

## APPENDIX B      NATURAL HERITAGE ADDENDUM

Ministry of  
Natural Resources  
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Ministère des  
Richesses naturelles



December 2, 2013

Andrea Garcia  
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Toronto, ON M5H 2Y2  
[andrea.garcia@nee.com](mailto:andrea.garcia@nee.com)

**RE: Bornish Wind Energy Centre NHA Addendum V - Parkhill Interconnect Addendum**

Dear Ms. Garcia,

The Ministry of Natural Resources (MNR) has received the document dated December 2013 that describes modifications to the Bornish Wind Energy Centre, specifically relating to infrastructure for the Parkhill Interconnect project area, made subsequent to MNR's letter confirming the Natural Heritage Assessment in respect of the project.

Upon review of the modifications, MNR is satisfied that the Natural Heritage Assessment requirements of Ontario Regulation 359/09 have been met. Please add this letter as an addendum to the confirmation letter issued April 2, 2012, and the re-confirmation letters issued on July 16, 2012, February 11, 2013, and November 28, 2013 for the Bornish Wind Energy Centre project.

If you wish to discuss this matter further, please contact Lindsay Kingdon at [Lindsay.kingdon@ontario.ca](mailto:Lindsay.kingdon@ontario.ca) or 705-755-3215.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathy Woeller".

Kathy Woeller  
Southern Region Land Use Planning Supervisor  
Southern Region MNR

cc Joe Halloran, AI Renewable Energy Coordinator, Southern Region MNR  
Charlotte Moore, Natural Resource Solutions Inc.  
Narren Santos, Environmental Approvals Access & Service Integration Branch, MOE  
Zeljko Romic, Environmental Approvals Access & Service Integration Branch, MOE



December 2, 2013

Project No. 1231

Joe Halloran  
Ontario Ministry of Natural Resources  
300 Water Street,  
Peterborough, Ontario  
K9J 8M5

Dear Mr. Halloran,

**Re: Bornish Wind Energy Centre NHA Addendum V - Parkhill Interconnect Addendum**

This letter is accompanying the submission of the Parkhill Interconnect Natural Heritage Assessment Addendum Report ('Parkhill NHA Addendum') in order to detail the implications of the report on the Bornish Wind Energy Centre ('Bornish').

The Parkhill NHA Addendum outlines changes to the project location along the proposed transmission line route from the Bornish substation to the point of interconnect. These changes include the addition of several private easements beside the existing road right-of-way to accommodate a request from Middlesex County to keep infrastructure out of the municipal road right-of-way, wherever possible.

Three types of changes were considered as part of this re-location of the transmission line, including a review of potential changes in distances from the project location to natural features, changes to habitats that were considered generalized significant wildlife habitat, and changes to significant natural feature boundaries. The results of each are briefly discussed below, with more detail provided in the accompanying Parkhill NHA Addendum.

Several natural features are now located closer to the project location than previously permitted, including 2 natural features, WOD-004 and WOD-045. These natural features were previously located greater than 5m from the previously permitted project location and are now overlapped by the proposed transmission line disturbance area. The area to be overlapped by the transmission line consists of less than 1.5% of the total area of each natural feature. Additionally, three natural areas that were previously located outside of the project location and considered generalized significant wildlife habitat, as a result of not being within 120m of project infrastructure that could have operational impacts, were also surveyed and it was found these areas contain no candidate significant wildlife habitats. As a result of these site-specific surveys in areas that were previously generalized, but are now overlapping the project location, it was determined that WOD-004, WOD-045, and an isolated section of WOD-048 (south of Elginfield Road) no longer meet the criteria for generalized significant wildlife habitat.

Upon further site-specific studies of the habitats that are in close proximity to the transmission line, it was confirmed that changes to the boundaries of WOD-048 were appropriate. The changes in boundaries relate to an area where the transmission line was placed entirely within the road right-of-way, and access was not obtained for adjacent properties. Upon the completion of site-specific habitat assessments and vegetation mapping with property access, it was determined that the area south of Elginfield Road should be delineated as meadow habitat, MEMM4, and does not contain any candidate significant wildlife habitat. This specific area is also no longer considered generalized significant wildlife habitat. Despite this change in boundary, the proposed transmission line remains in the road right-of-way, as previously permitted in the original Bornish NHA.

Changes to mitigation measures for natural features that are now overlapped by the project location, including WOD-004 and WOD-045, are included in the Parkhill NHA Addendum. These mitigation measures include a seasonal timing window to avoid vegetation removal during the breeding bird season (May 1<sup>st</sup> to July 31<sup>st</sup>), unless nest searches are conducted prior to vegetation removal. As well, less than 1.5% of the total area of each natural feature will be impacted by vegetation removal. Additional mitigation measures relating to sedimentation and erosion, spills and changes to soil moisture and compaction, among others are outlined in the Addendum Report.

As a result of minor changes to the project location presented in the Parkhill NHA Addendum, there were no new natural features or wildlife habitats that had not been previously studied. Therefore, aside from the mitigation measures outlined above for WOD-004 and WOD-045, there are no additional mitigation measures outlined in the Parkhill NHA Addendum. One new monitoring commitment has been outlined in the report, which includes conducting vegetation inventories prior to any vegetation removal to ensure that any potential occurrences of rare plant species are documented and addressed appropriately in the very unlikely event they are present within the area proposed for vegetation removal.

No other impacts to natural features or wildlife habitats within the Bornish Wind Energy Centre have been identified based on the changes to the Parkhill Interconnect project location. Based on the existing mitigation measures and monitoring commitments outlined in the Bornish Wind Energy Centre Renewable Energy Application documents, along with the additional considerations made in the Parkhill NHA Addendum, it is unlikely there will be any significant impacts to natural heritage features, including woodlands and significant wildlife habitat.

I trust that this cover letter and the enclosed Parkhill NHA Addendum provide the level of information required to confirm the proposed changes in project location comply with the Natural Heritage Assessment process and continue to maintain no significant impact on natural features or wildlife habitats. If you have any questions, don't hesitate to contact the undersigned.

Best Regards,



Andrew Ryckman  
Senior Terrestrial and Wetland Biologist

***Parkhill Interconnect***  
**Natural Heritage Assessment**  
**Addendum Report**

**Prepared for:**  
Jericho Wind, Inc.  
390 Bay Street, Suite 1720  
Toronto, ON M5H 2Y2  
Canada

Project No. 1341

Date: December 2013



**Parkhill Interconnect**  
***Natural Heritage Assessment Addendum Report***

**Project Team:**

<b>Staff</b>	<b>Role</b>
Andrew Ryckman	Project Manager/Terrestrial and Wetland Biologist
Charlotte Moore	Terrestrial and Wetland Biologist
Kaitlin Boddaert	GIS Technician

Report submitted on December 2, 2013



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Andrew G. Ryckman

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## 1.0 Project Description

Natural Resource Solutions Inc. (NRSI) was retained in April 2011 by GL-Garrad Hassan to conduct a natural environment resource assessment for the Parkhill Interconnect in accordance with the Renewable Energy Approval (REA) Regulation, Ontario Regulation 359/09.

The Parkhill Interconnect will consist of a switchyard, approximately 11.5 km of 115 kV transmission line and a substation. The substation will consist of two (2) 135/225 MVA transformers. The 115 kV line will run from the Parkhill Interconnect's switchyard, known as the Bornish Switchyard, to the Parkhill Interconnect's substation, known as the Parkhill Substation. The Parkhill Substation will then be interconnected to a Hydro One-owned switchyard, known as the Evergreen Switchyard, and to an existing Hydro One 500 kV transmission line that is common to the Jericho Wind Energy Centre, the Adelaide Wind Energy Centre (owned by Kerwood Wind, Inc.), and the Bornish Wind Energy Centre (owned by Bornish Wind, LP). The Point of Common Coupling or Point of Interconnect will be the interface between the Parkhill Substation and Hydro One's Evergreen Switchyard. The Parkhill Interconnect will be owned by Bornish Wind LP, Kerwood Wind Inc., and Jericho Wind Inc. These three companies are wholly-owned subsidiaries of NextEra Energy Canada, ULC ("NextEra").

The proposed Parkhill Interconnect is located in the Municipality of North Middlesex, Middlesex County, Ontario (see Figure 1). The study area comprises a 115 kV transmission line from the Bornish Switchyard to the Point of Interconnect (POI) on Hydro One's 500 kV transmission line. The electricity generated from the Adelaide, Bornish and Jericho Wind Energy Centres will converge at the Bornish Switchyard. From this point, the proposed 115 kV line will carry electricity generated by all three projects to the Parkhill Substation then to a second Hydro One-owned Switchyard on to an existing Hydro One 500 kV transmission line. Approximately 11.5 km in length, the transmission line is proposed to be mounted on new hydro poles along private easements and within the road right-of-way along Kerwood, Elginfield and Nairn Roads. There may be occasional locations where the transmission line is below ground for technical reasons.

The location of the transmission line study area was defined early in the planning process for the proposed wind energy facility, based on the availability of existing infrastructure for connection to the electrical grid. The transmission line study area was used to facilitate information collection and the records review.

The project location is defined as per the Natural Heritage Assessment Guide for Renewable Energy Projects (OMNR 2011) as “...a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the project and any air space in which a person is engaging in or proposes to engage in the project.” As described herein, the project location boundary is the outer limit of where site preparation and construction activities will occur (i.e. temporary disturbance areas), and where permanent infrastructure will be located, including the area occupied by any project components that are installed above ground level. For the purposes of this report, NRSI will refer to the areas within 120m of the project location as the ‘project area’.

The records review, site investigation, evaluation of significance, and environmental impact study (EIS) for the Parkhill Interconnect were completed by NRSI over the course of 2011-2013 as part of the Natural Heritage Assessment (NHA). The original Parkhill Interconnect NHA (NRSI 2013) confirmation was granted on February 7, 2013 by the Ministry of Natural Resources (MNR) Renewable Energy Operations Team.

This Addendum Report was prepared to address additional changes to the proposed Parkhill Interconnect project location. These changes and any potential impacts to the natural heritage features in the Parkhill Interconnect project area, and directly relatable to the Bornish, Adelaide, and Jericho Wind Energy Centres, are identified and discussed in the subsequent sections of this report.

Figure 1

# Parkhill Interconnect Project Area and Natural Features

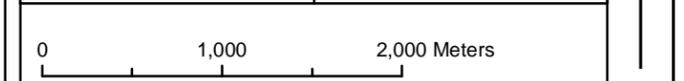
### Legend

- Project Area (120m)
- Project Location
- Access Road
- Transmission Line
- Switchyard
- Point of Interconnect
- Existing Transmission Line
- Railroad
- Primary Road
- Secondary Road
- Intermittent Watercourse
- Permanent Watercourse
- Open Aquatic
- Provincially Significant Wetland (PSW)
- Other Wetland
- Woodland



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## 2.0 Staff Roles

The requirements of the REA process indicate that the name and qualifications of staff participating in the NHA should be provided. The qualifications and roles of key staff participating in the addendum to the Parkhill Interconnect NHA have been outlined below.

### Andrew Ryckman, B.Sc.

Andrew is a Terrestrial and Wetland Biologist with 8 years of environmental experience. He routinely manages the natural heritage aspects of renewable energy projects, with specific expertise relating to bats and herpetofauna. Andrew is certified in the Ecological Land Classification (ELC) system (2010), and has successfully completed a Bat Conservation International (BCI) Acoustic Monitoring Workshop (2008).

Andrew's role was to act as the project manager, overseeing all aspects of the Natural Heritage Assessment, including all associated field work and reporting. He was the main contact point for agency staff and assisted with the preparation of all corresponding reports including this addendum.

### Charlotte Moore, B.E.S.

Charlotte is a Terrestrial and Wetland Biologist with 3 years of experience in butterfly ecology and various other environmental projects. Charlotte has completed her Bachelor of Environmental Studies and is a candidate for a Master of Environmental Studies (2013) at the University of Waterloo. Other environmental projects Charlotte has worked on include the use of ELC, bat habitat assessments, breeding bird surveys and herpetofauna studies. Charlotte is certified in the Ontario Wetland Evaluation System (2012) and the southern Ontario ELC system (2013).

Charlotte coordinated the field work for the project and assisted with all aspects of this NHA Addendum.

### Kaitlin Boddaert, GIS-UP

Kaitlin specializes in delivering mapping services using GIS applications and assists with NRSI's spatial technologies. Her project experience includes, but is not limited to; the collection and creation of various datasets, the geocoding of addresses, the use of AutoCAD with integration into GIS, and the use of hard and soft data through scanning and georeferencing into digital format. Kaitlin has produced various digital maps and datasets for publication, and in addition to her experience in environmental studies she has education and experience in the field of urban planning and is familiar with municipal mapping and procedures.

Kaitlin's role in the Project was as GIS technician. She reviewed and collected all available background mapping sources, digitized information gathered from site investigations, and integrated this information to generate this project's mapping.

### **3.0 Overview of Project Changes**

Since the approval of NHA reports, minor changes have been made to the project location, resulting in a reassessment of the considerations made as part of the Parkhill Interconnect NHA. These changes include the addition of several private easements adjacent to the existing road right-of-way to accommodate a request from Middlesex County to keep infrastructure out of the municipal road right-of-way, wherever possible.

A visual overlay of the differences between the project location, as approved as part of the NHA Report (NRSI 2013) submission, and the currently proposed project location as part of this Addendum Report are provided on Figures 2a-2c.

Figure 2a

# Parkhill Interconnect Comparative Layout - West

### Legend

- New Project Area (120m Buffer)
- Old Project Area (120m Buffer)
- New Project Location
- Previous Project Location
- New Footprint
- Transmission Line
- Switchyard
- Existing Transmission Line
- + Railroad
- Primary Road
- Secondary Road
- Intermittent Watercourse
- Permanent Watercourse
- Open Aquatic
- Provincially Significant Wetland (PSW)
- Other Wetland
- Woodland



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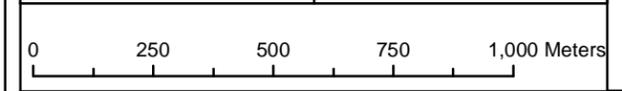


Figure 2b

# Parkhill Interconnect Comparative Layout - Central

### Legend

- New Project Area (120m Buffer)
- Old Project Area (120m Buffer)
- New Project Location
- Previous Project Location
- New Footprint
- Transmission Line
- Existing Transmission Line
- Railroad
- Primary Road
- Secondary Road
- Intermittent Watercourse
- Permanent Watercourse
- Open Aquatic
- Provincially Significant Wetland (PSW)
- Other Wetland
- Woodland



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