

RE WAUBAUSHENE 4 SOLAR PROJECT

Water Body Records Review Report

March 18, 2011

RECURRENT
ENERGY





RE Waubaushene 4 ULC

Water Body
Records Review Report

RE Waubaushene 4 Solar Project

H334680-0000-07-124-0105

Rev. 1

March 11, 2011

Disclaimer

This report has been prepared by or on behalf of RE Waubaushene 4 ULC for submission to the Ontario Ministry of the Environment as part of the Renewable Energy Approval process. The content of this report is not intended for the use of, nor is it intended to be relied upon by, any other person. Neither RE Waubaushene 4 ULC nor any of its directors, officers, employees, agents or consultants has any liability whatsoever for any loss, damage or injury suffered by any third party arising out of, or in connection with, their use of this report.

Project Report

March 18, 2011

RE Waubaushene 4 ULC
RE Waubaushene 4 Solar Project

Water Body Records Review Report

Table of Contents

1. Introduction 3

 1.1 Project Description 3

 1.2 Legislative Requirements..... 3

2. Methodology and Results 3

 2.1 Ministry of Natural Resources Records 4

 2.1.1 Methodology..... 4

 2.1.2 Results..... 4

 2.2 Ontario Ministry of Agriculture, Food and Rural Affairs Records..... 4

 2.2.1 Methodology..... 4

 2.2.2 Results..... 4

 2.3 Federal Government Records 5

 2.3.1 Methodology..... 5

 2.3.2 Results..... 5

 2.4 Municipal Records 5

 2.4.1 Methodology..... 5

 2.4.2 Results..... 5

3. Summary of Results and Next Steps 6

 3.1 Summary of Results..... 6

 3.2 Next Steps..... 6

4. References..... 9

List of Tables

Table 3.1	Summary of Records Review Determinations	6
-----------	--	---

List of Figures

Figure 3.1	Water Body Features	7
------------	---------------------------	---

1. Introduction

1.1 Project Description

RE Waubaushene 4 ULC is proposing to develop and operate an 8-megawatt (MW) solar photovoltaic (Solar PV) facility, on an approximately 32-hectare (ha) parcel of land, located approximately 7 km northeast of Coldwater, in the Township of Severn in Simcoe County; herein referred to as “RE Waubaushene 4” or the “Project”.

1.2 Legislative Requirements

Ontario Regulation (O. Reg.) 359/09 – *Renewable Energy Approvals Under Part V.0.1 of the Act*, made under the *Environmental Protection Act* (herein referred to as the REA Regulation) identifies the Renewable Energy Approval (REA) requirements for green energy projects in Ontario. As per Section 4 of the REA Regulation, ground mounted solar facilities with a name plate capacity greater than 10 kilowatts (kW) are classified as a Class 3 solar facility, and therefore, require an REA.

Section 30 of the REA Regulation requires proponents of Class 3 solar projects to undertake a Water Body Records Review to identify “whether the project is

- i. in a waterbody
- ii. within 120 m of the average annual high water mark of a lake, other than a lake trout lake that is at or above development capacity
- iii. within 300 m of the average annual high water mark of a lake trout lake that is at or above development capacity
- iv. within 120 m of the average annual high water mark of a permanent or intermittent stream, or
- v. within 120 m of a seepage area.” (O. Reg. 359/09, s. 30, Table).

Subsection 30(2) of the REA Regulation requires the proponent to prepare a report “setting out a summary of the records searched and the results of the analysis” (O. Reg. 359/09). This Water Body Records Review Report has been prepared to meet these requirements. It has also been prepared in accordance with the MOE’s Draft Technical Bulletin – Guidance for Preparing Water Assessment and Water Body Reports (dated January 28, 2011).

2. Methodology and Results

The following sections document the records that were reviewed and analyzed and the results from this analysis. The focus of the assessment was identifying whether or not the Project was located within or adjacent to any of the water features listed above in Section 1.2. The sections are organized by the governing bodies identified in Column 1 of the Table in Section 30 of the REA Regulation.

The results of the Records Review are discussed below in relation to the distances specified between the Project and water features as defined in Section 30 of the REA Regulation (see Section 1.2).

There are no Planning Boards, Municipal Planning Authorities, Local Roads Boards, Local Services Boards or Conservation Authorities with jurisdiction in the Project study area. Also, the Project study area is not located within the Niagara Escarpment Commission Plan Area. Therefore, records from these agencies were not reviewed.

2.1 Ministry of Natural Resources Records

2.1.1 Methodology

The following Ministry of Natural Resources (MNR) on-line records were reviewed:

- Ontario Base Maps and natural feature layers from Land Information Ontario (LIO) (www.geographynetwork.com)
- Natural Heritage Information Centre (NHIC) on-line mapping (<http://nhic.mnr.gov.on.ca/MNR/nhic/queries/nhic.mwf>).

The Midhurst District MNR office was also asked to provide any information they had available regarding water features on or adjacent to the Project site.

2.1.2 Results

Mapping obtained from LIO depicts two water features on or within 120 m of the Project site. One watercourse (Watercourse A in Figure 3.1) originates on the property north of the Project site and flows southeastward through the Project site, entering the woodlot to the southeast. The other watercourse (Watercourse B in Figure 3.1) is located north east of the Project site and appears to originate immediately adjacent to the Project boundary, flowing north and east through the adjacent agricultural fields. Both watercourses are tributaries of the North River, which is located approximately 1.3 km south of the Project. The North River is a cool water river that provides habitat for a number of species, including walleye (*Sander vitreus*) (MNR, 2010).

No additional water features were identified on the mapping available on the NHIC website.

2.2 Ontario Ministry of Agriculture, Food and Rural Affairs Records

2.2.1 Methodology

The following Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) on-line records were reviewed:

- rural drainage mapping (http://www.lio.ontario.ca/imf-ows/imf.jsp?site=ads_en).

2.2.2 Results

Rural drainage mapping identified the watercourses noted in Section 2.1.2. No other watercourses were present within 120 m of the Project site. No tile drainage is noted as being present on or within 120 m of the Project site.

2.3 Federal Government Records

2.3.1 Methodology

The following federal government websites were reviewed to determine if any records regarding water features on or adjacent to the property were available:

- Fisheries and Oceans Canada (DFO) website ([www. http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/index-eng.htm](http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/index-eng.htm))
- Natural Resource Canada (NRCan) (http://ess.nrcan.gc.ca/mapcar/index_e.php).

2.3.2 Results

No reference to waterbodies on or adjacent to the Project site was found on the DFO website.

The NRCan mapping review resulted in a general environment map showing features in the general area, but no site specific information regarding waterbodies was available for the Project site.

2.4 Municipal Records

2.4.1 Methodology

Simcoe County

The Project is located within the upper tier municipality of Simcoe County. The County maintains an on-line mapping database (<http://maps.simcoe.ca>) showing the general environmental and infrastructure features of the area, as well as high resolution satellite imagery.

The Simcoe County Official Plan (County of Simcoe, 2007) was also examined to find any records that may identify water features in the Project area.

Township of Severn

The Project is located within the lower tier municipality of the Township of Severn. The Township website (<http://www.townshipofsevern.com/>) was searched for any information related to the waterbodies on or around the Project site. The Official Plan for the Township (Township of Severn, 2006) was also reviewed.

2.4.2 Results

Simcoe County

Satellite imagery viewed on the Simcoe County website showed the same watercourses noted in Section 2.1.2. Watercourse A (Figure 3.1) appears to be a constructed linear drain, running in a very narrow corridor (< 5 m wide). It does not appear to be tilled or driven through, so would appear to be classified as a watercourse per the definition in the REA Regulation. In addition to this feature, satellite imagery also appears to indicate several other drains on the Project site, running in a northeast-southwest direction, both draining into Watercourse A (Figure 3.1). These drains also do not appear to be driven or tilled through and therefore may be classified as watercourses, although they may also be grassed swales. They also run in very narrow corridors (< 5 m). There also appears to be a water feature adjacent to the woodlot near the northeast side of the Project site. This is likely a peripheral drain and appears to run into the woodlot to the south.

Watercourse B also appears to be a constructed drain, running in a narrow corridor. It is excavated to within 10 m of the Project site boundary.

The Official Plan – Land Use Designation Map (County of Simcoe, 2007) showed the tributaries of North River noted in Section 2.1.2.

Township of Severn

The Official Plan Schedule A Land Use Map (Northern Section) (Township of Severn, 2006) showed the water features noted in Section 2.1.2. No new water features relating to the Project site were shown.

3. Summary of Results and Next Steps

3.1 Summary of Results

Table 3.1 summarizes the results of the Record Review according to the features identified in Section 1.2. A map depicting the identified water features on an in proximity to the site is provided in Figure 3.1.

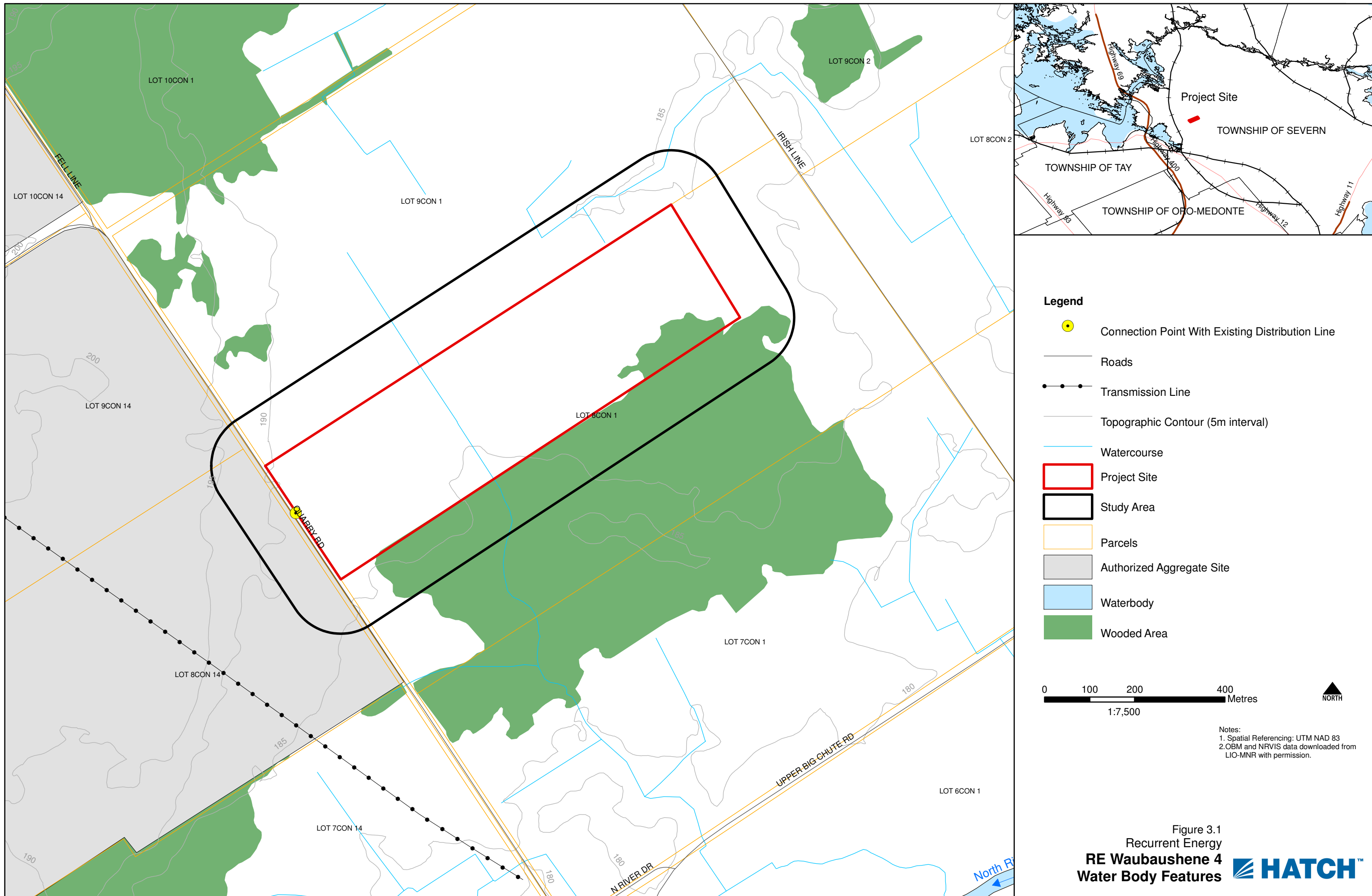
Table 3.1 Summary of Records Review Determinations

Determination to be Made	Yes/No	Description
Is the Project in a water body?	No	No part of the Project will be constructed within a water body
Is the Project within 120 m of the average annual high water mark of a lake, other than a lake trout lake that is at or above development capacity?	No	No lakes are present on or within 120 m of the Project site.
Is the Project within 300 m of the average annual high water mark of a lake trout lake that is at or above development capacity?	No	No lake trout lakes are present on or within 300 m of the Project site.
Is the Project within 120 m of the average annual high water mark of a permanent or intermittent stream?	Yes	Several watercourses are located on the Project site while another is located within 120 m.
Is the Project within 120 m of a seepage area?	No	No seepage areas were found within 120 m of the Project site during the Records Review.

Therefore, depending on the layout of the proposed solar facility, some components of the Project could potentially be located within 120 m of the average annual high water mark of several constructed drains on and adjacent to the Project site.

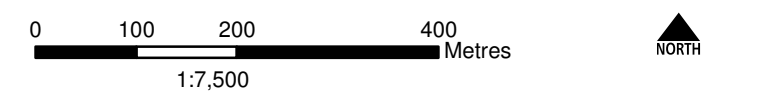
3.2 Next Steps

A site investigation, as required in Section 31 of the REA Regulation will be completed to i) confirm the features identified during this records review, ii) identify if any corrections to the information presented herein are required, iii) determine whether any additional waterbodies exist in the Project area, iv) confirm the boundaries of any water feature within 120 m of the Project and v) determine the distance from the Project to the water boundary.



Legend

- Connection Point With Existing Distribution Line
- Roads
- Transmission Line
- Topographic Contour (5m interval)
- Watercourse
- Project Site
- Study Area
- Parcels
- Authorized Aggregate Site
- Waterbody
- Wooded Area



Notes:
 1. Spatial Referencing: UTM NAD 83
 2. OBM and NRVIS data downloaded from LIO-MNR with permission.

Figure 3.1
 Recurrent Energy
RE Waubaushene 4
 Water Body Features

back of figure

4. References

County of Simcoe. 2007. The County of Simcoe Official Plan. On-line at http://www.simcoe.ca/ws_cos/media/media/planning%20files/CtyOP_Sch_All.pdf. Accessed March 19, 2010.

Ministry of Natural Resources (MNR). 2010. Unpublished Fish and Fish Habitat Information – RE Waubaushene 4 ULC – Solar Power Projects. Provided to Hatch Ltd.

Township of Severn. 2006. Severn Township Official Plan. On-line at <http://www.townshipofsevern.com/officialplan.asp>. Accessed April 5, 2010.

