

Ministry of  
Natural Resources  
Peterborough District Office  
300 Water Street  
1<sup>st</sup> Floor, South Tower  
Peterborough, Ontario K9J 8M5

Ministère des  
Richesses naturelles  
Telephone: (705) 755-2001  
Facsimile: (705) 755-3125



May 10, 2010

Garry Perfect  
Environmental Specialist  
TransAlta  
34 Harvard Road,  
Guelph, ON  
N1G 4V8

Dear Mr. Perfect:

**Subject: Ministry of Natural Resources Comments regarding Wolfe Island EcoPower Centre Post-Construction Follow-Up Plan Bird and Bat Resources, Monitoring Report No.2**

Thank you for the opportunity to review the second biannual report for the Wolfe Island EcoPower Centre. MNR has the following comments based on our review of the document. Please note that where we have specified revisions to existing text, we have used *italicized text* to denote additions.

#### Mortality Monitoring – Raptors

Twelve raptor and vulture fatalities were recorded over the course of the reporting period; six Turkey Vultures, three Red-tailed Hawks, two American Kestrels and one Merlin. Birds were presumed to be breeding, staging or migrating in the vicinity of the turbines. When corrected for scavenger removal, this represents approximately 13 raptor/vulture fatalities and an estimated mortality rate of 0.15/turbine or 0.07/MW). Raptors and vultures are listed on the same Schedule (7) of the Fish and Wildlife Conservation Act so mortality data is combined for the two.

Generally, based on raptor/vulture mortality results from other Ontario wind facilities, the number of raptors/vultures found at Wolfe Island is among the highest, however MNR is cautious in making comparisons between facilities at this time.

As suggested in Report No.2, in order to make valid comparisons with other wind facilities a full year of mortality data is necessary. No raptors were reported during the first reporting period (May-June 2009) and Report No. 2 estimates 13 raptors/vultures. MNR requests that raptor/vulture mortality data for January through April 2010 be provided to the Parties prior to issuing the next (third) biannual report.

MNR recommends that monitoring and notification continue as per the Plan; further consideration of results will continue as data is provided.

#### Disturbance Effects Monitoring – Raptors

Wolfe Island is known to support a number of raptors and owls during the winter months. MNR is pleased to see that all of the species observed in 2006 were observed during monitoring in 2009.

Similar to above, a complete year of raptor monitoring data will allow for more meaningful comparison and analysis of potential declines, as per Section 3.3 of the Post-Construction Follow-Up Plan (PCFP). Annual fluctuation is expected and MNR agrees that wintering raptors and owls have generally appeared lower in Ontario during the winter of 2009/10. Multiple years of monitoring will provide a better indication of trends and potential disturbance effects.

#### Mortality Monitoring - Bats

Considering correction factors, the 180 bat carcasses recovered represent approximately 1,270 bat fatalities over the reporting period from July 1 to December 30, 2009. Five species of bats were collected and 74% were long-distance migratory tree bats: an expected trend.

The first post-construction bird and bat report (September 2009) concluded that approximately 45 bat fatalities occurred over the reporting period from May 7 to June 30, 2009. Combining the two, approximately 1,315 bat fatalities have occurred over the course of the entire monitoring period. According to MNR's calculation, considering the seasons when bats are active, this equates to an estimated annual mortality rate of 15.29 bats/turbine, or 6.62 bats/MW.

The PCFP incorporates an adaptive management approach. Section 3.2.2.2 of the PCFP indicates that, if with due consideration of seasonal abundance and species composition, annual mortality levels are projected to exceed the notification threshold, NRCAN and MNR will be engaged to initiate an appropriate response plan. The response plan may include initiation of research to identify contributing factors, increased survey or monitoring frequency or increase of rotor cut-in speed. The current estimated bat mortality rate at Wolfe Island is below the threshold triggering a response plan, however MNR would like to engage in discussions regarding bat mortality levels at Wolfe Island, prior to the threshold being met.

The MNR employs an adaptive management approach with regard to effects on bats from wind power facility operations, this may include operational mitigation. Our knowledge of the threats to bats is continually increasing, including the confirmation of White Nose Syndrome in Ontario and potential risks to bats due to operation of wind turbines. New and developing science increases our understanding of effects on bats and provides for potential opportunities for mitigation of bat mortality effects.

Given our understanding of bat mortality at wind facilities in Ontario, the estimated mortality at Wolfe Island warrants further consideration and discussion. MNR requests that TransAlta and the MNR maintain active and focused dialogue regarding bat mortality levels at the Wolfe Island EcoPower Centre. These discussions will allow for the identification of opportunities for reducing potential effects on bats based on the developing science related to bats and wind turbines.

#### Correction Factors and Data Analysis

2.1.2.2 – “Dark chick carcasses were placed....”

2.1.3 – Recommend including equation used to calculate 7854 m<sup>2</sup> in calculations for percent area searched ( $\pi \cdot r^2$ ) and provide equation and values (average of Ps<sub>1</sub> through Ps<sub>86</sub>) for summer and fall in Appendix B.

MNR is supportive of proposed modifications to the monitoring schedule, and agrees that it will assist in decreasing uncertainty related to correction factors. MNR also supports the recommendation to continue mortality and disturbance effects monitoring as per the February 2010 Follow-Up Plan.

Thank you for the opportunity to review and provide comments. Please feel free to contact me with any comments or questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Cotnam'.

Erin Cotnam  
Peterborough District MNR

cc Rob Read, Environment Canada  
Julie Harris, Natural Resources Canada  
Valerie Wyatt, Stantec