



Port Ryerse Wind Farm 2017 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 first year of post-construction wildlife monitoring conducted at the Port Ryerse Wind Farm in 2017.

Methods

NRSI biologists 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, three (3) provincially Significant Wildlife Habitats (SWH) required post-construction surveys in 2017:

- One (1) Habitat for Bald Eagle Nesting, Foraging, and Perching (BAL-001); and
- One (1) Habitat for Landbird Migration Stopover Area (LSA-001)
- One (1) Habitat for Vegetation Species of Conservation Concern, Pignut Hickory (SCS01)

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;
- Transect surveys for Landbird Migration Stopover Area habitat were conducted twice weekly during the spring and fall bird migration periods; and
- Area search for Vegetation Species of Conservation Concern, Pignut Hickory, was conducted in March 2017

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 2017, in comparison with the baseline data collected in 2014, are outlined below:

Feature ID	Pre-Construction Results (2014)	Post-Construction Results (2017)
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 2017.

Landbird Migration Stopover Area

The results of the post-construction Landbird Migration Stopover Area habitat surveys completed by NRSI in 2017, 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 (2017)
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 2017.

Vegetation Species of Conservation Concern, Pignut Hickory

During the assessment of Habitat for Vegetation Species of Conservation Concern (Pignut Hickory), Bitternut Hickory and Shagbark Hickory were both noted in the hedgerow without any observations of Pignut Hickory. Based on the simplicity of the habitat (i.e. hedgerow) and resulting ease of assessment, presence of similar species, and no apparent impacts to the habitat that might result in tree removal, it has been concluded that the original identification of Pignut Hickory was a misidentification.

Additional Monitoring Commitments

Post-construction wildlife monitoring conducted by NRSI in 2017 represents the first of three (3) years of post-construction monitoring of SWH to be conducted at the Port Ryerse WF.

Additional post-construction surveys will be conducted for two (2) additional years, in 2018 and 2019, at the following habitats, in accordance with the EIS of the NHA, NHA Addendum, and the EEMP (Stantec 2014, 2013):

- Bald Eagle Nesting, Foraging, and Perching habitat (BAL-001); and
- Landbird Migration Stopover Area habitat (LSA-001)