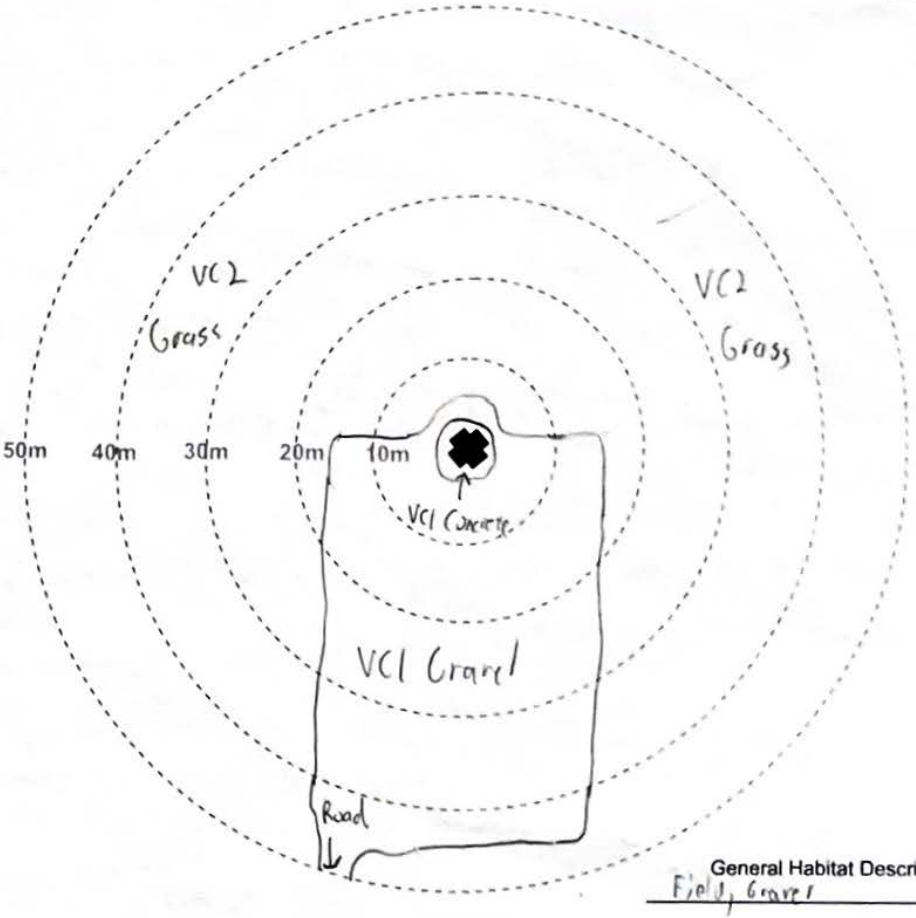
Photo Numbers (from turbine base)	
Facing North:	04
Facing East:	06
Facing South:	07
Facing West:	05
(sketch habitat and visibility classes)	

Date (DD/MM/YY): 08/05/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: ~~Amherst~~ Island WP **Project #:** 21214 **Turbine #:** S22

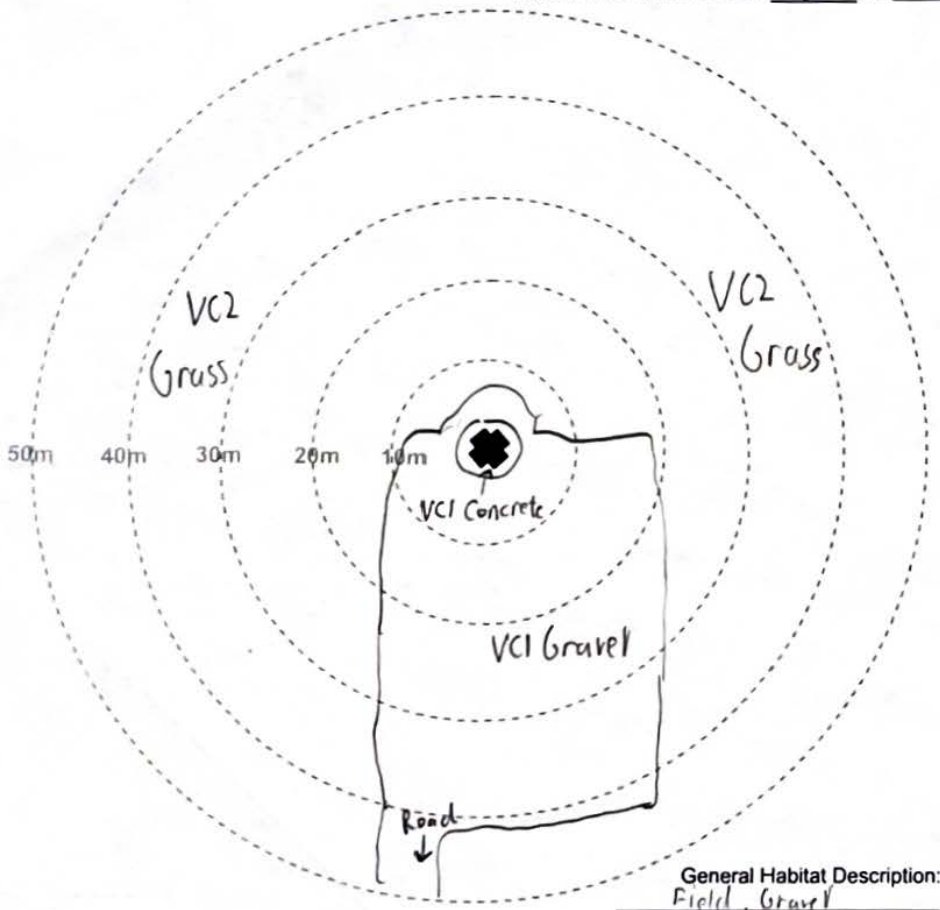
Photo Numbers (from turbine base)
Facing North: 09
Facing East: 10
Facing South: 11
Facing West: 12
(sketch habitat and visibility classes)

Date (DD/MM/YY): 12 / 09 / 12

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

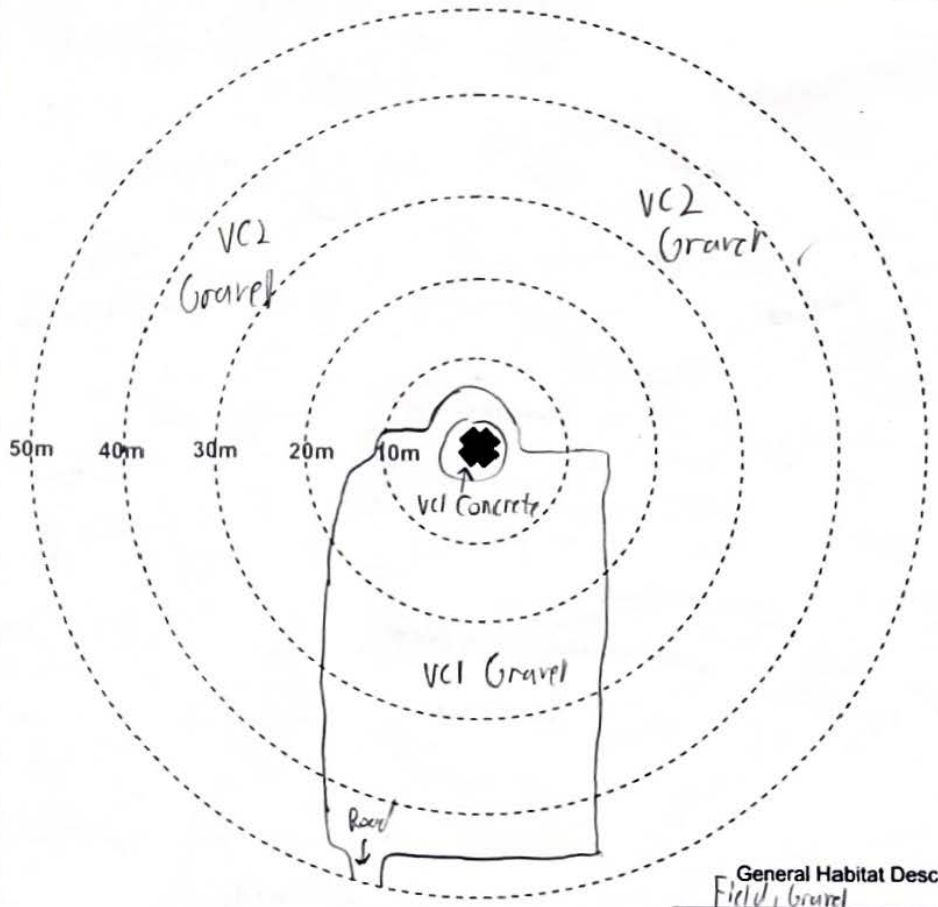
Photo Numbers (from turbine base)
Facing North: 07
Facing East: 08
Facing South: 09
Facing West: 10
(sketch habitat and visibility classes)

Date (DD/MM/YY): 17 / 10 / 22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Field, Gravel

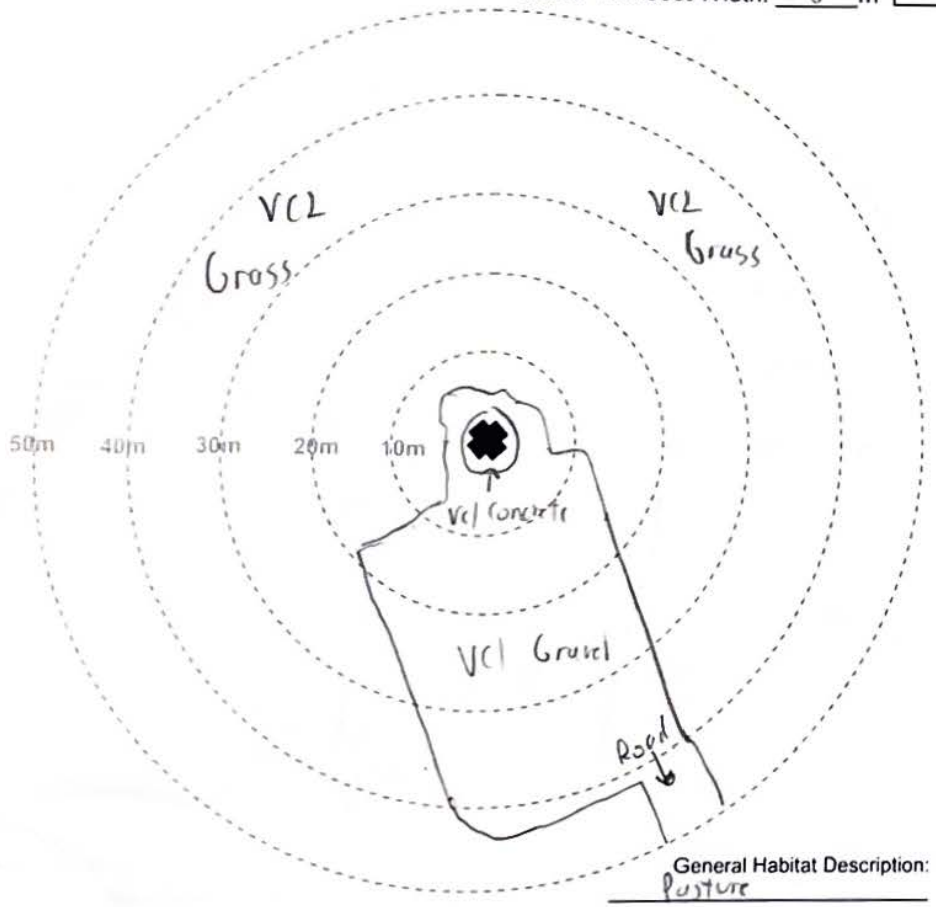
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S28 **Degree of Slope** +0.5 **degrees** **Slope Orientation** E (e.g. SSW)

Photo Numbers (from turbine base)
Facing North: 15
Facing East: 16
Facing South: 17
Facing West: 18
(sketch habitat and visibility classes)

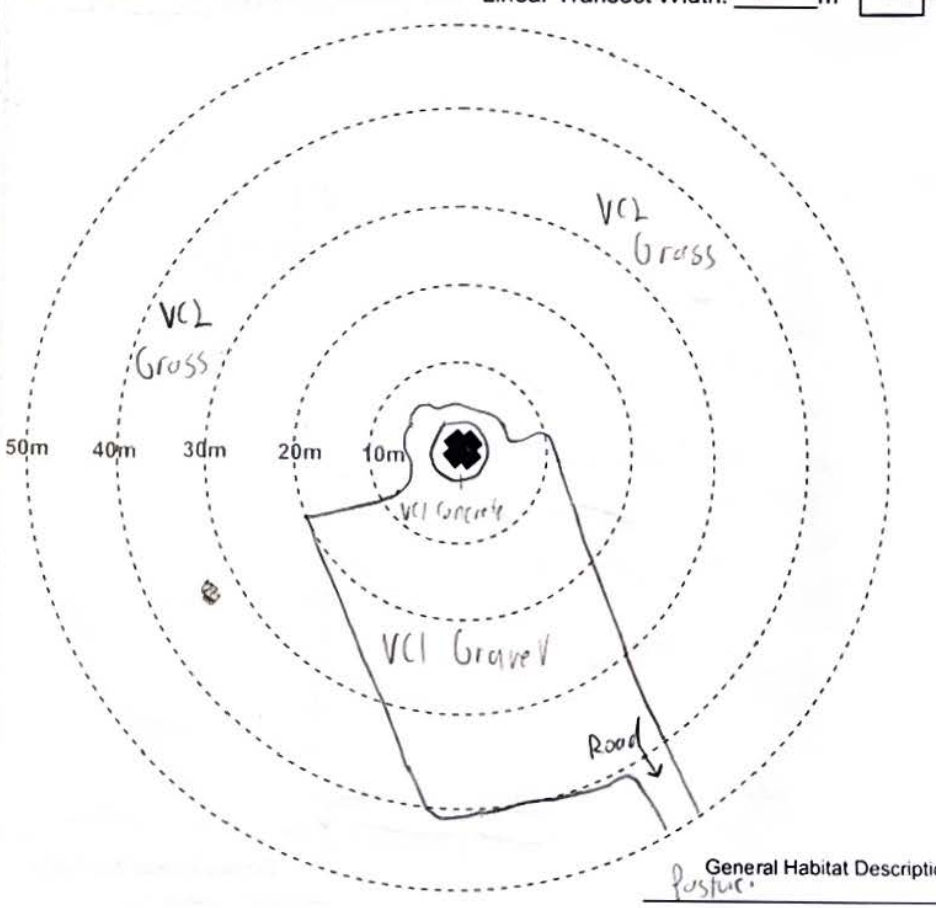
Date (DD/MM/YY): 12/05/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture

Photo Numbers (from turbine base)
Facing North: 21
Facing East: 22
Facing South: 23
Facing West: 24
(sketch habitat and visibility classes)

Date (DD/MM/YY): 09/06/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 2121H **Turbine #** S28

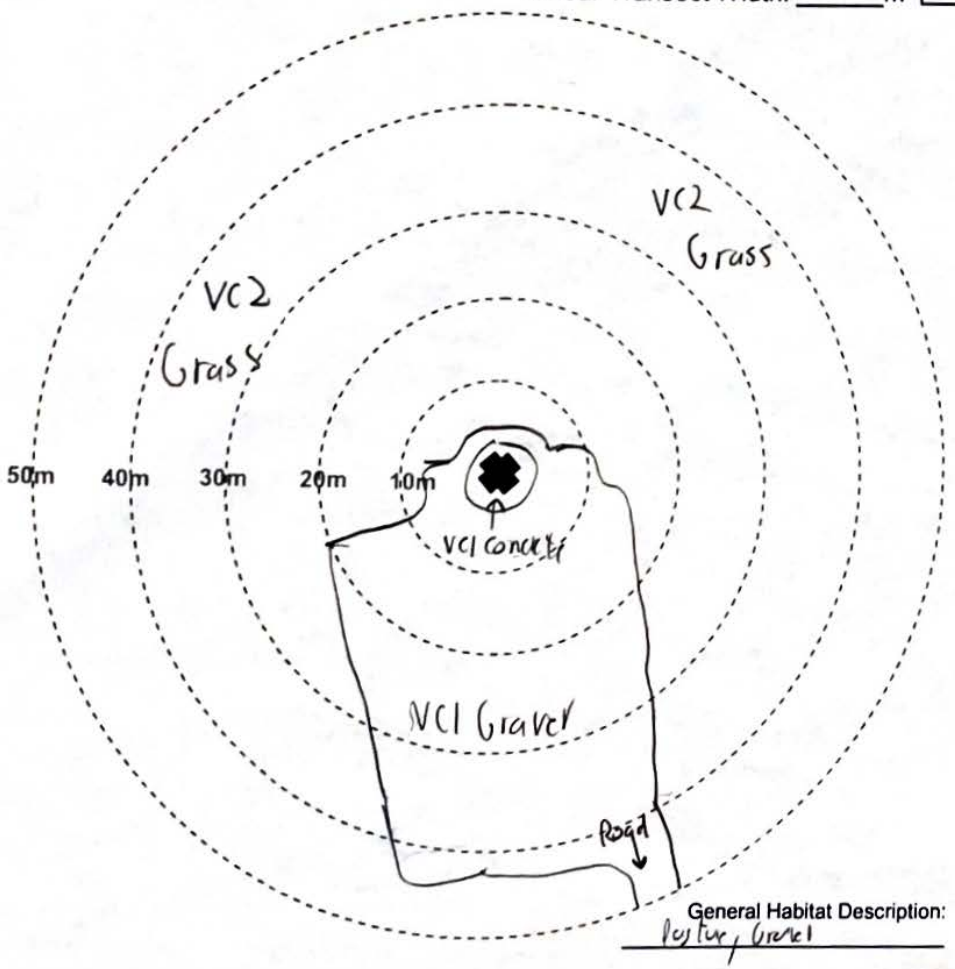
Photo Numbers (from turbine base)
Facing North: 15
Facing East: 16
Facing South: 17
Facing West: 18
(sketch habitat and visibility classes)

Date (DD/MM/YY): 14/07/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Pasture, Gravel

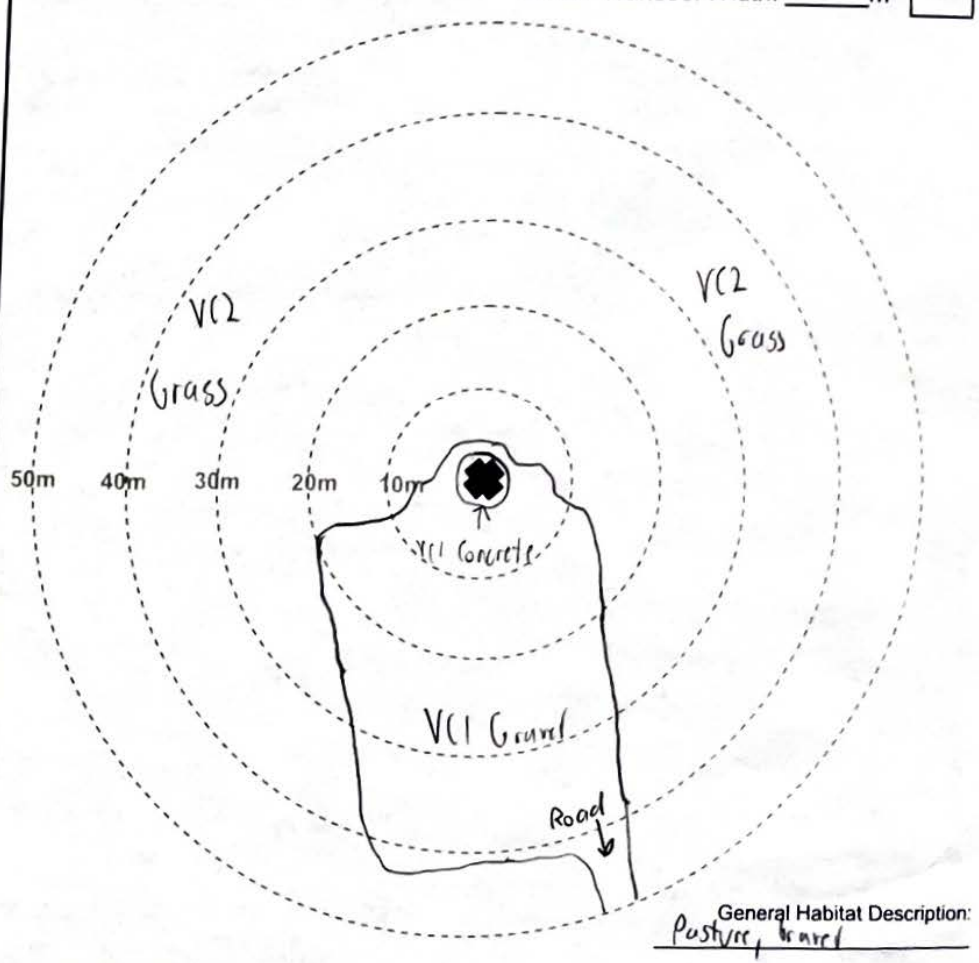
Photo Numbers (from turbine base)
Facing North: 15
Facing East: 16
Facing South: 17
Facing West: 18
(sketch habitat and visibility classes)

Date (DD/MM/YY): 15/08/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Pasture, Gravel

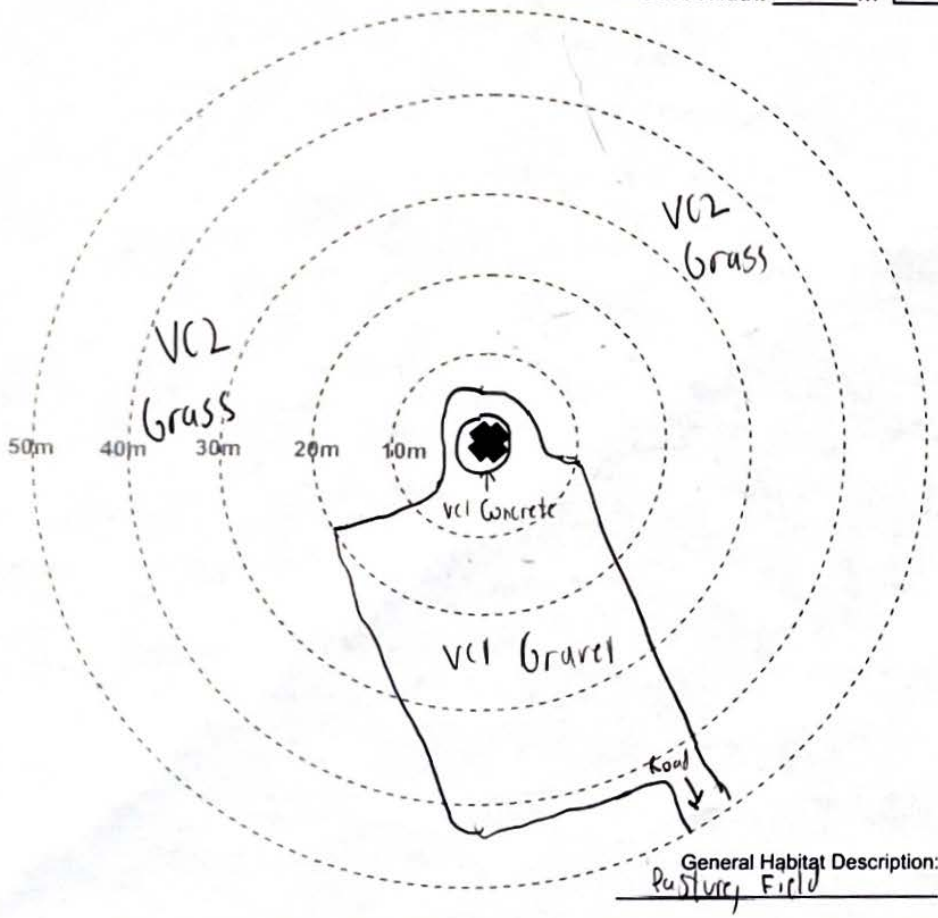
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island **Project #:** 21214 **Turbine #:** S28

Photo Numbers (from turbine base)
Facing North: 21
Facing East: 22
Facing South: 23
Facing West: 24
(sketch habitat and visibility classes)

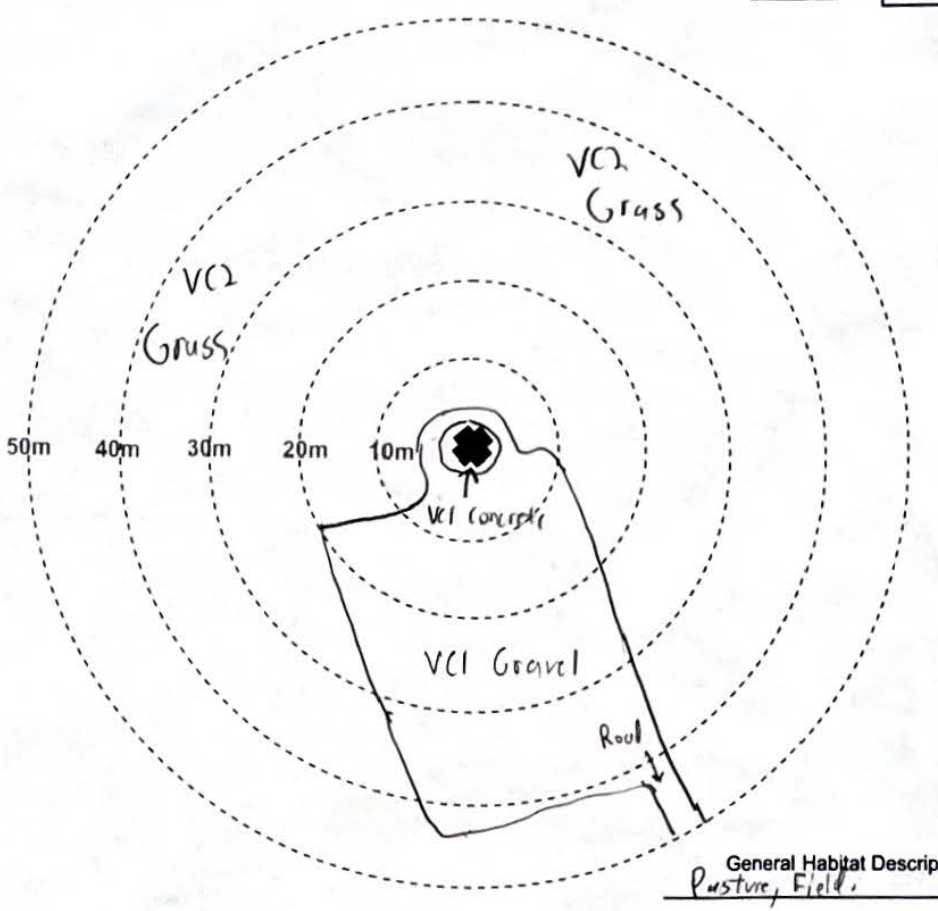
Date (DD/MM/YY): 15/09/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture, Field

Photo Numbers (from turbine base)
Facing North: 13
Facing East: 14
Facing South: 15
Facing West: 16
(sketch habitat and visibility classes)

Date (DD/MM/YY): 20/10/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Pasture, Field.

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 21211 **Turbine #:** S36 **Degree of Slope** +2.0 **degrees** **Slope Orientation** NE (e.g. SSW)

Photo Numbers (from turbine base)	
Facing North:	21
Facing East:	22
Facing South:	23
Facing West:	24

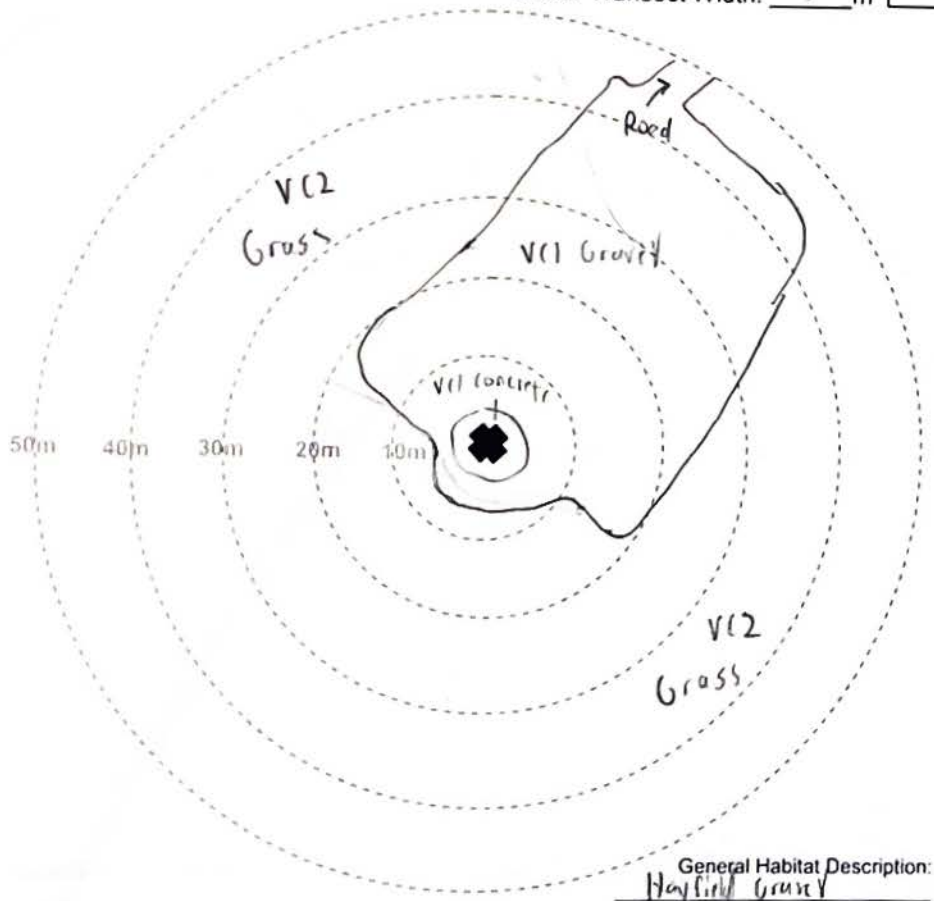
(sketch habitat and visibility classes)

Date (DD/MM/YY): 09/05/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Hayfield Gravel

Photo Numbers (from turbine base)	
Facing North:	21
Facing East:	22
Facing South:	23
Facing West:	24

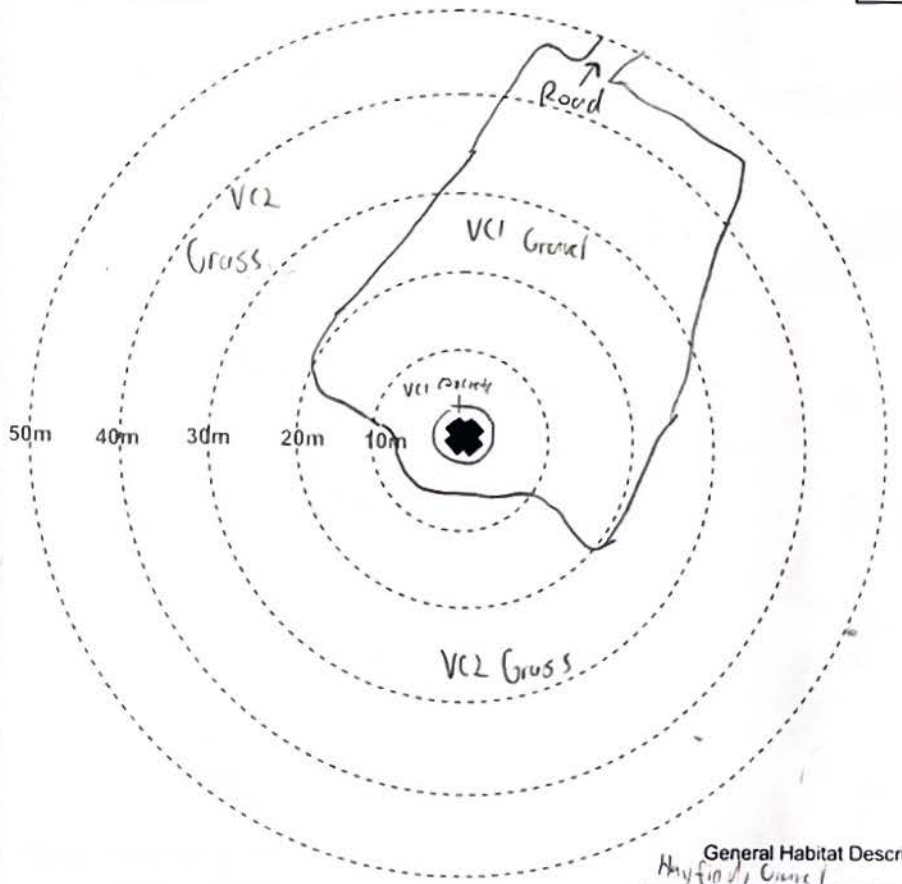
(sketch habitat and visibility classes)

Date (DD/MM/YY): 06/06/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m

N



General Habitat Description: Hayfield / Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

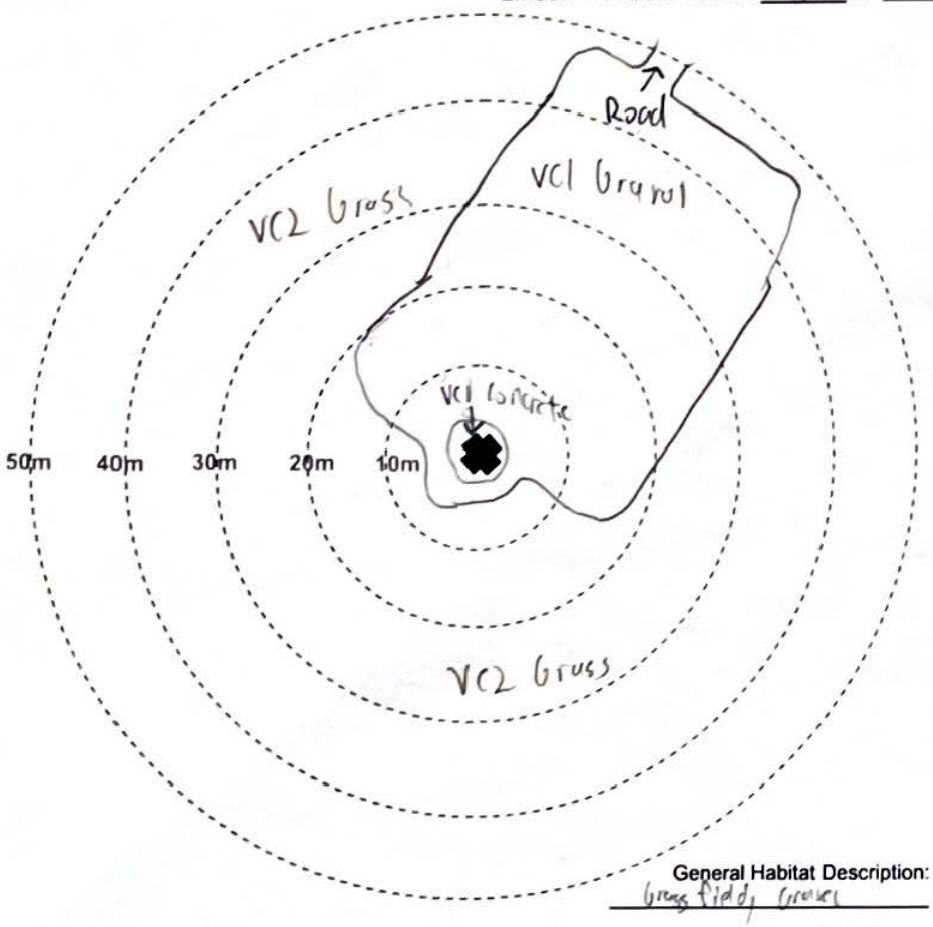
Project Name: Amherst Island WP **Project #:** 2121H **Turbine #:** S36

Photo Numbers (from turbine base)
Facing North: 27
Facing East: 28
Facing South: 29
Facing West: 30
(sketch habitat and visibility classes)

Date (DD/MM/YY): 11/07/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



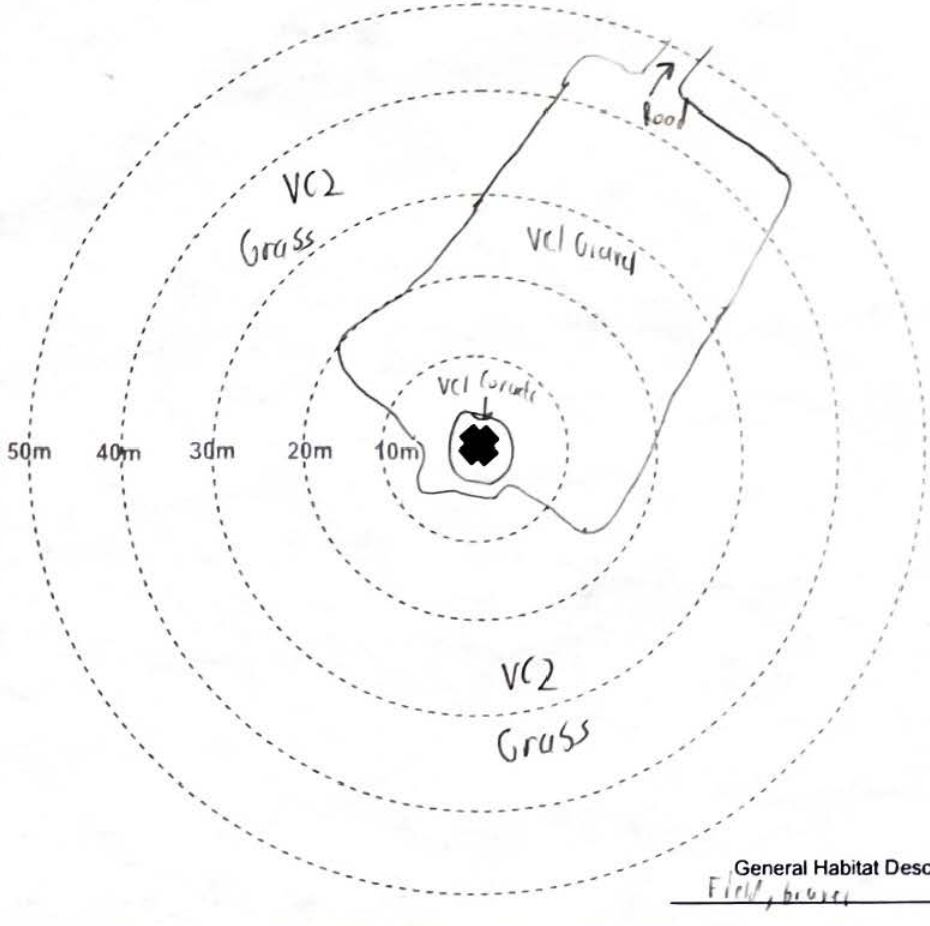
General Habitat Description: Grass fields, fences

Photo Numbers (from turbine base)
Facing North: 29
Facing East: 30
Facing South: 31
Facing West: 32
(sketch habitat and visibility classes)

Date (DD/MM/YY): 22/08/22

Observer: MPD

Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, fences

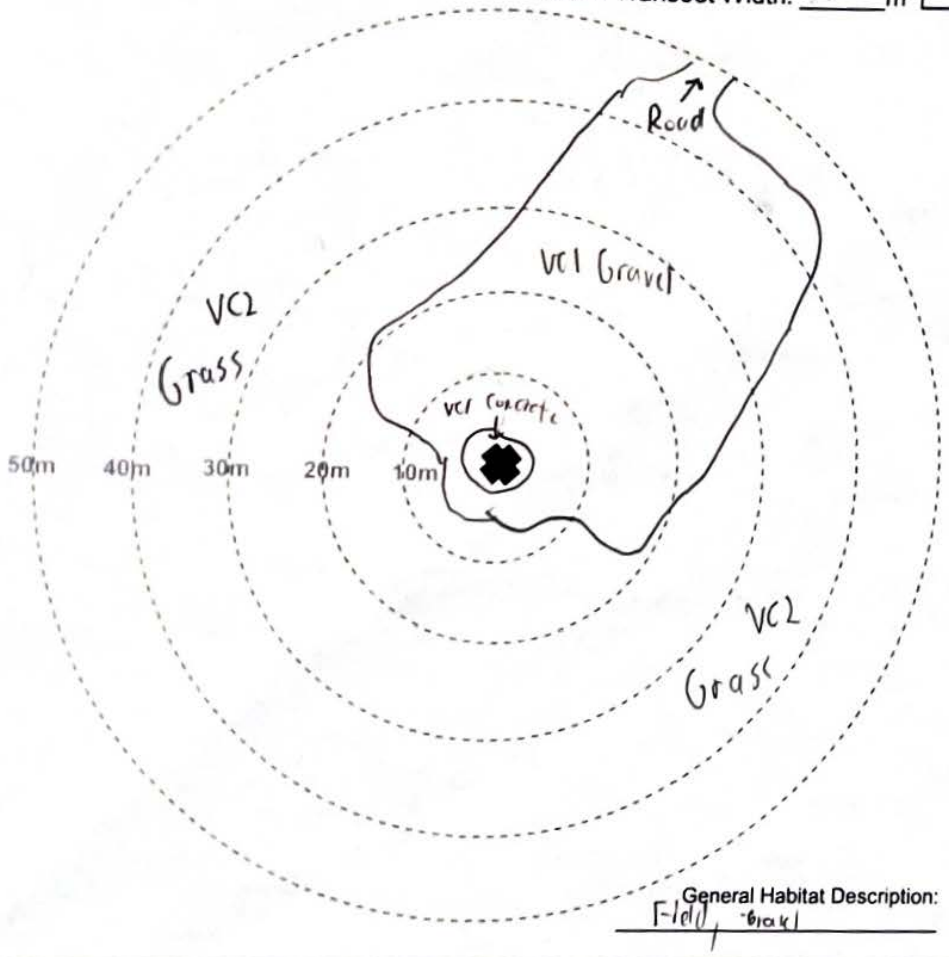
VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats

Visibility Class Map

Project Name: Amherst Island WP **Project #:** 212H **Turbine #:** S36

Photo Numbers (from turbine base)
Facing North: 25
Facing East: 26
Facing South: 27
Facing West: 28
(sketch habitat and visibility classes)

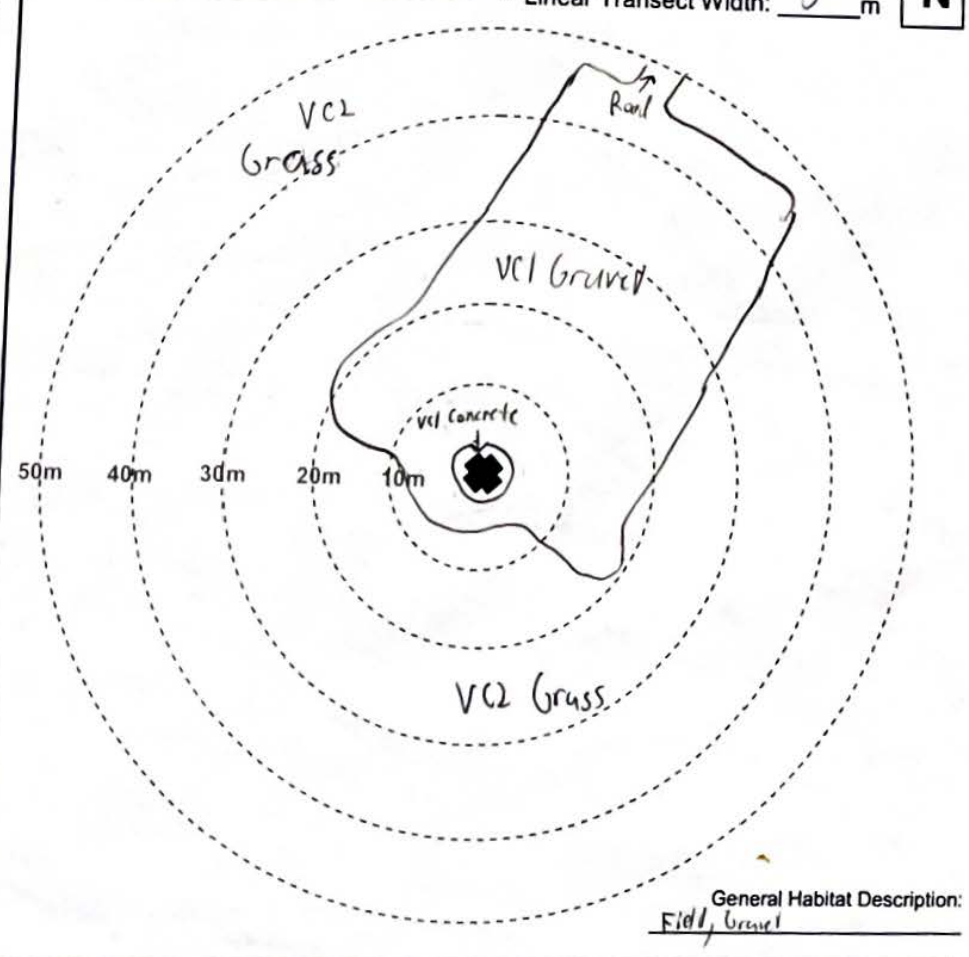
Date (DD/MM/YY): 12/09/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

Photo Numbers (from turbine base)
Facing North: 23
Facing East: 24
Facing South: 25
Facing West: 26
(sketch habitat and visibility classes)

Date (DD/MM/YY): 17/10/22
Observer: MPD
Monthly/Seasonal Linear Transect Width: 5 m



General Habitat Description: Field, Gravel

VISIBILITY CLASSES	
Class 1	≥ 90% bare ground; vegetation ≤ 15cm tall
Class 2	≥ 25% bare ground; vegetation ≤ 15cm tall
Class 3	≤ 25% bare ground; less than 25% of veg. > 30cm tall
Class 4	Little or no bare ground; more than 25% of veg. > 30cm tall
Not Searchable	Dense shrubs, woods, or other unsearchable habitats