

RE ORILLIA 1 SOLAR PROJECT

Water Body Records Review Report

August 3, 2011

RECURRENT
ENERGY





RE Orillia 1 ULC

Water Body
Records Review Report

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Project Report

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RE Orillia 1 Solar Project

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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 4

2.3.1 Methodology..... 4

2.3.2 Results..... 5

2.4 Conservation Authority Records 5

2.4.1 Methodology..... 5

2.4.2 Results..... 5

2.5 Municipal Records 5

2.5.1 Methodology..... 5

2.5.2 Results..... 6

3. Summary of Results and Next Steps 7

3.1 Summary of Results..... 7

3.2 Next Steps..... 7

4. References..... 7

List of Tables

Table 3.1	Summary of Records Review Determinations	7
-----------	--	---

List of Figures

Figure 3.1	Water Body Features	9
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1. Introduction

1.1 Project Description

RE Orillia 1 ULC is proposing to develop and operate a 10-megawatt (MW) solar photovoltaic (Solar PV) facility, on an approximately 25-hectare (ha) parcel of land, located about 7 km west-southwest of Orillia in the Township of Oro-Medonte in the County of Simcoe; herein referred to as “RE Orillia 1” 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 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 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 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 reviews for these governing bodies were not conducted.

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) online 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 obtained from LIO does not indicate any water feature on or within 120 m of the Project location. The closest water feature shown on the mapping is a stream channel associated with the Langman Marsh Provincially Significant Wetland (PSW), located approximately 200 m northeast of the Project location. Bass Lake is located approximately 800 m north of the Project location.

No other 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 stream channel within Langman Marsh noted in Section 2.1.2. No other watercourses and no drains were present within 120 m of the Project location.

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))

- DFO Aquatic Species at Risk Mapping (<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

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

No aquatic Species At Risk (SAR) are known to be located in the Project location, based on the DFO SAR Distribution Map.

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 location.

2.4 Conservation Authority Records

2.4.1 Methodology

The proposed project is situated primarily within the jurisdiction of the Nottawasaga Valley Conservation Authority (NVCA), although a small portion of the southwest corner of the Project location is located within the jurisdiction of the Lake Simcoe Region Conservation Authority (LSRCA). 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 websites and reviewed.

The LSRCA and NVCA were also asked to provide any information they had available regarding the water features on or adjacent to the property.

2.4.2 Results

Only a small portion of the proposed Project location is located within the Lake Simcoe Watershed. The LSRCA (2009) indicated that there are no Regulated Areas on or within 120 m of the Project. The corner of the Project location on which the Conservation Authority boundary is located is situated at the height of land between the Nottawasaga Valley watershed and the Lake Simcoe Watershed.

NVCA Regulation Map 120 shows that there are no Regulated Areas on the Project location, indicating that there are no water features. However, the Regulated Area associated with Langman Marsh PSW, which likely includes a 120-m buffer from the PSW boundary, is located immediately adjacent to the northeast corner 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 examined 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. The Township website (<http://www.oro-medonte.ca/index.htm>) was reviewed for any records that may pertain to waterbodies on or adjacent to the Project location. The Official Plan for the Township (Township of Oro-Medonte, 2007) was also examined.

2.5.2 Results

Simcoe County

The satellite imagery viewed on the Simcoe county website did not show any water features within 120 m of the Project location.

The Official Plan – Land Use Designation Map (County of Simcoe, 2007) did not identify any water features on or within 120 m of the Project. The Evaluated Wetlands schedule (5.2.2) did identify Langman Marsh PSW adjacent to the Project. Gartner Lee (1996) indicates that the Langman Marsh, and several other wetlands around the periphery of Bass Lake provide an important flood storage function and discharge flows into the North River, which flows north toward Georgian Bay.

Township of Oro-Medonte

The 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. No water body features were found in relation to the Project location.

The Official Plan Natural Features map (Schedule B) did not show any waterbodies on or within 120 m of the Project. It did note the presence of Langman Marsh PSW, northeast of the Project location.

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	Bass Lake is located approximately 800 m north 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 on or 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	No watercourses were identified on or within 120 m of the Project location.
Is the project within 120 m of a seepage area?	No	No seepage areas were identified within 120 m of the Project location.

Based on the results of the Records Review, there are no waterbodies within 120 m of the Project location.

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.

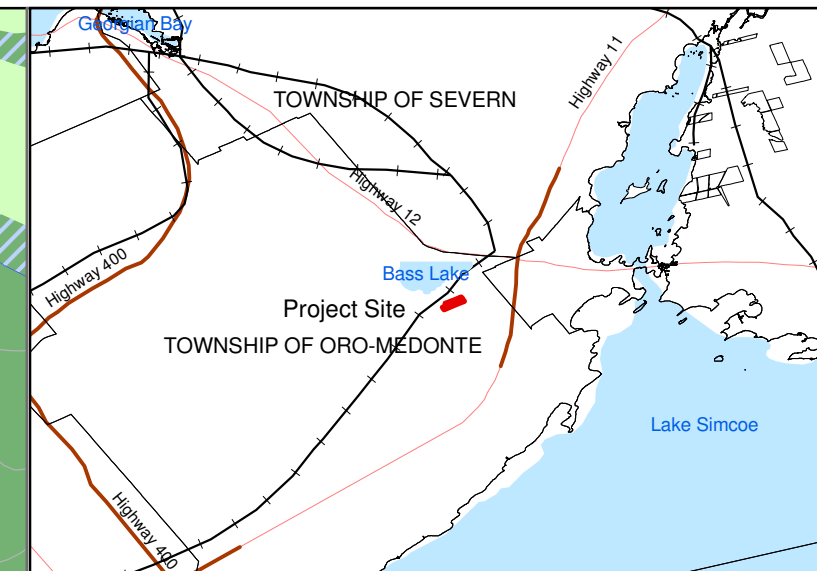
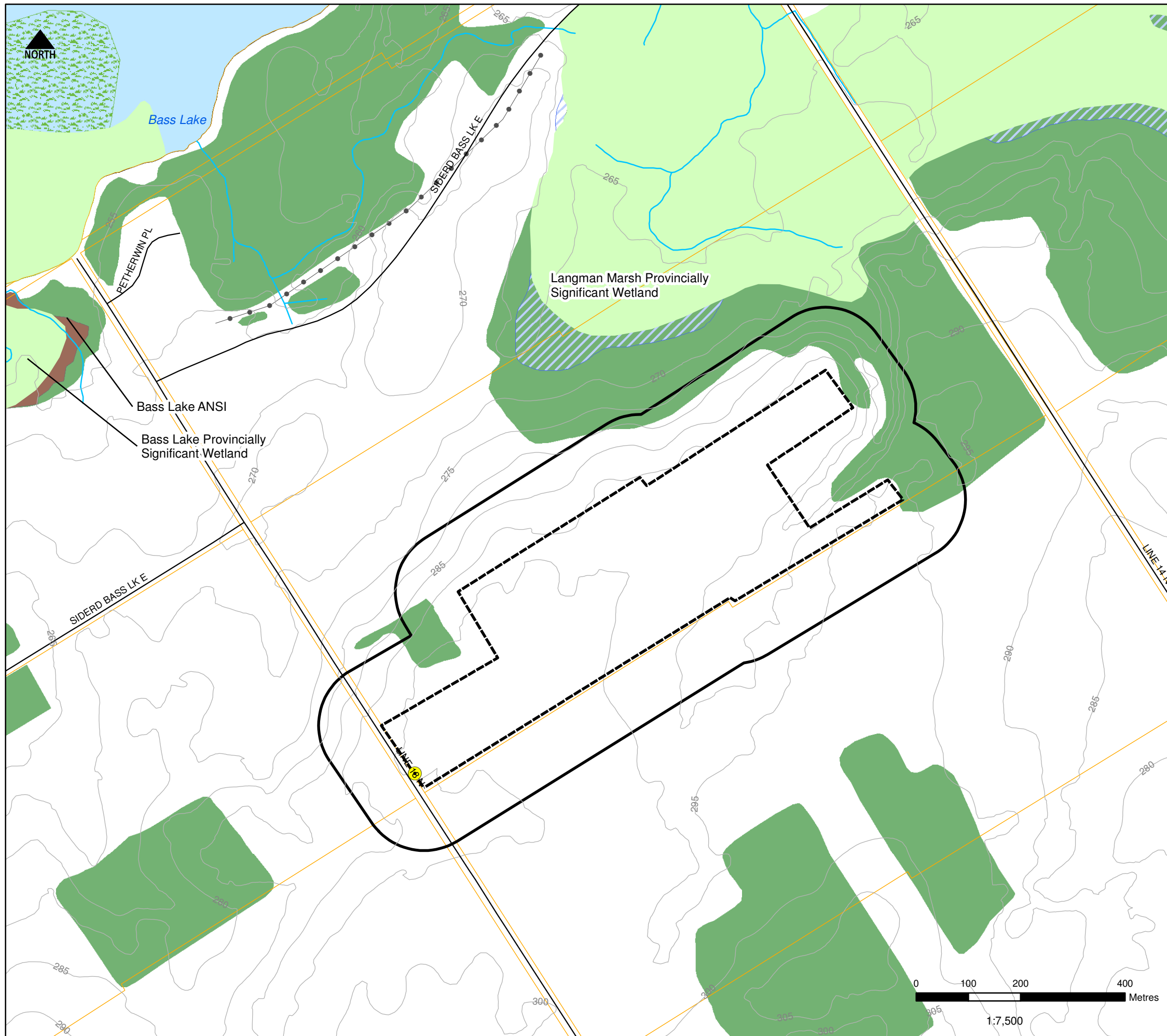
4. References

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.

Gartner Lee Limited. 1996. Development of a Natural Heritage System for the County of Simcoe. Prepared for County of Simcoe. 65 pp.

Lake Simcoe Region Conservation Authority (LSRCA). 2009. Letter (I. Walker, Environmental Planner, LSRCA to S. Caffyn, Development Manager, Recurrent Energy). October 5, 2009.

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



- Legend**
- Connection Point With Existing Distribution Line
 - Topographic Contour (5m interval)
 - Watercourse
 - Project Location
 - 120m from Project Location
 - Parcels
 - Waterbody
 - Wetlands
 - Provincially Significant Wetland
 - Waterfowl Staging Area
 - Woodland

1. OBM and NRVIS data downloaded from LIO-MNR with permission.
 2. Spatial referencing UTM NAD 83
 3. NVCA data provided by NVCA, April 2010.



Figure 3.1
 Recurrent Energy
 RE Orillia 1
 Water Body Features

