



## Amherst Island Wind Project 2020 Significant Wildlife Habitat Monitoring

### Executive Summary

Natural Resource Solutions Inc. (NRSI) was retained to conduct post-construction monitoring of confirmed significant wildlife habitats (SWHs) at the Amherst Island Wind Project (Amherst Island WP), in accordance with the Renewable Energy Approval (REA) for the project (No. 7123-9W9NH2). The Amherst Island WP is located in Loyalist Township, in the County of Lennox and Addington, Ontario. It consists of 26 wind energy generating turbines with a nameplate capacity of 74.3MW. The full monitoring report provides the detailed methods and results from the second year of post-construction monitoring for SWHs conducted at the Amherst Island WP in 2020 (*Amherst Island Wind Project: 2020 Post-Construction Monitoring Report for Significant Natural Features*, NRSI 2021).

The report was prepared to be consistent with legislation and provincial guidelines relating to renewable energy projects, including specific details for the evaluation of SWHs. In addition, the fieldwork was conducted and the report prepared to be consistent with requirements for post-construction monitoring as outlined within the Environmental Impact Study (EIS) of the Natural Heritage Assessment (NHA, Stantec 2012), the Environmental Effects Monitoring Plan (EEMP, Stantec 2013) and the REA, and for comparability with pre-construction data collection (Stantec 2012).

The results of the post-construction surveys indicated that **22 out of 24 SWHs** identified within 120m of the Project during pre-construction surveys **remain significant** in the second year of monitoring after construction of the Amherst Island WP. Two (2) raptor wintering area habitats (RWA-3 and RWA-4) did not meet the provincial criteria for significance in the winter of 2019/2020. This may be explained by annual variation in species behaviour, including natural fluctuations in prey populations on Amherst Island. No other notable changes in species abundance or diversity have been observed during the second year of post-construction monitoring at the Amherst Island WP.

Additional analysis for potential avoidance of wildlife in significant raptor wintering area habitats and open country bird breeding habitats were undertaken as required by the EEMP (Stantec 2013). As a result of these analyses, NRSI has documented some apparent differences in how the areas around operational turbines are used by each of raptors and open country breeding birds. For raptors, there was a general trend indicating that overall, **more wintering raptors were observed in close proximity to operational turbines** than were using other portions of the habitats. An opposite trend was noted for open country breeding birds, with a general trend of **fewer open country breeding birds observed in close proximity to operational turbines** than in other portions of the habitats. Where larger differences have been noted, these may be linked to a number of factors, such as prey availability, suitable breeding habitat, localized annual variation, and previously established territories, as well as could be linked to the newly operational turbines on the landscape. Monitoring in 2021 will continue to evaluate the spatial use of the areas around operational turbines and explore any potential patterns of avoidance.

Additional post-construction surveys will be conducted in 2021 for these 6 habitat types, in accordance with the EIS of the NHA (Stantec 2012), the EEMP (Stantec 2013), and the REA.