



North Kent Wind 1 Project 2019 Disturbance Monitoring

Natural Resource Solutions Inc. (NRSI) was retained to conduct post-construction wildlife monitoring at the operational North Kent Wind 1 Project (North Kent WP) located north of the City of Chatham, in the Municipality of Chatham-Kent Ontario. This wind energy project has a total nameplate capacity of 100MW and consists of 34 turbines. This document provides an executive summary of the methods and results of the second year of post-construction wildlife monitoring conducted at the North Kent WP in 2019.

Methods

NRSI biologists conducted post-construction wildlife behaviour monitoring at the North Kent WP following methods approved by the Ministry of Natural Resources and Forestry (MNRF) as part of the Project's Natural Heritage Assessment (NHA), Environmental Effects Monitoring Plan (EEMP), and Pre-construction Monitoring Report (NRSI 2015a, 2015b, 2017). As outlined in these documents, two (2) provincially Significant Wildlife Habitats (SWHs) required post-construction behaviour surveys in 2019:

- One (1) Waterfowl Nesting Area (WFN-001) habitat; and
- One (1) habitat for a Bird Species of Conservation Concern (SCC), Eastern Wood-pewee (*Contopus virens*) (EWP-001).

These habitats were identified to be provincially significant in the Environmental Impact Study (EIS) report of the NHA (NRSI 2015a), the EEMP (NRSI 2015b), and the Pre-construction Monitoring Report (NRSI 2017), which were completed prior to the construction of the Project. Provincial significance of the habitats was identified based on criteria established, or otherwise approved, by the MNRF.

As per the EIS report of the NHA and the EEMP (NRSI 2015a, 2015b), the following methods were implemented for the monitoring study:

- Area search and transect surveys within the Waterfowl Nesting Area were conducted once in each of April, May, and June; and
- Point count and transect surveys for breeding Eastern Wood-pewee were conducted three (3) times from June to July.

Results

Waterfowl Nesting Area Habitat

The results of the post-construction surveys of the Waterfowl Nesting Area habitat conducted in 2019, in comparison with the baseline data collected in 2016, and the post-construction results from 2018 are outlined below:

Feature ID	Pre-construction Results (2016)	Post-construction Results (2018)	Post-construction Results (2019)
WFN-001	Significant Nine (9) observations of Wood Duck ¹ ; ≥ 3 nesting pairs	Not Significant Two (2) observations of Wood Duck; < 3 nesting pairs	Significant Ten (10) observations of Wood Duck ¹ ; ≥ 3 nesting pairs

1. Presence of at least three (3) nesting pairs were observed for this species. NRSI considered Ontario Breeding Bird Atlas (OBBA) breeding evidence codes for probable or confirmed breeding evidence as reasonable indication of a nesting pair.

The Waterfowl Nesting Area habitat meets the established standards for significance based on post-construction monitoring surveys conducted in 2019.

Bird Species of Conservation Concern Habitat

The results of the post-construction surveys of the Bird SCC habitat (Eastern Wood-pewee) conducted in 2019, in comparison with the baseline data collected in 2016, and the post-construction results from 2018 are outlined below:

Feature ID	Pre-construction Results (2016)	Post-construction Results (2018)	Post-construction Results (2019)
EWP-001	Significant Five (5) observations of Eastern Wood-pewee ¹ Highest Breeding Evidence: Probable	Significant Six (6) observations of Eastern Wood-pewee ¹ Highest Breeding Evidence: Probable	Significant Seven (7) observations of Eastern Wood-pewee ¹ Highest Breeding Evidence: Probable

1. Presence of nesting or breeding was observed for this species. NRSI considered OBBA breeding evidence codes for probable or confirmed breeding evidence as a reasonable indication if a bird is nesting or breeding.

The Bird SCC habitat meets the established standards for significance based on post-construction monitoring surveys conducted in 2019.

Additional Monitoring Commitments

Post-construction surveys are required to be conducted for one (1) additional year (2020) for the Waterfowl Nesting Area habitat (WFN-001) and the Eastern Wood-pewee habitat (EWP-001), and for two (2) additional years (2020 and 2022) for Vegetation SCC habitats (MSE-001, PAW-001) at the North Kent WP.