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Ontario

M E M O R A N D U M 06 March 2013

TO: Shannon McNeill
Senior Project Evaluator
Environmental Approvals Branch
Toronto

FROM: B. W. Metcalfe
Senior Environmental Officer
Water Resources Unit, Surface Water Group
Technical Support Section
Eastern Region

RE: REA Application
Ernestown Wind Park Inc. – Ernestown Wind Park
Lot 27, Concession 2, Geographic Township of Lennox
Loyalist Township, County of Lennox & Addington

I have reviewed the supporting technical information documents for the above noted REA Application. The documents are dated September 14, 2012 and prepared by M. K. Ince and Associates Ltd. (MKI) for Ernestown Wind Park Inc. The following comments are offered relative to surface water impact concerns.

Supporting Documentation Reviewed

- 'DRAFT' Water Assessment Report (M. K. Ince and Associates Ltd., September 14, 2012)
- 'DRAFT' Water Bodies Impact Assessment Report (M. K. Ince and Associates Ltd., September 14, 2012)
- Construction Plan Report (Ortech Environmental, October 2, 2012)

Proposed Project

Ernestown Wind Park Inc. proposes to build a wind park, with a nameplate capacity of 10 MW on privately-owned agricultural lands near the community of Ernestown within Loyalist Township, Lennox & Addington County, Ontario. The project would consist of

five (5) wind electric generators and would be rated as a Class 4 wind energy facility. The site is 1.2 km north of Lake Ontario, west of the City of Kingston, and bordered by Millhaven Road to the north and Taylor-Kidd Boulevard to the south.

Surface Water Regime of Concern

The project is located in the watershed managed by the Cataraqui Region Conservation Authority. The project catchment area is drained to an unnamed tributary which flows south-easterly and discharges to Parrot's Bay, Lake Ontario (Lake Ontario Basin) which is the terminal receiver.

Results from the Water Assessment Report indicate that five (5) water bodies exist within 120 m from the proposed Project infrastructure. The following five surface water features were identified to include:

1. WA02 – permanent stream to be crossed at three locations by access roads and overhead electrical collector lines (identified to be a permanent stream in most reaches i.e., it is therefore, an intermittent flowing stream)

2. WA07 – natural pond/shallow marsh

3. WA13 – natural pond

4. WA14 – spring (groundwater)

5. WA15 – spring (groundwater)

No seepage areas or lake trout lakes were found to occur within 120 m and 300 m of the Project location.

Water Bodies Impact Assessment Report

Mitigation and monitoring measures are outlined in the Environmental Effects Monitoring Plan in the *Design and Operations Report*, and in the Construction Plan Report, and are referred to in Section 3 of the *Water Bodies Impact Assessment Report*.

The Project proponent will employ the installation of silt fencing along the perimeters of the water body features, minimize disturbance to non-construction areas, and adhere to the construction plans. The mitigation measures proposed are anticipated to fully mitigate for all negative environmental effects to the surface water regime to be protected.

The proponent will ensure the safe storage of petroleum, fuels and lubricants. Any fuel storage and activities with the potential for contamination will occur in properly protected and sealed areas.

In the event of an accidental spill, the MOE Spills Action Centre will be contacted and emergency spill procedures implemented immediately.

The proponent will minimize the use of road salt and employ the use of a licensed contractor for winter road cleaning and maintenance.

- The proposed mitigation measures which were developed to prevent negative environmental effects to the potentially impacted waterbodies are acceptable to the reviewer.

Stream Crossings

The permanent stream (WA02) is to be crossed at three locations by access roads and overhead electrical collector lines. Access roads running north toward Turbine 1 and east toward the proposed meteorological station both require permanent stream crossings. A third stream crossing involves stringing an above ground collector line across a shallow valley north of the quarry.

Where access roads and cabling cross water bodies, the Department of Fisheries and Oceans (DFO) Operational Statement(s) for *Isolated or* Dry *Open-Cut Stream Crossings* and also for *Overhead Line Construction* will be adhered to and will be integrated into construction plans where appropriate.

- The reviewer would bring to the attention of the Project proponent that, where the diversion of natural flow around the site during construction may be required the proponent is advised, prior to any stream diversion works, to contact the s.34, OWRA, Director, MOE – Eastern Region, to ensure compliance/adherence to the requirements associated with the Permit to Take Water (PTTW) program per s.34, OWRA.

Environmental Effects Monitoring Plan

The Environmental Effects Monitoring Plan and Contingency Measures outlined in the *'Draft' Water Bodies Impact Assessment Report* is to facilitate the identification of any problems with existing mitigation measures and their effectiveness in meeting the specified performance objectives. In the event that routine monitoring indicates performance objectives are not being met, i.e., to ensure that no contamination occurs

within the Project area which result in negative environmental impacts and/or may impair the surface water regime to be protected, then the contingency measures will be adopted to ensure actions are taken to meet the performance objectives. Relative to surface water impact concerns the proposed Environmental Effects Monitoring Plan and Contingency Measures are acceptable to the reviewer.

Summary

It has been determined there are five (5) water bodies where potential environmental effects exist. These environmental effects are anticipated to be highly localized and short-term. The Project proponent has identified the potential environmental impacts to the unnamed intermittent watercourse that are most likely to occur during the construction, operation and decommissioning phases of the Ernestown Wind Park project.

During construction the Project proponent is expected to ensure that current best management practices (BMPs) for spill prevention will be utilized. Erosion control works are to be implemented prior to construction activities and will only be removed once inspections have determined that the threat of erosion has been diminished to the original land-use or lower.

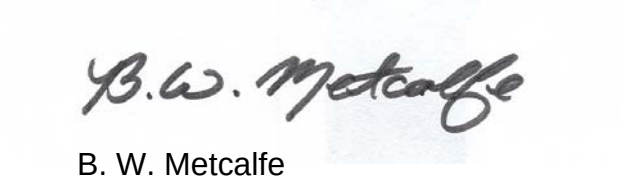
The Project proponent would be expected to employ current Best management Practices (BMP) during all phases of Project activity including the construction, the operation and decommissioning phases for the Project.

The Project proponent would be expected to include stormwater management works for the Project Site, as may be necessary, and which are designed to effectively mitigate negative effects pertaining to the identified potentially affected downgradient surface water bodies to be protected.

The reviewer would note that where the diversion of natural flow around the site during construction may be required the Project proponent is advised, prior to any stream diversion works, to contact the s.34, OWRA, Director, MOE – Eastern Region, to ensure compliance/adherence to the requirements associated with the Permit to Take Water (PTTW) program.

In conclusion, based on the supporting technical information provided and reviewed, the reviewer is satisfied with the Project proponent's assessment which determined the proposed Project will with the implementation of the BMPs, the adherence to the proposed mitigations and monitoring measures to be implemented as described, would

be anticipated to eliminate the potential negative impacts to the identified surface water regime to be protected and there are no significant residual negative effects which are anticipated to impact the surface water regime.



B. W. Metcalfe
BWM/gl

ec: G. Dagg-Foster
B. Kaye

c : B. Metcalfe (App2013\app0313.mem) 5053-94VNEB \X-ref. 4558-94VN94
File SW LNLO C2 03 18, Ernestown Wind Park Project, Loyalist Township
File SW 07 02 11 01 02, Unnamed Creek, Lake Ontario Basin