

RE MIDHURST 3 SOLAR PROJECT

Water Body Records Review Report

August 3, 2011

RECURRENT
ENERGY





RE Midhurst 3 ULC

Water Body
Records Review Report

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Project Report

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**RE Midhurst 3 ULC
RE Midhurst 3 Solar Project**

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1. Introduction

1.1 Project Description

RE Midhurst 3 ULC is proposing to develop and operate a 3.5-megawatt (MW) solar photovoltaic (Solar PV) facility, on an approximately 12-hectare (ha) parcel of land, located about 14 km northeast of Barrie in the Township of Oro-Medonte in County of Simcoe; herein referred to as “RE Midhurst 3” 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. 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 do require a 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 water body
- 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 2 of Section 30 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 for the RE Midhurst 3 Project to meet these requirements. It has also been prepared in accordance with the Ministry of Environment’s DRAFT Technical Bulletin – Guidance for Preparing the 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 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 location.

2.1.2 Results

Mapping data obtained from LIO indicates that a small tributary of Shelswell's Creek crosses the southeastern corner of the property on which the Project is located, although the tributary is approximately 320 m from the Project location boundary. The stream originates within the Shelswell's Creek Evaluated Non-Provincially Significant Wetland Complex (ENPSWC) which is also located on a portion of the property on which the Project is located. Shelswell's Creek is a tributary of Lake Simcoe, which is located approximately 5 km south of the Project location.

Information provided by the Midhurst District MNR (2010) indicated that there are no fish community sampling records in the vicinity of the Project location. However, sampling records from Shelswell's Creek farther downstream indicate the presence of a cold/cool water fish community including brook trout (*Salvelinus fontinalis*), blacknose dace (*Rhinichthys atromaculatus*), northern redbelly dace (*Phoxinus eos*), pearl dace (*Margariscus margarita*), creek chub (*Semotilus atromaculatus*), white sucker (*Catostomus commersonii*), brook stickleback (*Culaea inconstans*), central mudminnow (*Umbra limi*), brassy minnow (*Hybognathus hankinsoni*) and bluntnose minnow (*Pimephales notatus*).

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 tributary of Shelswell's Creek noted in Section 2.1.2. No other watercourses were present within 120 m of the Project location. The northern portion of the Project location is identified as having systematic tile drainage and the adjacent property to the north of the Project location is identified as having a mix of systematic and random tile drainage.

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-ao/index-eng.htm](http://www.dfo-mpo.gc.ca/regions/central/habitat/os-ao/index-eng.htm))
- DFO Species at Risk Distribution Map (<http://www.conservation-ontario.on.ca/projects/DFO.html>)
- Natural Resource Canada (NRCan) (http://ess.nrcan.gc.ca/mapcar/index_e.php).

2.3.2 Results

The review of the DFO website did not result in any references for the Project location. No site specific information was available. A review of the Species at Risk Distribution Map does show the Project area and the tributary of Shelswell's Creek. It does not show any species at risk in Shelswell's Creek or its tributaries.

The NRCan mapping search did not provide any additional information on waterbodies on the Project location.

2.4 Conservation Authority Records

2.4.1 Methodology

The proposed Project is situated within the jurisdiction of both the Nottawasaga Valley Conservation Authority (NVCA) and the Lake Simcoe Region Conservation Authority (LSRCA), although the portion within the NVCA jurisdiction is very small; only being present in the northwestern corner of the Project location. Both Conservation Authorities maintain on-line mapping databases showing their Regulated Area under their respective Regulation for Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses. Information on Regulated Areas, including flood hazards, erosion hazards and wetlands, was obtained from the NVCA and LSRCA.

The LSRCA was also asked to provide any information they had available regarding the water features on or adjacent to the Project location.

2.4.2 Results

The LSRCA identified the tributary of Shelswell's Creek, which is a known cold water system, as traversing the southeast corner of the property on which the Project is located (Walker, 2009). This tributary is within the LSRCA's Regulated Area, which consists of a Flood Hazard, Erosion Hazard and appropriate buffer. The Regulation Limit, which encompasses these features and appropriate

setbacks is shown in Figure 3.1. A small portion of the regulated area within the woodlot to the south (which is regulated as a Wetland Buffer) is located within 120 m of the Project location boundary.

Another tributary of Shelswell's Creek arises in the adjacent farm field, approximately 355 m north of the Project location.

2.5 Municipal Records

2.5.1 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 searched to find any records that may identify water features in the Project location.

Township of Oro-Medonte

The Project is located within the lower tier municipality of the Township of Oro-Medonte. Searches of information available on the township website (<http://www.oro-medonte.ca/index.htm>) were conducted. The Official Plan for the Township (Township of Oro-Medonte, 2007) was also reviewed.

2.5.2 Results

Simcoe County

Satellite imagery viewed on the Simcoe County website showed the same waterbodies previously discussed in Section 2.1.2. This mapping and aerial photograph show the stream on the southeastern corner of the property and the associated wetland complex is evident.

The Official Plan – Land Use Designation Map (County of Simcoe, 2007) showed the tributary of Shelswell's Creek crossing the southeastern corner of the property. No water features were identified within 120 m of the Project. Schedule 5.2.2 (Evaluated Wetlands) shows the several ENPSWCs of the Shelswell's Creek wetland on and adjacent to the property.

Township of Oro-Medonte

Township of Oro-Medonte website provided a link to the above mentioned County of Simcoe Interactive map as well as provided a general map for the Township showing. No new features were found in relation to the Project location.

The Official Plan Natural Features map (Schedule B) showed the tributary of Shelswell's Creek on the property on which the Project is located, but did not identify any additional water features not already discussed.

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 and 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 location.
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 within 300 m of the Project location.
Is the Project within 120 m of the average annual high water mark of a permanent or intermittent stream?	No	A tributary of Shelswell's Creek is located approximately 320 m from the Project location. It is unlikely that the average annual high water mark would extend to within 120 m of the Project location.
Is the Project within 120 m of a seepage area?	No	No seepage areas were found within 120 m of the Project location during the records review.

Therefore, no water body features were noted within 120 m of the Project location during the Records Review.

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.

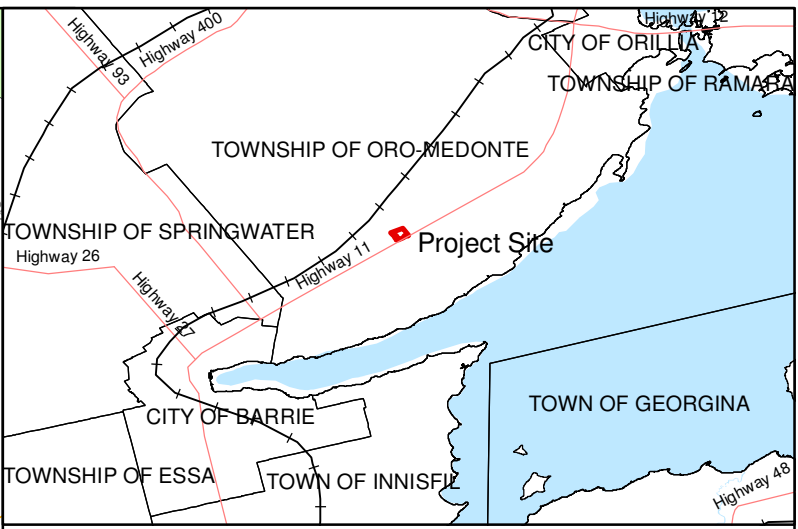
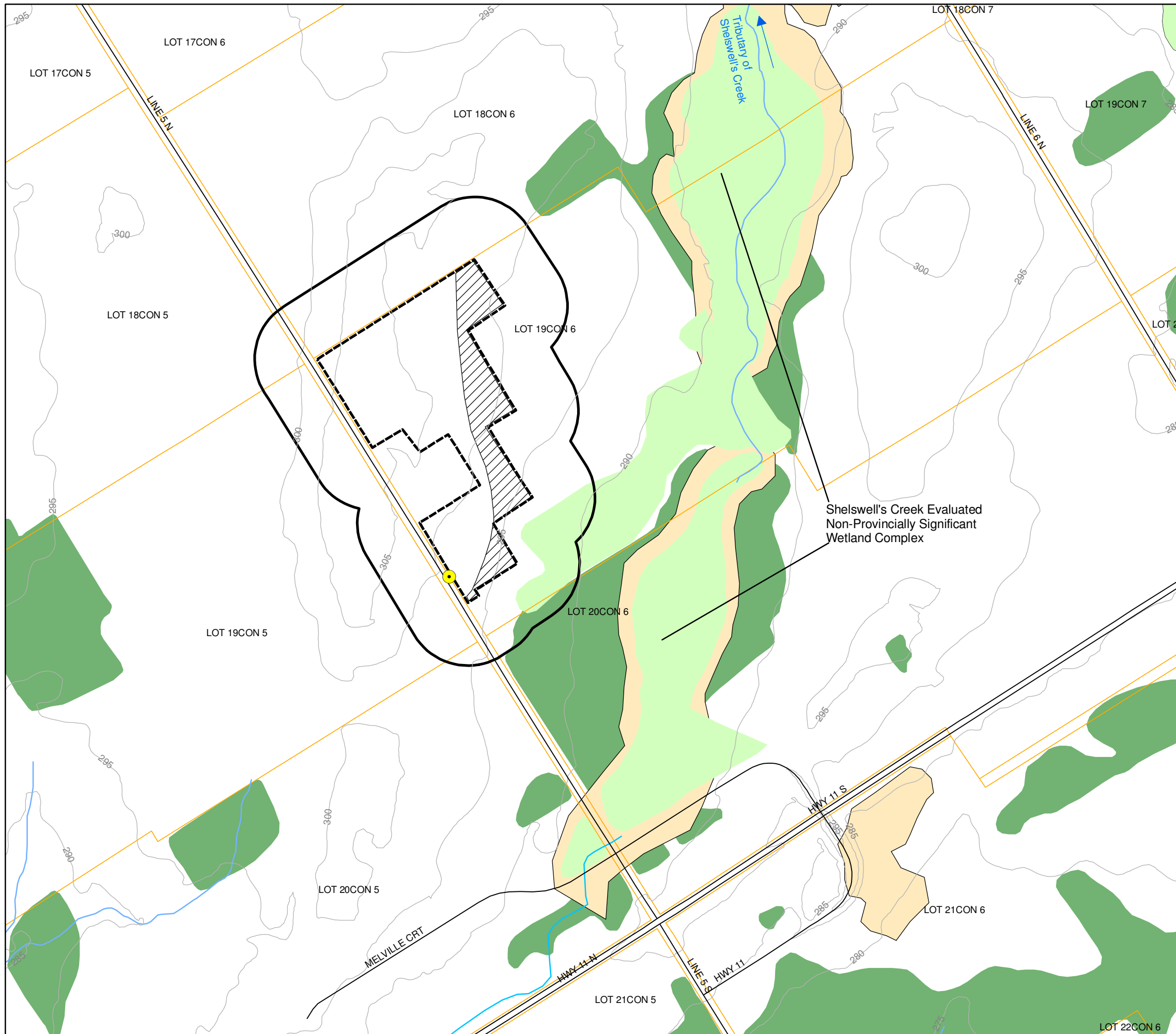
4. References

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.

Lake Simcoe Region Conservation Authority (LSRCA). 2009. Letter (I. Walker, Environmental Planner, LSRCA to S. Caffyn, Development Manager, Recurrent Energy LLC). November 24, 2009.

Ministry of Natural Resources (MNR). 2010. Unpublished Fish and Fish Habitat Information. Provided to Hatch Ltd. May 4, 2010.

Township of Oro-Medonte. 2007. Township of Oro-Medonte Official Plan. Printed March 16, 2007.



- Legend**
- Connection Point with Existing Distribution Line
 - +— Rail
 - Topographic Contour (5m interval)
 - Watercourse
 - Project Location
 - ▨ Temporary Construction Laydown Area
 - ▭ 120 m from Project Location
 - ▭ Parcels
 - ▭ Evaluated Wetland
 - ▭ Wooded Area
- Lake Simcoe Region Conservation Authority**
- ▭ Regulated Area



Notes: Base data downloaded from www.geographynetwork.ca, other environmental data from LIO, UTM NAD83, July 2010.

Figure 3.1
 Recurrent Energy
 RE Midhurst 3
 Water Body Features **HATCH™**

