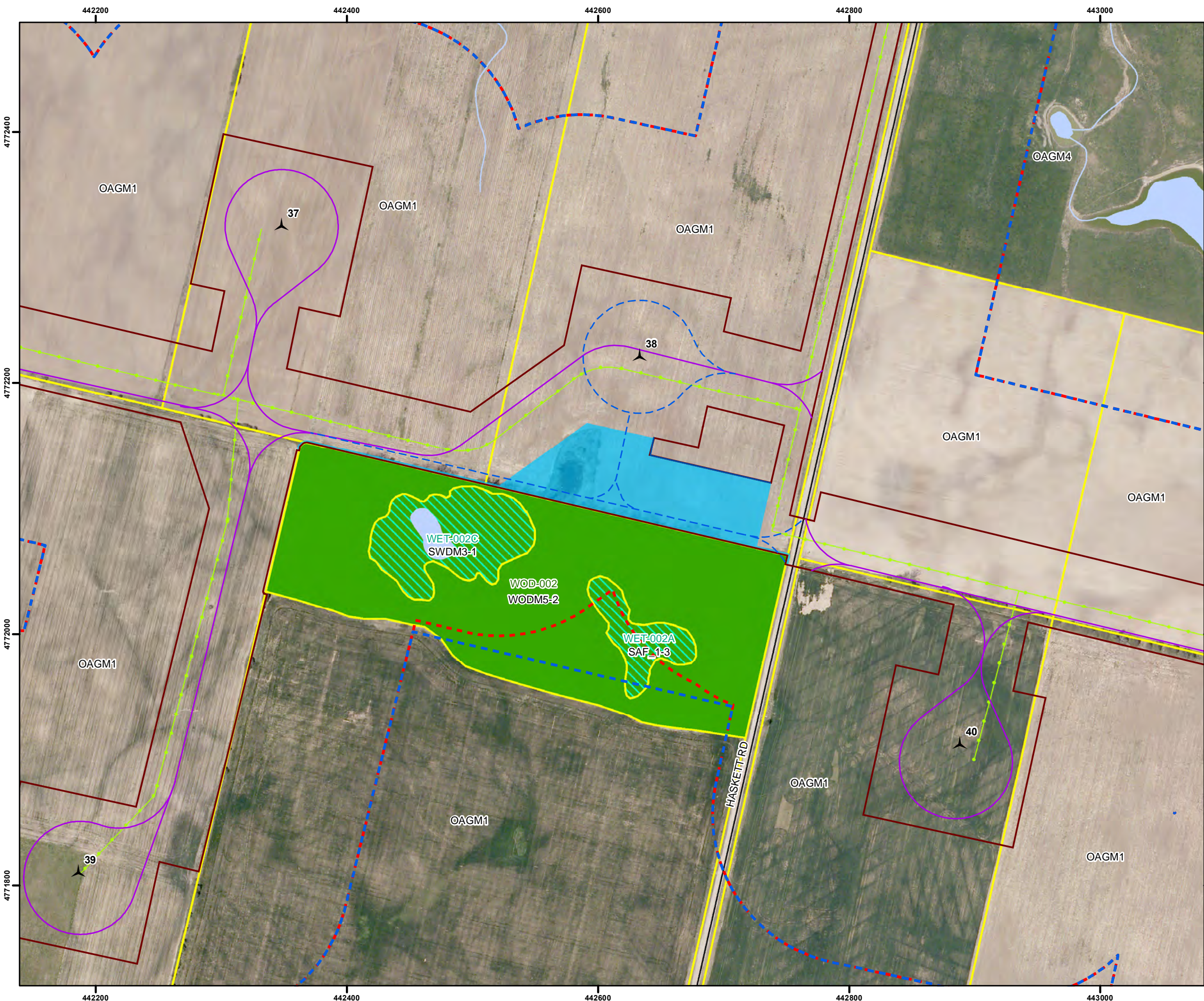


Figure 2

Bornish Wind Energy Centre Comparative Layout and Updated Natural Features



Legend

- [Dashed Blue Box] New Project Area (120m Buffer)
- [Dashed Red Box] Previous Project Area (120m Buffer)
- New Footprint
- [Dashed Blue Line] New Access Road
- [Black Triangle] Turbine
- Project Location
- [Purple Line] Access Road
- [Green Line] Collector System
- [Black Line] Road
- [Wavy Blue Line] Intermittent Watercourse
- [Wavy Blue Line] Permanent Watercourse
- [Blue Polygon] Open Aquatic
- [Green Polygon] Wetland (WET)
- Significant Woodland (WOD)
- Ecological Land Classification (ELC)
- (OAGM1) Annual Row Crops
- (OAGM4) Open Pasture
- (SAF_1-3) Duckweed Floating-Leaved Shallow Aquatic
- (SWDM3-1) Red Maple Mineral Deciduous Swamp
- (WODM5-2) Fresh - Moist Elm Deciduous Woodland Type



Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Source: Data provided by MNR. Copyright: Queen's Printer Ontario. Imagery: SWOOP 2006.

Project: 1231 Date: October 29, 2013	NAD83 - UTM Zone 17 Scale: 1:3,000 (11x17")

4.0 Amendments to the Records Review

The project area initially examined for the Bornish Wind Energy Centre Records Review Report extended beyond the previously proposed project area to help compensate for any later changes in the project's layout. Upon review of the changes to the project's layout, all project areas of this proposed layout were previously studied and included with the Records Review submission to the MNR. Thus, there are no records of new habitats of seasonal concentrations of animals, rare vegetation communities or specialized habitats for wildlife, species of conservation concern, or other natural features that need to be amended in the NHA.

5.0 Amendments to the Site Investigation

By reviewing the changes made to the Bornish Wind Energy Centre layout since its latest NHA confirmation, it has been verified that the proposed alteration to the project layout has only led to minor changes in distance between project components and natural features and has not resulted in any new features being included in the project area.

A wetland, assumed to be significant, (WET-002b) was previously identified in the area where the additional project location is now proposed. This portion of the larger wetland delineation was an open pond that was expected to be anthropogenic in origin, and was later confirmed by the landowner that it was installed as a pond for livestock. The landowner, who no longer has cattle on the property, has since decided to remove this open pond in favour of additional cropland. As a result, the existing project footprint is entirely within an agricultural field. A site investigation of this feature was completed on October 7, 2013 to re-confirm the boundaries of the feature and identify the current land use. The new boundaries are shown in Figure 2, and photographs taken of the current habitat can be found in Appendix I. The site investigation of this area has confirmed that it no longer contains standing water, does not support wetland vegetation (aside from a few remnant indicator species), nor does it have connectivity to the still-present, adjacent wetland habitat, WET-002c. As a result, NRSI has determined that the habitats previously delineated as wetland no longer qualify as wetland habitat and are now part of the surrounding agricultural field.

Given the changes in project location and land use, described and mapped above, NRSI has identified where the project location is now closer to a natural feature that was identified as being within 120m of the project location. This change in distance has been outlined below (Table 2), and includes the feature identification number, feature type, and comparison of distances from project location to natural feature between the presented layouts. Only 3 natural features (1 woodland and 2 wetlands), WOD-002, WET-002a, and WET-002c resulted in having a minor change in distance from the project location. No additional significant natural features or wildlife habitats are within 120m of the proposed project location.

In addition, NRSI biologists have also reviewed the potential for additional generalized significant wildlife habitat that may be present within 120m of the amended project location. Due to the small change in the distance between project components and natural features, no addendums to generalized habitats were identified.

Table 2. Updated Distances between Project Components and Natural Features in the Bornish Wind Energy Centre

Feature ID	Feature Type	Distances from NHA Addendum Submission (m)	New Layout Distances (m)	Amendment to the EOS and/or EIS Required? (Y/N)
WOD-002	Woodland	WT – 75 AR – 8 OL – >120 UL – 16 SI – >120	WT – 75 AR – >0.1 OL – >120 UL – 16 SI – >120	No - EOS completed with NHA. Distances did not change enough to warrant amendment to the EIS.
WET-002a	Wetland	WT – >120 AR – 110 OL – 105 UL – 104 SI – >120	WT – >120 AR – 50 OL – 105 UL – 104 SI – >120	No - EOS completed with NHA. Distances did not change enough to warrant amendment to the EIS.
WET-002b	Wetland	WT – 40 AR – 54 OL – >120 UL – 43 SI – >120	N/A	Yes - wetland boundaries have been re-delineated.
WET-002c	Wetland	WT – 109 AR – 29 OL – >120 UL – 29 SI – >120	WT – 109 AR – 3 OL – >120 UL – 29 SI – >120	No - EOS completed with NHA. Distances did not change enough to warrant amendment to the EIS.

Legend

WT: Wind Turbine
AR: Access Road
OL: Overhead Line
UL: Underground Line

SI: Supporting Infrastructure
EOS: Evaluation of Significance
EIS: Environmental Impact Study

6.0 Amendments to the Evaluation of Significance

As part of this addendum, NRSI biologists have reviewed the potential for changes to the Evaluation of Significance as a result of minor changes in project location.

After considering the changes in project location, land use, and nearby habitats, it has been concluded that no further evaluation of significance is required. The nearby significant woodland, WOD-002, remains significant, and the wetland that was treated as significant, WET-002b, no longer exists and is therefore no longer a significant feature.

No additional Evaluation of Significance is required for the Bornish Wind Energy Centre as a result of the addition of an alternate access road footprint.

7.0 Amendments to the Environmental Impact Study

As part of this NHA Addendum IV Report, NRSI has considered all aspects of the previously approved Environmental Impact Study to determine if any changes or additions are required based on the change to the project location.

For the purposes of this addendum, NRSI has reviewed three separate aspects relating to the potential for change to the EIS, as follows:

- Changes to Mitigation Measures (i.e. project location now closer to natural features)
- New Mitigation Measures (i.e. project location within 120m of a new feature)
- Changes to Monitoring Requirements

7.1 Changes to Mitigation Measures

Based on the removal of WET-002b from the significant natural features associated with the Bornish Wind Energy Centre, the mitigation measures outlined in the Natural Heritage Environmental Impact Study (NRSI 2012a) no longer apply to this feature, but remain in place for the 2 other nearby wetlands, WET-002a and WET-002c.

7.2 New Mitigation Measures

It was concluded that there are no additional significant natural features within the project area, nor are there considerable changes in distances from the project location to already identified natural features or wildlife habitats. As a result, no new mitigation measures need to be implemented for this project.

7.3 Changes to Monitoring Requirements

Based on the minor changes in project location, NRSI has determined that the monitoring requirements identified in the Natural Heritage Environmental Impact Study (NRSI 2012a) are suitable for the monitoring of potential environmental effects of the proposed Bornish Wind Energy Centre.

8.0 Summary of Natural Heritage Amendments

In accordance with the REA Regulation, NRSI biologists have completed a comprehensive records review, site investigation, evaluation of significance, and EIS of the Bornish Wind Energy Centre project area. Following the review of the proposed adjustment to the project location (as discussed above), NRSI has re-considered all aspects of the Natural Heritage Assessment within this report to determine if there are new natural features, changes in distance to project location, or new mitigation measures or monitoring commitments required to ensure that potential permanent or adverse environmental impacts are mitigated or studied appropriately. The summary of the result of this review of changes to the project location is summarized in Table 3 below.

Table 3. Summary of Natural Heritage Addendum IV for the Bornish Wind Energy Centre

Addendum Changes	Addendum Result
Significant Features	<p>NRSI has not identified any additional significant natural features or wildlife habitats within the project area.</p> <p>One previously significant natural feature, WET-002b, no longer contains wetland characteristics and has been removed from the significant natural features associated with the Bornish Wind Energy Centre.</p>
Changes in Distances to Project Location	<p>The distance from the project location to one significant natural feature has changed due to a minor adjustment to the project layout. The change in distance to the project location is associated with 3 significant natural features (1 woodland and 2 wetlands).</p> <p>The change in distance from the project location to the significant natural features (WOD-002, WET-002a, WET-002c) are shown in Table 2 of this report.</p>
Mitigation Measures	<p>Based on the minor adjustment of the project location, NRSI biologists have identified no additional significant features within 120m of the project location that require mitigation measures to be applied.</p> <p>The mitigation measures outlined in the Natural Heritage Environmental Impact Study (NRSI 2012a) no longer apply to WET-002b, as this feature is no longer considered a significant natural feature.</p> <p>All other mitigation measures, as seen in the Natural Heritage Environmental Impact Study (NRSI 2012a) and NHA Addendum Reports (NRSI 2012b; NRSI 2013) will provide the appropriate protection to ensure any permanent and adverse impacts are mitigated.</p>
Monitoring Commitments	<p>NRSI has identified that, based on the minor shift in project location, the monitoring commitments outlined in the Natural Heritage Environmental Impact Study (NRSI 2012a) and NHA Addendum Reports (NRSI 2012b; NRSI 2013) are still appropriate to monitor any potentially adverse impacts of this project.</p> <p>No additional monitoring requirements are proposed as a result of the changes in project location.</p>

With this addendum, it is maintained that with the implementation of the planned mitigation measures, monitoring programs, and contingency plans as presented in the Bornish Wind Energy Centre: Natural Heritage Environmental Impact Study (NRSI 2012a), Bornish Wind Energy Centre: Natural Heritage Assessment Addendum Report (NRSI 2012b), and subsequent addendum reports, that there is unlikely to be any significant impacts to natural heritage features, including woodlands, wetlands, or significant wildlife habitat.

9.0 References

- Natural Resource Solutions Inc. (NRSI). 2013. Bornish Wind Energy Centre Natural Heritage Assessment Addendum II Report. February 2013.
- Natural Resource Solutions Inc. (NRSI). 2012a. Bornish Wind Energy Centre Natural Heritage Assessment. April 2012.
- Natural Resource Solutions Inc. (NRSI). 2012b. Bornish Wind Energy Centre Natural Heritage Assessment Addendum Report. July 2012.
- Ontario Ministry of Natural Resources (OMNR). 2011. Natural Heritage Assessment Guide for Renewable Energy Projects. July 2011 (first edition).

Appendix I
Photo Appendix

Appendix I – Photo Appendix

Facing north from WOD-002



Facing south towards WOD-002





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 1st to July 31st), 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:
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Canada

Project No. 1341

Date: December 2013



Parkhill Interconnect
Natural Heritage Assessment Addendum Report

Project Team:

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

Report submitted on December 2, 2013



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.