NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Amherst Island Wind Project

2021 Significant Wildlife Habitat Monitoring

Executive Summary

Natural Resource Solutions Inc. (NRSI) was retained to conduct post-construction monitoring of previously 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 third year of post-construction monitoring for SWHs conducted at the Amherst Island WP in 2021 (*Amherst Island Wind Project: 2021 Post-Construction Monitoring Report for Significant Natural Features,* NRSI 2022).

The report was prepared to be consistent with legislation and provincial guidelines relating to the evaluation of SWHs, including applicable guidelines that are specific to renewable energy developments. 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 all 24 SWHs identified within 120m of the Project during pre-construction surveys remain significant in the third year of monitoring after construction of the Amherst Island WP, with most of these habitats maintaining significance throughout all three (3) monitoring years. No other notable changes in species abundance or diversity have been observed during the third 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 was 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 and open country breeding birds, there were indicators of a potential preference for target species to occur in lower densities at distances closer to operational turbines. Despite these potential overall trends, there has been considerable annual fluctuation over the three (3) monitoring years, and variability between turbine locations. These inconsistent observations suggest that changes in observed use are likely associated with inter-annual variation and/or changing resource availability, rather than avoidance behaviour which would be more likely to be observed more consistently across monitoring years and specific locations.

As 2021 represented the third year of post-construction monitoring for SWHs, and all 24 SWHs continue to demonstrate significant use, no additional monitoring is required at any of the SWHs, in accordance with the EIS of the NHA (Stantec 2012), the EEMP (Stantec 2013), and the REA.