



Nation Rise Wind Farm 2025 Bat Mortality Monitoring

Natural Resource Solutions Inc. (NRSI) conducted post-construction monitoring at the operational Nation Rise Wind Farm, located within the Township of North Stormont and the United Counties of Stormont, Dundas and Glengarry, Ontario. This wind energy project has a generating capacity of 100MW and consists of 29 turbines. The purpose of this fact sheet is to provide an executive summary of the methods, analysis, and results of the fourth year of post-construction mortality monitoring that was conducted at the Nation Rise Wind Farm in 2025.

This fourth year of monitoring for bat mortalities was conducted as a result of exceeding the provincial threshold of 10 bats/turbine/year in 2022. As such, 2025 represents the third year of effectiveness monitoring after the implementation of required operational mitigation. Bird and raptor mortality data is not presented in 2025, as regulatory commitments, including associated monitoring for birds and raptors, have already been completed.

Methods

NRSI biologists conducted bat mortality monitoring at the Nation Rise Wind Farm following Ministry of Natural Resources (MNR) guidelines (*Bats and Bat Habitats: Guidelines for Wind Power Projects*, July 2011), the project's Environmental Effects Monitoring Plan (EEMP; NRSI 2017), and the project's *Mortality Monitoring Turbine Subset Selection Memo* (NRSI 2022). In accordance with these documents, the following methods were implemented:

- A subset of 10 turbines was searched twice-weekly from May through October;
- Searches were conducted in circular plots with a 50m radius, centered at each turbine;
- Searcher efficiency trials were conducted in each study season to assess the effectiveness of each searcher; and
- Scavenger removal trials were conducted in each study season to assess the level of scavenging activity at the turbines.

Results

During post-construction mortality monitoring at the Nation Rise Wind Farm in 2025, 18 bat mortalities were documented within the search radii of the 10 subset turbines. Observed bat mortalities consisted of long-distance migratory species that overwinter outside of Ontario.

Following the MNR guidelines, NRSI biologists incorporated the searcher efficiency, scavenger removal, and proportion of area searched variables into the MNR's estimated mortality equation to determine an estimated rate of bat mortality at the Nation Rise Wind Farm of **4.65 bats/turbine/year**. This is below the MNR threshold of 10 bats/turbine/year. By comparison, the average bat mortality rate in Ontario is estimated

at 11.7 ± 0.1 bats/turbine/year (Birds Canada Wind Energy Bird and Bat Monitoring Database, *Summary Findings*, November 2018).

Summary

Based on the results of the 2025 post-construction monitoring program at the Nation Rise Wind Farm, no annual mortality thresholds were met or exceeded. These thresholds, as defined by the MNR guidelines, and the associated results of the 2025 monitoring at the Nation Rise Wind Farm are briefly summarized below.

MNR Mortality Threshold	Type of Threshold	2025 Summary Nation Rise Wind Farm
10 bats/turbine/year	Annual Corrected Rate	4.65 bats/turbine/year