

NextEra Energy Canada, ULC

# Final Consultation Report – Bluewater Wind Energy Centre

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# **Table of Contents**

			page
1.	Introd	uction	1
2.	Sumn	nary of Consultation Activities	1
3.	Public	Consultation Activities	3
	3.1	First Public Meeting – Municipality of Bluewater	3
	3.2	Draft Project Description Report	
	3.3	Landowner Workshop	
	3.4	Project Newsletter #1	
	3.5	Round Table Meeting	4
	3.6	Project Newsletter #2	4
	3.7	Drop-In Information Session	4
	3.8	First Public Meeting – Municipality of Huron East	
	3.9	Draft Site Plan Release	
	3.10	Project Newsletter #3	
	3.11	Telephone Town Hall	
	3.12	Distribution of Draft Documents for Review - Public	
	3.13	Final Public Meeting – Municipalities of Bluewater and Huron East	
	3.14	Summary of Public Comments	6
4.	Ageno	cy Consultation	12
	4.1	Summary of Key Agency Meetings	12
		4.1.1 Ausable Bayfield Conservation Authority	12
		4.1.2 Ontario Ministry of Natural Resources	13
		4.1.2.1 Confirmation on the Natural Heritage Assessment Report and	
		Environmental Impact Study	
		4.1.3 Ministry of Tourism, Culture and Sport	
		<ul><li>4.1.3.1 Confirmation on the Stage 1 and 2 Archaeological Assessment Reports</li><li>4.1.3.2 Confirmation on the Heritage Assessment Report</li></ul>	
	4.2	Summary of Key Agency Correspondence	
_			
5.		ginal Consultation	
6.	Munic	ipal Consultation	18
	6.1	Municipal Consultation Form and Draft PDR to Municipalities	18
	6.2	Distribution of Draft Documents for Review – Municipal	
	6.3	Summary of Key Municipal Correspondence	19
7.	Consi	deration of Stakeholder Input	22

# List of Figures

Figure 1-1	Project Location	
Figure 1-1	Project Location	

### **List of Tables**

Table 2-1	Summary of Mandatory and Additional Consultation Activities	1
Table 3-1	Summary of Public Comments Received	7
Table 4-1	Summary of Key Agency Correspondence	14
Table 6-1	Summary of Key Municipal Correspondence	19
Table 7-1	Consideration of Stakeholder Input	22

# Appendices

First Public Meeting – Municipality of Bluewater
Drop-in Information Session
First Public Meeting – Municipality of Huron East
Notice of Draft Site Plan
Final Public Meeting – Municipalities of Bluewater and Huron East
Newsletters
Public Meeting Handouts
Plain Language Summary Reports
Additional Public Comments

#### Appendix B. Agency Consultation

Appendix B1.MNR and MTCS Confirmation LettersAppendix B2.Additional Agency Comments

#### Appendix C. Aboriginal Consultation

#### Appendix D. Municipal Consultation

Appendix D1.	Municipal Consultation Forms
Appendix D2.	Municipal Consultation Period
Appendix D3.	Public Review Period
Appendix D4.	Additional Municipal Comments

# **Glossary of Terms**

APRD Approvals and Permitting Requirements	MW Megawatts
Document	NextEra NextEra Energy Canada
ANSI Area of Natural and Scientific Interest	NHIC Natural Heritage Information Centre
CWS Canadian Wildlife Service	NRVIS Natural Resources and Values
FIT Feed in Tariff	Information System
GIS Geographic Information System	O.Reg. 359/09 Ontario Regulation 359/09
Hz Hertz	PDR Project Description Report
MOE Ontario Ministry of the Environment	PRC Petroleum Resource Centre
MNR Ontario Ministry of Natural Resources	REA Renewable Energy Approval
MTCS Ontario Ministry of Tourism, Culture and	SAR Species at Risk
Sport	The Project Bluewater Wind Energy Centre
MTO Ontario Ministry of Transportation	ULC Unlimited Liability Corporation

# 1. Introduction

Varna Wind, Inc., a wholly owned subsidiary of NextEra Energy Canada, ULC (NextEra) is proposing to construct a wind energy project in the Municipalities of Bluewater and Huron East in Huron County, Ontario (Figure 1-1). The project will be referred to as the Bluewater Wind Energy Centre (the "Project") and will be located primarily on private lands east of Highway 21 in the vicinity of the shoreline of Lake Huron. The wind turbine technology proposed for the Project is the 1.6 megawatt (MW) GE model wind turbine. With a total nameplate capacity of 60 MW, the Project is categorized as a Class 4 facility. Although NextEra is seeking a Renewable Energy Approval (REA) for 41 wind turbines, up to a total of 37 turbines are proposed to be constructed for the Project.

This *Consultation Report* was prepared in accordance with the requirements of the Renewable Energy Approvals (REA) process outlined in Ontario Regulation 359/09 (O. Reg. 359/09) and the Technical Guide to Renewable Energy Approvals (Ontario Ministry of the Environment (MOE), 2011).

The following sections outline the consultation activities undertaken and the input received regarding the Bluewater Wind Energy Centre to date. NextEra has maintained continuous communication with stakeholders through the planning process and will continue this dialogue throughout the lifecycle of the Project.

# 2. Summary of Consultation Activities

NextEra has undertaken a thorough public consultation program which meets and exceeds the requirements of *O.Reg. 359/09.* Table 2-1, below, provides a list of the required and additional consultation activities undertaken, in addition to the dates that NextEra completed these requirements. For a detailed account of consultation activities, please refer to Section 3.

Consultation Requirement	Date Completed	Required as per O.Reg 359/09
Notice of Proposal Sent to Identified Aboriginal Communities	May 26, 2010	Required
Notice of Proposal to Engage in a Project and of First Public Meeting – Municipality of Bluewater	May 26, 2010	Required
First Public Meeting – Municipality of Bluewater	June 28, 2010	Required
Draft Project Description Report (PDR) made Available to the Public*	June 28, 2010	Required
Landowner Workshop	February 16, 2011	Additional
Project Newsletter #1	May, 2011	Additional
Round Table Meeting	July 19, 2011	Additional
Project Newsletter #2	October, 2011	Additional
Consultation Form and Draft PDR to Municipalities*	October 21, 2011	Required
Notice of Drop-in Information Session	November 25, 2011	Additional
Drop-in Information Session	December 6, 2011	Additional
Notice of First Public Meeting – Municipality of Huron East	November 2, 2011	Required
First Public Meeting – Municipality of Huron East	December 7, 2011	Required
Notice of Draft Site Plan /Draft Site Plan Release	December 21, 2011	Additional
Distribution of Draft Documents for Review - Municipal	February 14, 2012	Required
Project Newsletter #3	May, 2012	Additional
Telephone Town Hall	April 11, 2012	Additional
Distribution of Draft Documents for Review - Public	April 13, 2012	Required
Distribution of Draft Documents for Review - Aboriginal	March 15, 2012 and updated reports provided on April 11, 2012	Required
Notice of Final Meeting – Municipalities of Bluewater and Huron East	April 13, 2012	Required
Final Public Meeting – Municipalities of Bluewater and Huron East	June 13 and June 14, 2012	Required

 Table 2-1
 Summary of Mandatory and Additional Consultation Activities

Note: \* Note that the first Public Meeting was held prior to the Amendment to O.Reg. 359/09 stating that the PDR must be made available and Municipal Consultation Form must be submitted to the Municipalities 30 days before the first Public Meeting.



# 3. Public Consultation Activities

This section highlights the Project notices and associated meetings, in addition to newsletters provided to stakeholders over the course of the Project. Please refer to **Appendix A** for copies of the notices and newsletters as well as public meeting materials including display panels, comment cards and response letters. Note that all activities relating to Aboriginal consultation are described in **Appendix C** – Aboriginal Consultation Report.

# 3.1 First Public Meeting – Municipality of Bluewater

The Notice of Proposal and Notice of First Public Meeting informed the local community of NextEra's plans to engage in a renewable energy project and to host the first public meeting in the Municipality of Bluewater on June 28, 2010 at the Bluewater Community Centre, in Zurich, Ontario from 5:00 p.m. to 8:00 p.m. The Notice was published in the Exeter Times Advocate (on May 26, 2010 and June 23, 2010), the London Free Press (on May 28, 2010 and June 23, 2010), and the Lakeshore Advance, Huron Expositor, Clinton News Record and Goderich Signal-Star (on June 2, 2010 and June 23, 2010). In addition, the Notice was posted on the Project's website and mailed to relevant Federal and Provincial agency contacts, local municipalities and potentially interested Aboriginal Communities.

The Notice was distributed prior to receiving the Director's List of Aboriginal Communities, however, once received, the Notice covered all communities listed. All subsequent Notices were delivered to the communities identified in the List in addition to other communities who expressed an interest in the Project. Finally, the Notice was distributed via Canada Post Admail throughout the Project Study Area and hand-delivered to addresses for which Canada Post Admail did not cover. Finally, the Notice was also posted on the Project's website on May 26, 2010.

The general purpose of the meeting was to provide an overview of the proposed Project to the community. Display panels were set up along the periphery of the room with several Project team members available to discuss the proposed Project and answer questions with stakeholders. Sixty-eight individuals registered their attendance at the meeting and 10 comment cards were submitted.

# 3.2 Draft Project Description Report

The Project Description Report (PDR) is a summary document that highlights the key aspects of the Project, including a description of Project components, the construction, operation and decommissioning phases, as well as any potential negative effects. The PDR is intended to be a "living" document, and is updated throughout the planning process.

The first draft of the PDR was made available for public review at the first public meeting on June 28, 2010. As noted above, the first public meeting was held prior to the Amendment to *O.Reg. 359/09* stating that the PDR must be made available and Municipal Consultation Form must be submitted to the municipalities 30 days before the first public meeting. The PDR was subsequently updated in August 2010 and October 2011.

The final PDR, along with the Draft REA Reports, was provided for public review on April 10, 2012, 60 days prior to the final public meeting.

### 3.3 Landowner Workshop

A landowner workshop was held on February 16, 2011 at the Oakwood Resort in Grand Bend, Ontario. The purpose of the workshop was to provide Project landowners (i.e., individuals who had signed a land lease with NextEra or

who were interested in signing a land lease) with an update on the Project schedule and to inform them of upcoming archaeological and natural heritage field work. Each landowner was personally invited by a mailed invitation and/or email invitation. At the workshop, each family was provided with a package which included air photo maps of their properties, information on the Project and NextEra, excerpts from various studies (regarding health effects, property values, stray voltage, sound, etc.) and an archaeological study questionnaire.

Project team representatives were available to help the landowners fill out the archaeological questionnaires which included questions on crop-type, tile drainage, and any constraints that NextEra should be aware of prior to conducting archaeological field work.

#### 3.4 Project Newsletter #1

The first community newsletter was published in the spring of 2011 to provide stakeholders with information on the Project status, highlighting key updates since the June 28, 2010 public meeting. The newsletter explained the Ontario Power Authority's Feed-in-Tariff (FIT) program, the Province's mechanism to offer long-term energy contracts for renewable energy projects, and provided an overview of some of the key issues addressed at the public meeting. The newsletter was mailed to relevant Federal and Provincial agency contacts, the local municipalities and public stakeholders. In addition, the newsletter was distributed via Canada Post Admail throughout the Project Study Area and hand-delivered to addresses for which Canada Post Admail did not cover. Finally, the newsletter was posted on the Project's website.

### 3.5 Round Table Meeting

NextEra hosted a round table meeting on July 19, 2011 at the Oakwood Resort in Grand Bend, Ontario. The meeting facilitated open dialogue with approximately one dozen members of the community to address issues about the proposed Project. The group was comprised of members from local business, agricultural and environmental organizations as well as local landowners. Topics of conversation ranged from the Project schedule, to turbine and transmission line siting, potential effects including sound, property values and health effects, as well as landowner compensation.

#### 3.6 Project Newsletter #2

The second community newsletter was published in the fall of 2011 to provide stakeholders with a Project update. The newsletter announced that the Project was offered a FIT contract from the Ontario Power Authority, securing a 20-year energy contract with the Province of Ontario. Finally, the newsletter described the environmental field work completed over the summer and highlighted the remaining steps in the approval process. The newsletter was mailed to relevant Federal and Provincial agency contacts, the local municipalities and public stakeholders. In addition, the newsletter was distributed via Canada Post Admail throughout the Project Study Area and hand-delivered to addresses for which Canada Post Admail did not cover. Finally, the newsletter was posted on the Project's website.

### 3.7 Drop-In Information Session

A drop-in information centre was held on December 6, 2011 at the Bluewater Community Centre in Zurich, Ontario, from 11:00 a.m. to 7:00 p.m. to provide a project update and answer questions from members of the public. A postcard informing local stakeholders of the drop-in centre was mailed on November 25, 2011. The notification was mailed to public stakeholders in the Project's master consultation database in addition to members of the public throughout the Project Study Area via Canada Post Admail.

The drop-in meeting was intended to be an informal information-gathering session to allow members of the public to stop by at their convenience if they had any questions or wanted to have a discussion with the Project team. A draft project design was shared with attendees to gather their feedback. Eighty-one people registered their attendance at the meeting and seven comment cards were submitted.

### 3.8 First Public Meeting – Municipality of Huron East

A community update meeting/first public meeting in the Municipality of Huron East was held on December 7, 2011 at the Seaforth Community Centre, in Seaforth, Ontario, from 4:00 p.m. and 7:00 p.m. The meeting Notice was distributed to every assessed owner of land within 550 metres of the Project Location and every assessed owner of land abutting a parcel of land on which the Project is located in addition to interested Aboriginal Communities. Furthermore, the Notice was published in the Exeter Times Advocate, Lakeshore Advance, Turtle Island News, Seaforth Huron Expositor, Clinton News Record and the Goderich Signal-Star (on November 2, 2011 and November 30, 2011). Finally, the Notice was also posted on the Project's website on November 2, 2011.

The general purpose of the meeting was to provide an update on the progress of the Project, including studies conducted to date and to present a preliminary turbine and transmission line layout. Consistent with the format of the first public meeting, display panels were set up along the periphery of the room and Project team members were available to discuss the proposed Project and answer questions with stakeholders. Sixty-six individuals registered their attendance at the meeting and five comment cards were submitted.

### 3.9 Draft Site Plan Release

The Notice of Draft Site Plan informs stakeholders about the release of the turbine layout and crystallization of noise receptors. The Notice was distributed to every assessed owner of land within 550 metres of the Project Location and every assessed owner of land abutting a parcel of land on which the project is located in addition to interested Aboriginal Communities. Furthermore, the Notice was published in the Exeter Times Advocate, Lakeshore Advance, Turtle Island News, Seaforth Huron Expositor, Clinton News Record and the Goderich Signal-Star on December 21, 2011. The Draft Site Plan Report was sent, with the Notice, to the MOE, the Municipalities of Bluewater, Huron East and Huron County, in addition to Aboriginal Communities, for review and for public inspection. Finally, the Draft Site Plan Report was also published on the Project's website on December 21, 2011.

### 3.10 Project Newsletter #3

The third community newsletter was published and mailed in May 2012 to provide an outline of the proposed turbine location and transmission line route, updated information on the Project based on field studies completed over the summer, and answers to frequently asked questions from the December 2011 meetings. The newsletter was distributed via Canada Post Admail throughout the Project Study Area. The newsletter was also posted on the Project's website.

### 3.11 Telephone Town Hall

On the evening of Wednesday, April 11, 2012, NextEra conducted a live telephone town hall regarding the Bluewater Wind Energy Centre. The telephone town hall allowed residents within the Project Study Area to ask questions of a panel of experts regarding possible concerns about the project. The panel included the Bluewater Wind Energy Project Director, one of NextEra Energy Canada's construction managers, environmental services manager, community outreach liaison, a sound expert, terrestrial and wetlands biologist and an environmental health issues expert.

In advance of the live telephone town hall, outbound calls were placed to every available phone number in the communities of Bayfield, Seaforth, Zurich and Hensall, for a total of 4,010 calls. A brief pre-recorded message notified people of the upcoming live telephone meeting, informed them how to participate and left them a direct phone number to NextEra to call prior to the meeting if they had any questions. 547 community members joined the call with 18 participants asking questions during the town hall and an additional 12 participants leaving voice mail messages that were responded to following the event.

#### 3.12 Distribution of Draft Documents for Review - Public

As per *O. Reg. 359/09*, the required draft REA documents were provided to members of the public for review and comment 60 days prior to the final public meeting. These documents were made available to stakeholders at the Bluewater, Huron East and Huron County Municipal offices as well as on the Project website on April 13, 2012. Interested parties were encouraged to submit questions and comments to the Project team during the review period. Stakeholders were advised that the draft documents were available for review via the Notices for the final open house.

#### 3.13 Final Public Meeting – Municipalities of Bluewater and Huron East

The final public meetings were held on June 13 and 14, 2012 at the Seaforth Community Centre (Municipality of Huron East) and the Stanley Complex (Municipality of Bluewater) from 4:00 p.m. and 7:00 p.m. The Notice was distributed to every assessed owner of land within 550 metres of the Project Location and every assessed owner of land abutting a parcel of land on which the project is located in addition to interested Aboriginal Communities. Furthermore, the Notice was published in the Exeter Times Advocate, Lakeshore Advance, Clinton News Record, Huron Expositor, Goderich Signal-Star, London Free Press and the Turtle Island News on April 11, 2012 and June 6, 2012. Finally, the Notice was posted on the Project's website on April 11, 2012 and mailed to relevant Federal and Provincial agency contacts, local municipalities and stakeholders on the Project's Master Consultation Database.

The general purpose of the meetings was to present the results of the effects assessments, including mitigation measures and possible residual effects, in addition to presenting the final turbine and transmission line layouts. Display panels were set up along the periphery of the room and Project team members were available to discuss the proposed Project and answer questions with stakeholders. In addition, the draft REA reports and report summaries were made available for public review. Approximately 18 individuals attended the June 13<sup>th</sup>, 2012 meeting, with nine individuals registering their attendance and approximately 41 individuals attended the June 14<sup>th</sup>, 2012 meeting, with 27 individuals registering their attendance. Five comment cards were submitted after the June 14<sup>th</sup>, 2012 meeting.

### 3.14 Summary of Public Comments

The following table presented a summary of comments received over the course of the Project. Copies of the correspondence, with personal information redacted, is available in **Appendix A**.

Theme	Торіс	Response
Turbine Siting	Number of Turbines	<ul> <li>The turbine locations were crystallized when the Draft Site Plan was released on December 21, 2011.</li> <li>Up to 41 wind turbines are being permitted for this project; however, only 37 turbines will be constructed.</li> <li>The number of turbines for this Project depends on several factors. These include the wind resource, siting restrictions, such as setback distances, socio-economic or natural environment constraints, the capacity of the electrical grid, and interest shown by local landowners.</li> </ul>
		<ul> <li>In addition, the type of turbine technology selected can also affect the number of turbines as different turbine models have differing capacities to generate electricity, and therefore increase or reduce the number of turbines required to achieve the same overall project output.</li> </ul>
	Turbine Locations and the Siting Process	• Siting wind turbines involves balancing the wind resource with environmental, socio-economic and engineering constraints, while at the same time adhering to the setback distances prescribed by the Province and outlined in <i>O. Reg. 359/09.</i> This regulation stipulates specific setback distances to various features such as houses and schools, as well as wetlands and environmentally sensitive areas.
		<ul> <li>In addition, detailed turbine siting on individual properties was conducted by engineering and construction professionals, in consultation with landowners, and in compliance with all provincial and federal requirements.</li> </ul>
Transmission Lines	Transmission Line Siting	The transmission line location was presented at the Final Public Meeting and is shown in the Final REA Reports
		<ul> <li>The 115 kV electrical transmission line that will be built from the transformer substation to the connection point at the Hydro One Seaforth Transformer Station is proposed to be located within the existing road right-of-ways along Centennial Road and Hensall Road in the Municipalities of Bluewater and Huron East. It is anticipated that the transmission line will be mounted on new hydro poles.</li> <li>The interconnection plan for any wind energy centre is subject to study, design and engineering by the</li> </ul>
		Integrated Electricity System Operator which manages the province's electricity grid, Hydro One which owns the transmission lines, the local distribution company and the Ontario Energy Board, which regulates the industry through the Transmission System Code and the Distribution System Code.
	Health Concerns Related to Transmission Lines	<ul> <li>Most common concerns in regards to transmission System Code and the Distribution System Code.</li> <li>Most common concerns in regards to transmission lines and health are centered around electric and magnetic fields (EMF). EMF is produced by the transmission of electricity and comes from any type of electrical equipment, such as televisions, household appliances and transmission lines. Health Canada (2010) has stated that "When you are indoors at home, the magnetic fields from high voltage power lines and transformer boxes are weaker than those from household electrical appliances". In a recent paper, Israel et al. (2011), measured EMF from a wind farm in Bulgaria and concluded that "Electromagnetic fields are not emitted on the operation of wind turbines or they are so small that they are insignificant compared to the values to be found in other measurements in residential areas and homes. The measured values are much below the national exposure limits, and of the European Council recommendations."</li> </ul>
		<ul> <li>The type of transmission line proposed for the Bluewater Wind Energy Centre is 115 kV. It is anticipated that the transmission line will be mounted on new hydro poles. The poles for the 115 kV line are proposed to be constructed of wood, concrete or steel and will be between 18 and 30 m tall. It is important to note that the proposed transmission line is much smaller than the existing 500 kV steel lattice-tower transmission line which runs north-south through the study area between Goshen Line and Babylon Line.</li> </ul>
Effects on the	Community	Some of the potential community benefits include:
Socio-economic Environment	Benefits	<ul> <li>Landowners benefit from having a guaranteed source of revenue in addition to agriculture-based, seasonal revenue for hosting a wind turbine or associated infrastructure. This helps stabilize the overall economic prosperity of the community, while allowing traditional land-use practices to continue undisturbed.</li> <li>Municipal governments benefit as wind projects contribute to the municipal tax base while not</li> </ul>
		requiring any municipal services such as water, sewer, road clearing, etc. In addition, the Project will create between 5 and 8 full-time jobs and may result in the location of an Operations and Maintenance Centre in one of the communities to serve the project.
		<ul> <li>In addition to property taxes and the spinoff economic activity generated by these projects, NextEra Energy Canada, ULC (through its project subsidiaries) will establish "Community Vibrancy Funds" in host communities as part of our broader commitment to community engagement. Through this fund, NextEra's project companies will contribute funds to projects that will benefit local residents, supporting community initiatives that would otherwise not be financially feasible through the local tax base.</li> </ul>

Theme	Торіс	Response
		<ul> <li>The Green Energy Act requires that wind projects which generate greater than 10 kW of power include a specified amount of goods and services from Ontario. This is a mandatory requirement issued to the project's developer as part of receiving a Feed-in Tariff Contract from the Ontario Power Authority. The exact amount is based on the year the project will reach commercial operation; projects that enter commercial operation in 2012 or after require a minimum of 50 points for domestic content activities. These points are obtained from discrete activities selected by the Province and set out in a publically-available grid that developers use as guidance. The minimum domestic content requirements are intended to provide a positive economic stimulus to the local economy and to increase local jobs associated with the green energy industry.</li> <li>Additionally, NextEra has agreed to hire local suppliers of labour and materials, to the extent</li> </ul>
		available and where competitive for the construction and operation of the Project.
	Landowner Compensation	<ul> <li>It is common practice for wind energy developers to compensate landowners for hosting a wind turbine and associated infrastructure (i.e., access roads and electrical collection lines) for the duration of a project. This compensation is generally in the form of a fixed annual payment dependent upon the number of turbines installed on the landowners' property. These payments are intended to compensate for the small loss of acreage resulting from hosting the project on their property.</li> </ul>
	Property Values Visual effects	Numerous studies have been conducted that indicate that wind farms do not have a negative impact on property values. For links to these studies, please see: www.NextEraEnergyCanada.com     Visualizations are available for review in Appendix E
		<ul> <li>Visualizations are available for review in Appendix L</li> <li>Visualizations of the proposed turbines within the existing landscape were presented at the final public meetings. These visualizations show the relative size of the turbines in relation to local landscapes. Visual effects are ultimately dependent on the perception of residents and visitors to the presence of turbines.</li> </ul>
	Noise	Results of the Noise Assessment are presented in the <b>Design and Operations Report, Appendix A</b> - <b>Noise Assessment Report</b> .
		• Wind projects must show that they meet the sound limit requirements prescribed by the MOE. For non-participating residences (those that are not a part of the project) the sound limit is 40 decibels (dBA). This is quieter than many sources of sound within a home. NextEra takes great care to ensure that it meets or exceeds the provincially-mandated noise requirements. For most houses, the sound levels will be well below the 40 dBA limit. Importantly, sound from a wind turbine diminishes over distance. NextEra commits to quickly addressing any concerns that arise regarding sound from their wind energy centres.
	Vibration	• With regard to vibration, no potential effects beyond those which would typically be associated with construction activities (for example construction traffic on roads and drilling turbine foundations) are anticipated.
	Odour	• Turbines themselves do not produce odours. As odours associated with agricultural practices (e.g., odours generated from livestock production) are at ground level, NextEra does not anticipate odour magnification.
	Cumulative Effects	• NextEra must consider the potential noise from other nearby wind turbines when designing the project to ensure that the overall noise levels do not exceed the noise threshold set by the MOE.
Effects to Wildlife	Effects on Birds and Bats	Effects to wildlife are assessed in the <b>Natural Heritage Assessment and Environmental Impact Study</b> <b>Report</b> , which was submitted to and received sign-off from the Ministry of Natural Resources.
		<ul> <li>When properly sited, wind turbines present less of a danger to birds than other structures common to the environment, such as buildings or roads. The location of turbines, as well as numerous other decisions associated with developing wind projects, is carefully designed to minimize any effects. As part of Ontario's REA process, NextEra is working with experts to assess the potential effects on local wildlife, including birds and bats.</li> </ul>
		<ul> <li>As part of the facility siting and pre-construction activities, studies were completed to identify potential issues related to birds, bats and the selected site. The work plans and results were reviewed by the MNR as part of the approval of the REA application.</li> </ul>
		• Biologists collect the following information on birds and bats in relation to the Project through field studies and interviews with agencies and environmental organizations:
		<ul> <li>Current use of the area, including important seasonal or specialized wildlife habitats such as migratory bird stopover and staging areas;</li> <li>Threatened and endangered species present in the area;</li> <li>Existing records of species in the area;</li> <li>Potential habitat; and,</li> </ul>
		<ul> <li>Potential effects.</li> </ul>

Theme	Торіс	Response
		<ul> <li>In addition, biologists assess any nearby wetlands and determine local permitting requirements relating to environmental protection. NextEra avoids or minimizes impacts to wetlands, a common habitat for many species of birds, and other environmentally sensitive areas during siting and layout of the Project.</li> <li>Through these efforts, biologists can identify the: <ul> <li>Number and type of birds/bats present in the area;</li> <li>Behaviour of birds/bats while they are present in the area; and,</li> <li>Possible risk to birds/bats due to turbine collisions.</li> </ul> </li> </ul>
		<ul> <li>If issues are identified during the evaluation phase, NextEra takes corrective action, such as:</li> <li>Moving proposed turbine locations to avoid significant bird habitats or to reduce potential strikes;</li> <li>Establishing setbacks between turbines and wetlands; and,</li> <li>Avoiding inter-waterway flight paths or sensitive contiguous habitats for grassland birds.</li> </ul>
		<ul> <li>NextEra will meet all of the requirements for conducting baseline wildlife, bird and bat studies, as described in <i>O. Reg. 359/09</i> and set out in guidelines prepared by the Ministry of Natural Resources.</li> <li>Finally, the Design and Operations Report includes an Environmental Effects Monitoring Plan (EEMP) to monitor potential impacts on bird and bat species during the first three years of commercial operation. The EEMP summarizes potential negative effects; identifies performance objectives with respect to the potential negative effects; describes mitigation measures to achieve the performance objectives; and commits to future monitoring to ensure the mitigation measures meet the performance objectives. NextEra will provide the monitoring results to the Ministry of Environment, Ministry of Natural Resources and any other relevant agency.</li> </ul>
	Effects on Tundra Swans	
	Effects on Livestock and Agricultural Production	<ul> <li>Wind turbines occupy only a small fraction of the land they are sited on. As such, farming and grazing may continue undisturbed. A turbine, in a typical wind farm, including foundation and access roads will use 1.0 – 1.5% of a 40 hectare (approximately 99 acres) farm parcel.</li> <li>NextEra Energy Resources, which includes NextEra Energy Canada, operates over 85 wind farms amidst a variety of agricultural uses and livestock operations. It has not been NextEra's experience that wind turbine operations have any negative impact on livestock or crops associated with their projects. Many landowners find that the guaranteed income from hosting a wind turbine helps to stabilize the economics of their operations, and, in some cases, enables a family farm to remain in the family.</li> </ul>
	Stray Voltage and its Potential Effects on Livestock	<ul> <li>Stray voltage is addressed in the Project Description Report and the Design and Operations Report.</li> <li>NextEra will ensure that the Project is built and maintained according to the standards in place as prescribed by the Distribution System Code and the Electrical Safety Authority</li> <li>The Project is not proposing to connect to the local distribution system that serves barns and houses in the area, so it will not directly impact that service. However, NextEra will continue to work closely with Hydro One to mitigate any potential impact on local distribution customers should a situation arise. Hydro One, as required in the interconnection process, has completed a Customer</li> </ul>
		<ul> <li>Impact Analysis and no issues were identified.</li> <li>Most cases of stray voltage occur when there is either: <ul> <li>Improper grounding of on-site equipment (in which case it is an issue with on-site wiring); or,</li> <li>A change in current patterns on the distribution line, from generation or load that exposes a pre-existing condition (in which case it is an issue with the distribution utility, not with the generator or load).</li> </ul> </li> </ul>
		<ul> <li>It is important to understand that stray voltage is not a consequence of wind energy, but rather of any project that changes the use pattern of the existing system.</li> <li>The turbines are therefore not the root of the problem, but like any change to the system, may expose faults in that system. All types of generation (electricity generation using wind turbines included) must fully comply with utility requirements to ensure that the electricity they supply is compliant with grid and electrical code standards.</li> </ul>
		<ul> <li>Stray voltage problems require on-site inspection for grounding problems, or examination of power quality issues with the distribution utility.</li> <li>For additional information on the potential effects of stray voltage on livestock, see the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) website: www.omafra.gov.on.ca/english/livestock/dairy/facts/strayvol.htm</li> </ul>

Theme	Торіс	Response
	Bat Diets	<ul> <li>A question was raised at the open house regarding whether mosquitoes constitute a large percentage of a bat's diet. After conducting research on the topic, it was determined that while bats are readily opportunistic, meaning they will take advantage of a food source when it is available en masse, mosquitoes, if consumed, would only comprise a very small proportion of a bat's overall diet.</li> </ul>
Public Health and Safety	Effect of Turbines on Human Health	<ul> <li>NextEra takes concerns about human health very seriously. Although much has been written about health effects associated with wind turbines, NextEra has found no credible, scientifically peer-reviewed study that demonstrates a causal link between wind turbines and negative health effects. On the contrary, the study "Wind Turbine Sound and Health Effects: An Expert Panel Review" had the following key conclusions: <ol> <li>Sound from wind turbines does not pose a risk of hearing loss or any other adverse health effect in humans.</li> </ol> </li> <li>Subaudible, low frequency sound and infrasound from wind turbines do not present a risk to human health.</li> <li>Some people may be annoyed at the presence of sound from wind turbines. Annoyance is not a pathological entity.</li> <li>A major cause of concern about wind turbine sound is its fluctuating nature. Some may find this sound annoying, a reaction that depends primarily on personal characteristics as opposed to the intensity of the sound level.</li> </ul>
		<ul> <li>The full report can be found in the Canadian Wind Energy Association's website: www.canwea.ca/pdf/talkwind/Wind Turbine Sound and Health Effects.pdf and on www.NextEraEnergyCanada.com .</li> <li>In their decision on the Kent Breeze Wind project in Chatham-Kent, the Ontario Ministry of Environment stated: "The Chief Medical Officer of Health agreed to undertake a review of existing information and to consult with the Ontario Agency for Health Protection and Promotion and local medical officers of health on health effects related to wind turbines. The results of the review and consultation were published on May 20, 2010 and released in a report titled "The Potential Health Impacts of Wind Turbines". The review concluded that scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects. The sound level from wind turbines at common residential setbacks is not sufficient to cause hearing impairment or other direct health effects, and there is no scientific evidence to date that vibration from low frequency wind turbine noise causes adverse health effects, although some people may find it annoying.</li> </ul>
		Regarding shadow flicker, a common concern is its possible relationship to epilepsy. The Chatham-Kent Board of Health reviewed potential impacts in their report dated June 2008 and stated that 'The frequency of wind turbines is well below the current known documented threshold for triggering epilepsy symptoms."
		<ul> <li>The American Epilepsy Foundation indicated that flashing lights most likely to trigger a seizure occur at frequencies between 5 to 30 Hertz (Hz). Shadow flicker generated by wind turbines, however, has a frequency well below that level, and ranges from 0.5 to 1.25 Hz.</li> <li>The Massachusetts Department of Environmental Protection convened an expert panel in collaboration with the Massachusetts Department of Public Health to investigate potential human health effects associated with proximity to wind turbines. The panel, comprised of physicians and scientists, reviewed existing information within their areas of expertise and recently released a report titled Wind Turbine Health Impact Study: Report of Independent Expert Panel. Some of the key findings are summarized below:</li> <li>"There is no evidence for a set of health effects from exposure to wind turbines that could be characterised as "Wind Turbine Syndrome"."</li> <li>"Available evidence shows that the infrasound levels near wind turbines cannot impact the vestibular system" [i.e. the system responsible for balance].</li> </ul>
		<ul> <li>"None of the limited epidemiological evidence reviewed suggests an association between noise from wind turbines and pain and stiffness, diabetes, high blood pressure, tinnitus, hearing impairment, cardiovascular disease, and headache/migraine."</li> <li>Finally, NextEra will have a Complaint Resolution Process in place to address any concerns related to the Project, should they arise. This process outlines the steps to be taken to resolve the issue including: contacting the complainant within 24 hours of receiving the complaint to understand and seek a resolution, notifying the MOE of the complaint and filing a Complaint Record, and finally, proposing a face-to-face meeting if the issue cannot be resolved through a phone call.</li> </ul>

Theme	Торіс	Response
	PCB Storage	• The use of polychlorinated biphenyls (PCBs) was banned from new equipment in Canada in the 1980s. The new step-up transformers proposed for the Project will contain an approved dielectric fluid, such as silicone oils or transformer-grade mineral oil. As such, no PCBs will be used in, or stored by the Project.
		<ul> <li>Wind farms use very few hazardous materials. There are oils and other lubricants used in the turbine and transformers. NextEra strictly follows all spill prevention and material handling regulations to minimize any chance of potential effects from accidental spills.</li> </ul>
	Wind Turbines Distracting Vehicle Drivers	<ul> <li>NextEra is unaware of any issues regarding our wind turbines causing any distraction to drivers. The Project will follow the guidelines put in place by the Ministry of the Environment regarding setbacks from roads.</li> </ul>
	Effects on Aerodromes, including Turbulence and	• NextEra has been conducting consultation with the Centralia/James T. Field Memorial Aerodrome, the Grand Bend Sport Parachuting Centre and other local residents that may have private, unregistered airstrips not covered under federal regulations, to identify any potential turbine siting considerations. This consultation is an ongoing process.
	Physical Obstructions	• NextEra takes matters of public safety very seriously and the issues raised are the kind of valuable input which is sought at public meetings. There are no provincial setbacks from registered aerodromes; however, NextEra consults with both Transport Canada and NAV Canada on an ongoing basis throughout the development process and submits completed Obstruction Clearance forms (Transport Canada) and Land Use Submission forms (NAV Canada) for approval and/or comments.
Consultation Process	Format of the Public Open House	It is NextEra's experience that meetings structured in an Open House format are the most effective way to communicate a large amount of information to members of the community. This provides local stakeholders with an opportunity to speak face-to-face with Project representatives and to ask the questions that are within their areas of interest. In addition, not all members of the public are comfortable asking questions in front of a large audience; as such, one-on-one discussions are an effective tool to encourage all interested parties to participate in a discussion. There are many subject matter experts involved in the planning, design, engineering, construction, permitting and development of a wind energy project. An open house format allows attendees to draw on the full range of expertise of these professionals
	Bluewater Wind Energy By-law and Municipal Consultation	• NextEra conducted Project planning in compliance with the current Provincial regulation governing renewable energy projects in Ontario, <i>O. Reg. 359/09</i> , as amended in January 2011. This regulation sets out specific siting requirements for wind turbines, including setback distances, effects assessment studies, public and municipal consultation, etc. As a result, the Project will not specifically adhere to the "Bluewater Wind Energy" setback by-law. However, as part of the consultation process and to fulfill the REA requirements, the Municipality of Bluewater and Huron East, in addition to Huron County were consulted throughout the Project planning process.
Construction, Operation/Maintena	Construction and Operation/	The construction and operation/maintenance phases of the Project are described in the <b>Construction</b> <b>Plan and Design and Operations Reports</b> .
nce and Decommissioning	Maintenance Reports and Turbine Maintenance	<ul> <li>Modern wind turbines are very reliable and the major components are designed to operate for approximately 25 years. Wind turbines are large and complex electromechanical devices with rotating equipment and many components. With large numbers of turbines it is inevitable that component failures will occur despite the high reliability of the turbines fleet-wide. These repairs can usually be carried out within a few hours.</li> </ul>
		• NextEra's state-of-the-art operations command centre is one of a few in the wind industry and has a major role in remotely managing wind turbine operation. The Fleet Performance and Diagnostic Centre maintains continuous oversight of wind turbines at NextEra's sites. When site personnel have gone home for the evening, the command centre staff is monitoring the wind turbines and can run diagnostic tests on turbines or adjust operations as needed. The centre collects data that enable NextEra to schedule predictive maintenance to help ensure efficient operation.
	Cost of Decommissioning	Decommissioning is addressed in the <b>Project Description Report</b> and the <b>Decommissioning Plan</b> <b>Report</b> .
		<ul> <li>The cost of decommissioning, which involves dismantling turbines, above-ground electricity poles and the substation, is the responsibility of the Project owner and not the local municipality or landowners.</li> </ul>
		• The plan to address decommissioning becomes part of the REA for the Project under <i>O.Reg. 359/09.</i> It is a specific report required that was released in draft for public comment and subsequently filed with the MOE as part of the Project's REA application.

Table 3-1	Summary of Public Comments Received

Theme	Торіс	Response
Costs associated with Wind Energy	Electricity Costs	<ul> <li>On November 23, 2010, the Government of Ontario released its Long-Term Energy Plan, which is a 20-year plan to guide the Province's electricity system. This plan outlines the goals for Ontario's electricity system, as well as its future supply mix. The Plan is available for review on the Ontario Ministry of Energy and Infrastructure's website: <u>http://www.mei.gov.on.ca/en/energy/</u>.</li> </ul>
		• The cost of wind power generation is competitive with other newly-installed power sources. Once turbines are installed, the cost of generating wind power will remain steady for decades. The fuel (wind) is free. By contrast, electricity prices have risen steadily across Canada over time. Regulations to make polluters pay for their emissions will mean that the cost of power from fossil fuels will continue to rise, on top of normal market fluctuations. Under the terms of our contract with the Ontario Power Authority, any economic benefits from future pollution regulation will flow to the government.
		• Comparing the cost of new generation, such as wind, to the cost of power from existing and legacy generation, such as coal and hydro, is an unfair comparison. The comparison of cost should be between different types of generation if they were to be built today. The majority of Ontario's current energy mix and resulting spot price is a result of old assets, whose capital costs were financed and accounted for years ago. Therefore, their operating costs are much lower. Additionally, power prices in Ontario are still heavily regulated and do not reflect the true cost of power in the market.
		• The Government of Ontario's Long Term Energy Plan is to displace coal-fired generation with renewable energy. Other forms of electricity have hidden costs related to health. A 2005 study prepared for the government of Ontario found that the average annual health-related damages due to coal could top \$3 billion (DSS Management Consultants Inc., RWDI Air Inc. 2005. Cost Benefit Analysis: Replacing Ontario's Coal-Fired Electricity Generation).
		<ul> <li>A study out of Harvard found that if one adds in the hidden costs of coal then its actual price is more like 9-27 cents higher per kilowatt hour (Epstein <i>et al.</i> 2011. Full Cost Accounting for the Life Cycle of Coal in <i>Ecological Economics Reviews</i>). The authors write:</li> </ul>
		"Each stage in the life cycle of coal—extraction, transport, processing, and combustion— generates a waste stream and carries multiple hazards for health and the environment. These costs are external to the coal industry and are thus often considered externalities. We estimate that the life cycle effects of coal and the waste stream generated are costing the U.S. public a third to over one-half of a trillion dollars annually. Many of these so-called externalities are, moreover, cumulative. Accounting for the damages conservatively doubles to triples the price of electricity from coal per kWh generated, making wind, solar, and other forms of non-fossil fuel power generation, along with investments in efficiency and electricity conservation methods, economically competitive."
Other	Trespassing Using Turbine Right of Ways	<ul> <li>As the turbines and access roads will be located on private properties, any unauthorized access will be considered trespassing. In order to discourage trespassing, NextEra will work with landowners to ensure that the access roads are gated, and/or that the appropriate signage is put in place.</li> </ul>

# 4. Agency Consultation

NextEra and AECOM consulted with the agencies listed below over the course of the project. Agency meetings are described throughout Section 4.1 and key pieces of correspondence are summarized in **Table 4-1 – Summary of Key Agency Correspondence** below.

#### 4.1 Summary of Key Agency Meetings

#### 4.1.1 Ausable Bayfield Conservation Authority

AECOM met with the Ausable Bayfield Conservation Authority (ABCA) on August 10, 2010 to introduce the proposed project and discuss information sharing requirements.

AECOM had a follow-up meeting with the ABCA on May 10, 2011 to review the status of background data available, obtain outstanding natural heritage information, review a proposed aquatic work plan and permitting requirements. Key comments from ABCA included:

- Turbines and associated buffers should avoid Regulated Areas;
- Special attention should be paid to the Thedford-Klondyke floodplain as well as significant valleylands; and,
- Greater effects to watercourses could result from associated infrastructure, rather than the turbines themselves.

AECOM will continue consultation with the ABCA throughout the permitting process.

#### 4.1.2 Ontario Ministry of Natural Resources

AECOM met with the Ontario Ministry of Natural Resources (MNR) on June 3, 2010 to discuss MNR's requirements for the REA process, natural heritage information, post-construction monitoring and information relating to Approvals and Permitting Requirements Document (APRD) requirements.

On July 25, 2011, AECOM met with MNR to discuss requirements for the Bluewater Wind Energy Centre Natural Heritage Assessment and present proposed approaches. AECOM held a follow up meeting on September 20, 2011 to review the permitting requirements and the Natural Heritage Assessment template with the MNR.

AECOM continued consultation with the MNR throughout the preparation of the Natural Heritage Assessment (NHA) and Environmental Impact Study (EIS) Report and submitted the final report for review and sign-off on March 26, 2012. The MNR issued a confirmation letter regarding the NHA and EIS on March 28, 2012. The letter is summarized in the following section and provided in **Appendix B** for review.

#### 4.1.2.1 Confirmation on the Natural Heritage Assessment Report and Environmental Impact Study

The following confirmations and recommendations were made in the MNR's March 28, 2012 letter regarding the Final NHA and EIS:

- The existence of natural features and the boundaries of natural features were established using applicable criteria or procedures accepted by the MNR;
- Site investigations and records review were conducted using applicable criteria or procedures accepted by the MNR;
- Evaluation of significance and provincial significance were conducted using applicable criteria or procedures accepted by the MNR;
- The project location is not in a Provincial Park or conservation reserve;
- The environmental impact assessment report was prepared in accordance with procedures established by the MNR;
- The MNR expects the appropriate mitigation measures to be implemented for reptile hibernaculums, bat maternity colonies, amphibian Woodland Breeding and Amphibian wetland breeding sites;
- The Environmental Effects Monitoring Plans that address post-construction monitoring and mitigation for birds and bats must be prepared and implemented. These plans should be reviewed by the MNR ahead of submission to the MOE; and
- Should any changes be made to the project that might alter the NHA, additional review by the MNR may be required.

#### 4.1.3 Ministry of Tourism, Culture and Sport

NextEra consulted with the Ministry of Tourism and Sport (MTCS) throughout the planning process on matters relating to archaeological and cultural heritage impacts. Stage 1 and 2 Archaeological Assessments in addition to a Heritage Assessment were conducted to identify any potential effects relating to these resources. The final Archaeological Assessment and Heritage Assessment Reports are available for review in the REA package. The following sections summarize the letters of confirmation received from the MTCS regarding these reports. Copies of the letters are available for review in **Appendix B**.

#### 4.1.3.1 Confirmation on the Stage 1 and 2 Archaeological Assessment Reports

The MTCS responded on April 5, 2012 to the Stage 1 and Stage 2 Archaeological Assessment Reports submitted to the Ministry on February 13, 2012 and March 23, 2012, respectively, and provided the following comments and recommendations:

- Stage 1 Archaeological Assessment the MTCS entered the archaeological assessment into the register on March 19, 2012. Based on the reported findings, it was recommended that a Stage 2 archaeological assessment be carried out for potential wind turbine sites and their associated infrastructure.
- Stage 2 Archaeological Assessment the MTCS entered the archaeological assessment into the register on April 5, 2012. The Stage 2 assessment identified 25 archaeological sites including seven Euro-Canadian and 18 pre-contact Aboriginal sties. Of the 25 sites, four were recommended for a Stage 3 archaeological assessment.

#### 4.1.3.2 Confirmation on the Heritage Assessment Report

The MTCS responded on March 22, 2012 to the Heritage Assessment Report and provided the following comments and recommendations:

- Due to the typical nature of the landscape, cultural heritage value or interest was not identified according to Ontario Regulation 9/06.
- Of the 76 structures inventoried, 47 (20 houses and 27 barns) were determined to have cultural heritage value or interest.
- No further mitigation is recommended as it was determined that there are no anticipated direct or indirect impacts as a result of the undertaking.

#### 4.2 Summary of Key Agency Correspondence

Date	Agency	Questions/Comments	Response
Ausable Bayfield C	Conservation Auth	ority (ABCA)	
November 22, 2011	ABCA	<ul> <li>AECOM had a phone conversation with ABCA regarding setback distances from watercourses.</li> <li>Key comments include:</li> <li>ABCA indicated that setbacks in O.Reg.359/09 do not take into account local conditions, such as floodlines and potential erosion issues</li> <li>Development within the regulation will require consideration of site specific conditions</li> </ul>	N/A

#### Table 4-1 Summary of Key Agency Correspondence

# Table 4-1 Sun

Summary of Key Agency Correspondence

Date	Agency	Questions/Comments	Response
		<ul> <li>For some sites, a 30 m setback may not be enough to ensure there will be no flooding/ erosion issues caused by the development.</li> <li>A site visit with ABCA will be required at each site where we would like to develop within the Regulation Limit.</li> </ul>	
Hydro One			
July 15, 2010	Hydro One	AECOM emailed Hydro One to identify setback guidelines for wind turbines from transmission line rights-of-way.	Hydro One provided recommendations for turbine setbacks.
July 19, 2010	Hydro One	AECOM emailed Hydro One to acquire GIS shapefiles for transmission line rights-of-way.	<ul> <li>Hydro One provided standard right-of-way widths for transmission lines. These include:</li> <li>115 kV line: 50 feet on either side of the centre line</li> <li>230 kV line: 75 feet on either side of the centre line</li> <li>500 kV line, single circuit: 110 feet on either side of the centre line</li> <li>500 kV line, double circuit: 125 feet on either side of the centre line</li> </ul>
Ministry of the Env	vironment (MOE)		
July 26, 2010	MOE	AECOM provided the PDR for review and requested information /guidance on the requirements related to the preparation of the PDR and the overall process.	MOE confirmed receipt of PDR and indicated they would review to ensure sufficient information is included to determine the Aboriginal Communities consultation list.
March 30, 2011	MOE	Email from AECOM to MOE to request information regarding the waterbodies technical bulletin. Requested details pertaining to water quality, water quantity and aquatic field components and a field plan.	MOE responded that lab samples or water velocity readings are not required for the waterbodies report. They are looking for background information for water quality and quantity. MOE reviews the water assessment and waterbodies report. They require a field plan prior to investigation.
April 11, 2011	MOE	MOE emailed AECOM to provide the Director's List of Aboriginal Communities.	N/A
May 11, 2011	MOE	AECOM emailed MOE to provide work plan for conducting water assessments & water body reports.	MOE confirmed that work plan does not require MOE approval.
October 14, 2011	MOE	AECOM requested advice regarding the protocol for the MOE water bodies Alternative Site Investigation.	MOE confirmed that use of Records Review data, investigations of sites upstream and downstream of study access and studies from adjacent properties was acceptable.
January 12, 2012	MOE	AECOM provided MOE with an appendix showing the calculations used to determine the amount of dewatering that would occur during construction of the Bluewater Wind Energy Centre.	MOE provided comments on February 2, 2012 regarding the calculations used
<b>Ministry of Natural</b>	Resources (MNR)		
June 8, 2010	MNR	AECOM sent a letter to the MNR to follow-up on June 3, 2010 meeting and to outline work plan and requirements for conducting natural heritage and water assessments: Records Review, Constraints Mapping, Site Investigations, Effects Assessments, and Consultation Protocol with MNR.	MNR provided comments on the work plan submitted by AECOM on June 8, 2010. The MNR provided information about the REA process. Commented on natural heritage information, including wetlands, fisheries, Areas of Natural and Scientific Interest (ANSIs), woodlands, evaluation of significance, post-construction monitoring, potential bat habitat, and information related to Approvals and Permitting Requirements Document (APRD) requirements. Also provided general comments on the work plan relating to Project location, significant wildlife habitat, wetlands and ANSI boundaries, mapping, and environmental effects.

Date	Agency	Questions/Comments	Response
July 26, 2010	MNR	AECOM emailed the MNR to provide the PDR for review.	N/A
September 7, 2010	MNR	AECOM emailed the MNR to request Scientific Collector's Permit for the Project areas.	MNR sent a response to AECOM's request for a blanketed Scientific Collector's Permit (SCP) for each Project location. Confirmed watercourses need to be narrowed down before a permit will be given.
February 1, 2011	MNR	AECOM emailed MNR to confirm petroleum resources in the Project Study Area.	MNR provided guidance on how to identify and document petroleum resources.
March 28, 2011	MNR	AECOM emailed MNR to confirm if there are any trout lakes in the study areas.	MNR indicated the Great Lakes are not considered Lake Trout Lakes for the purpose of REA regulation. Only lakes listed in the <i>Inland Ontario</i> <i>Lakes Designated for Lake Trout Management</i> ( <i>May 2006</i> ) are considered Lake Trout Lakes for the regulation. There are no Lake Trout Lakes within the study areas.
May 9, 2011	MNR	AECOM emailed MNR to provide protocol procedures being used to perform ELC/vegetation and amphibian surveys. Requested input on proposed procedures. Requested details regarding OWES tool.	MNR followed up on May 9, 2011 correspondence regarding ELC and amphibians protocols. Provided detailed comments on how to apply specific procedures and protocol for these studies.
September 27, 2011	MNR	AECOM sent a follow-up email to a phone conversation the week before with MNR to confirm requirements for site investigation.	MNR confirmed on September 28, 2011 that the information provided in the email was accurate.
December 16, 2011	MNR	AECOM submitted draft Records Review and Site Investigation chapters of the Bluewater Wind Energy Centre Natural Heritage Assessment Report to MNR.	MNR provided comments on the draft Records Review and Site Investigation chapters of the Bluewater Wind Energy Centre Natural Heritage Assessment Report.
February 15, 2012	MNR	AECOM submitted draft Bluewater Wind Energy Centre Natural Heritage Assessment and Environmental Impact Study Report to MNR.	MNR provided comments on the draft Bluewater Wind Energy Centre Natural Heritage Assessment and Environmental Impact Study Report
March 23, 2012	MNR	AECOM submitted final Bluewater Wind Energy Centre Natural Heritage Assessment to MNR.	N/A
March 26, 2012	MNR	AECOM submitted final Bluewater Wind Energy Centre Environmental Impact Study to MNR.	MNR issued confirmation letter for NHA and EIS on March 28, 2012.
Ministry of Tourism	. Culture and Sr		
July 26, 2010	MTCS	AECOM emailed MTCS to provide PDR for review.	N/A
February 13, 2011	MTCS	Golder Associates submitted the Final Stage 1 Archaeological Assessment for review and confirmation.	MTCS issued confirmation letter for the Stage 1 Archaeological assessment on April 5, 2012
March 19, 2012	MTCS	Golder Associates submitted the Final Heritage Assessment to MTCS for review and confirmation	MTCS issued confirmation letter for the Heritage Assessment on March 22, 2012.
March 23, 2012	MTCS	Golder Associates submitted the Final Stage 2 Archaeological Assessment for review and confirmation.	MTCS issued confirmation letter for the Stage 2 Archaeological Assessment on April 5, 2012.
Ministry of Transpo	rtation (MTO)		
July 26, 2010	МТО	AECOM emailed MTO to provide PDR for review.	MTO provided comments on general requirements for building and land use permits, entrance permits, sign permits and encroachment permits.

# 5. Aboriginal Consultation

The Aboriginal Consultation Report, found in **Appendix C**, describes NextEra's consultation with First Nation and Métis in detail. Consultation has been ongoing throughout the project planning process, and is conducted in accordance with the following principles:

- 1. Fostering a collaborative working relationship with potentially impacted First Nation and Métis communities as early as practicable.
- 2. Understanding and recognizing applicable aboriginal and treaty rights and interests.
- 3. Understanding and respecting the cultural integrity of First Nation and Métis communities potentially impacted by NEEC's projects.
- 4. Fulfilling all delegated obligations to consult and (where applicable) accommodate First Nation and Métis communities.
- 5. Being open to discuss a broader relationship with potentially impacted First Nation and Métis communities and host First Nation and Métis communities.

A copy of NextEra's "First Nation and Métis Relationship Policy" can be found in Appendix C.

The following Aboriginal Communities were identified by the Director of the Ministry of the Environment and were engaged in consultation initiatives:

- Chippewas of Kettle and Stony Point
- Kettle Point 44
- Chippewas of the Thames First Nation
- Chippewas of the Thames 42
- Aamjiwnaang First Nation
- Sarnia 45
- Bkejwanong Territory
- Walpole Island First Nation

- Walpole Island 46
- Oneida Nation of the Thames
- Oneida 41
- Historic Saugeen Métis
- Munsee-Delaware First Nation
- Munsee-Delaware Nation 1
- Delaware Nation Moravian of the Thames
- Moravian 47

Additional groups were also identified for consultation by NextEra based on proximity of a project to a traditional territory or traditional Métis harvest territory. These groups were:

- Chippewas of Saugeen First Nation
- Chippewas of Nawash Unceeded First Nation (Collectively referred to as the Saugeen Ojibway Nations ("SON"))
- Métis Nation of Ontario ("MNO")
- Haudenosaunee Confederacy Chiefs Council (HCCC)
- Oneida Council of Chiefs
- Six Nations of the Grand River Elected Council (SNEC)

The results of the program indicate there will be no impacts to Aboriginal or treaty rights or other environmental impacts that may be of concern to Aboriginal Communities, if the Project is approved and implemented with the mitigation measures outlined in the reports and studies that have been submitted in accordance with *O.Reg. 359/09*. Additionally, no concerns have been expressed to date, or other information brought forward by Aboriginal Communities that resulted in a need to make changes to the Project. NextEra has complied with all requirements to provide notices and information as set out in Ontario Regulation 3459/09 to Aboriginal Communities, and evidence of such compliance can also be found in **Appendix C**.

# 6. Municipal Consultation

The following section details consultation efforts with the Municipalities of Bluewater, Huron East and Huron County. **Table 6-1 – Summary of Key Municipal Correspondence** provides details of key municipal consultation activities while **Appendix D** provides copies of correspondence and the municipal consultation form provided to the municipalities. Note that at the time of submitting this report, a completed municipal consultation form had not been received from the Municipalities of Bluewater, Huron East or Huron County.

# 6.1 Municipal Consultation Form and Draft PDR to Municipalities

The Municipal Consultation Form, which is intended to aid in highlighting key municipal issues associated with the Project, was first provided to the Municipalities of Bluewater and Huron East, in addition to Huron County along with the updated PDR on October 21, 2011. Note that the first Public Meeting was held prior to the amendment to *O.Reg. 359/09* stating that the PDR must be made available and Municipal Consultation Form must be submitted to the municipalities 30 days before the first Public Meeting.

Updated Municipal Consultation Forms were sent to the Municipalities of Bluewater and Huron East, in addition to Huron County, on February 15, 2012 along with the draft REA Reports to commence the municipal consultation period.

### 6.2 Distribution of Draft Documents for Review – Municipal

As mentioned above, the draft REA Reports were provided to the Municipalities of Bluewater and Huron East, in addition to Huron County on February 15, 2012. Although draft documents are to be made available 90 days prior to the final public meetings, NextEra made the draft documents available for an additional month. The following documents were provided for municipal review 120 days prior to the final public meeting:

- Municipal Consultation Form
- One hard copy and one CD of the following REA Reports:
  - Project Description Report
  - Construction Plan Report
  - Design and Operations Report (including Noise Study Report)
  - Decommissioning Plan Report
  - Wind Turbine Specification Report
  - Natural Heritage Assessment Report
  - Water Assessment and Water Body Report
  - Heritage Assessment Report
  - Stage 1 and 2 Archaeological Assessment Reports

**Appendix D** contains the cover letters for the Municipal Consultation Period. Note that when the Draft Reports were made available for the Public Consultation Period on April 13, 2012 (60 days prior to the final Public Meetings), the final NHA Report, Stage 2 Archaeological Assessment Report, and corresponding MNR and MTCS confirmation letters were provided to the municipalities to replace the draft reports.

# 6.3 Summary of Key Municipal Correspondence

#### Table 6-1

#### 1 Summary of Key Municipal Correspondence

Date	Municipality		Description of Consultation		Follow up/Response
March 10, 2008	Bluewater	•	Company introduction and general introduction to wind energy.	•	N/A
September 26, 2008	Bluewater	•	Letter to Council and staff outlining concerns and objections to proposed zoning by-law regulations.	•	Appeared at public meeting to discuss letter with planning committee.
November 21, 2010	Huron East	•	<ul> <li>NextEra held a meeting with Huron East staff and Mayor to introduced NextEra and the Project. Discussion topics included:</li> <li>General questions about NextEra, wind energy, and project infrastructure proposed within Huron East.</li> </ul>	•	N/A
February 16, 2011	Bluewater	•	<ul> <li>NextEra held a meeting with Mayor and staff members. Discussion topics included:</li> <li>Brief background of Project;</li> <li>Clarification of Feed-in-Tariff contract timing;</li> <li>Upcoming archaeological work;</li> <li>Ownership of transmission line;</li> <li>Future municipal road work on Goshen Line and any potential effects or conflicts from the Project construction; and,</li> <li>Opportunities to assist with solar projects at municipal sites.</li> </ul>	•	NextEra will continue discussions with the Municipality of Bluewater as more information becomes available.
May 19, 2011	Bluewater	•	<ul> <li>NextEra held a meeting with the Mayor and Chief Administrative Officer to provide an update on the Project. Discussion topics included:</li> <li>The possibility of scheduling a workshop to discuss the Project with Council.</li> </ul>	•	Council determined they would prefer to continue communication through meetings rather than a workshop.
July 19, 2011	Huron East	•	<ul> <li>NextEra held a meeting with Huron East staff to introduce NextEra and the Project. Discussion topics included:</li> <li>Brief background of Project;</li> <li>Decommissioning costs;</li> <li>Rationale as to why the transmission line cannot be buried;</li> <li>Municipality would like NextEra to provide a letter to Huron East with project/company background information and offer to appear as delegation at a future meeting.</li> </ul>	•	NextEra provided meeting minutes from the July 19, 2011 meeting for review and sent a letter on September 16, 2011 with information on the Project and an offer to appear as a delegation to provide more detail.
July 21, 2011	Huron County	•	<ul> <li>NextEra held a meeting with Huron County staff to introduce NextEra and the Project. Discussion topics included:</li> <li>Brief background of Project;</li> <li>Update on July 4, 2011 Feed-in-Tariff contract announcement; and, County suggested to schedule the next meeting when a turbine layout was available.</li> </ul>		NextEra provided minutes from the July 21, 2011 meeting for review.
October 3, 2011	Huron County Low Frequency Noise Committee	/ •	NextEra was copied on an email sent to Huron County's Low Frequency Noise (LFN) Committee members following up after their meeting on October 2, 2011. The meeting summary and a revised LFN Report were included in the email.		NextEra sent a letter to Huron County Council regarding the Low Frequency Noise Committee (LFN) report which was scheduled for discussion at the Huron County Council meeting on November 9, 2011. The letter detailed NextEra's involvement with the LFN and provided information on the proposed projects in Bluewater and Goshen. Information was also provided on Epsilon Associates Inc. who had been retained to investigate the impacts of wind turbine generated low frequency sound on the human environment as well as a summary of

Date

Municipality

**Description of Consultation** 

Follow up/Response

findings from Epsilon's report; "A Study of Low

Table 6-1	Summary of Key Municipal Correspondence
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Frequency Noise and Infrasound from Wind Turbines" published in 2008. October 5, 2011 NextEra held a meeting with the Municipality of Continued discussions with Municipality of Bluewater Bluewater. Bluewater's Chief Administrative Officer to provide an update on the Project and discuss expectations of the REA review. Discussion topics included: Timeline for review and municipal requirements. October 26, 2011 Bluewater, Huron NextEra emailed the municipalities to inform N/A . East and Huron them that updated Project Description Reports County and Municipal Consultation Forms (MCF) were being couriered to them for their review. NextEra was not seeking comments on the MCF at that point, but wanted to provide them with the form to indicate where municipal input would be required. November 1. Huron East NextEra appeared as a delegation at Huron East N/A - all questions were answered at meeting. 2011 Council to introduce NextEra and the Project and to provide an update on the Project. Discussion topics included: Damage to poles / responsibility; Economic development contributions; and, Separation distances from high voltage lines. November 9, Huron County NextEra held a meeting with Huron County N/A - all guestions were answered at meeting. 2011 Council to introduce NextEra and the Project and to provide an update on the Project. Discussion topics included: Municipal property taxes; and, Health effects associated with existing NextEra facilities (NextEra has found no credible, scientifically peer-reviewed study that demonstrates a causal link between wind turbines and negative health effects.) November 17, Huron County Huron County sent NextEra a copy of signed by- N/A - for information purposes only 2011 law No. 07-2009 November 21, Bluewater NextEra held a meeting with Bluewater Council NextEra provided the REA Reports for Municipal 2011 to provide an update on the Project. Discussion review on February 14, 2012. topics included: Impacts to tundra swans; Property values; and, Decommissioning plan. November 28, Huron East November 28 letter/email from CAO/Clerk-NextEra responded with a letter providing • 2011 Administrator Brad Knight. answers and clarification on a number of issues. These included, transmission line layout and length, substation locations, financial compensation to the municipality from transmission lines; property owner compensation, transmission lines on private property and right-of-way agreements. December 19, Bluewater, Huron AECOM sent the municipalities a copy of the N/A • 2011 East and Huron Bluewater Wind Energy Centre Draft Site Plan County for internal records and public inspection.

Date	Municipality	Description of Consultation	Follow up/Response
January 27, 2012	Huron East	<ul> <li>NextEra held a meeting with Huron East Staff to discuss the Community Vibrancy Fund and the transmission line extending into the municipality. Discussion topics included:</li> <li>Confirmation of Community Vibrancy Fund payments;</li> <li>Differences with St. Columban project interconnection lines and NextEra's; and,</li> <li>Examples of transmission line poles; and, % of agreements along the proposed transmission line route executed.</li> </ul>	<ul> <li>NextEra responded with information as follows:</li> <li>\$5,000/km of overhead transmission lines will be offered as part of the Community Vibrancy Funds;</li> <li>To the best of NextEra's knowledge, the St Columban project is connected to the distribution system, not the transmission system, as is NextEra's plan. The details are technical and engineering related;</li> <li>With respect to the % of easements executed along the preferred transmission line path, this is not required before submission of REA application as it is a separate process from the REA, NextEra will continue to work with the municipalities to locate the transmission line on the public right of way.</li> <li>Once the route is finalised, it will be shared with municipal staff.</li> </ul>
February 7, 2012	Bluewater	<ul> <li>NextEra held a meeting with the interim Chief Administrative Office and the Planning Coordinator to discuss the Community Vibrancy Fund and the MCF.</li> </ul>	• N/A
March 20, 2012	Huron County	<ul> <li>NextEra held a meeting with Huron County Staff to discuss the MCF and the Draft Site Plans. Discussion topics included:</li> <li>Providing a draft road user agreement for NextEra to review;</li> <li>Setbacks, requested by the County, from County roads of total turbine height + 10 m (140 m)</li> <li>Technical issues of burying transmission lines (NextEra will follow up with a response letter); and,</li> <li>Vacant Lot Receptor siting: County confirmed minimum lot area of 1400 sq. m. could support receptor.</li> </ul>	<ul> <li>County provided draft Road User Agreement to NextEra on April 26, 2012;</li> <li>Closest turbine was located over 700 metres from a County Road (T36)</li> <li>NextEra is currently drafting a letter to address the technical issues with the burial of high voltage transmission lines over long distances.</li> </ul>
May 15, 2012	Huron East	<ul> <li>NextEra appeared as a delegation to Huron East Council to provide an update on the Project. Discussion topics included:</li> <li>Stray voltage;</li> <li>Effects to livestock from transmission lines;</li> <li>Decommissioning plans;</li> <li>The process for selecting transmission line route; and,</li> <li>The number of jobs associated with the Project.</li> </ul>	<ul> <li>N/A – all questions were answered at meeting.</li> <li>NextEra is currently preparing a letter to all municipalities, as well as landowners along the proposed transmission line route regarding what NextEra's requirements and commitments are regarding stray voltage and livestock effects.</li> </ul>
May 17, 2012	Bluewater	<ul> <li>NextEra appeared as a delegation to Bluewater Council to provide a project update at a meeting specially convened by Council to discuss 'Wind Turbines''. Questions from council included:</li> <li>Community Vibrancy Fund terms and limitations;</li> <li>Effects on property value;</li> <li>Concerns over underground gas storage in area;</li> <li>Effects to tundra swans; and,</li> <li>Examples of changes in other projects as a regult of consultation</li> </ul>	<ul> <li>NextEra answered many of the questions of Council at the meeting as such, most do not require follow-up;</li> <li>Some items for clarification and follow-up are being addressed in a formal letter to Council which is currently being prepared by NextEra.</li> </ul>

result of consultation.

#### Summary of Key Municipal Correspondence Table 6-1

Date	Municipality	Description of Consultation	Follow up/Response
May 30, 2012	Huron East	<ul> <li>NextEra held a meeting with Huron East Staff to discuss Project construction, engineering and operations, in addition to answer questions. Discussion topics included:         <ul> <li>County concerns with road crossings and burying of transmission lines;</li> <li>Timing of detailed engineering / legal surveys for transmission line; and,</li> <li>Width of easements either side of right of way.</li> </ul> </li> </ul>	<ul> <li>NextEra clarified that a letter to the County regarding underground transmission line burials is forthcoming and will copy Huron East on the matter.</li> <li>Timing of detailed design was not yet available and NextEra will follow up by email to the CAO at his request to keep the Municipality apprised of such matters.</li> <li>Width of easements was confirmed to be 33'.</li> </ul>
June 14, 2012	Bluewater	<ul> <li>NextEra held an informal meeting with Bluewater Staff to discuss Project engineering, operations, the MCF and to answer questions. Discussion topics included:</li> <li>Issues from municipal heritage committee;</li> <li>Underground gas storage pools in the area;</li> <li>Tundra swan studies, which the municipality thought were insufficient;</li> <li>Building permit fees;</li> <li>Buried transmission lines; and,</li> <li>Decommissioning plan.</li> </ul>	<ul> <li>Many of the matters to be addressed were from the May 17, 2012 Council delegation and will be addressed in that letter to Council which is currently being drafted by NextEra.</li> <li>The matter of buried transmission lines is being addressed in a letter to the County from a meeting of March 20, 2012, which will be sent to the Municipality.</li> </ul>

#### Table 6-1 Summary of Key Municipal Correspondence

# 7. Consideration of Stakeholder Input

NextEra maintained ongoing communication with members of the public, local municipalities, Aboriginal Communities and government agencies throughout the Project planning process, as documented above and in the associated appendices to this report.

The majority of comments received throughout the project planning process were general comments or concerns relating to matters surrounding wind energy. NextEra responded to these questions and concerns directly via email, written letters, through conversations at public meetings, or individual meetings.

The following table outlines NextEra Energy Canada's consideration of stakeholder comments received. Comments were considered throughout the planning process to minimize any effects or perceived impacts. Following the publication of the draft site plan in early December 2011 and the subsequent site plan release, no specific comments have been received from the public requiring a change in infrastructure location.

Comment Received	Project Response
Concerns from the Zurich Chamber of Commerce regarding turbine locations in the vicinity of the Village of Zurich.	<ul> <li>NextEra finalized a turbine layout that is mindful of siting turbines at least 2 km from the Village of Zurich which allows for future growth of the village in addition to maintaining compliance to setback distances outlined in O.Reg. 359/09.</li> <li>No additional alterations to the project layout are deemed necessary.</li> </ul>
Concerns regarding siting project infrastructure in the vicinity of two underground gas storage facilities proposed by Tribute Resources.	<ul> <li>NextEra has contacted Tribute Resources to establish specific locations for the proposed facilities. Based on the information received from the project proponent, these facilities are located in the vicinity of turbines 15 and 16 at a depth of over 500 m below ground surface. Given that the depth of turbine foundations is only 3 m below ground surface, construction of the turbines in these locations will have no effect on the proposed gas storage facilities. However, discussions with Tribute and the appropriate engineering and design professionals are ongoing and will continue throughout construction and operation.</li> <li>No alterations to the project layout are deemed necessary.</li> </ul>

Table 7-1	<b>Consideration of</b>	<b>Stakeholder Input</b>

#### Table 7-1 Consideration of Stakeholder Input

Comment Received	Project Response
Wind turbine siting in relation to a "500 metre" setback from 500 kV Hydro One transmission line.	<ul> <li>Hydro One has reviewed the proposed turbine locations in relation to the 500 kV transmission line and has not indicated any concerns. The 500 metre setback is not a regulatory requirement, but rather a consultation zone. NextEra has addressed all of Hydro One's concerns with respect to this matter.</li> <li>No alterations to the project layout are deemed necessary.</li> </ul>
Turbines should be sited no closer than 2 km east of Highway 21 and 2 km from all settlement areas. No turbines should be west of Highway 21.	21. NextEra has sited all turbines according to the requirements outlined in O.Reg. 359/09.
Adhering to the Bluewater Wind Turbine Zoning By-law	<ul> <li>NextEra conducted Project planning in compliance with the current Provincial regulation governing renewable energy projects in Ontario, <i>O. Reg. 359/09</i>, as amended in January 2011. This regulation sets out specific siting requirements for wind turbines, including setback distances, effects assessment studies, public and municipal consultation, etc. As a result, the Project does not need to specifically adhere to the "Bluewater Wind Energy" setback by-law.</li> <li>However, the majority of setbacks proposed by the Municipality are exceeded by O.Reg 359/09 and the Bluewater layout including setbacks from offsite dwellings and vacant lots, urban zones, major settlement areas (Zurich, Bayfield, Hensall), recreation zones, disposal zones, and Highway 21.</li> <li>Six (6) turbines do not meet the proposed zoning setbacks from roads (156m) but are located on low traffic volume side roads, including Staffa Road, Pavillion Road, and Blue Bluff Road (unopened). In addition, there are no vacant lots along these sections of road which might be developed in the future.</li> <li>Twenty-one (21) turbines are located less than 100m from a lot line, but as indicated in the Design and Operations report for the 12 turbines that are less than 80m from a lot line, smaller distances impose very low risk on neighbouring properties as a result of turbine damage due to the safety procedures in place; the large distances from any buildings or structures; and the low incident rate of turbine failure.</li> <li>Two (2) turbines are within the proposed setbacks from airstrips. NextEra is currently in discussions with this landowner to identify mitigation measures.</li> <li>No alterations to the project layout are deemed necessary.</li> </ul>
Effects on local aerodromes	<ul> <li>NextEra has consulted with local aerodromes and will continue to do so throughout the permitting process to identify and mitigate any potential effects.</li> <li>In addition, NextEra will consult with both Transport Canada and NAV Canada on an on-going basis throughout the development process and will submit Obstruction Clearance forms (Transport Canada) and Land Use Submission forms (NAV Canada) for approval and/or comments.</li> <li>No alterations to the project layout are deemed necessary.</li> </ul>
Effects on local private air strip	<ul> <li>NextEra has consulted with the property owner and will continue to do so throughout the permitting process to identify and mitigate any potential effects.</li> <li>A number of mitigation measures have been identified and will be finalized prior to construction.</li> </ul>
Infrastructure siting preferences based on landowner feedback	<ul> <li>NextEra continuously met with landowners hosting project infrastructure to develop a site plan that would abide by provincial setback requirements and also reflect their preferences for locating infrastructure on their properties. NextEra worked closely with each landowner to abide by their preferences as much as possible.</li> </ul>

NextEra is committed to continuing open dialogue with Project stakeholders throughout all phases of the project and will address concerns if they arise.