



Environment
Canada

Environmental Protection Operations Division -Ontario
P. O. Box 5050, 867 Lakeshore Rd.
Burlington, Ontario L7R 4A6

Environnement
Canada

Division de protection de l'environnement
867, rue Lakeshore
Burlington, ON L7R 4A6

File No.: 2007-103

July 7, 2011

Mathieu Leblanc
Environmental Assessment Officer
Natural Resources Canada
615 Booth Street, Room 160
Ottawa, Ontario K1A 0E9

Dear Mr Leblanc,

Re: Comments on 4th Post-Construction Monitoring Report for the Wolfe Island EcoPower Centre

This letter contains Environment Canada's (EC) comments on the fourth post-construction monitoring report (hereafter referred to as the Report) for the Wolfe Island EcoPower Centre covering the period of July to December 2010. This is the fourth in a series of reports that are intended to document the impacts of the project on birds and bats. Thank you for the opportunity to review and comment on the documentation.

The field surveys conducted during this reporting period included:

- bird and bat mortality monitoring, and
- disturbance effects monitoring in relation to:
 - staging and foraging migratory waterfowl, and
 - wintering raptors.

Based upon our review of the Report, we believe the surveys and the analysis were conducted in a manner consistent with the methodologies described in the February 2010 version of the Post-Construction Follow-up Plan (PCFP) that has been developed for the project. EC supports the recommendation to discontinue the inland waterfowl foraging and movement surveys for the reasons outlined in the Report

The remainder of this letter contains EC's specific comments and recommendations following our review of the Report.

1. Mortality Monitoring – Birds:

Based on the information presented in the Report, we understand that 54 carcasses involving 22 different bird species were collected during the reporting period. Avian mortality was dispersed throughout the wind facility and no specific pattern at a single or set of turbines could be identified. Bird fatalities were highest in the summer (July through September) with fewer occurrences in the fall (October through September). The total corrected estimate for this six month period is 3.6 birds/MW or 8.27 birds/turbine. This level of mortality is below the notification threshold of 11.7 birds/MW when the need to consider adaptive management is initiated.

a. MET Tower Fatality Rates:

The Report indicates that fatality rates for turbines and MET towers were calculated separately (Sec. 2.1.2.3, p. 6, para. 2), but EC could not find information on fatality rates at the MET towers. EC requests that the fatality rates at the MET towers be reported, and that this information be highlighted, and compared to the rates at the turbines.

b. Bobolink and Tree Swallows:

EC had requested that Bobolink and Tree Swallow fatalities be recorded as adults or juveniles. This has been done (Sec. 3.1.2, p. 2, para. 5 and 7), and this reporting should continue in subsequent reports.

c. Raptors:

The Report states, "The raptor mortality rate, including vultures, of 0.04 raptors per MW is at the mid-point of the range observed at other facilities in North America (0 – 0.09 raptors per MW; Arnett et al., 2007) and is consistent with rates observed elsewhere in Ontario (Stantec, unpublished data)." (Ex. Sum. p. E.2, para. 4). EC recommends that the Report be revised to also note where the Wolfe Island Wind Plant raptor mortality rate ranks in the list of projects reviewed by Arnett (e.g., 'x' highest rate of 'y' projects).

The Report notes that searcher efficiency (Se), the proportion of carcasses found by searchers, was estimated to be 1.0 for raptors and vultures (Sec. 2.1.2, para. 4), since searcher efficiency rates are higher than average for large birds, and larger and heavier birds are more likely to fall closer to the turbine (Sec. 2.1.2, para. 3). The Report further notes that, "Searcher efficiency for raptors and vultures was assumed to be 100% in the areas in which raptors and vultures were readily visible, due to the size of these birds." (Sec. 3.1.1.1, para. 2). EC would like to know how searcher efficiency was calculated for raptors in areas where carcasses would not be readily visible, and where smaller raptors such as Kestrels might be particularly difficult to find.

2. Waterfowl Foraging and Movement Surveys

As noted above, we support the proponent's recommendation to discontinue the inland waterfowl foraging and movement surveys. EC believes that a continuation of the field surveys is not going to show any population level impacts on waterfowl use of Wolfe Island.

The Report suggests that waterfowl were not observed directly adjacent to the turbines (i.e., within 100 m); however, they were observed in flocks in the vicinity of (i.e., within 500 m) the turbines. If possible, it would be helpful if the proponent could provide an analysis, or at least a summary of the existing data used to support these observations so a better understanding of turbine related disturbance impacts can be obtained.

3. Minor Editorial Comments

The following are minor editorial changes that we recommend for the revised version of the Report. Revised text appears underlined and deleted text is shown with a strikethrough. In addition to the suggested revisions, we also recommend that the page numbering of the Report be revised as the numbering appears to restart at the beginning of each section.

"Between years, flocks were often observed in the same generally areas, ..." (Ex. Sum. p. E.3, para. 4).

"The Follow-up Plan ~~is to be~~ was fully implemented upon commencement of commercial operations. ~~The implementation of the Follow-up Plan will~~ to test the predictions of the ERR

prepared in accordance with the Ontario *Environmental Assessment Act* and the Canadian *Environmental Assessment Act*." (Sec. 1.2, para. 4).

"Ps was calculated for the Reporting Period based on data collected during regularly-scheduled surveys at between June 28 and July 2, ..." (Sec. 2.1.2.3, para. 2).

"During each year of surveys, Sectors 9 and 10, along the south shore is of the island, appear to be the most important staging area for swans." (Sec. 4.2.1, para. 5).

Summary

Thank you for providing us with the fourth Wolfe Island Ecopower Centre post-construction monitoring report for review. Please let me know if you have any questions concerning the comments and recommendations we have provided in this letter. We look forward to the opportunity to review the next bi-annual monitoring report.

Sincerely,



Rob Read
Environmental Assessment Officer

cc: R. Dobos, Environment Canada
E. Prevost, Ontario Ministry of Natural Resources
M. Austen, Environment Canada

J. Fischer, Environment Canada
G. Perfect, TransAlta