NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Port Ryerse Wind Farm

2019 Significant Wildlife Habitat Monitoring

Natural Resource Solutions Inc. (NRSI) was retained to conduct post-construction wildlife monitoring at the operational Port Ryerse Wind Farm located near the Town of Port Ryerse, in Norfolk County, Ontario. This wind energy project has a total nameplate capacity of 10MW and consists of 4 operational turbines. This document provides an executive summary of the methods and results of the third year of post-construction wildlife monitoring conducted at the Port Ryerse Wind Farm in 2019.

Methods

NRSI conducted post-construction behaviour monitoring at the Port Ryerse Wind Farm following methods approved by the Ministry of Natural Resources and Forestry (MNRF) as part of the project's Natural Heritage Assessment (NHA) Environmental Impact Study (EIS) (Stantec Consulting Ltd. 2012), Environmental Effects Monitoring Plan (EEMP) (Stantec 2013), and NHA EIS Addendum (Stantec 2014). As outlined in these documents, 2 provincially Significant Wildlife Habitats (SWH) required post-construction surveys in 2019:

- One (1) Habitat for Bald Eagle Nesting, Foraging, and Perching (BAL-001); and
- One (1) Habitat for Landbird Migration Stopover Area (LSA-001)

These habitats were identified to be provincially significant in the NHA and NHA Addendum, which were completed prior to the construction of the project. Provincial significance of habitats was identified based on criteria established, or otherwise approved, by the MNRF.

As per the EIS report of the NHA and NHA Addendum (Stantec 2012, 2014) and the EEMP (Stantec 2013), the following methods were implemented for the monitoring study:

- Behavioural monitoring surveys for Bald Eagle Nesting, Foraging, and Perching habitat were conducted twice weekly from mid-February to mid-August; and
- Transect surveys for Landbird Migration Stopover Area habitat were conducted twice weekly during the spring and fall bird migration periods.

Results

Bald Eagle Nesting, Foraging, and Perching

The results of the post-construction Bald Eagle Nesting, Foraging, and Perching habitat surveys completed by NRSI in 2019, in comparison with the baseline data collected in 2014, are outlined below:

Feature ID	Pre-Construction Results (2014)	Post-Construction Results (2019)
BAL-001	**Significant** Successful nest with 2 eaglets	**Significant** Successful nest with 3 eaglets

The Bald Eagle, Nesting, Foraging, and Perching habitat continues to meet the established standards for significance based on post-construction monitoring surveys conducted in 2019.

Landbird Migration Stopover Area

The results of the post-construction Landbird Migration Stopover Area habitat surveys completed by NRSI in 2019, in comparison with the baseline data collected in 2012-2013, are outlined below:

Feature ID	Pre-Construction Results (Fall 2012-Spring 2013)	Post-Construction Results (2019)
LSA-001	**Significant** Used by >200 birds/day, Used by >35 bird species, Used by at least 10 bird species on at least 5 different survey dates	**Significant** Used by >200 birds/day, Used by >35 bird species, Used by at least 10 bird species on at least 5 different survey dates

The Landbird Migration Stopover Area habitat continues to meet the established standards for significance based on post-construction monitoring surveys conducted in 2019.

Additional Monitoring Commitments

Post-construction wildlife monitoring conducted by NRSI in 2019 represents the third of 3 years of post-construction monitoring of SWH to be conducted at the Port Ryerse WF.

In accordance with the approval conditions of the project, post-construction surveys are now complete for the Bald Eagle SWH and migratory landbird stopover and staging area. The results of the 3 monitoring years demonstrate no significant change in habitat use at either of the SWH, and therefore 2019 represents the final year of monitoring in accordance with the NHA (Stantec 2012, 2014a) and EEMP (Stantec 2013a).