# GOSHEN WIND ENERGY CENTRE

## Water Assessment and Waterbody Report Summary

SEPTEMBER 2012

Goshen Wind, Inc., a wholly owned subsidiary of NextEra Energy Canada, ULC (NextEra) is proposing to construct a wind energy Project in Bluewater and South Huron, Huron County, Ontario. The project will be referred to as the Goshen Wind Energy Centre (the "Project") and will be located on private lands in the vicinity of the shoreline of Lake Huron. The wind turbine technology proposed for the Project is the GE 1.6-100 Wind Turbine and one GE 1.56-100 Wind Turbine. With a total nameplate capacity of 102 MW, the Project is categorized as a Class 4 facility. Although NextEra is seeking a Renewable Energy Approval (REA) for up to 72 wind turbines, only 63 will be constructed for the Project.

The purpose of the Water Assessment and Water Body Report is to first identify water bodies within 120 metres (m) of the proposed Project Location (the Project Location is defined as outer limit of where disturbance will occur due to construction or operation of the Project), and then to identify potential effects, mitigation measures and residual effects, if any, for these water bodies. Residual effects are "left over" effects once mitigation measures have been applied.

The Water Assessment and Water Body Report was prepared in accordance with the requirements outlined in Ontario Regulation 359/09, the regulation governing renewable energy projects in Ontario.

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Corresponding section references are provided below to assist with reviewing the associated reports.

## RECORDS REVIEW - SECTION 3

Information gathered under this stage of the process was used to determine if there are any water bodies in the Project Location or within 120 m of the Project Location. This involved contacting the Ministry of Natural Resources (MNR), the Ministry of the Environment (MOE), the local Conservation Authority and the Municipalities to obtain any records they keep of water bodies within the Study Area.

The results of the Records Review identified 104 locations where the Project Location overlapped with a water body or potential water body.

## SITE INVESTIGATION - SECTION 4

Following the Records Review, Site Investigations were conducted to confirm that the findings of the Records Review were correct, to identify any additional water bodies not documented in the Records Review, and finally to define the boundaries of the water bodies.

During the Site Investigations, an overall assessment of the water body was conducted based on a number of criteria including stream measurements, quality of fish habitat and the surrounding land uses (for example agriculture uses and any type of livestock, adjacent houses, roads, meadows or wetlands). An additional 13 features were found during the site investigations to increase the total features assessed to 117. Of the 117 water body locations surveyed during the Site Investigation, it was determined that:

- 33 do not fit the definition of a “water body” according to O. Reg 359/09 (water bodies include streams that flow continuously or intermittently, Lake Trout Lakes or areas where groundwater emerges at the ground surface) and therefore no further assessment was conducted.
- 1 could not be confirmed due to lack of access to the property to complete a site investigation; however, no effects are anticipated at this location.
- 83 were determined to be water bodies and were carried forward to the effects assessment.

## DESCRIPTION OF ENVIRONMENTAL EFFECTS - SECTION 5

For each water body identified through the Site Investigation, potential effects were assessed and mitigation measures proposed depending on the type of project infrastructure affecting the feature.

Below is a summary of some of the potential effects, mitigation measures and monitoring commitments from the effects assessment. For the full effects assessment, please refer to the Water Assessment and Water Body Report.

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## POTENTIAL EFFECTS FROM CONSTRUCTION/DECOMMISSIONING

- Erosion and sedimentation (i.e. increase in soil in watercourse) from clearing vegetation. To avoid or mitigate these effects, an erosion and sediment control plan will be developed before construction. Erosion blankets, erosion control fencing and straw bales will be used, where necessary to control erosion and prevent soil from entering the watercourse.
- Degradation of fish habitat from access roads crossing water courses. To avoid or mitigate these effects, culverts will be designed and installed in a way that prevents barriers to fish movement, the culverts will be embedded below the stream bed to maintain water flow and the culverts will be regularly maintained to ensure debris does not build-up.
- Soil compaction which could increase water runoff into watercourses. To avoid or mitigate these effects, changes in land contours and natural drainage will be minimized and temporary storage basins will be installed to allow water to infiltrate, or permanent stormwater management facilities will be used as necessary. Prior to construction a Stormwater Pollution Prevention study will be conducted and submitted to the municipalities.

## POTENTIAL EFFECTS FROM OPERATION

- Water contamination is possible, although unlikely, due to accidental spills associated with maintenance activities. A spill response plan will be developed and an emergency spill kit will be kept on site. In addition, the MOE and the local municipalities will be notified of any spills, if required.

***The overall conclusion of the Water Assessment and Water Body Report is that this Project can be constructed and operated without any remaining effects that could harm the environment.***

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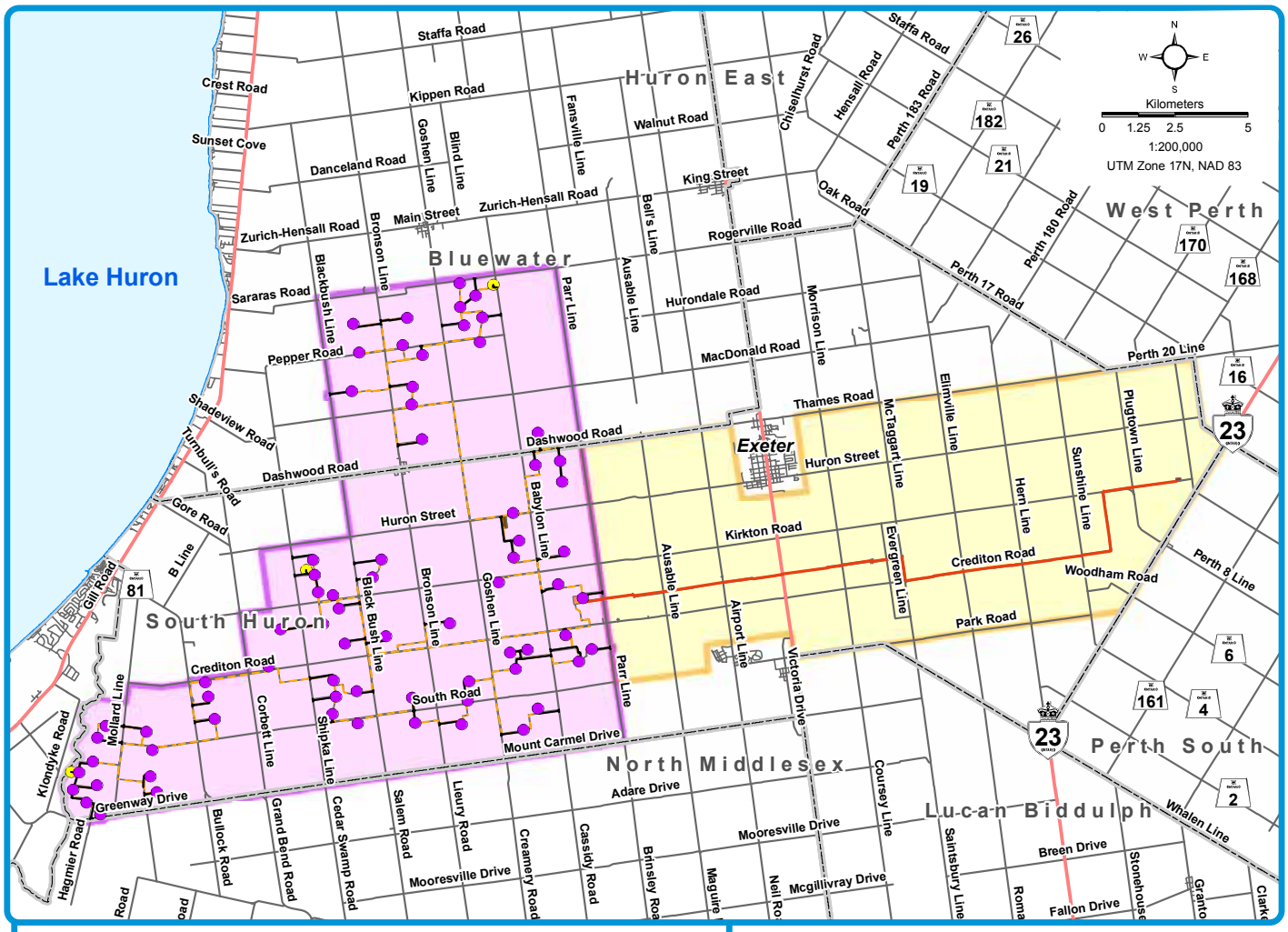


## Have A Question?

We hope you find this Plain Language Summary helpful. In case you would like additional information or have any questions, please contact us directly:


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