

September 2011



NORTHLAND POWER

McLean's Mountain Wind Farm

Property Line Setback Report - Final



Submitted by:



**McLean's Mountain Wind Farm -
Renewable Energy Approval (REA)
Application Submission**

FINAL SUBMISSION

Property Line Setback Report

September 2011

**McLean's Mountain Wind Limited
Partnership**

09-1983

Submitted by

**Dillon Consulting
Limited**

Executive Summary

Northland Power Inc. (NPI) and Mnidoo Mnising Power (MMP) together form McLean's Mountain Wind Limited Partnership (MMWLP). MMWLP propose to develop the McLean's Mountain Wind Farm (MMWF), located south of the community of Little Current, in the Municipality of Northeastern Manitoulin and the Islands (NEMI); geographic Township of Howland, and the geographic Township of Bidwell in the District of Manitoulin, Ontario and falls within the traditional lands of the Anishnabee of Mnidoo Mnising. The selection of the project's location was based primarily on the wind resource, access to the Provincial transmission system, environmental constraints and local landowner support.

The proposed wind farm (the "project") will consist of 24, 2.5 MW wind turbines with a nameplate capacity of 60 MW. The electricity generated from the wind turbines will be collected through a network of collection grid lines to the on-site transformer. The transformer will step-up the voltage to 115 kV. A 10.3 kilometre transmission line will be installed to connect the project to the Provincial Grid on Goat Island. A section of the transmission line will involve a submarine cable to cross the North Channel to access Goat Island. Each wind turbine will be accessed by a short access road.

The proposed project will require approval under Ontario Regulation 359/09 – Renewable Energy Approval (REA) under the *Green Energy Act*. Based on the REA Regulations, this project is a "Class 4" wind facility. The *Property Line Setback Report* is one component of the REA Application for the Project, and has been written in accordance with Ontario Regulation 359/09, the Ontario Ministry of Natural Resources' (MNR) Approval and Permitting Requirements Document for Renewable Energy Projects (September 2009) and MOE's draft Technical Bulletin Six: Required Setbacks for Wind Turbines (March 2010).

The *Property Line Setback Report* is only required when turbine locations are within the required setbacks. All noise receptor, road and transformer setbacks have been met. There are three wind turbines that are to be located within the tower height (98.3 metres) of a non-participating property line. Each of these turbines are located at least 61.5 metres (blade length plus 10 metres) from the non-participating property line boundaries. This report outlines the distances between the turbine base and the non-participating property line and the expected impacts. There are no sensitive land uses within the 98.3 metres of these three turbines. Therefore, it is the conclusion of this report that there will be no expected impacts based on the wind turbine layout.

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1. INTRODUCTION

McLean's Mountain Wind Limited Partnership (MMWLP) propose to develop the McLean's Mountain Wind Farm (MMWF). The proposed wind farm will consist of twenty-four (24) wind turbines that will generate sixty (60) megawatts (MW) of electricity. For the purposes of all the environmental studies, twenty-nine (29) potential turbine sites have been identified and examined. Approval is only being sought for the construction of 24 turbines. The five additional turbine sites will only be implemented, should any of the preferred 24 sites become unsuitable for development. REA approvals are being sought for all 29 potential turbine sites.

The proposed project will require approval under Ontario Regulation 359/09 – Renewable Energy Approval (REA) under the *Green Energy Act*. Based on the REA Regulations, this project is a “Class 4” wind facility and this *Property Line Setback Report* is written in accordance with Ontario Regulation 359/09. This *Property Line Setback Report* provides a description of setbacks of the project components to property lines, noise receptors and roads and railways, as applicable.

The McLean's Mountain Wind Farm Environmental Study Report (ESR) document was released in July 2009 for a 30–day public review, as part of the former Environmental Assessment process. The ESR document is consistent with the former Environmental Screening provisions of Ontario Regulation 116/01 for a Category B project and with the requirements of the *Canadian Environmental Assessment Act*. The ESR document was developed to assist in the determination of potential environmental effects, including both the social and natural environment, which could result from the proposed project. The ESR document contains a lot of information that is not required under the REA legislation and can be referred to when more information is required.

The REA approval process replaces several approvals formerly required under the Environmental Assessment Act, Planning Act, and Environmental Protection Act. The project is being developed under the Ontario Green Energy Act (GEA) Feed-In-Tariff (FIT) program.

Other reports included in the submission package and available for public review and comment include:

- Project Description Report;
- Design and Operations Report;
- Construction Plan Report;
- Noise Study Report;
- Natural Heritage Assessment Reports (Records Review, Site Investigation, Evaluation of Significance, and Environmental Impact Statement (EIS));
- Water Bodies Assessment Summary Report;
- Archaeological Assessment Reports (Stage 1 and 2) ;

- Cultural Heritage Self-Assessment Report;
- Consultation Report;
- Decommissioning Plan Report;
- Wind Turbine Specification Report;
- Environmental Management and Protection Plan (EMPP);
- Post-Construction Monitoring Plan (PCMP); and
- Supporting Documents.

2. THE PROPONENT

Northland Power Inc. (NPI) is a developer, owner and operator of power generation facilities and the proponent of the "McLean's Mountain Wind Farm Project". In February 2011, Mnidoo Mnising Power (MMP), a company formed by the United Chiefs and Councils of Mnidoo Mnising First Nations (UCCMM), entered into a 50/50 partnership with Northland Power Inc. to form the McLean's Mountain Wind Limited Partnership to develop the McLean's Mountain 60 MW Wind Farm project.

NPI's development activities include building, owning and operating wind energy facilities. In the course of developing its wind energy projects, NPI satisfies various environmental approval requirements and obtains regulatory approvals that vary depending on the jurisdiction, project capacity and site location.

The MMP company was formed to lead renewable energy projects on Manitoulin Island in order to protect First Nations' rights, heritage and ensure the future for First Nations' youth.

MMWLP is the primary contact for this project. The MMWLP contact information is as follows:

Full Name of Company:	<u><i>McLean's Mountain Wind Limited Partnership</i></u>
Address:	<u><i>30 St. Clair Avenue West, 17th Floor</i></u> <u><i>Toronto, Ontario M4V 3A1</i></u> <u><i>Canada</i></u>
Telephone:	<u><i>Local office: (705)-368-0303</i></u> <u><i>mobile: (705)-271-5358</i></u>
Prime Contact:	<u><i>Rick Martin, Project Manager</i></u>
Email:	<u><i>rickmartin@northlandpower.ca</i></u>

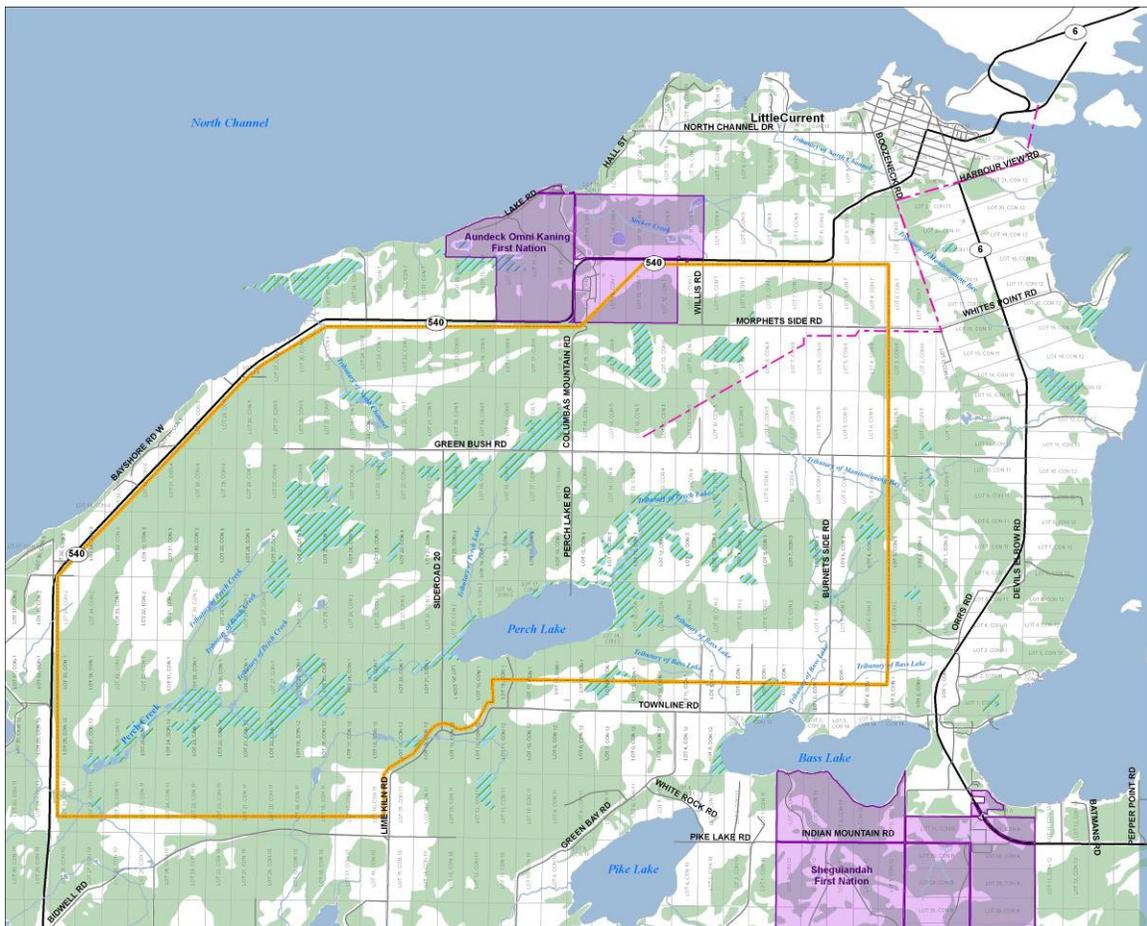
Dillon Consulting Limited is the prime consultant for the preparation of this Property Line Setback Report. The Dillon contact information is as follows:

Full Name of Company:	<u><i>Dillon Consulting Limited</i></u>
Address:	<u><i>235 Yorkland Boulevard, Suite 800,</i></u> <u><i>Toronto, Ontario M2J 4Y8</i></u>
Telephone:	<u><i>Office: (416)-229-4646 ext 2335</i></u>
Prime Contact:	<u><i>Don McKinnon, REA Project Manager</i></u>
Email:	<u><i>dpmckinnon@dillon.ca</i></u>

3. PROPOSED PROJECT LOCATION

The project study area is located entirely in the Municipality of Northeastern Manitoulin and the Islands; geographic Township of Howland and the geographic Township of Bidwell, in the District of Manitoulin and falls within the traditional lands of the Anishnabee of Mnidoo Mnising. The project location is approximately 5 kilometers from the Town of Little Current. Within this broader project study area is the project site area, where the wind turbines and associated wind farm infrastructure will be located (excluding a portion of the transmission line and the connection yard at the Hydro One grid, which is located on the adjacent Goat Island). **Figure 3-1** presents the location of the project area.

Figure 3-1: Project Area



The selection of the project's location was based primarily on the wind resource assessment results, access to the local electrical transmission system, environmental constraints and local landowner support.

4. REPORT REQUIREMENTS

Of the 29 proposed turbine sites, 3 turbines are located closer to a property line than the height of the wind turbine (98.3 metres). None of the turbine sites to be permitted are located less than the length of the wind turbine blade plus 10 metres (61.5 metres) from a property line. All of the permitted turbine sites meet the noise receptor setback of 550 metres.

This Property Line Setback Report provides a summary of the potential negative impacts and preventable measures for wind turbines located within the prescribed setback from non-participating lot lines.

This Property Line Setback Report has been prepared in accordance with O.Reg 359/09 s. 53 which sets the requirements in **Table 4-1** below.

Table 4-1: Property Line Setback Report Requirements as per O.Reg 359/09

<i>Requirements</i>	<i>Section</i>
As part of an application for the issues of a renewable energy approval or a certificate of approval in respect of the construction, installation or expansion of the wind turbine, the person who is constructing, installing or expanding the wind turbine submits a written assessment,	
1. Demonstrating that the proposed location of the wind turbine will not result in adverse impacts on nearby businesses, infrastructure, properties or land use activities, and	Section 5, Table 2
2. Describing any preventative measures that are required to be implemented to address the possibility of any adverse impacts.	Section 5, Table 2

5. SUMMARY OF PROPERTY LINE SETBACK INVESTIGATION

This section summarizes the features where the turbines will be inside the 98.3 metre setback, potential adverse impacts on those features and the preventative measures that will be taken to address these adverse impacts. **Table 5-1** below provides a listing of the 3 turbines that do not meet the 98.3 metre setback from non-participating lot lines, the distance of overlap, and the land use associated with the non-participating parcel, any potential adverse effects as well as prescriptive measures to mitigate any effects.

For the three turbine sites that are located within 98.3 metres, the adjacent land uses are either bush or a combination of bush and open field that is used for cattle grazing. There are no sensitive land uses (e.g. businesses, infrastructure, farm buildings, etc.) within the 98.3 metre setback of these wind turbines on adjacent non-project participating properties.

Table-5-1: Property Line Setback Summary, Effects and Preventative Measures

Turbine Site ID	Distance to Property Line (m)	Adjacent Lot/Concession	Features within 98.3 metres of turbine	Potential Adverse Impacts	Preventative Measures
T9	75 m	Lt 4, Con 6	Open Field	None Expected	None Required
T21	68.2 m	Lot 20, Con 3	Woodlands	None Expected	None Required
T43	65m	Lot 23, Con 11	Woodlands	None Expected	None Required

5.1 Property Line Setback Analysis

Description of Features Within Overlap

Turbine site 9 is 23.3 metres closer to the property line than tower height. Turbine sites 21 and 43 are 30.1 metres and 33.3 metres respectively closer to the adjacent property lines than tower height. Features within the area of overlap are:

Potential Adverse Impacts

Adverse impacts could include vegetation damage, soil compaction and damage to trees (turbine site 43) in the unlikely event of a turbine collapse.

Preventative Measures

The turbines are to be designed and constructed by professional engineers. They will be serviced regularly and monitored by operational staff. Each turbine will contain shut down mechanisms in the case of severe weather events. In the unlikely event of turbine collapse the project owners would work with landowners to negotiate compensation terms. The Renewable Energy submission package detail best practices for soil compaction and vegetation loss/damage. With the above preventative measures and those outlined throughout the REA reports the turbine locations are justified.

Please see **Appendix A** for a map that illustrates the turbines within the 98.3 metre non-participating property line setback.

APPENDIX A
Mapping

**McLean's Mountain Wind Farm
Figure A-1: All Turbines within
98.3 m of a Non-Participating
Lot Line**

Legend

-  Local Roads
-  Highway
-  Lots/Concessions
-  Participating Lots
-  Water Body
-  Watercourse
-  Woodland
-  Unevaluated Wetland
-  Open Field

Project Components

-  Turbine Locations
-  Extra Permitted Sites

