



**PORT RYERSE
WIND POWER PROJECT
PROJECT SUMMARY REPORT**

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1.0 Introduction

1.1 PROJECT OVERVIEW

Boralex Inc. (Boralex), in association with UDI Renewables Corporation (UDI), is proposing to develop the Port Ryerse Wind Power Project (the Project) east of the hamlet Port Ryerse in Norfolk County, Ontario, in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province. The Project was awarded a Feed-In-Tariff (FIT) contract with the Ontario Power Authority (OPA) on February 25, 2011. Further information on the Project can be found on the Project-specific website at <http://www.udi-canada.com>. Boralex Inc. is a power producer whose core business is dedicated to the development and operation of renewable energy facilities. Further information on Boralex can be found at <http://www.Boralex.com/en/>.

The Renewable Energy Approval (REA) process for the Port Ryerse Project was originally initiated by UDI, with the assistance of M.K. Ince and Associates Ltd. Boralex is considering acquisition of the Project from UDI and retained Stantec Consulting Ltd. (Stantec) to complete the REA Application, as required under Ontario Regulation 359/09 - Renewable Energy Approvals under Part V.0.1 of the Act of the Environmental Protection Act (O. Reg. 359/09). According to subsection 6(3) of O. Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O. Reg. 359/09 for such a facility.

The Project Study Area is generally bounded by i) Woolley and Gilbert Roads to the north; ii) Port Ryerse Road to the west; iii) Hay Creek to the east and iv) Avalon Lane to the south (**Appendix A, Figure 1**). The proposed Project Location includes all parts of the land in, on, or over which the Project is proposed. The Project Location (**Appendix A, Figure 2**), including all Project infrastructure, is sited on privately-owned lands, where landowners have entered into a lease agreement with Boralex/UDI. Permissions to access these properties have been obtained through verbal discussions with landowners, as a requirement of their signed agreements with Boralex /UDI.

Three wind turbine models were initially assessed as part of the REA process, the Siemens SWT 3.0 113, ENERCON E-92 2.35 MW and ENERCON E-82 E2 2.3MW; however one turbine model has been selected as the preferred alternative; the Siemens SWT 3.0 113.

The Project will include four Siemens SWT 3.0 113 wind turbine generators. The 3.0 MW turbines will be customized to a nameplate capacity of 2.5 MW for this Project. The total maximum installed nameplate capacity of all four turbines will not exceed 10 MW. Other basic components include step-up transformers located adjacent to the base of each turbine (step up voltage from approximately 0.69 kV to 27.6 kV), a 27.6 kV underground collector system, fibre optic data lines, a distribution substation, a permanent parking lot (if required), a meteorological tower and turbine access roads.

Temporary components during construction include laydown areas at the turbine locations and crane pads. No operations and maintenance building or transmission line is anticipated to be required for the Project. No Project components are located within municipal road Rights of Way (ROWs).

The 27.6 kV underground collector lines will transport the electricity generated from each turbine to the distribution substation located on private property east of Port Ryerse Road. Directional bore techniques will be used where the underground collector lines cross valleylands and watercourses. At the substation, a dip-pole connection will be made directly into the local distribution system.

1.2 REPORT REQUIREMENTS

This Project Summary Report provides a summary of each REA report that will be included as part of the REA application. This report includes a summary of the following reports:

- Project Description Report;
- Construction Plan Report;
- Design and Operations Report, includes:
 - Property Line Setback Assessment;
 - Environmental Effects Monitoring Plan For Wildlife; and,
 - Noise Assessment Report;
- Decommissioning Plan Report;
- Wind Turbine Specifications Report;
- Natural Heritage Assessment and Environmental Impact Study Report;
- Water Assessment and Water Body Report;
- Heritage Assessment Report; and,
- Stage 1 Archaeological Assessment and Stages 2-3 Archaeological Assessments Reports.

A separate summary of the potential effects, mitigation measures, and monitoring plans that have been identified and developed during the preparation of these reports is provided in **(Section 4.0)**.

2.0 Project Information

2.1 CONTACT INFORMATION

Applicant

The applicant and proponent for the Project are Boralex Inc. and UDI Renewables Corporation. Contact information is as follows:

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The lead consultant for preparation of the Renewable Energy Approval (REA) application is Stantec Consulting Ltd. (Stantec). Stantec provides professional consulting services in planning, environmental sciences, engineering, architecture, interior design, landscape architecture, surveying, project management, and project economics for infrastructure and facilities projects. The consultant's office and Project contact is:

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2.2 PROJECT LOCATION

The Project will be located on privately-owned lands east of the hamlet of Port Ryerse in Norfolk County, Ontario (**Appendix A**).

In accordance with O. Reg. 359/09, the Project Location includes all land and buildings/structures associated with the Project and any air space in which the Project will occupy. This includes structures such as turbines, access roads and collector lines as well as any temporary work areas surrounding the turbines (constructible areas) which will be required during the construction of the Project.

Although O. Reg. 359/09 considers the REA process in terms of the Project Location, the siting process for wind projects is an iterative process, and therefore final location of Project components is not available at Project outset. Therefore, a Study Area has been developed to examine the general area within which the wind Project components may be sited. The Study Area was determined through professional judgment and experience with the well-known and generally predictable environmental effects of the construction and operation of wind facilities. The Study Area boundary is shown in **Appendix A**.

2.3 PROJECT COMPONENTS

2.3.1 Wind Turbine Generators

The Project will consist of four Siemens SWT 3.0 113 wind turbine generators. The 3.0 MW turbines will be customized to a nameplate capacity of 2.5 MW for this Project. The total maximum installed nameplate capacity of all four turbines will not exceed 10 MW. A summary of the basic specifications of the turbine model is provided in **Table 2.1** below. Detailed specification about the turbine model is provided in the Wind Turbine Specifications Report.

Table 2.1: Siemens SWT-3.0-113 - Wind Turbine Specifications

Operating Data	Specification
General	
Manufacturer	Siemens
Model	SWT 3.0 113
Name plate capacity (MW)	3.0 MW (customized to 2.5 MW)
Cut-in wind speed (m/s)	3-5 m/s (10.8 – 18 km/hr)
Cut-out speed (m/s)	25 m/s (90 km/hr)
Frequency (Hz)	50 or 60 Hz
Sound power (dBA)	102.5 dBA
Tonal audibility	<2dB
Rotor	
Blade length (m)	55 m
Rotor diameter (m)	113 m
Rotor swept area (m ²)	10,000 m ²
Rotational speed (rpm)	6.0 – 15.5 rpm
Tower	

Table 2.1: Siemens SWT-3.0-113 - Wind Turbine Specifications

Operating Data	Specification
Hub height (m)	99.5 m
Maximum total turbine height (m)	154.5 m

2.3.2 Electrical Infrastructure

Electrical Collector Lines

A step-up transformer, adjacent to each turbine, is required to transform the electricity generated in the nacelle to a common collection system line voltage (i.e. 0.69 kV to 27.6kV). From each step-up transformer, 27.6 kV underground collector lines would carry the electricity generated by the turbines to the Project's distribution substation where a dip-pole connection will be made directly from an underground line into a LDC system. Fibre optic data lines used for monitoring and control of each turbine will run with the collector lines. Where possible, underground collector lines have been incorporated into the design of the access roads to reduce the area required for construction and to minimize potential construction impacts; the cables would be installed immediately to one side of the access road, just off the gravelled surface. Approximately 2.41 km (2,410 m) of underground collection line would be installed as part of the Project. Typically the collector lines would be buried to a depth of 1 m.

Where there are crossings of watercourses, the underground collector lines would be installed by directional drilling. If site conditions require directional drilling to cross roads, streams, valleylands or other obstacles, lines may be installed in plastic conduits.

No transmission lines would be constructed for the Project.

Distribution Substation

The Project's distribution substation yard would be approximately 1800 m² (30 m x 60 m) in size and would be located on private property east of the intersection of Port Ryerse Road and Cookson Street (**Figure 2**). The substation site would house the disconnection switches, control devices, and communication and metering systems required to support the operation of the substation. The substation area may also be used to temporarily act as a Project office site with one or two modular trailers.

2.3.3 Access Roads and Parking Lot

An estimated 560 m section of Avalon Line will require upgrades and 2.33 km of new access roads would be required to support construction/operation vehicles. There are two alternative 6 m wide access roads/entrances to Turbine 1. Final selection of one alternative will be based on discussions with the turbine manufacturer. Access to Turbines 2, 3 and 4 would be achieved by upgrading Avalon Lane which will connect to three Project access roads 11 m wide. The 11 m wide roads connecting Turbines 2, 3, and 4 will be reduced to the width of a common driveway once construction is completed. All roads will require wider turning radii for construction equipment.

All new access roads will be sited in active agricultural fields. Access roads have been planned in consultation with the landowners, where possible, parallel property boundaries to reduce potential impacts to drainage systems, farm operations and agricultural lands. No temporary structures (such as culverts) and no direct impacts to on-site woodlots or vegetation are anticipated during access road construction. No blasting would be required for the access roads; excavation is expected to be above the water table at all times. It is anticipated that entrance permits will be obtained from Norfolk County for the access roads.

A 15 m x 15 m permanent parking lot (if required) off Avalon Lane, south of Gilbert Road will be used during construction/decommissioning and operation of the Project. Construction of the parking lot would follow the same steps and use the same material as the access roads construction. The parking lot will not be used as a laydown area. The parking lot may accommodate temporary facilities such as a construction trailer (alternative location may be adjacent to substation infrastructure), sanitary facilities (self-contained), health and safety/first aid facility, lunch facilities, training and site security. Additionally, the footprint of the parking lot will include adequate parking for employee, contractor and service vehicles (approximately 2-3 vehicles).

The new access roads and parking area will be built on private lands and will be privately maintained throughout the life of the Project for ongoing turbine monitoring and maintenance.

2.3.4 Stormwater Management System

Stormwater management features will be incorporated into the access roads and constructed in accordance with appropriate regulations and local municipal engineering guidelines. In addition, area drainage from the distribution substation will be accomplished through swales/ditches adjacent to the proposed access road that will collect and convey runoff from the substation area and the associated access road. The total drainage area associated with the substation and access road “hard” surfaces is less than 2 ha and therefore a “wet” water quality control pond (i.e. one containing a permanent pool) is inappropriate, as per the Ministry of the Environment (MOE) Stormwater Management Planning and Design Guidelines Manual (2003). In addition to the conveyance of runoff, the swales will also provide water quality control, which is a suitable stormwater management practice for such an area according to the MOE guidelines.

2.3.5 Meteorological tower

A meteorological tower (met tower) was installed in 2009 on private property, east of the intersection of Port Ryerse Road and Cookson Street (**Figure 2**). This met tower has been used to identify the quality of the wind resource for the proposed Project. It may remain in use during the construction and operation phases of the Project.

2.5 TEMPORARY COMPONENTS

Lands to be temporarily used during construction are laydown areas at the turbine locations and crane pads. If required by the Construction Contractor, a small portable trailer may be used as a construction office. This would generally be placed adjacent to the substation infrastructure (an alternative location may be the parking area). The current land use at all of these areas is agricultural. Following construction activities, all of the temporarily used lands will be restored to pre-construction conditions.

2.5.1 Turbine Laydown Area

A turbine laydown area covering approximately 1 hectare in size will be required around each turbine (**Figure 2**) for temporary storage of the turbine components, construction materials, crane pad and foundation spoil pile.

Turbine components would be delivered directly to the laydown areas for temporary storage until assembled.

Excavation and grading of the laydown areas (if required) will be determined on a site by site basis. Laydown areas would not be gravelled, and would be restored to pre-existing conditions at the end of the construction phase. Turbine laydown areas will be actively used throughout the construction phase, to varying degrees during all construction activities at the turbine.

2.5.2 Crane Pads

Temporary crane pads would be constructed at the same time as the access roads and would be adjacent to each turbine location, within the turbine laydown area. These pads will be capable of supporting the necessary cranes and equipment required for the installation of the wind turbines. The general crane pad area would be approximately 40 m x 22 m. The process for crane pad construction includes; surface material will be stripped and stockpiled (topsoil separate from subsoil), and an aggregate base applied with a gravel surface. The excavated topsoil will be re-used on site as feasible.

Once the turbine erection is complete, the crane pad areas will be rehabilitated to pre-existing conditions unless the landowner asks for the crane pads to remain. Perimeter surface hydrology will be maintained during crane pad construction.

2.5.3 Temporary Watercourse Crossings

Approximately 218 m of underground cabling are required to cross two watercourses between Turbines 1 and 2. The buried lines will be installed using directional drilling techniques in suitably sized plastic conduits at a sufficient depth below the watercourse to prevent any possibility of accidental damage due to dredging or over excavation. Signs indicating the presence and location of the cables will also be placed on either side of the watercourse.

All temporary crossings would comply with the Department of Fisheries and Oceans Canada (DFO's) Ontario Operation Statement 'Temporary Stream Crossings' where possible. As works will likely be undertaken within a Regulated Area permit approval will also be required from the Long Point Region Conservation Authority (LPRCA).

2.6 PROJECT ACTIVITIES

A description of the key construction, operation, and decommissioning phases of the Project are provided in **Table 2.2**.

Table 2.2: Key Project Activities

Project Phase	Activities
Construction	Turbine Sites
	OLS survey and staking
	Geotechnical works
	Delineation and staking of temporary work areas
	Preparation of laydown areas
	Access road construction
	Completion of necessary site clearing and grading
	Delivery of project components
	Installation of tower and foundations
	Installation of crane pads
	Tower/turbine erection
	Installation of step-up transformer and required wiring
	Installation of collector lines, usually parallel to access roads
	Reclamation of temporary work areas
	Site landscaping (final grading, topsoil replacement, etc.)
	Off-Site Activities
	Installation of distribution substation
	Installation of parking lot
Operation	Turbine Sites
	Preventative maintenance
	Unplanned maintenance
	Access road routine maintenance and snow clearing
	Post-construction follow-up surveys
	Meter calibrations
	Grounds keeping
	Off-Site Activities
	Preventative maintenance for distribution substation
	Unplanned maintenance for distribution substation
Decommissioning	Turbine Sites
	Removal of turbine infrastructure

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Table 2.2: Key Project Activities

Project Phase	Activities
	Removal of step-up transformers
	Site grading (dependent upon new proposed use)
	Possible removal of access roads dependent upon agreement with property owner
	Possible excavation and removal of collector lines depending upon agreement with property owner
	Off-Site Activities
	Possible removal of distribution substation
	Possible removal of parking lot

3.0 Summary of REA Documents

The following sections provide a summary of each document that will be provided as part of the Project's REA application that will include comments and feedback from Aboriginal communities, municipalities, agencies and the public. Each document summarized below was prepared in accordance with O. Reg. 359/09, and in consideration of the *MOE's Technical Guide to Renewable Energy Approvals*.

Section 4.0 of this document provides a summary of the potential environmental effects, mitigation measures, and monitoring/contingency measures that have been identified within each of the following reports summarized below.

3.1 PROJECT DESCRIPTION REPORT

The Project Description Report provides an overall view of the Project along with details regarding the type of energy, facilities, equipment, and technology to be used. This includes detailed descriptions of Project components such as the turbines, electrical components, access roads, parking lot, distribution substation, meteorological tower, stormwater management systems, and temporary construction areas.

The activities to be engaged in including an overall Project schedule is provided along with the regulatory framework of the Project including the other permits and approvals that apply to the Project outside of the REA process. As described in the Project Description Report, construction is scheduled to commence in August 2014 with commercial operation slated for November 2014. It is anticipated that the wind farm would have a useful operating life of approximately 20 years without significant upgrades and/or machinery replacement.

A description of the potential environmental effects is included in the report which summarizes the potential effects during the construction, operation, and decommissioning phases of the Project. Mapping of the Project Location with various natural heritage features is also appended to the report.

3.2 CONSTRUCTION PLAN REPORT

The Construction Plan Report details the construction phase of the Project. This includes detailed descriptions of the construction and installation activities, transportation plan, the location, timing and duration of construction activities, the potential adverse effects as a result of constructing the Project, and the proposed mitigation and monitoring measures.

Construction of the Project is estimated to take approximately 4 months from August 2014 to November 2014. Within this timeframe, specific construction activities have been scheduled to protect natural resources and municipal infrastructure, in particular, the condition of local roads. The majority of construction activities will be completed using standard equipment, materials, and methods utilized in Ontario for electricity generation, distribution, transmission, and land

development projects. Turbines will be delivered and installed using custom delivery trucks, cranes, and methods utilized for other wind projects in Ontario and worldwide. To the extent possible materials and equipment will be procured locally when available and in sufficient quality and quantity and at competitive prices. Boralex/UDI will follow the Ontario Feed-in Tariff Program requirements for minimum Ontario content, which promotes local procurement of materials.

A description of the Project components along with a detailed description of the materials and construction equipment to be brought on site is provided. The process for constructing/installing facility infrastructure is also provided included any temporary uses of lands and waste management procedures. Mapping of the Project Location with various natural heritage and socio-economic features, and conceptual schematics are also appended to the report.

The construction of the Project is anticipated to have few net adverse effects on the environment, provided the identified protective and mitigation measures are properly applied. For each potential negative effect, appropriate mitigation, monitoring, and contingency measures were developed. These typically involve setbacks from environmental features, modified construction procedures, timing restrictions, and rehabilitation measures.

During detailed design, the proposed mitigation, monitoring, and contingency measures described in this report will be translated into construction contract specifications as appropriate to fulfill the obligations of the Renewable Energy Approval. A construction environmental management plan and construction monitoring plans/procedures would be implemented in a manner that is consistent with Boralex/UDI standard environmental and engineering practices and in compliance with applicable municipal, provincial, and federal standards and guidelines. The construction environmental management plan would be comprised of a series of procedures covering all critical construction and environmental management tasks including mitigation measures, which would be developed based on the information provided in the Renewable Energy Approvals reports for this project.

3.3 DESIGN AND OPERATIONS REPORT

The Design and Operations Report provides a description of the design of the facility along with the operational/maintenance plans, the potential environmental effects of operating the facility, the environmental effects monitoring plan, and the communications and emergency response plan.

A Site Plan is provided in **Appendix A**, and is presented as a series of three figures:

- Figure 1: Project Location – Overview;
- Figure 2: Socio-Economic Features; and,
- Figure 3: Significant Natural Heritage Features and Waterbodies.

The Site Plan provides the specific location and extent of all Project components such as turbines, access roads, noise receptors, and natural features along with their applicable setbacks.

The facility design plan provides a written description of the Project components identified in the Site Plan. No equipment in the facility design relate to water takings, sewage, air discharges and/or water and biomass management. This includes a description of the turbines, electrical infrastructure, and access roads. Appended to the report are three separate studies related to the design of the facility:

- Property Line Setback Assessment
 - This assessment provides a review of potential impacts and preventative measures for wind turbines located within the prescribed setback from non-participating parcels of land (i.e., where there is no specific agreement with the landowner specifically permitting a closer setback). The Siemens SWT 3.0 113 model was mapped to confirm property line setback. The assessment determined that Turbines 1 and 2 setbacks overlap primarily with agricultural land.
- Noise Assessment Report
 - The Noise Assessment Report (NAR) provides an estimation of the noise levels that would be generated by the Project. The report compares the predicted noise levels to the appropriate guidelines to ensure prescribed limits are met. The NAR determined that noise produced by the Project would be within the acceptable limits established by the MOE at all noise receptors.
- Environmental Effects Monitoring Plan
 - The Environmental Effects Monitoring Plan for wildlife and wildlife habitats detail the proposed mitigation, monitoring methods and contingency plans for the Project during operation. Contingency plans that have been proposed in the event of higher than predicted mortality levels include operational controls such as periodic turbine shutdown.

The facility operations plan describes the various ongoing activities including daily operation of the wind farm. Boralex/UDI may hire a specialized Operations and Maintenance (O&M) Contractor to carry out various on-going activities, including daily operation, associated with the Project. During pre-operational mobilization, Boralex/UDI and/or the O&M Contractor will develop an operation and maintenance program designed to ensure compliance with any applicable municipal, provincial, and/or federal requirements. As appropriate, the program will cover staff training, predictive/preventive maintenance, routine maintenance, unscheduled maintenance (including appropriate environmental mitigation measures), annual overhauling, inspection of equipment and components, procurement of spare parts, and maintenance of

optimum inventory levels in order to reduce inventory carrying costs and working capital costs. It will also include a schedule for regular inspections of the turbines and ancillary facilities.

Regular maintenance activities will be performed by a small crew (2-4 people) accessing the site using a pick-up truck.

The potential environmental effects and mitigation measures associated with Project operation is also provided (a summary of the key findings are provided in **Section 4.0**). The environmental effects monitoring plan identifies the environmental management systems, programs, plans and procedures such as occupational health and safety, and the monitoring requirements and contingency measures.

Emergency Response and Communications Plans will be developed and implemented during construction, operation, and decommissioning of the Project. These plans will ensure members of the community, Aboriginal communities, local municipalities and government ministries are kept apprised of pertinent Project activities, in addition to any emergencies in the unlikely event that one should occur.

Provided the identified protective and mitigation measures are properly applied to the environmental features discussed, in conjunction with the monitoring plans and contingency measures, the operation phase of the Project is anticipated to have few net adverse effects on the environment.

3.4 DECOMMISSIONING PLAN REPORT

The Decommissioning Plan Report provides a description of the plans for the decommissioning of the Project including pre-dismantling procedures, procedures for equipment dismantling and removal, activities related to the restoration of land affected by the Project, procedures for managing excess materials and waste, and the removal of all components from the sites. A description of the decommissioning process is also provided in the event that Boralex/UDI cannot successfully complete the construction of the Project (e.g. due to financial considerations). All above-ground infrastructure would be removed, and all below-ground infrastructure would be removed to a depth of approximately one metre below grade. Temporary uses of land would be required for decommissioning activities. The costs for removal of Project infrastructure would be the responsibility of the owner of the Project or the purchaser of the reusable materials.

At the time of decommissioning, the restoration plan would be updated as necessary based on the standards and best practices at the time of decommissioning, and in consultation with the landowner and appropriate regulatory and government bodies. The decommissioning plan would involve restoration of natural heritage features impacted by the removal of the facility, agricultural lands, areas not in agricultural production, and water crossings, contingency measures for potential contamination, and a monitoring period which allows for the Project area to experience seasonal changes and help determine if additional restoration is required.

3.6 WIND TURBINE SPECIFICATIONS REPORT

The Wind Turbine Specifications Report provides specification information on the wind turbine model to be used for the Project, including the make, model, name plate capacity, hub height above grade, rotational speeds and acoustic emissions data, including the sound power level and frequency spectrum, in terms of octave-band power levels. Error! Reference source not found. (in **Section 2.3.1** above) provides the basic specifications of the turbine model that would be used. More detailed turbine specifications from the manufacturer are appended to the report.

3.7 NATURAL HERITAGE ASSESSMENT AND ENVIRONMENTAL IMPACT STUDY

The Natural Heritage Assessment and Environmental Impact Study (NHA/EIS) has been prepared in accordance with Sections 24 through 28, 37 and 38 of O. Reg. 359/09. The report identifies the existence and boundaries of all natural features within 120 m of the Project Location based on a review of background records and site investigations. Where the Project Location is within 120 m of natural features, the report provides an evaluation of significance for each identified feature based on either an existing MNR designation of the feature, or by using evaluation criteria or procedures established or accepted by the MNR. An EIS is required for significant natural features that are found within 120 m of the Project Location. The EIS identifies and assesses potential adverse environmental effects and identifies mitigation measures in accordance with Section 38 of O. Reg. 359/09. The report also contains the confirmation letter (dated November 21, 2012) valid for the Project from the Ministry of Natural Resources as proposed in the the NHA/EIS and specific sections of the Environmental Effects Monitoring Plan and Construction Plan Report.

Natural heritage information collected from the records review, the site investigations and consultations were analyzed to determine the significance and sensitivity of existing ecological features and functions. Based on the evaluation of significance, the following significant natural features were identified in or within 120 m of the Project Location (**Appendix A, Figure 3**):

- Two significant woodlands; and,
- Three significant wildlife habitats:
 - Landbird Migratory Stopover Areas;
 - ¹Bald Eagle Winter Perching Habitat; and,
 - Pignut Hickory Habitat.

Underground cabling is proposed to pass under one significant woodland and two wildlife habitats treated as significant; however to mitigate this overlap, the cabling will be directional drilled underneath to effectively avoid these features.

¹ This habitat was not evaluated and is being treated as significant in the NHA/EIS report. It will be evaluated prior to construction. If the feature is deemed significant the appropriate mitigation measures will be applied; however, if the feature is deemed not significant no mitigation will be applied for the feature.

It was concluded that once the recommended protection, mitigation and compensation measures are applied, the construction, operation and decommissioning of the Project is expected to result in no significant net negative effects on the natural heritage features in the Study Area and their associated ecological functions.

3.8 WATER ASSESSMENT AND WATER BODY REPORT

The Water Assessment and Water Body Report provides the results of the records review, site investigations, and impact assessment conducted in accordance with Sections 29-31, 39 and 40 of O. Reg. 359/09. For the records review, data was gathered by M.K. Ince and Associates (MKI, 2012a, b) and Stantec through agency requests and/or accessing online databases such as Ontario Ministry of Natural Resources (MNR), Long Point Region Conservation Authority (LPRCA) and Land Information Ontario (LIO) mapping database.

Site investigations were carried out by Stantec on October 1, 2012 to locate and delineate, within the 120 m Zone of Investigation, water bodies as defined in O. Reg. 359/09. Potential water bodies were identified through a review of aerial photographs of the site and MNR data. While on site, the field crew used visual inspections to verify the presence or absence of potential water bodies within the 120 m Zone of Investigation.

Based on the results of field investigations and the records review, water features within the 120 m Zone of Investigation were identified. Three REA water bodies were identified within the 120 m Zone of Investigation; two will be crossed by underground collector lines and one access road is located within 120 m of a water body (access road do not require water body crossings).

The presence of fish habitat within the 120 m Zone of the Investigation was determined through a combination of background data review and field observations. It was determined that the water bodies within the Zone of Investigation were not fished.

Based on a review of the document entitled "Inland Ontario Lakes Designated for Lake Trout Management" (MNR, 2003), there are no Lake Trout lakes that are at or above development capacity identified within 300 m of the Project Location

It was concluded that with the implementation of appropriate mitigation measures, no net effects are expected.

3.9 HERITAGE ASSESSMENT REPORT

This Heritage Assessment Report documents the background research, on-site inspection, potential resource identification, and evaluations involved in the heritage assessment of the Project Study Area and presents conclusions and recommendations concerning potential impacts. The study was conducted in accordance with the *Ontario Heritage Act* and O. Reg. 359/09 made under the *Environmental Protection Act*. The assessment was conducted for the purpose of identifying heritage resources within the Study Area that may be subject to Project impacts. The Heritage Assessment Report determined that:

PORT RYERSE WIND POWER PROJECT**PROJECT SUMMARY REPORT**

Summary of REA Documents

March 2013

- There are no protected properties within the Project Study Area;
- 38 properties with potential built heritage resources are within the Study Area (7 of which are of cultural heritage value or interest); these will not be negatively impacted by the Project; and,
- 2 potential cultural heritage landscapes (Port Ryerse and Avalon Park Cottages) are within the Study Area (both of which are of cultural heritage value or interest); these will not be negatively impacted by the Project.

The Heritage Assessment Report recommended that the “Port Ryerse Wind Power Project be released from further heritage concerns”.

A confirmation letter from the Ministry of Tourism, Sports and Culture with respect to the Heritage Assessment was received on February 5, 2013.

3.10 ARCHAEOLOGICAL ASSESSMENT REPORTS

A Stage 1 Archaeological Assessment (Stage 1AA) of the Project Study Area was conducted between December 2011 and October 2012. The assessment was conducted in accordance with the provisions of the *Ontario Heritage Act*, and was governed by the Standards and Guidelines for Consultant Archaeologists (MTC, 2011). The Stage 1 AA Report provides a summary of the archaeological potential in the Project Study Area. The results of the Stage 1 AA indicated that the Study Area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. Given the potential for Pre-Contact and Euro-Canadian archaeological sites, a Stage 2 Archaeological Assessment was recommended for all areas of archaeological potential within the Project Location including the areas proposed for access roads, parking lot, collector lines, turbines and the distribution substation. The identified areas of no archaeological potential were not recommended for further assessment. The report also contains the review and acceptance letter (dated December 6, 2012) from the Ministry of Tourism, Culture and Sport (MTCS) regarding the Stage 1AA undertaken for the Project.

The Stage 2 Archaeological Assessment of the Study Area was conducted between March and October 2012. The Stage 2-3 Archaeological Assessments (Stage 2-3 AAs) identified one Euro-Canadian artifact scatter with a small Pre-Contact lithic component and twenty-one Pre-Contact artifact scatters and isolated find spots. Of the 22 find spots recorded, 8 were found to be of further cultural heritage value or interest; however to avoid impacts to these eight sites the Project Location was modified. It was noted in the Stage 2-3 AAs that a partial Stage 3 archaeological investigation was conducted on a find spot that had the potential to be impacted by the Project prior to Project modification. This assessment was ceased when the Project Location was modified to avoid any further impacts to the site.

As a result of the modifications to the Project design, none of the sites recommended for further work were located within the current Project location. It was noted that two find spots are located within 20 m of the Project Location (i.e., a portion of each site's 20 m protective buffers falls within the Project Location). At both find spots, the 20 m buffer is interrupted by a permanently disturbed cultural form (i.e., private road and its associated embankment/ditch). Six

find spots are located at least 70 m away from the Project Location. Of these six find spots, it was recommended that two find spots be subjected to a site-specific Stage 3 archaeological investigation if any future developments are planned in their immediate vicinity, or if the Project Location is revised at a later date to include these areas. The report also contains the review and acceptance letter (dated February 1, 2013) from the Ministry of Tourism, Culture and Sport (MTCS) regarding the Stage 2-3AAs undertaken for the Project.

4.0 Summary of Potential Environmental Effects

Project-specific issues and potential effects have been identified and have been summarized in **Appendix B**. **Appendix B1** describes potential effects and mitigation measures for construction and decommissioning of the Project, whereas **Appendix B2** describes potential effects and mitigation measures for operation and maintenance of the Project. **Appendix B3** outlines monitoring plans for the construction, operation and decommissioning of the Project. Detailed descriptions of all potential effects, mitigation measures, and monitoring plans are provided in the full reports that were summarized in **Section 3.0**.

**PORT RYERSE WIND POWER PROJECT
PROJECT SUMMARY REPORT****5.0 Closure**

This Project Summary Report for the Port Ryerse Wind Power Project has been prepared by Stantec for the sole benefit of Boralex/UDI, and may not be used by any third party without the express written consent of Boralex/UDI. The data presented in this report are in accordance with Stantec's understanding of the Project as it was presented at the time of reporting.

Respectfully submitted,

STANTEC CONSULTING LTD.



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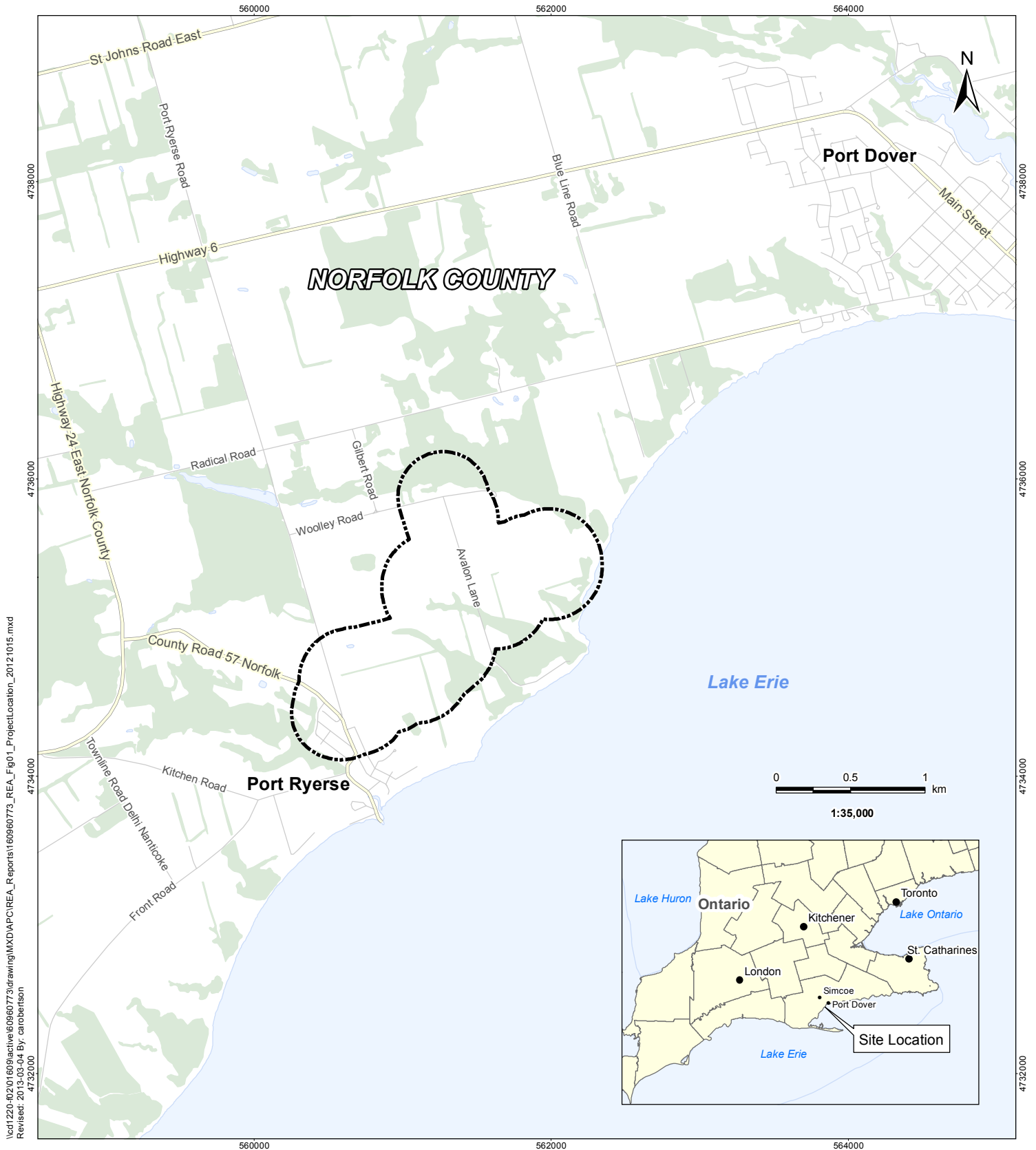
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6.0 References

O. Reg. 359/09. 2009. Ontario Regulation 359/09 made under the Environmental Protection Act Renewable Energy Approvals Under Part V.0.1 of the Act, as amended by O. Reg. 333/12 on November 2, 2012.

Appendix A

Figures



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Legend

- Study Area
- Wooded Area
- Major Road
- Waterbody
- Local Road

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Client/Project
Boralex/ UDI
Port Ryerse Wind Farm
Port Ryerse, Ontario

Figure No.

1

Title

Project Location



Legend

Participating Properties Boundary

Zone of Investigation (120 m)

Zone of Investigation (300 m)

Proposed Project Components

Proposed Turbine

MET Tower

Bladeswept Area / Rotor Diameter (113 m)

Proposed Access Road

Turning Radius

Proposed Collector Line

Component Laydown Area and Crane Pad

Substation/ Distribution

Proposed Permanent Site Parking Lot

Existing Features

Water Well Record (MOE)

Contour Line (5m Intervals)

Major Road

Local Road

Hazard Lands

Watercourse

Waterbody

Wooded Area

Noise Receptors

Participating

Non-Participating, Occupied

Non-Participating, Vacant

Petroleum Wells

Abandoned Well

Active Well

Status Unknown

Setbacks

Property Line Setback (99.5m)

Road Setback (65.5m)

Notes

- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
- Orthographic Imagery Source: © First Base Solutions, 2011.
Imagery taken in Spring 2010.

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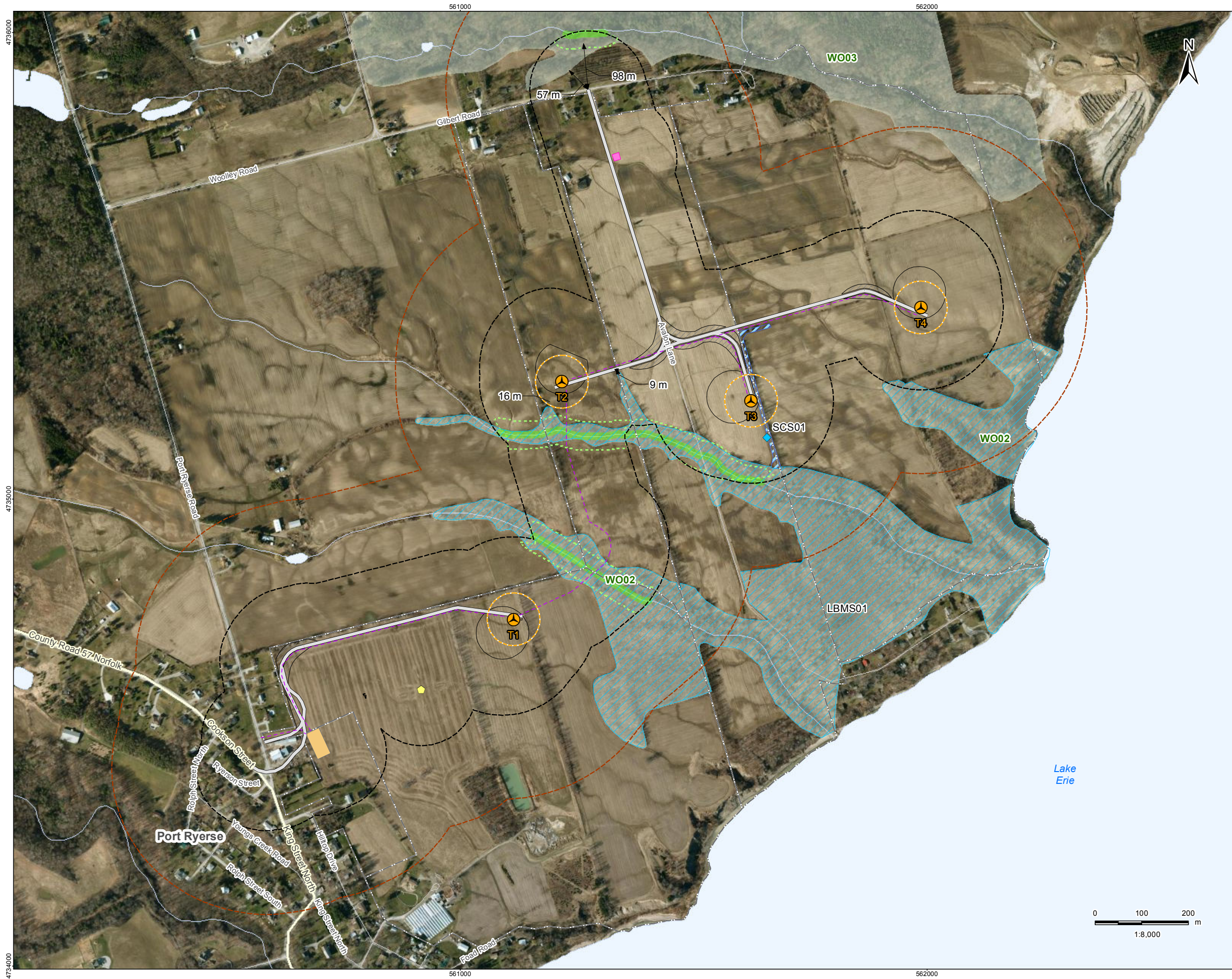
March 2013
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Client/Project
Boralex/ UDI
Port Ryerse Wind Farm
Port Ryerse, Ontario

Figure No.
2

Title
**Socio-Economic
Features**

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Revised: 2013-03-06 By: dharvey



Legend

Participating Properties Boundary

Zone of Investigation (120 m)

Zone of Investigation (300 m)

Proposed Turbine

MET Tower

Bladeswept Area / Rotor Diameter (113 m)

Proposed Access Road

Turning Radius

Proposed Collector Line

Component Laydown Area and Crane Pad

Substation/ Distribution

Proposed Permanent Site Parking Lot

Major Road

Local Road

Watercourse

Waterbody

Significant Woodland

Natural Features

Pignut Hickory Candidate

Significant Landbird Migratory Stopover Area (LBMS)

Significant Pignut Hickory Habitat (SCS)

Distances Between Features and Project Components On This Map Are Described In Detail In Table 3.9 In The NHA/ EIS

REA Water Body

Setbacks


REA Water Body Setback (30m)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N

2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

3. Orthographic Imagery Source: © First Base Solutions, 2011.
Imagery taken in Spring 2010.



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Port Ryerse, Ontario

Figure No.

3

Title

**Significant Natural Features
& Water Bodies**

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Appendix B

Overview of Potential Environmental Effects

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
<i>Heritage and Archaeological Resources</i>			
Protected Properties and Heritage Resources	<ul style="list-style-type: none"> None anticipated. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Archaeological Resources	<ul style="list-style-type: none"> Damage of buried artefacts during excavation. 	<ul style="list-style-type: none"> A <u>Stage 1 Archaeological Assessment</u> and <u>Stage 2-3 Archaeological Assessments</u> have been undertaken. The <u>Stage 2-3 Archaeological Assessments</u> recommended: <ul style="list-style-type: none"> Archaeological monitoring by a licensed archaeologist for all construction activities within 70 m of the site; Placing temporary barriers around six of the eight find spots located between 20 to 70 m away from the Project Location during construction. A licensed archaeologist should monitor these barriers to ensure that unintentional Project impacts do not occur; Of the six find spots within 70 m of the site, two find spots should be subjected to a site-specific Stage 3 archaeological investigation if any future developments are planned in their immediate vicinity, or if the Project Location is revised at a later date to include these areas; and, Construction monitoring of the find spot where a partial Stage 3 assessment was undertaken to ensure that unintentional Project impacts do not occur to the remainder of the site. Construction Contractor would be notified of the stop work protocol should artefacts and/or human remains be encountered during excavation as described in the <u>Construction Plan Report</u>. 	<ul style="list-style-type: none"> None.
<i>Natural Heritage Resources</i>			
Wetlands	<ul style="list-style-type: none"> No features identified within the Study Area. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Areas of Natural and Scientific Interest (ANSIs)	<ul style="list-style-type: none"> No features identified within the Study Area. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Woodlands	<ul style="list-style-type: none"> Two significant woodlands 	<ul style="list-style-type: none"> Primary mitigation strategy is avoidance of the significant woodland 	<ul style="list-style-type: none"> Any indirect

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
	<p>within the 120 m Zone of Investigation; one significant woodland is within the Project Location and contains Project infrastructure.</p> <ul style="list-style-type: none"> No direct loss of woodland habitat as a result of the Project. Indirect impacts include accidental damage to critical root zones and loss of trees or damage to limbs. Other indirect impacts include dust, sedimentation and erosion, the potential for accidental spills, increased traffic and improper disposal of wastes. 	<p>through the use of directional drilling during installation of underground collector lines.</p> <p><i>For all significant natural features identified within the 120 m Zone of Investigation:</i></p> <ul style="list-style-type: none"> Clearly delineate work area using a barrier such as a silt fence to avoid accidental encroachment on the feature that would lead to damage of trees and root zones; Erect silt fencing to prevent sedimentation within critical root zones; Implement a sedimentation and erosion control plan; Stockpile materials >30 m from significant natural features. Where this is not possible stockpiles will be covered when not in use, especially during rain events or high wind events; Re-vegetate disturbed areas with fast growing native species as soon as construction activity within the disturbed areas is complete; Implement infiltration (i.e. minimize paved surfaces and design roads to promote infiltration) techniques to the maximum extent possible to avoid changes in soil moisture and compaction; All maintenance activities, vehicle refueling or washing and chemical storage will be located more than 30 m from significant natural features; Implement infiltration (i.e. minimize paved surfaces and design roads to promote infiltration) techniques to the maximum extent possible to avoid changes in soil moisture and compaction; Locate horizontal directional drill entry/exit pits at least 30 m from any significant natural feature; Collect drill cuttings as they are generated and place in a soil bin or bag for off-site disposal; and, Restore and re-vegetate entry/exit pits to pre-construction conditions as soon as possible after construction. <ul style="list-style-type: none"> As appropriate and prior to construction the Project Location limits will be staked and the Construction Contractor will ensure that no construction 	<p>adverse net effects are anticipated to be short-term in duration and intermittent.</p>

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
		<p>disturbance occurs beyond the staked limits.</p> <ul style="list-style-type: none"> Should monitoring reveal that clearing is occurring beyond defined limits, mitigation action will be taken that could include rehabilitation of the disturbed area. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. Mitigation measures related to traffic are outlined in '<i>Local Traffic</i>'. Mitigation measures for spills and wastes are outlined in '<i>Waste Management and Contaminated Lands</i>'. 	
Provincial Parks and Conservation Reserves	<ul style="list-style-type: none"> No features identified within the Study Area. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Other Designated Natural Areas	<ul style="list-style-type: none"> No features identified within the Study Area. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Significant Wildlife and Wildlife Habitat	<ul style="list-style-type: none"> Three significant wildlife habitats within the 120 m Zone of Investigation: <ul style="list-style-type: none"> Landbird Migratory Stopover Area; Pignut Hickory Habitat. Indirect impacts include habitat avoidance/disturbance caused by noise and dust. 	<ul style="list-style-type: none"> The following mitigation measures will be implemented: <ul style="list-style-type: none"> Avoid where possible construction within 120 m of significant migratory landbird stopover habitat from April to May and August to October; Implement standard construction site best management practices to prevent fugitive dust generation and off site transport across the Project Location; and, Re-vegetate disturbed areas with fast growing native species as soon as construction activity within the disturbed areas is complete. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. Mitigation measures related to noise are outlined in '<i>Environmental Noise</i>'. 	<ul style="list-style-type: none"> Any indirect adverse net effects are anticipated to be short-term in duration and intermittent. Post-construction disturbance and mortality monitoring would be conducted to verify effects predictions and additional operational

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
			mitigation would be implemented if unanticipated effects occur.
Generalized Significant Wildlife Habitat	<ul style="list-style-type: none"> 4 Generalized Significant Wildlife Habitats within the 120 m Zone of Investigation but not within the Project Location. Generalized impacts are outlined in Section 1.1.7 of the <u>Construction Plan Report</u> and Table 10 of the <u>NHA/EIS</u> report. 	<ul style="list-style-type: none"> Detailed mitigation measures are outlined in Table 10 of the <u>NHA/EIS</u> report. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. Mitigation measures related to traffic are outlined in '<i>Local Traffic</i>'. Mitigation measures related to noise are outlined in '<i>Environmental Noise</i>'. Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. 	<ul style="list-style-type: none"> Any adverse net effects are anticipated to be short-term in duration and intermittent. There is some potential for disturbance to local wildlife as a result of noise and increased human activity, particularly increased traffic. Some limited mortality is possible; however long-term effects to wildlife populations from mortality and from barrier effects are anticipated to be minimal because

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
			of the temporary nature of the increased traffic activity.
Significant Flora and Vegetation Communities	<ul style="list-style-type: none"> One provincially rare plant species, Pignut Hickory, within the 120 m Zone of Investigation. No direct impact to Pignut Hickory is anticipated as no removal of trees is proposed for the Project. Indirect impacts include habitat avoidance/disturbance caused by noise and dust. 	<ul style="list-style-type: none"> Mitigation measures for Pignut Hickory habitat is outlined in '<i>Significant Wildlife Habitat</i>'. A health assessment survey of the Pignut Hickory tree identified within 120 m of an access road will be conducted pre-construction as well as for one year post-construction. Mitigation measures related to noise are outlined in '<i>Environmental Noise</i>'. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. 	<ul style="list-style-type: none"> Any indirect adverse net effects are anticipated to be short-term in duration and intermittent. Post-construction disturbance monitoring would be conducted to verify effects predictions and additional operational mitigation would be implemented if unanticipated effects occur.
Other Flora and Vegetation Communities	<ul style="list-style-type: none"> Limited vegetation removal in hedgerows for Project components (including temporary work areas). Indirect impacts due to dust emissions. 	<ul style="list-style-type: none"> Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. The limits of construction activities will be staked prior to construction to ensure that no disturbance occurs outside of the Project Location boundary. 	<ul style="list-style-type: none"> Effects are expected to be short-term in duration intermittent.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
Water Bodies and Aquatic Resources			
Groundwater	<ul style="list-style-type: none"> Some dewatering activity possible during excavations; would not exceed 50,000 litres (L) per day. Potential for contamination through accidental spills. 	<ul style="list-style-type: none"> If groundwater is encountered during excavations, good practices would be used, including the following key measures: <ul style="list-style-type: none"> minimizing the length of time that the excavation is open; monitoring seepage into the excavation; energy dissipation techniques would be used for any pumped water to reduce the potential for erosion and sourcing; and, If energy dissipation measures are found to be inadequate, the rate of dewatering would be reduced or ceased until satisfactory mitigation measures are in place. In the event that a turbine is located within 100m of an undocumented private residential well of participating landowners, the Construction contractor may, at the landowner's request, monitor the quality and quantity of the well over the course of construction to ensure there is no interruption in use of, or impact on, the water. In the event that well water quality or quantity is disturbed as a result of construction, Boralex/UDI would provide a temporary potable water supply until corrective measures are taken and would comply with MOE's Guideline B-9: Resolution of Groundwater Interference Problems. Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. 	<ul style="list-style-type: none"> Some localized and temporary disturbance to groundwater may be possible. Any potential effects will be short term in nature and have little to no effect on groundwater flow conditions or adjacent private water wells.
Surface Water, Fish and Fish Habitat	<ul style="list-style-type: none"> Three REA water bodies within the 120 m Zone of Investigation; Two will be crossed by underground collector lines and one access road is located within 120 m of a water body (access road do not require water body 	<ul style="list-style-type: none"> Standard mitigation measures for working around fish habitat and underground collector lines installation are provided in the <u>Water Assessment and Water Body Report</u>. Timing windows do not apply as no in-water work is proposed. Construction activities will likely occur within a Regulated Area therefore permit approval from Long Point Region Conservation Authority (LPRCA) will also likely be required. Erosion and sediment control measures will be used. Barriers will be inspected regularly to ensure proper functioning and 	<ul style="list-style-type: none"> Any potential net effects are anticipated to be spatially and temporally limited.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
	<p>crossings).</p> <ul style="list-style-type: none"> Potential impacts to watercourses within the 120 m Zone of Investigation: <ul style="list-style-type: none"> Short-term increase in turbidity from runoff, sedimentation and soil erosion during construction; Loss of shade; Reduced bank stability; Reduced allochthonous inputs; and, Water quality and habitat disturbance effects to aquatic habitat. Potential impacts to fish and fish habitat related to the installation of underground collector lines: <ul style="list-style-type: none"> Erosion and sedimentation from site disturbance and potential dewatering; Collapse of the punch or bore hold under the stream; and, Disturbing riparian vegetation can reduce 	<p>maintenance.</p> <ul style="list-style-type: none"> Materials removed or stockpiled will be deposited and contained in a manner to ensure sediment does not enter a watercourse. Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. 	

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
	shoreline cover, shade and food production areas.		
<i>Air Quality and Environmental Noise</i>			
Air Emissions	<ul style="list-style-type: none"> The engine exhaust from vehicles represents a source of particulate and other emissions. Traffic delays result in increased emissions from vehicles traveling slowly through construction zones. The delivery of materials can generate emissions, especially for sites that are relatively far from material manufacturers. 	<ul style="list-style-type: none"> Multi-passenger vehicles should be utilized to the extent practical. Company and contractor personnel should avoid idling of vehicles when not necessary for construction activities. Equipment and vehicles should be turned off when not in use unless required for activities and/or effective operation. Equipment and vehicles should be maintained in good working order with functioning mufflers and emission control systems as available. All vehicles should be fitted with catalytic converters as required. All construction equipment and vehicles should meet the emissions requirements of the Ministry of the Environment (MOE) and/or Ministry of Transportation (MTO). As appropriate, records of vehicle maintenance should be retained and made available for periodic review by the Contractor. All vehicles identified through the monitoring program that fail to meet the minimum emission standards would be repaired immediately or replaced as soon as practicable. 	<ul style="list-style-type: none"> Limited to the work areas, and the magnitude of combustion emissions are limited. Any adverse net effects are anticipated to be short-term in duration and highly localized.
Dust and Odour Emissions	<ul style="list-style-type: none"> Winds may erode and disperse loose soil material, storage piles and road surfaces, which may be a nuisance to residential properties and have various impacts on the natural environment. No odour emissions are anticipated from the Project. 	<ul style="list-style-type: none"> The Contractor should implement good site practices which may include: <ul style="list-style-type: none"> Maintaining equipment in good running condition and in compliance with regulatory requirements; Protecting stockpiles of friable material with a barrier or windscreen and in the event of dry conditions and excessive dust; Dust suppression (e.g. water and/or calcium chloride) of source areas; and; Covering loads of friable materials during transport. An Environmental Management Plan would be developed by the Contractor that would include protocols for dust emission control. 	<ul style="list-style-type: none"> Any adverse net effects to air quality from dust emissions are anticipated to be short-term in duration and highly localized.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
Environmental Noise	<ul style="list-style-type: none"> Noise would be generated by the operation of heavy equipment at each of the work areas and associated vehicular traffic on-site and on haul routes. 	<ul style="list-style-type: none"> All engines associated with construction and decommissioning equipment would be equipped with mufflers and/or silencers in accordance with MOE and/or MTO guidelines and regulations. To the greatest extent possible, activities that could create excessive noise would be restricted to regular construction hours. If activities that cause excessive noise must be carried out outside of these time frames, adjacent residents would be notified in advance, as required. Sources of continuous noise, such as portable generator sets, would be shielded as appropriate or located so as to minimize disturbance to local residents. 	<ul style="list-style-type: none"> Intermittent noise would increase during regular construction hours at the work areas and/or along the haul route. Any adverse net effects due to noise are anticipated to be short-term in duration and intermittent.
Land Use and Socio-Economic Resources			
Areas Protected Under Provincial Plans & Policies	<ul style="list-style-type: none"> No areas protected under provincial plans and policies within the Project Location. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Existing Land Uses	<ul style="list-style-type: none"> Agricultural lands where Project infrastructure is located would be changed from present land use for the duration of the Project. There would be a temporary increase in noise and dust levels around the work and haul areas resulting in potential effects to adjacent 	<ul style="list-style-type: none"> Landowners would be compensated by Boralex/UDI for agricultural land that would be taken out of production during the lifespan of the Project through the land lease agreements. Mitigation measures related to noise from construction and decommissioning activities are outlined in '<i>Environmental Noise</i>'. Mitigation measures related to dust are outlined in '<i>Dust and Odour Emissions</i>'. 	<ul style="list-style-type: none"> Disturbance would be short-term in duration, temporary, and would be minimized through the implementation of good site practices, transportation

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
	land uses.		planning, and communication with the community.
Hazard Lands	<ul style="list-style-type: none"> Three hazard lands (valleylands) within the 120 m Zone of Investigation; two of these hazard lands contain Project infrastructure. Indirect impacts include accidental damage to critical root zones and loss of trees or damage to limbs. Other indirect impacts include sedimentation and erosion. 	<ul style="list-style-type: none"> Primary mitigation strategy is avoidance of significant hazard lands through the use of directional drilling during installation of underground collector lines. Mitigation measures related to significant natural features including erosion and sediment control measures are outlined in 'Woodlands'. 	<ul style="list-style-type: none"> Any indirect adverse net effects are anticipated to be short-term in duration and intermittent.
Recreation Areas	<ul style="list-style-type: none"> No recreational areas within the 120 m Zone of Investigation. There would be a temporary increase in noise and dust levels around the work and haul areas resulting in potential effects to nearby recreational activities. 	<ul style="list-style-type: none"> Mitigation measures related to noise from construction and decommissioning activities are outlined in 'Environmental Noise'. Mitigation measures related to dust are outlined in 'Dust and Odour Emissions'. Mitigation measures related to construction and decommissioning traffic are provided in 'Local Traffic'. 	<ul style="list-style-type: none"> Noise, dust and traffic effects are anticipated to be short term and intermittent.
Agricultural Lands and Operations	<ul style="list-style-type: none"> Inconvenience to operations, including site-specific cropping patterns. Use of agricultural land for the facility components and 	<ul style="list-style-type: none"> Detailed mitigation measures for impacts to agricultural lands and operations are provided in the Construction Plan Report. Key measures include: <ul style="list-style-type: none"> Implementing a wet soil shutdown practice; Monitoring of topsoil stripping in areas to be restored after the 	<ul style="list-style-type: none"> Disturbances to agricultural lands and operations are expected to be temporary and

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
	<p>temporary work areas, including areas of prime agricultural land.</p> <ul style="list-style-type: none"> • Potential impacts to soil. • Adverse effects could occur to artificial drainage • Potential for transportation of soybean cyst nematode (SCN) contaminated soil to non-infested fields. 	<p>construction/decommissioning activity;</p> <ul style="list-style-type: none"> - Decompaction as required; - Topsoil replacement; - Artificial tile drainage would be repaired and monitored; and, - A soil sampling program should be implemented to identify potential SCN infestation. 	<p>spatially limited.</p>
Mineral, Aggregate, and Petroleum Resources	<ul style="list-style-type: none"> • No lands designated for aggregate resource extraction, including licensed pits and quarries, within the Project Study Area. • Three abandoned and two (unknown status) petroleum wells are within the 120 m Zone of Investigation. • No adverse effects are anticipated to the wind facility; however in an extreme case a fire or small spill may occur at wells not decommissioned and likely delay construction activities. A spill could potentially contaminate the Project site. 	<ul style="list-style-type: none"> • Ensure the area between the Project infrastructure and petroleum well is sloped with the Project infrastructure located at a higher elevation. • Access to the site and the construction activities will take place on the north side of the proposed Project infrastructure, farther from the petroleum well and at a higher elevation. • Underground locates would be conducted prior to construction given the potential for unrecorded, improperly decommissioned wells. • Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. 	<ul style="list-style-type: none"> • None.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
Game And Fishery Resources	<ul style="list-style-type: none"> Sensory disturbance to game species may occur due to noise from construction and decommissioning activities. 	<ul style="list-style-type: none"> It is anticipated that those who participate in hunting, fishing, and other outdoor recreation will choose an alternate location for their recreation during construction. Mitigation measures related to noise from construction and decommissioning activities are outlined in '<i>Environmental Noise</i>'. 	<ul style="list-style-type: none"> Construction and decommissioning noise is expected to be temporary and intermittent.
Local Traffic	<ul style="list-style-type: none"> The increase in traffic, including excess load traffic, may result in short-term, localized disturbance to traffic patterns, increase in traffic volume, and create potential traffic safety hazards. 	<ul style="list-style-type: none"> The Contractor would implement a Traffic Management Plan. 	<ul style="list-style-type: none"> Net effects of increased traffic and road safety are anticipated to be limited, short-term effects.
Local Economy	<ul style="list-style-type: none"> Direct employment during construction. Indirect and induced employment. Potential disruption to use and enjoyment of businesses (if present) may occur in the area surrounding the Project Location. Potential disruption to local residents could be caused by physical effects from traffic, noise and dust. 	<ul style="list-style-type: none"> Construction and decommissioning phases of the Project would provide positive economic benefits; therefore no mitigation measures are required. Disruptions in the vicinity of local businesses will be largely due to an increase in traffic, and will be short term and are not expected to affect use of these businesses. Mitigation measures related to noise from construction and decommissioning activities are outlined in '<i>Environmental Noise</i>'. Mitigation measures related to dust are outlined in '<i>Dust and Odour Emissions</i>'. Mitigation measures related to dust are outlined in '<i>Local Traffic</i>'. 	<ul style="list-style-type: none"> Traffic effects will be temporary, of short duration, and cease upon completion of the construction of the Project.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
Existing Local Infrastructure			
Provincial, Municipal and other major infrastructure	<ul style="list-style-type: none"> The increase in traffic, including excess load traffic, may result in short-term, localized disturbance to traffic patterns, increase in traffic volume, create potential traffic safety hazards, and/or produce abnormal wear on the roads. Transportation of excess loads and large turbine components may produce abnormal wear on the County roads. 	<ul style="list-style-type: none"> The Contractor would implement a Traffic Management Plan. Boralex/UDI will undertake consultation with the County regarding any necessary agreements related to wear on roads from transportation of Project materials in addition to obtaining required permits for use of County roads. Boralex/UDI would undertake consultation with the MTO regarding any necessary agreements related to wear on roads from transportation of Project materials in addition to obtaining the required permits for use of provincial highways. 	<ul style="list-style-type: none"> Net effects are anticipated to be limited and short-term.
Utilities	<ul style="list-style-type: none"> There is the potential to interfere with local utilities. 	<ul style="list-style-type: none"> Boralex/UDI will undertake consultation with local utility providers, and obtain all necessary permits and authorizations. 	<ul style="list-style-type: none"> None.
Navigable Waters	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Waste Management and Contaminated Lands			
Landfill Sites	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Contaminated Lands	<ul style="list-style-type: none"> There is potential for finding contaminated sites and improperly decommissioned oil and gas wells or pipelines. 	<ul style="list-style-type: none"> In the event that previously unknown contaminated soils, such as buried tanks, drums, oil residue or gaseous odour, are uncovered or suspected of being uncovered, activities would cease in that location until the source of the contamination is further investigated. In such an instance, Boralex/UDI would seek expert advice on assessing and developing a soil sampling, handling and remediation plan. All contaminated material would be managed in accordance with the applicable sections of the Environmental Protection Act and Regulation 347. 	<ul style="list-style-type: none"> None.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
Waste Generation	<ul style="list-style-type: none"> Improper disposal of waste material generated may result in contamination to soil, groundwater, and/or surface water resources on and off the Project sites. Litter generated may also become a nuisance to nearby residences if not appropriately contained and allowed to blow off the site. 	<ul style="list-style-type: none"> The Contractor would implement a site-specific waste collection and disposal management plan, which may include site practices such as: <ul style="list-style-type: none"> systematic collection and separation of waste materials; all waste materials and recycling would be transported off-site by private waste material collection contractors licensed with a Certificate of Approval – Waste Management System; contractors would be required to remove their excess materials from the site; excess materials generated during the course of construction excavations of soil would be handled in accordance with the MOE's Protocol for the Management of Excess Materials in Road Construction and Maintenance; excess excavated soils may be reused elsewhere on the property with landowner permission; labelling and proper storage of hazardous and liquid wastes (e.g. used oil, drained hydraulic fluid, and used solvents) in a secure area that would ensure containment of the material in the event of a spill; dumping or burying wastes within the Project sites would be prohibited; should contaminated soil be encountered during the course of excavations the contaminated material would be disposed of in accordance with the current appropriate provincial legislation, such as Ontario Regulation 347, the General – Waste Management Regulation; disposal of non-hazardous waste at a registered waste disposal site(s); if waste is classified as waste other than solid non-hazardous, a Generator Registration Number is required from the MOE and the generator would have obligations regarding manifesting of waste. Compliance with Schedule 4 of Regulation 347 is mandatory when determining waste category; implementation of an on-going waste management program 	<ul style="list-style-type: none"> Minor incremental effect on soil, groundwater, and surface water at the waste disposal site(s) depending on municipal on-site containment practices and quality of the landfill protection mechanisms.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project

PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
		<p>consisting of reduction, reuse, and recycling of materials; and,</p> <ul style="list-style-type: none"> - disposal of sanitary wastes would be the responsibility of the contracted third party and they would ensure disposal in accordance with appropriate legislation, standards and policies. • During construction, the cement provider would be responsible for ensuring that wash water is done in a manner compliant with regulatory requirements and acceptable to stakeholders 	
Accidental Spills	<ul style="list-style-type: none"> • Some materials, such as fuel, lubricating oils and other fluids, have the potential for discharge to the on-site environment through accidental spills. 	<ul style="list-style-type: none"> • Accidental Spills: the Emergency Response Plan developed by the Contractor and/or Boralex/UDI would include protocols for the proper handling of material spills and associated procedures to be undertaken in the event of a spill. Key measures include: <ul style="list-style-type: none"> - standard containment facilities and emergency response materials would be maintained on-site as required; and, - refuelling, equipment maintenance, and other potentially contaminating activities would occur in designated areas. • As appropriate spills would be reported immediately to the MOE Spills Action Centre. 	<ul style="list-style-type: none"> • None.
Public Health and Safety			
Public Health and Safety	<ul style="list-style-type: none"> • Potential effects to public health and safety are largely in the form of increased traffic, dust emissions, construction noise and unauthorized access of the public to the work sites. 	<ul style="list-style-type: none"> • A detailed Traffic Management Plan, Emergency Response and Communications Plan and Health and Safety Plan would be prepared and implemented by the Contractor. • Mitigation measures related to the increased traffic is outlined in '<i>Local Traffic</i>'. • Mitigation measures related to dust emissions is provided in '<i>Dust and Odour Emissions</i>'. • Mitigation measures related to noise from construction and decommissioning activities is provided in '<i>Environmental Noise</i>'. • Land access would be controlled through signage and restricted to authorized personnel only. The Health and Safety Plan would consider both public and occupational health and safety issues. This may include protecting the public from equipment and areas by posting warning signs, 	<ul style="list-style-type: none"> • There is minimal increased or new risk to public health and safety from construction and/or decommissioning of the Project.

Appendix B1: Summary of Potential Environmental Effects and Mitigation Strategy for Construction and Decommissioning of the Project**PROJECT PHASE: CONSTRUCTION & DECOMMISSIONING**

Environmental Feature	Potential Adverse Effects	Mitigation Strategy	Net Effects
		<p>use of personal protective equipment, accident reporting, equipment operation, and confined space entry.</p> <ul style="list-style-type: none">• Discussions have been undertaken, and would continue, with local emergency services personnel. Boralex/UDI would participate in a training session for these workers.	

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
<i>Heritage and Archaeological Resources</i>			
Protected Properties and Heritage Resources	<ul style="list-style-type: none"> No operational and maintenance activities will occur on the properties containing the built heritage resources and cultural heritage landscapes; therefore no adverse effects on heritage resources are anticipated during operations. 	<ul style="list-style-type: none"> None. 	<ul style="list-style-type: none"> None.
Archaeological Resources	<ul style="list-style-type: none"> There are no areas that will be excavated during the operation phase that will not have been assessed by a Stage 2 Archaeology Assessment; therefore no potential effects are anticipated to archaeological resources. 	<ul style="list-style-type: none"> None. 	<ul style="list-style-type: none"> None.
<i>Natural Heritage Resources</i>			
Wetlands	<ul style="list-style-type: none"> As no wetlands were identified, there are no anticipated impacts. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Areas of Natural and Scientific Interest	<ul style="list-style-type: none"> As no Areas of Natural and Scientific Interest were identified, there are no anticipated impacts. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Woodlands	<ul style="list-style-type: none"> Contamination through accidental spills. Dust emissions during operation and maintenance. Erosion and sedimentation during maintenance activities. 	<ul style="list-style-type: none"> Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. Mitigation measures for erosion and sedimentation are outlined in Section 3.3.3 of the <u>Construction Plan Report</u>. 	<ul style="list-style-type: none"> Indirect impacts are expected to be short-term in duration, and highly localized. Accidental spills would be spatially limited and of short duration and protocols to minimize their impact would be provided in the Emergency Response Plan.

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
Provincial Parks and Conservation Reserves	<ul style="list-style-type: none"> As no Provincial Parks or Conservation Reserves were identified, there are no anticipated impacts. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Other Designated Natural Areas	<ul style="list-style-type: none"> As no Other Designated Natural Areas were identified, there are no anticipated impacts. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Significant Wildlife and Wildlife Habitat	<p><u>Landbird Migratory Stopover Area:</u></p> <ul style="list-style-type: none"> Loss of species diversity and abundance through habitat displacement or avoidance. <p><u>Pignut Hickory Habitat:</u></p> <ul style="list-style-type: none"> Loss of species habitat through removal or vegetation change. 	<p><u>Landbird Migratory Stopover Area and:</u></p> <ul style="list-style-type: none"> Utilize lighting scheme that will minimize risk to bird disturbance while fulfilling Transport Canada requirements. Post construction monitoring for disturbance and mortality. <p><u>Pignut Hickory Habitat:</u></p> <ul style="list-style-type: none"> Post construction monitoring for disturbance. 	<ul style="list-style-type: none"> Minimal net effects are predicted for significant wildlife habitats. Post-construction disturbance and mortality monitoring would be conducted to verify effects predictions and additional operational mitigation would be implemented if unanticipated significant effects occur.
Generalized Significant Wildlife Habitat	<ul style="list-style-type: none"> Disturbance to wildlife. Direct mortality to birds and bats. 	<ul style="list-style-type: none"> See '<i>Significant Wildlife and Wildlife Habitat</i>'. Mitigation measures related to traffic are outlined in '<i>Local Traffic</i>'. Mitigation measures related to noise are outlined in '<i>Environmental Noise</i>'. Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. Mortality thresholds. Implementation of contingency measures discussed with MNR if thresholds are exceeded. 	<ul style="list-style-type: none"> Any adverse net effects on wildlife from operations are anticipated to be non-significant. Some potential for disturbance to wildlife during operations and maintenance of the Project as a result of increased human activity. Some limited mortality is possible; however potential long-term effects to wildlife populations from this mortality and from barrier effects are anticipated to be minimal.
Significant Flora	<ul style="list-style-type: none"> Dust emissions during operation and 	<ul style="list-style-type: none"> Mitigation measures related to dust emissions are 	<ul style="list-style-type: none"> Any indirect adverse net effects

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
and Vegetation Communities	maintenance.	outlined in ' <i>Dust and Odour Emissions</i> '.	are anticipated to be short-term in duration and intermittent.
Other Flora and Vegetation Communities	<ul style="list-style-type: none"> Disturbance to other flora and vegetation from dust emissions. 	<ul style="list-style-type: none"> Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. 	<ul style="list-style-type: none"> Any indirect adverse net effects are anticipated to be short-term in duration and intermittent.
Birds	<ul style="list-style-type: none"> Direct mortality. 	<ul style="list-style-type: none"> Mortality thresholds. Implementation of contingency measures discussed with MNR if thresholds are exceeded. 	<ul style="list-style-type: none"> Some limited mortality is possible; however potential long-term effects to wildlife populations from this mortality and from barrier effects are anticipated to be minimal.
Bats	<ul style="list-style-type: none"> Direct mortality 	<ul style="list-style-type: none"> Mortality thresholds. Implementation of contingency measures discussed with MNR if thresholds are exceeded. 	<ul style="list-style-type: none"> Some limited mortality is possible; however potential long-term effects to wildlife populations from this mortality and from barrier effects are anticipated to be minimal.
Water Bodies and Aquatic Resources			
Groundwater	<ul style="list-style-type: none"> Potential contamination from accidental spills. 	<ul style="list-style-type: none"> Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. 	<ul style="list-style-type: none"> Accidental spills would be spatially limited and of short duration and protocols to minimize any impact will be provided in the Emergency Response Plan.
Surface Water, Fish, and Fish	<ul style="list-style-type: none"> Potential contamination from accidental spills. 	<ul style="list-style-type: none"> Mitigation measures related to accidental spills are outlined in '<i>Accidental Spills</i>'. 	<ul style="list-style-type: none"> None.

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
Habitat	<ul style="list-style-type: none"> Erosion, sedimentation, and surface water turbidity during maintenance activities. 	<ul style="list-style-type: none"> Mitigation measures for erosion and sedimentation would be the same measures described in Section 3.4.2 of the <u>Construction Plan Report</u>. 	
<i>Air Quality and Environmental Noise</i>			
Air Quality	<ul style="list-style-type: none"> Emissions from operation and maintenance activities, including equipment and vehicles. 	<ul style="list-style-type: none"> Operations staff will operate vehicles in a manner that reduces air emissions to the extent practical, including: <ul style="list-style-type: none"> Using multi-passenger vehicles as possible; and, Avoid idling vehicles. Equipment and vehicles will be maintained in a manner that reduces air emissions, including: <ul style="list-style-type: none"> Using mufflers and emission control systems as available; Using catalytic converters as required; Meet emissions requirements of the MOE and/or MTO; As appropriate, records of vehicle maintenance will be retained and made available for periodic review by Boralex/UDI and/or the Operation and Maintenance Contractor; and, All vehicles identified through the monitoring program that fail to meet the minimum emission standards will be repaired immediately or replaced as soon as practicable. 	<ul style="list-style-type: none"> Increased emissions would be short-term in duration and highly localized.
Dust & Odour Emissions	<ul style="list-style-type: none"> Dust emissions from operation and maintenance vehicles. 	<ul style="list-style-type: none"> Maintaining equipment in good running condition and in compliance with regulatory requirements. 	<ul style="list-style-type: none"> Increased dust would be short-term in duration and highly localized.

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
		<ul style="list-style-type: none"> Dust suppression (e.g. water) of source areas as necessary. Covering loads of friable materials during transport. 	
Environmental Noise	<ul style="list-style-type: none"> Noise emitted from a turbine. Noise emitted from traffic and/or vehicles. 	<ul style="list-style-type: none"> Adherence to all noise setback requirements. All engines associated with maintenance equipment will be equipped with mufflers and/or silencers in accordance with MOE and/or MTO guidelines and regulations. Noise levels arising from maintenance equipment will also be compliant with sound levels established by the MOE. Routine Project maintenance to ensure infrastructure is operating properly and efficiently. To the greatest extent possible, operations activities that could create excessive noise will be restricted to regular business hours, when residents are less sensitive to noise, and adhere to any local noise by-laws. 	<ul style="list-style-type: none"> Any adverse net effects due to are anticipated to be short-term in duration and intermittent.
Land Use and Socio-Economic Resources			
Areas Protected Under Provincial Plans and Policies	<ul style="list-style-type: none"> None. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Existing Land Uses	<ul style="list-style-type: none"> Temporary increase in noise and dust levels. Minor increase in traffic. 	<ul style="list-style-type: none"> Mitigation measures related to noise are outlined in '<i>Environmental Noise</i>'. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. Mitigation measures related to traffic are outlined in '<i>Local Traffic</i>'. 	<ul style="list-style-type: none"> Disturbance is expected to be short-term in duration, temporary, highly localized, and will be minimized through the implementation of good site practices, transportation planning, and communication with the community.

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project
PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
Hazard Lands	<ul style="list-style-type: none"> Erosion of slopes due to maintenance activities. 	<ul style="list-style-type: none"> Mitigation measures for erosion and sedimentation would be the same measures described in Section 3.3.3 of the <u>Construction Plan Report</u>. 	<ul style="list-style-type: none"> Any potential net effects are anticipated to be spatially and temporary limited.
Recreation Areas	<ul style="list-style-type: none"> Potential disruption to use of recreational areas caused by effects due to traffic, noise, and dust. 	<ul style="list-style-type: none"> Mitigation measures related to noise are outlined in '<i>Environmental Noise</i>'. Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. Mitigation measures related to traffic are outlined in '<i>Local Traffic</i>'. 	<ul style="list-style-type: none"> Noise, dust and traffic effects are anticipated to be short term and intermittent.
Agricultural Lands and Operations	<ul style="list-style-type: none"> Inconvenience to operations from traffic and dust. 	<ul style="list-style-type: none"> Mitigation measures related to dust emissions are outlined in '<i>Dust and Odour Emissions</i>'. 	<ul style="list-style-type: none"> Dust emissions are expected to be short-term in duration and highly localized.
Mineral, Aggregate, and Petroleum Resources	<ul style="list-style-type: none"> Potential for a fire at the Project facility. Potential contamination to Project site as a result of oil spill. 	<ul style="list-style-type: none"> Project infrastructure will be sited at a higher elevation and the distribution substation on a slightly elevated concrete foundation. 	<ul style="list-style-type: none"> None.
Game And Fishery Resources	<ul style="list-style-type: none"> Disturbance to game species from noise. 	<ul style="list-style-type: none"> Turbines will be placed in agricultural lands away from woodlands and within REA setback requirements. 	<ul style="list-style-type: none"> None.
Local Traffic	<ul style="list-style-type: none"> Negligible increase in traffic. 	<ul style="list-style-type: none"> There may be instances where excess loads (e.g. turbine components) will require special traffic planning, widening turning radiuses and road widths and the creation of new ingress/egress nodes. Necessary permits will be obtained. As appropriate, for public safety all non-conventional loads will have front and rear escort or "pilot" vehicles accompany the truck movement on public roads. May provide notification of non-conventional load movements. 	<ul style="list-style-type: none"> Potential for accidents along the haul routes and on-site cannot be totally disqualified. Truck traffic will increase on some roads during maintenance activities and from personnel vehicles; however this traffic will be short-term in duration and intermittent. The effect of operating the Project is anticipated to have a limited, short-term effect on traffic.

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project
PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
Local Economy	<ul style="list-style-type: none"> Increase in direct, indirect and induced employment over the operations period. Local economic benefits from land lease payments, municipal taxes, etc. 	<ul style="list-style-type: none"> To the extent possible Boralex/UDI and/or the Operation and Maintenance Contractor will source required goods and services from qualified local suppliers. 	<ul style="list-style-type: none"> Positive.
Viewscape	<ul style="list-style-type: none"> Disruption to viewscape from siting of Project infrastructure. 	<ul style="list-style-type: none"> Landscaping at the distribution substation property. 	<ul style="list-style-type: none"> Some disturbance to the viewscape is unavoidable due to the height of the turbines. Infrastructure would be present during the life of the Project.
Existing Infrastructure			
Provincial, municipal and other major infrastructure	<ul style="list-style-type: none"> Low potential for damage to local roads. Permits from the MTO may be required. See '<i>Local Traffic</i>'. 	<ul style="list-style-type: none"> Consultation with MTO regarding any necessary agreements related to wear on roads from transportation of Project materials in addition to obtaining the required permits for use of provincial highways. Consultation with the County regarding excess loads with potential to damage County roads. Mitigation measures related to traffic are outlined in '<i>Local Traffic</i>'. 	<ul style="list-style-type: none"> See '<i>Local Traffic</i>'.
Navigable Waters	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None.
Radio communication,	<ul style="list-style-type: none"> Potential to interfere with radio communication systems. 	<ul style="list-style-type: none"> Boralex/UDI will consult with relevant agencies and licensed providers to identify any likely effects to radio 	<ul style="list-style-type: none"> Any adverse effects would be limited and of short-duration.

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
radar and seismoacoustic systems		<p>communication, radar and seismoacoustic systems.</p> <ul style="list-style-type: none"> Complaints of degraded quality related to television and FM radio receivers within 15 km of the wind farm will be monitored and if need be mitigated post-construction by means agreed upon by Boralex/UDI and impacted party. In the unlikely event that signal disruption is experienced, mitigation measures may include: <ul style="list-style-type: none"> Switching to an alternate means of receiving the information. 	
Aeronautical Systems	<ul style="list-style-type: none"> Aeronautical obstruction. 	<ul style="list-style-type: none"> Turbine lighting must conform to Transport Canada standards. Turbine lighting will be selected with the minimal allowable flash duration, narrow beam, and will be synchronized. Nav Canada will be responsible for updating all aeronautical charts with the turbine locations. 	<ul style="list-style-type: none"> None.

Waste Management and Contaminated Lands

Waste Generation	<ul style="list-style-type: none"> Improper disposal of waste material may result in contamination to soil, groundwater, and/or surface water resources on and off the Project sites. Litter may become a nuisance to nearby residences if not appropriately contained and allowed to blow off the site. 	<ul style="list-style-type: none"> Contractors will be required to remove all waste materials from the turbine siting areas during maintenance activities. All waste materials and recycling will be transported off-site by private waste material collection contractors licensed with a Certificate of Approval – Waste Management System. Dumping or burying wastes within the Project sites will be prohibited. Labelling and proper storage of liquid wastes (e.g. used oil, drained hydraulic fluid, and used solvents) in a secure area that will ensure containment of the material in the event of a spill. As per s.13 of the <i>Environmental Protection Act</i>, all spills that could potentially have an 	<ul style="list-style-type: none"> Minor incremental effect on soil, groundwater, and surface water at the waste disposal site(s) depending on municipal on-site containment practices.
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Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
		<p>adverse environmental effect, are outside the normal course of events, or are in excess of the prescribed regulatory levels will be reported to the MOE's Spills Action Centre.</p> <ul style="list-style-type: none"> • Disposal of non-hazardous waste at a registered waste disposal site(s). • If waste is classified as waste other than solid non-hazardous, a Generator Registration Number is required from the MOE and the generator will have obligations regarding manifesting of waste. • Implementation of an on-going waste management program consisting of reduction, reuse, and recycling of materials. • See '<i>Accidental Spills</i>'. 	
Accidental Spills	<ul style="list-style-type: none"> • Potential contamination from accidental spills. 	<ul style="list-style-type: none"> • Labelling and proper storage of liquid wastes (e.g. used oil, drained hydraulic fluid, and used solvents) in a secure area that will ensure containment of the material in the event of a spill. • As per s.13 of the <i>Environmental Protection Act</i>, all spills that could potentially have an adverse environmental effect, are outside the normal course of events, or are in excess of the prescribed regulatory levels will be reported to the MOE's Spills Action Centre. • As appropriate, spill kits (e.g. containing absorbent cloths and disposal containers) will be provided on-site during maintenance activities. • Standard containment facilities and emergency response materials will be maintained on-site as required. • Refuelling, equipment maintenance, and other 	<ul style="list-style-type: none"> • None.

Appendix B2 – Summary of Potential Environmental Effects and Mitigation Strategy for Operation of the Project

PROJECT PHASE: OPERATION

Environmental Feature	Potential Adverse Effect	Mitigation Strategy	Net Effects
		<p>potentially contaminating activities will occur in designated areas.</p> <ul style="list-style-type: none"> Spills should be reported immediately to the MOE Spills Action Centre, as applicable. 	
Public Health and Safety			
Structural failure	<ul style="list-style-type: none"> Public Health and Safety. 	<ul style="list-style-type: none"> Adherence to required setbacks. Design, install, operate, and maintain turbines according to applicable industry standards/certifications. Use of lightning protection systems. Proper training and education of staff. 	<ul style="list-style-type: none"> None.
Ice fall and shed	<ul style="list-style-type: none"> Public Health and Safety. 	<ul style="list-style-type: none"> Adherence to required setbacks. Design of turbine tower reduces ice accumulation. Automatic turbine shutdown due to weight imbalances. Signage in areas where potential icing exists. 	<ul style="list-style-type: none"> None.
Extreme Weather Events	<ul style="list-style-type: none"> Potential damage to project infrastructure from extreme weather events. 	<ul style="list-style-type: none"> Project components have been designed to withstand the effects from extreme events. Design, install, operate, and maintain turbines according to applicable industry standards/certifications. Failsafe devices are capable of shutting down the turbine blades in the event of excessive wind conditions, imbalance, or malfunction of other turbine components. 	<ul style="list-style-type: none"> None.
Third Party Damage	<ul style="list-style-type: none"> Possibility of accidental collision from off-road and maintenance vehicles. 	<ul style="list-style-type: none"> Access to the towers will be restricted to avoid potential accidents to unqualified persons. 	<ul style="list-style-type: none"> None.

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Environmental Feature	Construction	Operation	Decommissioning
Heritage and Archaeological Resources			
Protected Properties and Heritage Resources	• N/A	• N/A	• N/A
Archaeological Resources	• Monitoring would be required following the unlikely event of the discovery of previously unknown archaeological resources, in consultation with the Ministry of Culture.	• N/A	• N/A
Natural Heritage Resources			
Wetlands	<ul style="list-style-type: none"> Stringent monitoring of vegetation clearing and disturbance to ensure terrestrial flora and fauna are protected. Vegetation clearing activities would be conducted under constant observation and monitoring of the Construction Contractor to ensure that vegetation is cleared only from designated areas. Areas outside the designated construction-sites would not be disturbed. Silt fencing along the periphery of significant natural features will be monitored daily when construction activities occur within the 	• N/A	<ul style="list-style-type: none"> Follow-up monitoring for one year after site restoration would be conducted, to allow for the Project area to experience seasonal changes and help determine if additional restoration is required, as determined by an environmental advisor. A monitoring plan would be prepared prior to decommissioning.
Areas of Natural and Scientific Interest		• N/A	
Woodlands		<ul style="list-style-type: none"> See 'Waste Management and Contaminated Lands'. See 'Dust and Odour Emissions'. See Section 3.3.3 of the <u>Construction Plan Report</u> for erosion and sedimentation controls. 	
Provincial Parks and Conservation Reserves		• N/A	
Other Designated Natural Areas		• N/A	
Significant Wildlife and Wildlife Habitat		<u>Disturbance Monitoring for Birds</u> <u>Landbird Migratory Stopover Area :</u> <ul style="list-style-type: none"> Post construction monitoring of landbird migratory stopover area ten weeks during the migration season (March-May and August to October), with 2 surveys per week, with at least 1 day between surveys, annually for three years. Submission of annual reports to MNR and contingency measures, if required, will be 	

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Environmental Feature	Construction	Operation	Decommissioning
	<p>immediate vicinity of the significant natural feature and when inclement weather is anticipated.</p> <ul style="list-style-type: none"> Covers on stockpiles will be monitored when inclement weather is anticipated. Re-seeded areas will be monitored within one growing season. Regular monitoring of the limits of clearing will be employed to ensure the objective of minimal disturbance. Should monitoring reveal that clearing is occurring beyond defined limits, mitigation action will be taken that could include rehabilitation of the disturbed area. Visual monitoring of visible dust plumes during construction will be conducted throughout construction site. 	<p>determined in consultation with MNR.</p> <p><u>Disturbance Monitoring for Vegetation</u></p> <p><u>Pignut Hickory Habitat:</u></p> <ul style="list-style-type: none"> Overall health assessment will be completed for Pignut Hickory tree identified during <u>NHA/EIS</u> site investigations within 120 m of an access road, , in June 2014. Submission of report to MNR and contingency measures, if required, will be determined in consultation with MNR. <p><u>Mortality Monitoring for Birds</u></p> <ul style="list-style-type: none"> Post-construction monitoring of bird carcass searches twice-weekly at all turbines, May 1- October 31, and raptor mortality surveys weekly, November 1- November 30 for three years. Searcher efficiency and carcass removal trials will be conducted seasonally (spring, summer, and fall) between May 1 and October 31st, and repeated for each searcher. Searcher efficiency and carcass removal rates are known to be more variable for bats than for birds throughout the year and depending on habitat (in part due to the relative size of the species). Regular reporting that includes analysis and submission of results to the MOE and MNR. 	
Generalized Significant Wildlife Habitat		<ul style="list-style-type: none"> See '<i>Significant Wildlife and Wildlife Habitat</i>'. See '<i>Local Traffic</i>'. See '<i>Environmental Noise</i>'. See '<i>Dust and Odour Emissions</i>'. See '<i>Accidental Spills</i>'. 	
Birds		<ul style="list-style-type: none"> Post-construction monitoring of bird carcass 	

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Environmental Feature	Construction	Operation	Decommissioning
		<p>searches twice-weekly at all turbines, May 1- October 31, and raptor mortality surveys weekly, November 1- November 30 for three years.</p> <ul style="list-style-type: none"> Mitigation as specified by current provincial guidance (at the time of writing, thresholds are: 14 birds/ turbine/year, or 10 or more birds at any one turbine, or 33 or more birds at multiple turbines on any one visit, or 2 raptors at the Project. Mitigation may include additional scoped mortality and effects monitoring and operational controls, such as periodic shut-down on select turbines or blade feathering at specific times of the year, depending on the species affected. Searcher efficiency and carcass removal trials will be conducted seasonally (spring, summer, and fall) between May 1 and October 31st, and repeated for each searcher. Searcher efficiency and carcass removal rates are known to be more variable for bats than for birds throughout the year and depending on habitat (in part due to the relative size of the species). Regular reporting that includes analysis and submission of results to the MOE and MNR. 	
Bats		<ul style="list-style-type: none"> Post-construction monitoring of mortality rates; carcass searches twice-weekly at all turbines, May 1- October 31 for three years. Potential operational controls as specified by current provincial guidance (at the time of writing, threshold is 10 bats/ turbine/year). Mitigation may include operational controls, such as periodic shut-down on select turbines or blade feathering at specific times of the year. 	

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Environmental Feature	Construction	Operation	Decommissioning
		<ul style="list-style-type: none"> Searcher efficiency and carcass removal trials will be conducted seasonally (spring, summer, and fall) between May 1 and October 31st, and repeated for each searcher. Searcher efficiency and carcass removal rates are known to be more variable for bats than for birds throughout the year and depending on habitat (in part due to the relative size of the species). Regular reporting that includes analysis and submission of results to the MOE and MNR. 	
Significant Flora and Vegetation Communities		<ul style="list-style-type: none"> See '<i>Dust and Odour Emissions</i>'. See '<i>Significant Wildlife and Wildlife Habitat</i>'. 	
Other Flora and Vegetation Communities		<ul style="list-style-type: none"> See '<i>Dust and Odour Emissions</i>'. 	
Water Bodies and Aquatic Resources			
Groundwater	<ul style="list-style-type: none"> In the event that turbines are located within 100 m of non-documented private residential wells of participating landowners, the Contractor may, at the landowner's request, hire a hydrogeologist to undertake monitoring of the quality and quantity of these wells over the course of construction. In the event that well water quality or quantity is disturbed as a result of construction, Boralex/UDI would provide a temporary potable water supply until corrective 	<ul style="list-style-type: none"> See '<i>Accidental Spills</i>'. 	<ul style="list-style-type: none"> In the event that turbines are located within 100 m of private residential wells of participating landowners, the Contractor may, at the landowner's request, monitor the quality and quantity of the well over the course of decommissioning. In the event that well water quality or quantity is disturbed as a result of decommissioning, Boralex/UDI would provide a temporary potable water supply until corrective measures are taken and

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Environmental Feature	Construction	Operation	Decommissioning
	measures are taken and would comply with MOE's Guideline B-9: Resolution of Groundwater Interference Problems. All corrective measures, including determination of when corrective measures are no longer required, would be outlined in the well monitoring program.		would comply with MOE's Guideline B-9: Resolution of Groundwater Interference Problems. All corrective measures, including determination of when corrective measures are no longer required, would be outlined in the well monitoring program.
Surface Water, Fish and Fish Habitat	<ul style="list-style-type: none"> The Construction Contractor will ensure that pre-construction preparation is completed prior to commencement of in-stream work and that bank, bed, and floodplains are restored to pre-existing conditions, as possible, following completion of the construction activities The Construction Contractor will monitor weather forecasts prior to work near aquatic habitats Environmental inspection following spring run-off the year after construction (first year of operations) may also be considered to ensure surface drainage has been 	<ul style="list-style-type: none"> See '<i>Accidental Spills</i>'. See Section 3.4.2 of the <u>Construction Plan Report</u>. 	<ul style="list-style-type: none"> N/A

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Environmental Feature	Construction	Operation	Decommissioning
	<p>maintained.</p> <ul style="list-style-type: none"> If adverse effects are noted, appropriate remedial measures will be completed as necessary (i.e. such as site rehabilitation and revegetation) and additional follow-up monitoring conducted as appropriate, under the direction of an environmental advisor. 		
Air Quality and Environmental Noise			
Air Emissions	<ul style="list-style-type: none"> As appropriate, records of vehicle maintenance would be retained and made available for periodic review by the Construction Contractor. All vehicles identified through the monitoring program that fail to meet the minimum emission standards would be repaired immediately or replaced as soon as practicable from the construction area. 	<ul style="list-style-type: none"> None required. 	<ul style="list-style-type: none"> As appropriate, records of vehicle maintenance would be retained and made available for periodic review by the Contractor. All vehicles identified through the monitoring program that fail to meet the minimum emission standards would be repaired immediately or replaced as soon as practicable from the decommissioning area.
Dust and Odour Emissions	<ul style="list-style-type: none"> The Contractor would monitor to ensure that temporary topsoil storage piles are stabilized with appropriate means. 	<ul style="list-style-type: none"> Adherence to Complaint Response Protocol. 	<ul style="list-style-type: none"> The Contractor would monitor to ensure that temporary topsoil storage piles are stabilized with appropriate means.
Environmental Noise	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Noise monitoring (if required), will be conducted in accordance with the REA for the Project. Turbine shutdown as appropriate in the event of a 	<ul style="list-style-type: none"> N/A

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Environmental Feature	Construction	Operation	Decommissioning
		<ul style="list-style-type: none"> malfunctioning turbine or extreme weather event. Turbine maintenance to ensure turbines are running properly and efficiently. Adherence to Complaint Response Protocol. 	
Land Use and Socio-Economic Resources			
Areas Protected Under Provincial Plans & Policies	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
Existing Land Uses	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> See 'Environmental Noise'. See 'Dust and Odour Emissions'. See 'Local Traffic'. 	<ul style="list-style-type: none"> N/A
Hazard Lands	<ul style="list-style-type: none"> See 'Natural Heritage Resources' 	<ul style="list-style-type: none"> See Section 3.3.3 of the <u>Construction Plan Report</u>. 	<ul style="list-style-type: none"> N/A
Recreation Areas & Features	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> See 'Environmental Noise'. See 'Dust and Odour Emissions'. See 'Local Traffic'. 	<ul style="list-style-type: none"> N/A
Agricultural Lands and Operations	<ul style="list-style-type: none"> For a period of one year after restoration of temporary work areas on agricultural lands, potential soil problem areas including subsidence, soil erosion and/or stoniness would be visually monitored by a soil specialist (such as a professional agrologist), or as per agreements with the landowner. If adverse impacts are noted during monitoring, appropriate remediation measures would be developed by the soil 	<ul style="list-style-type: none"> Adherence to Complaint Response Protocol. 	<ul style="list-style-type: none"> For agricultural land, potential soil problem areas including trench subsidence, soil erosion and/or stoniness would be noted. Additional monitoring activities may also be conducted, depending upon the site conditions at the time of decommissioning. If negative impacts are noted during monitoring activities, appropriate remediation measures would be implemented as necessary,

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Environmental Feature	Construction	Operation	Decommissioning
	specialist, or as per agreements with the landowner. Additional follow-up monitoring would be conducted, under supervision of the soils specialist, until adverse impacts are no longer evident.		and additional follow-up monitoring would be conducted, as determined by an environmental advisor.
Mineral, Aggregate, and Petroleum Resources	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> See '<i>Accidental Spills</i>'. 	<ul style="list-style-type: none"> N/A
Game And Fishery Resources	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None required. 	<ul style="list-style-type: none"> N/A
Local Traffic	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Adherence to Complaint Response Protocol. 	<ul style="list-style-type: none"> N/A
Local Economy	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None required. 	<ul style="list-style-type: none"> N/A
Viewscape	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Adherence to Complaint Response Protocol. 	<ul style="list-style-type: none"> N/A
Existing Local Infrastructure			
Provincial , municipal and other major infrastructure	<ul style="list-style-type: none"> For a period of one year after construction (first year of operations), roads would be monitored following a heavy rain event and following spring runoff, as defined by applicable agreements, to ensure no erosion, bank 	<ul style="list-style-type: none"> See '<i>Local Traffic</i>'. 	<ul style="list-style-type: none"> N/A

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Environmental Feature	Construction	Operation	Decommissioning
	<p>slumpage, road subsidence or major rutting has occurred as a result of construction activities. As appropriate, affected roadside ditches and drains would be repaired if required and monitored to ensure that they are functioning properly.</p> <ul style="list-style-type: none"> If adverse impacts are noted during the above post-construction monitoring, appropriate remediation measures would be developed as per applicable agreements. As appropriate, affected road substrate would be repaired and roadside ditches and drains would be revegetated. Additional follow-up monitoring would be conducted, as per applicable agreements, until adverse impacts are no longer evident. 		
Navigable Waters	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
Radio communication, radar and seismoacoustic systems	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Adherence to Complaint Response Protocol. Boralex/UDI will review potential incidents related to interference of radio communication systems on a case by case basis. 	<ul style="list-style-type: none"> N/A
Aeronautical Systems	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Routine maintenance of the turbines and replacement of safety lighting in the event of 	<ul style="list-style-type: none"> N/A

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Environmental Feature	Construction	Operation	Decommissioning
		malfunction.	
Waste Management and Contaminated Lands			
Waste Generation	<ul style="list-style-type: none"> As appropriate, records of waste generation and hauling would be maintained. Where a third party's activities are identified as non-compliant or insufficient, the Construction Contractor would seek out an alternative recycling or disposal solution. Stringent monitoring of waste disposal to ensure terrestrial flora and fauna are protected. 	<ul style="list-style-type: none"> See 'Accidental Spills'. 	<ul style="list-style-type: none"> N/A
Accidental Spills	<ul style="list-style-type: none"> Stringent monitoring of accidental spills and/or leaks to ensure terrestrial flora and fauna are protected. Monitoring would be required following the unlikely event of contamination from an accidental spill or leak. Contaminated soils would be removed and replaced as appropriate. All such activities would follow procedures outlined in the Emergency Response Plan for the CEMP. 	<ul style="list-style-type: none"> Monitoring would be required following the unlikely event of contamination from an accidental spill or leak (method for monitoring may be developed in consultation with the Spills Action Centre of the MOE). Contaminated soils would be removed and replaced as appropriate. 	<ul style="list-style-type: none"> N/A
Public Health and Safety			

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Environmental Feature	Construction	Operation	Decommissioning
Turbine Blade and Structural Failure	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Inspections of turbines would occur after extreme events and contingency measures such as turbine shutdown would be implemented in the event of structural damage. Turbine maintenance to ensure turbines are running properly and efficiently. 	<ul style="list-style-type: none"> N/A
Ice Fall and Shed	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Inspections of turbines would occur after extreme events and contingency measures such as turbine shutdown would be implemented in the event of structural damage and/or icing to a turbine(s). Turbine maintenance to ensure turbines are running properly and efficiently. 	<ul style="list-style-type: none"> N/A
Extreme Events	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Turbine shutdown in the event of a malfunctioning turbine or extreme weather event. Turbine maintenance to ensure turbines are running properly and efficiently. See 'Turbine Blade and Structural Failure'. 	<ul style="list-style-type: none"> N/A
Third Party Damage	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None. 	<ul style="list-style-type: none"> N/A