Environment

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Goshen Wind, Inc.

## **Revision to the Design and Operations Report – Goshen Wind Energy Centre**

Prepared by:	
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Project Number: 60301207

Date: November, 2013

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### **Glossary of Terms**

- EIS .....Environmental Impact Study
- MNR ..... Ontario Ministry of Natural Resources
- mVA .....mega Volt-Ampere
- NextEra .....NextEra Energy Canada, ULC
- O.Reg. 359/09.....Ontario Regulation 359/09
- The Project.....Goshen Wind Energy Centre
- REA.....Renewable Energy Approval

## 1. Introduction

Goshen Wind, Inc. (Goshen) is proposing to construct a wind energy centre in the Municipality of Bluewater and the Municipality of South Huron in Huron County, Ontario. The following sections of this Renewable Energy Approval (REA) Revision Report describe the proposed modifications to this Project and resulting updates to the Design and Operations Report.

### 1.1 The Proponent

The Project will be owned and operated by Goshen, a wholly owned subsidiary of NextEra Energy Canada, ULC (NextEra). NextEra's indirect parent company is NextEra Energy Resources, LLC. The proponent has not changed from the initial REA submission.

The primary contacts for the Project are as follows:

Project Proponent	Project Consultant
Nicole Geneau Project Director NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, ON M5H 2Y2	Marc Rose Senior Environmental Planner AECOM 105 Commerce Valley Drive West, Floor 7 Markham, ON, Canada L3T 7W3
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### 1.2 Project Study Area

The proposed Project is located in the Municipality of Bluewater and the Municipality of South Huron in Huron County, Ontario (refer to **Figure 2-1**). The Project Study Area has not changed from the initial REA submission.

The following co-ordinates define the external boundaries of the Project Study Area:

Longitude	Latitude
-81.6753290	43.4155312
-81.3011931	43.3810955
-81.3303330	43.3036317
-81.7743607	43.2379854

## 2. Proposed Project Modifications

Goshen is proposing modifications to the Project. These proposed Project modifications are categorized as follows:

- Construction disturbance area modified to reduce or eliminate impacts to archaeological resources or Conservation Authority regulation limits;
- Infrastructure or construction disturbance area added or changed to optimize project design/ constructability; and,
- Turbine and associated infrastructure removed.

 Table 2-1 summarizes and documents the following about each of the proposed modifications:

- 1. A description of the modification and a rationale for why the modification is proposed; and
- 2. New potential environmental effects and corresponding mitigation measures.

**Figure 2-1** illustrates the modified Project Location. **Appendix A** contains a series of figures showing the details for each of the modifications.

### Table 2-1Summary of Project Modifications

Label on Figure 2-1	Proposed Modification	Rationale for Proposed Modification	New Potential Environmental Effects	
A1	Removal of Turbine 7 and associated access road and collection line	Turbine and associated infrastructure removed	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
A2	Removal of a portion of Turbine 11 construction disturbance area	Construction disturbance area modified to reduce or eliminate impacts to Conservation Authority regulation limit	None – removal of infrastructure	N/A
A3	Relocation of collection line to Turbine 9 17 m to southern property boundary, west of Bronson Line	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
B1	Relocation of collection line from private property to Babylon Line and Huron Street right-of-way	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
B2	Temporary construction laydown area modified and increased in size	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
B3	Relocation of Turbine 71 15 m north within the existing turbine construction disturbance area	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C1	Relocation of access road to Turbine 66 to the west	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C2	Removal of a portion of construction disturbance area, east of Shipka Line, for the access road and collection line to Turbine 21	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – removal of infrastructure	N/A
C3	Addition of collection line construction disturbance area in the Black Bush Line right-of-way, east of Turbine 86	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C4	Relocation of collection line from private property to Black Bush Line right-of-way in two locations, northeast of Turbine 64	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C5	Relocation of collection line from private property to Crediton Road right-of-way, south of Turbine 39	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C6	Relocation of collection line from private property to Bronson Line right-of-way, southwest of Turbine 81	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C7	Relocation of collection line from private property to South Road right-of-way, southeast of Turbine 38	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C8	Relocation of collection line from private property to South Road right-of-way, southwest of Turbine 41	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C9	Realignment of collection line from Black Bush Line right-of-way onto private property west of Black Bush Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
C10	Removal of a portion of collection line disturbance area on private property, along Black Bush Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – removal of infrastructure	N/A
D1	Relocation of Turbine 83 and associated construction disturbance area 1,140 m to the east	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	<ul> <li>Natural Heritage:</li> <li>Generalized Candidate Significant Wildlife Habitat (Amphibian Woodland Breeding Habitat) in Natural Area 255 was changed to Amphibian Woodland Breeding Habitat Feature AWO-36 because it is within 120 m of a proposed access road. Potential effects of operation of the access road include: <ul> <li>Risk of road mortality to amphibians moving between breeding pools and home range.</li> </ul> </li> <li>Turbine is within 120 m of new Generalized Candidate Significant Wildlife Habitat Feature (Plant Species of Conservation Concern Habitat) in Natural Area 227, not previously described in the NHA. There are no potential effects on this feature associated with operation of the turbine.</li> </ul> Water Bodies <ul> <li>Increase in impervious surfaces from presence of turbine foundation and access roads, resulting in increased water temperatures, increased surface runoff and stream peak flows, and reduced infiltration, base flows and upwelling.</li></ul>	Natural H • For open Habitat I - Advise betwe where - Most a night. - Mainta - Condu mass breedi Biolog • Call Mor 2:00 or h eacl at ea - Repor the firs - Contir • If sig likel take Water Bo • N/A

### New Mitigation Measures

### I Heritage:

pperation of the access road within 120 m of Amphibian Woodland Breeding tat Feature AWO-36:

vise operations staff to avoid driving roads in proximity to this feature at night tween April 1 and June 30, and any rainy nights from spring to early autumn, erever possible.

ost access road traffic will be confined to daytime hours. Avoid access road use at

aintain wildlife crossing signs and limit speed of vehicles near crossings (30 km/hr). Induct 3 years post-construction amphibian call surveys (frogs and toads) and egg ass or adult surveys (salamanders) to assess any potential changes in amphibian beding populations or species distribution at feature AWO-36 by a qualified bologist, including:

Call surveys three times between April 1 and June 30, as per the Marsh Monitoring Protocol. Conduct surveys between one half-hour after sunset and 2:00 am and, to the extent possible, on nights that are clear, cloudy, damp, foggy, or have light rain and minimum night air temperatures of 5°C, 10°C and 14°C for each of the three respective survey periods. Complete a 3-minute listening survey at each station.

port the findings of post-construction monitoring to MNR on an annual basis for first 3 years of operation.

ntingency Measures:

f significant declines or disappearance of species is detected, determine whether ikely to have been caused by the Project. If so, corrective measures will be aken, to be determined through consultation with MNR.

Bodies

### Summary of Project Modifications Table 2-1

Label on Figure 2-1	Proposed Modification	Rationale for Proposed Modification	New Potential Environmental Effects	
D2	Removal of the southwest portion of Turbine 17 construction disturbance area	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – removal of infrastructure	
D3	Relocation of collection line from private property to Grand Bend Line right-of-way, south and west of Turbine 53	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	<ul> <li>Natural Heritage:</li> <li>Collection line is within 13 m of Significant Woodland Feature WOD-022, not previously described in the NHA. There are no potential effects on this feature associated with operation of the collection line.</li> <li>Collection line is within 120 m of new Generalized Candidate Significant Wildlife Habitat Feature (Plant Species of Conservation Concern Habitat, Common Nighthawk Habitat, Red-headed Woodpecker Habitat, and Woodland Raptor Nesting Habitat) in Natural Area 204, not previously described in the NHA. There are no potential effects on this feature associated with operation of the collection line.</li> </ul>	N/A
D4	Relocation of collection line from private property to South Road right-of-way, east of Turbine 55	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
E1	Relocation of collection line from private property to Mollard Line right-of-way, west of Turbine 56	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
E2	Removal of a portion of Turbine 56 construction disturbance area	Construction disturbance area modified to reduce or eliminate impacts to Conservation Authority regulation limit	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
E3	Addition of collection line construction disturbance area on private property, heading west to Turbine 60 from Mollard Line, and removal of collection line heading west to Turbine 58 from Mollard Line	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – no new natural heritage, cultural heritage, or water body features within 120 m	
E4	Addition of construction disturbance area for access road and collection line to Turbine 56 from Eagleson Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
F1	Removal of Turbine 46 and associated access road and collection line, including collection line in the Gordon Line right- of-way and collection line on private property to Turbine 77	Turbine and associated infrastructure removed	<ul> <li>Natural Heritage:</li> <li>Waterfowl (Tundra Swan) Stopover and Staging Area (Terrestrial) Feature WSST-36 was changed to Generalized Candidate Significant Wildlife Habitat because it is more than 120 m away from a proposed turbine and is not overlapped by the Project Location. There are no potential effects on this feature associated with operation of the collection line.</li> </ul>	N/A
F2	Removal of a portion of construction disturbance area for access road and collection line to Turbine 77	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – removal of infrastructure	N/A
F3	Addition of collection line in Babylon Line right-of-way, between the access road to Turbine 77 and the access road to Turbine 49	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	d to None – no new natural heritage, cultural heritage, or water body features within 120 m	
F4	Addition of transmission line construction disturbance area on private property, west of Parr Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
F5	Removal of a portion of transmission line construction disturbance area on private property west of Ausable Line and relocation of transmission line from an underground to overhead crossing of the Ausable River	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	<ul> <li>Natural Heritage:</li> <li>Reptile Hibernacula Feature RH-06 was changed to Generalized Candidate Significant Wildlife Habitat in Natural Area 609 because it is not overlapped by the Project Location. There are no potential effects on this feature associated with operation of the transmission line.</li> <li>The transmission line is spanning the Significant Wetland Feature WET-012. Potential effects from operation of the above ground transmission line include: <ul> <li>Risk of soil or water contamination from oil, gas, etc. during maintenance of the transmission line in Significant Wetland.</li> </ul> </li> </ul>	Natural • For cc Wetla - Dev spill - Cor • R a
G1	Addition of transmission line construction disturbance area on private property, west of London Road	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
G2	Addition of transmission line construction disturbance area on private property, west of London Road	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
G3	Addition of transmission line construction disturbance area in the Crediton Road right-of-way	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
G4	Removal of a portion of transmission line construction disturbance area on private property, south of Crediton Road and east of McTaggart Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – removal of infrastructure	N/A
H1	Addition of transmission line construction disturbance area on private property, east of Hern Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	<ul> <li>Natural Heritage:</li> <li>The transmission line is within 27 m of Significant Woodland Feature WOD-145. There are no potential effects on this feature associated with operation of the transmission line.</li> </ul>	N/A

### New Mitigation Measures

Il Heritage: construction of the transmission line above ground spanning the Significant and Feature WET-012:

evelop and implement an emergency spills plan outlining steps to contain any ills during maintenance activities to avoid contamination of Significant Wetland. ontingency Measures:

Report the details of the spill to MOE, including a description of any assessment and remediation undertaken.

### Table 2-1 Summary of Project Modifications

Label on Figure 2-1	Proposed Modification	Rationale for Proposed Modification	New Potential Environmental Effects	
H2	Addition of transmission line construction disturbance area on private property, west of Sunshine Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
H3	Addition of transmission line construction disturbance area on private property, east of Sunshine Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
H4	Removal of a portion of transmission line construction disturbance area on private property, east of Sunshine Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
H5	Addition of transmission line construction disturbance area on private property, south of Dump Road and west of Sunshine Line,	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
H6	Addition of transmission line construction disturbance area on private property, south of Dump Road and west of Sunshine Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
H7	Addition of transmission line construction disturbance area on private property, on the south side of Dump Road, east of Plugtown Line	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
H8	Addition of transmission line construction disturbance area on private property, on the north side of Dump Road, west of Union Line and addition and removal of portions of the transmission line point of interconnect construction disturbance area	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new natural heritage, cultural heritage, or water body features within 120 m	N/A
H9	Removal of a portion of transmission line construction disturbance area on private property, north of Crediton Road, and west of Hern Line	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None – removal of infrastructure	N/A
N/A	Use of a spare 170 mVA transformer to be stored within the existing footprint of the Jericho Wind Energy Centre substation	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	N/A	N/A

### New Mitigation Measures



## 3. Edits to the Design and Operations Report

**Table 3-1** documents the edits to the Design and Operations Report resulting from the modifications described in **Section 2**. The table includes the text from the original REA submission and edits to the text (underlined text represents additions and strikethrough text represents deletions). Updated figures are included in **Appendix B** of this Revision Report. An updated Site Plan, Noise Assessment Report, and Parcel Boundary Setback Reduction Analysis have been included in this Revision Report as **Appendix C**, **Appendix D**, and **Appendix E** respectively.

### Table 3-1Edits to the Design and Operations Report

Section / Page Original Text		F
Section / Page		<u>(Underlined text</u> represents additi
Section 1 / page 1	Although NextEra is seeking a Renewable Energy Approval (REA) for up to 72 wind turbines, only 63 will be constructed for the Project.	Although NextEra is seeking a Renewable Energy Approval (REA)
Section 2 / page 5	Up to 71 GE 1.6-100 Wind Turbine generator locations and pad mounted step-up transformers and one GE 1.56-100 Wind Turbine generator	Up to 74 69 GE 1.6-100 Wind Turbine generator locations and pact
Section 3.1 / page 10	Although NextEra is seeking an REA for up to 72 wind turbines, only 63 are proposed to be constructed for the Project	Although NextEra is seeking an REA for up to 72-70 wind turbines
Section 6.1 / page 17	In 2011 and 2012, pedestrian surveys were conducted within the Project Study Area in support of the Stage 2 Archaeological Assessment,	In 2011 and 2012, pedestrian surveys were conducted within the F
	according to the 2011 Standards and Guidelines for Consultant Archaeologists issued by the Ontario Ministry of Tourism, Culture and Sport	according to the 2011 Standards and Guidelines for Consultant Ar
	(MTCS) (Government of Ontario, 2011). A total of 62 archaeological sites were identified and 33 sites have been recommended for further Stage	(MTCS) (Government of Ontario, 2011). A total of 62 archaeologic
	3 archaeological assessment.	Stage 3 archaeological assessment. Based on further Stage 2 Archaeological additional sites have been recommended for Stage 3 Archaeological
Section 6.1 / page 17	A Cultural Haritage Assessment (Golder, 2012) was also completed to identify built heritage and cultural heritage landscape resources related to	A Cultural Heritage Assessment (Golder, 2012) was also complete
	the Euro-Canadian land use in the area dating prior to 1970. All work was carried out in accordance with the Ontario Heritage Act, the Provincial	the Euro-Canadian land use in the area dating prior to 1970. All we
	Policy Statement, and the Environmental Assessment Act. The report identified 135 structures (67 houses and 68 barns or barn complexes) as	Policy Statement, and the Environmental Assessment Act. The rep
	greater than 40 years old within the Project Study Area and as having general historical interest contributing to the character of the vernacular rural landscape. When applying the criteria set out in <i>Ontario Regulation 9/06</i> , 99 of these structures (46 houses and 53 harps) were determined	structures ( <del>67</del> / <u>73</u> houses and <del>68</del> / <u>72</u> barns or barn complexes) as g
	to have cultural heritage value or interest. Following the evaluation of anticipated impacts, both direct and indirect, according to InfoSheet #5	109 of these structures ( $49$ 52 houses and $53$ 57 barns) were deter
	(Government of Ontario, 2006), no anticipated impacts were identified. As there are no anticipated impacts to the cultural heritage features, no	anticipated impacts, both direct and indirect, according to InfoShe
	further work is recommended.	there are no anticipated impacts to the cultural heritage features, r
Section 6.2 / page 18	I he potential effects, mitigation measures, residual effects and monitoring commitments regarding the natural heritage features (including Significant Wetlands, woodlands, valleylands, and wildlife babitat) were identified and evaluated in the Natural Heritage Assessment Report and	I he potential effects, mitigation measures, residual effects and mo
	Environmental Effects Monitoring Plan (AECOM, 2013) prepared based on the Natural Heritage Assessment Guide for Renewable Energy	Environmental Impact Study (NHA and EIS) Report and Environm
	Projects (Government of Ontario, 2010) and submitted to the Ontario Ministry of Natural Resources (MNR) for review and sign-off.	Heritage Assessment Guide for Renewable Energy Projects (Gove
		Resources (MNR) for review and sign-off. <u>AECOM prepared an N</u>
		2013, respectively, stating that the NHA and FIS Report and the N
		REA regulation for this Project.
		confirmation and re-confirmation of the NHA and FIS and were su
		confirmation letter on October 22, 2013 stating that the Second N
		this Project. Based on further modifications to the Project Location
		Addendum on November 15, 2013 for review. The MNR provided
Table 6-1 / page 18	14 wetland units or wetland complexes were treated as significant and included in the EIS.	14 13 wetland units or wetland complexes were treated as signific
Table 6-1 / page 18	65 woodlands were determined to be significant or treated as significant and therefore included in the EIS.	65 66 woodlands were determined to be significant or treated as s
Table 6-1 / page 18	4 amphibian woodland breeding habitats	4- <u>5 amphibian woodland breeding habitats</u>
Table 6-1 / page 18	<ul> <li>2 Waterfowl stopover and staging areas (terrestrial);</li> <li>11 Pot motorrity colonics;</li> </ul>	2 Waterfowl stopover and staging areas (terrestrial);
	<ul> <li>2 turtle wintering areas:</li> </ul>	2 turtle wintering areas:
	8 Reptile hibernacula;	8 <u>7</u> Reptile hibernacula;
	One deer winter congregation area;	One deer winter congregation area;
	One deer movement corridor; and,     A amphibian woodland breeding babitate	One deer movement corridor; and,     A 3 amphibian woodland breeding babitats
Table 6-1 / page 18	Waterfowl nesting areas:	Waterfowl stopover and staging area (terrestrial);
	Reptile hibernacula;	Waterfowl nesting areas;
	Bat maternity colonies;	Reptile hibernacula;
	Amphibian woodland breeding habitat;     Amphibian wetland breeding habitat;	Bat maternity colonies;     Amphibian woodland breeding babitat:
	<ul> <li>Habitats of plant species of conservation concern (numerous);</li> </ul>	Amphibian wetland breeding habitat;
	Habitat of bird species of conservation concern (numerous);	Habitats of plant species of conservation concern (nume
	Habitat of insect species of conservation concern (numerous);     Mature forest stands;	Habitat of bird species of conservation concern (numero     Habitat of insect species of conservation concern (numero
	Rare vegetation communities;	<ul> <li>Mature forest stands;</li> </ul>
	Turtle nesting area;	Rare vegetation communities;
	Turtle wintering areas;	Turtle nesting area;
	woodland reasensitive hird breeding babitat:     Woodland area-sensitive hird breeding babitat:	I urtle wintering areas;     Woodland raptor pesting babitat:
	<ul> <li>Terrestrial crayfish habitat; and,</li> </ul>	<ul> <li>Woodland area-sensitive bird breeding habitat:</li> </ul>
	Seeps and springs.	Terrestrial crayfish habitat; and,
		<ul> <li>Seeps and springs.</li> </ul>

### **Revised Text**

ions and strikethrough text represents deletions)

A) for up to 72 70 wind turbines, only 63 will be constructed for the Project. ad mounted step-up transformers and one GE 1.56-100 Wind Turbine generator turbines will be constructed)

, only 63 are proposed to be constructed for the Project.

Project Study Area in support of the Stage 2 Archaeological Assessment, *rchaeologists* issued by the Ontario Ministry of Tourism, Culture and Sport cal sites were identified and 33 sites have been were recommended for further cheological Assessment in 2013, 2 additional sites were identified, of which no ical Assessment.

ed to identify built heritage and cultural heritage landscape resources related to ork was carried out in accordance with the Ontario *Heritage Act*, the *Provincial* port <u>and its addenda (December 2012 and September 2013)</u> identified <u>135</u> <u>145</u> greater than 40 years old within the Project Study Area and as having general ral landscape. When applying the criteria set out in *Ontario Regulation 9/06*, <del>99</del> ermined to have cultural heritage value or interest. Following the evaluation of *et #5* (Government of Ontario, 2006), no anticipated impacts were identified. As no further work is recommended.

onitoring commitments regarding the natural heritage features (including ) were identified and evaluated in the Natural Heritage Assessment and nental Effects Monitoring Plan (AECOM, 2013) prepared based on the *Natural* remment of Ontario, 2010) and submitted to the Ontario Ministry of Natural <u>NHA and EIS Addendum in respect to modifications to the Project Location</u> <u>R. MNR issued confirmation and re-confirmation letters on January 15 and 16,</u> <u>NHA and EIS Report Addendum met all requirements in accordance with the</u>

bared to address modifications to the Project Location proposed after MNR bmitted to MNR for review on September 16, 2013. The MNR provided a HA Addendum met all requirements in accordance with the REA regulation for A ACOM subsequently submitted to the MNR the NHA and EIS Third a confirmation letter on November 15, 2013, stating that the Third NHA lation for this Project

ation for this Project.

ant and included in the EIS.

ignificant and therefore included in the EIS.

erous); bus); erous);

### Table 3-1Edits to the Design and Operations Report

Section / Page	Original Text	Ro <u>(Underlined text</u> represents addition
Table 6-2 / page 20	Potential Effect Avoidance by Tundra Swans of stopover and staging habitats during migration due to proximity of turbines.	Potential Effect Avoidance by Tundra Swans of stopover and staging habitats during
	Performance Objective Minimize disturbance or disruption to Tundra Swan stopover and staging habitats.	Performance Objective Minimize disturbance or disruption to Tundra Swan stopover and st
	Mitigation Strategy Implement contingency mitigation measures if disturbance effects are detected through post-construction monitoring (contingency measures).	Mitigation Strategy Implement contingency mitigation measures if disturbance effects a
	Residual Effects Significance of residual effects will be determined based on the results of post-construction monitoring.	Residual Effects Significance of residual effects will be determined based on the rest
	<ul> <li>Monitoring Plan and Contingency Measures         <ul> <li>Conduct 3 years of post-construction Tundra Swan monitoring at Features WSST-15 and WSST-36 (if determined to be significant) by a qualified Biologist, including:             <ul> <li>Conduct surveys on three occasions approximately one week apart during the peak migratory period, which typically occurs in March but can range from mid-February to mid-April.</li> <li>One survey station will be placed per 0.5 km of candidate Tundra Swan stopover and staging habitat and be monitored for approximately 15 min.</li> <li>All observed waterfowl will be recorded along with their approximate location, age and behavior.</li> <li>The findings of the Tundra Swan monitoring programs will be reported back to MNR on an annual basis for the first 3 years of operation.</li> <li>Contingency Measures:</li></ul></li></ul></li></ul>	<ul> <li>Monitoring Plan and Contingency Measures</li> <li>Conduct 3 years of post-construction Tundra Swan monit qualified Biologist, including:         <ul> <li>Conduct surveys on three occasions approximately March but can range from mid February to mid-April</li> <li>One survey station will be placed per 0.5 km of canca approximately 15 min.</li> <li>All observed waterfowl will be recorded along with the The findings of the Tundra Swan monitoring programs will</li> <li>Contingency Measures:                 <ul> <li>If significant declines or disappearance of species is If so, implement corrective measures that are developed.</li> </ul> </li> </ul> </li> </ul>
Table 6-2 / page 21	Potential Effect Disturbance to Tundra Swan stopover and staging habitats due to vehicular traffic on access roads.	Potential Effect Disturbance to Tundra Swan stopover and staging habitats due to v
	<ul> <li>Performance Objective Minimize disturbance or disruption to Tundra Swan stopover and staging habitat.</li> <li>Mitigation Strategy         <ul> <li>Schedule regular (non-critical) maintenance activities to occur outside of the important period of staging Tundra Swan (March 1 to April 15), to the extent possible.</li> <li>Maintain wildlife crossing signs and limit speed of vehicles (30 km/hr) near stopover and staging areas.</li> </ul> </li> </ul>	Performance Objective Minimize disturbance or disruption to Tundra Swan stopover and sta Mitigation Strategy - Schedule regular (non-critical) maintenance activities to o 15), to the extent possible. - Maintain wildlife crossing signs and limit speed of vehicles
	<ul> <li>Residual Effects</li> <li>Disturbance effects reduced through mitigation measures.</li> <li>Operational effects minor (i.e., no or limited disturbance expected).</li> </ul>	Residual Effects Disturbance offects reduced through mitigation measures Operational offects minor (i.e., no or limited disturbance of
	Monitoring Plan and Contingency Measures           • No monitoring or contingency measures required.	Monitoring Plan and Contingency Measures     No monitoring or contingency measures required.
Table 6-27 page 23	Potential Effect Risk of road mortality to turtles moving between wintering ponds and other areas. Performance Objective Minimize turtle mortality along access roads. Minimize turtle mortality along access roads.	Potential Effect Risk of road mortality to turtles moving between wintering ponds an Performance Objective Minimize turtle mortality along access roads.
	<ul> <li>Maintain wildlife crossing signs and limit speed of vehicles (30 km/hr) near turtle wintering areas.</li> <li>Residual Effects         <ul> <li>Risk of turtle road mortality reduced through mitigation measures.</li> <li>Low likelihood of occurring and limited magnitude due to limited volume of maintenance vehicles.</li> </ul> </li> </ul>	Maintain wildlife crossing signs and limit speed of vehicles     Maintain wildlife crossing signs and limit speed of vehicles     Residual Effects         Risk of turtle road mortality reduced through mitigation me         Low likelihood of occurring and limited magnitude due to l
	Monitoring Plan and Contingency Measures     No monitoring or contingency measures required.	Monitoring Plan and Contingency Measures <ul> <li>No monitoring or contingency measures required.</li> </ul>
Table 6-2 / page 24	Potential Effect Risk of road mortality to amphibians moving between breeding pools and home range.	Potential Effect Risk of road mortality to amphibians moving between breeding pool
	Monitoring Plan and Contingency Measures Conduct 3 years post-construction amphibian call surveys (frogs and toads) and egg mass or adult surveys (salamanders) to assess any potential changes in amphibian breeding populations or species distribution (if Features deemed to be significant) at features AWO-02, AWO-25, AWO-27 and AWO-30 by a qualified Biologist	Monitoring Plan and Contingency Measures Conduct 3 years post-construction amphibian call surveys (frogs an changes in amphibian breeding populations or species distribution ( and AWO-30 and AWO-36 by a qualified Biologist

### evised Text

ns and strikethrough text represents deletions)

g migration due to proximity of turbines.

aging habitats.

are detected through post-construction monitoring (contingency measures).

ults of post-construction monitoring.

toring at Features WSST-15 and WSST-36 (if determined to be significant) by a

one week apart during the peak migratory period, which typically occurs in

didate Tundra Swan stopover and staging habitat and be monitored for

heir approximate location, age and behavior. Il be reported back to MNR on an annual basis for the first 3 years of operation.

- detected, determine whether this is likely to have been caused by the Project. oped through consultation with MNR.

vehicular traffic on access roads.

aging habitat.

occur outside of the important period of staging Tundra Swan (March 1 to April

s (30 km/hr) near stopover and staging areas.

<del>).</del> expected).

d other areas.

s (30 km/hr) near turtle wintering areas.

heasures. -limited volume of maintenance vehicles.-

Is and home range.

id toads) and egg mass or adult surveys (salamanders) to assess any potential (if Features deemed to be significant) at features AWO-02, AWO-25, AWO-27.

### Edits to the Design and Operations Report Table 3-1

Section / Page		Original Text		Revised Text (Underlined text represents additions and strikethrough text represents deletions)							
Table 6-2 / page 30				Potential Effects Risk of soil or water contamination from oil, gas, etc. during maintenance of the transmission line in Significant Wetland WET-012.							
						Performance Objective     No off-site contamination of soil and	no contamin	nation of groundwater or surface w	rater.		
						<ul> <li><u>Mitigation Strategy</u></li> <li><u>Develop and implement an emergency spills plan outlining steps to contain any spills during maintenance activities to avoid contamination of Significant Wetland.</u></li> </ul>					
				Residual Effects         • Residual effects considered negligible.							
						Monitoring Plan and Contingency Me     No monitoring required.     Contingency Measures:     Penort the details of the spill to MOE, if	easures	secription of any assessment and	remediation undertaken		
Section 6.3.1 / page 31	Following the Records Review and Site Ir Based on a sensitivity ranking conducted change): 45 water bodies were moderate:	by AECON	n, 83 water bodies were identified 1, 1 water body was classified as ater bodies were low.	high sensitivity ( <i>i.e.</i> , not	very resilient to environmental	Following the Records Review and Site Investigation, <del>83</del> 82 water bodies were identified. Based on a sensitivity ranking conducted by AECOM, 1 water body was classified as high sensitivity ( <i>i.e.</i> , not very resilient to environmental change): 45 water bodies were moderate: and <del>37</del> 36 water bodies were low.					
Section 6.6.1.1 / page 35	Damage to crops or trees due to turbine malfunction or failure associated with 16-15 turbines that are located within 80 m of neighbouring property lines										
Table 6-6 / page 36       Damage to crops or trees due to turbine malfunction or failure associated with 16 turbines located within 80 m of neighbouring property lines       Damage to crops or trees due to turbine malfunction or failure associated with 16 turbines located within 80 m of neighbouring property lines									0 m of neighbouring property lines		
Table 6-7 / page 36	e 6-7 / page 36										
	Owner	Area (ha)	Licence Class	Status	Distance to Closest Project Infrastructure	Owner	Area (ha)	Licence Class	Status	Distance to Closest Project Infrastructure	
	McCann Construction Inc.	40.47	Class A > 20000 tonnes	Active	330 m	McCann Construction Inc.	40.47	Class A > 20000 tonnes	Active	<del>330</del> <u>305 </u> m	
	Prout Farms	90.60	Class A > 20000 tonnes	Active	1.2 km	Prout Farms	90.60	Class A > 20000 tonnes	Active	1.2 km	
	Jennison Construction Ltd.	11.24	Class A > 20000 tonnes	Surrendered	2.2 km	Jennison Construction Ltd.	11.24	Class A > 20000 tonnes	Surrendered	2.2 km	
	Scott, Alan E.	47.50	Class A > 20000 tonnes	Surrendered	370 m	Scott, Alan E.	47.50	Class A > 20000 tonnes	Surrendered	370 m	
	McCann Redi-Mix Inc.	8.78	Class A > 20000 tonnes	Active	7 km	McCann Redi-Mix Inc.	8.78	Class A > 20000 tonnes	Active	7 <u>0.55 </u> km	
	The Municipality of South Huron	16.13	Class A > 20000 tonnes	Surrendered	1 km	The Municipality of South Huror	ı 16.13	Class A > 20000 tonnes	Surrendered	1 km	
	Taylor, Jeffrey	23.76	Class A > 20000 tonnes	Active	1.2 km	Taylor, Jeffrey	23.76	Class A > 20000 tonnes	Active	1.2 km	
Section 6.7.2 / page 38	The remaining pit/quarry of the three iden northern boundary of the Wind Energy Ce	tified is loca	ated approximately 530 m north o Area.	f the access road betwe	een Turbines 7 and 10, close to the	The remaining pit/quarry of the three id the northern boundary of the Wind Ene	entified is loo rgy Centre S	cated approximately 530 m north c tudy Area.	of the access road <del>betw</del>	<del>een</del> <u>for </u> Turbine <del>s 7 and</del> 10, close to	

## 4. Summary and Conclusions

The Project modifications described in this REA Revision Report do not change the overall conclusion of the Design and Operations Report which states that "this Project can be operated without any significant adverse residual effects. Post-construction monitoring related to effects on wildlife, including birds and bats, will be undertaken to confirm this conclusion".



# **Appendix A**

**Project Modifications** 



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Transmission Line Study Area	402000				+00000
Wind Energy Centre Study Area					
A1 Layout Modification Locations					
September 2013 - 120m Area of Investiga	tion				
January 2013 - 120m Area of Investigatio	n				
Added     Demound	61				
<ul> <li>No Change</li> </ul>					
Layout Modification (Type, Status)     Collection Line, Added					
Access Road, Added Collection Line, Removed					
- Collection Line, No Change					
Access Road, No Change Transmission Line, No Change			-		Kirkton Rd
Modification to Disturbance Areas Status					
Added Removed					
No Change					
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# **Appendix B**

Revised Figures for the Design and Operations Report

