

RE MIDHURST 2 SOLAR PROJECT

Water Body Records Review Report

September 12, 2011

RECURRENT
ENERGY





RE Midhurst 2 ULC

Water Body
Records Review Report

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Project Report

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RE Midhurst 2 ULC
RE Midhurst 2 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 Conservation Authority Records 5

 2.4.1 Methodology..... 5

 2.4.2 Results..... 5

 2.5 Municipal Records 6

 2.5.1 Methodology..... 6

 2.5.2 Results..... 6

3. Summary of Results and Next Steps 6

 3.1 Summary of Results..... 6

 3.2 Next Steps..... 9

4. References..... 9

List of Tables

Table 3.1 Summary of Records Review Determinations 9

List of Figures

Figure 3.1 Water Body Features 7

1. Introduction

1.1 Project Description

RE Midhurst 2 ULC is proposing to develop and operate a 3.5-megawatt (MW) solar photovoltaic (Solar PV) facility, on an approximately 40-hectare (ha) parcel of land, located about 18 km north-northwest of Barrie in the Township of Springwater in Simcoe County; herein referred to as “RE Midhurst 2” 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 nameplate capacity greater than 10 kilowatts (kW) are classified as a Class 3 solar facility and therefore, do 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 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 Records Review results 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, 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 (OBM) 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 indicated that there is one watercourse originating on the southwest corner of the property on which the Project is located. It flows parallel to Old Second Road in a southerly direction toward Matheson Creek. Another watercourse originates within the woodlot south of the Project location. This watercourse flows in an easterly direction toward Matheson Creek. Both watercourses eventually discharge into the Craig's Swamp/Copeland Forest Provincially Significant Wetland (PSW) Complex, located approximately 600 m east of the Project location. The mapping from LIO does not show any other waterbodies within 120 m of the Project location.

Information obtained from the Midhurst District MNR office (MNR, 2010) indicated that Matheson Creek is a coldwater stream with a fish community including brown trout (*Salmo trutta*), white sucker (*Catostomus commersonii*), longnose dace (*Rhinichthys cataractae*) and sculpin species (*Cottus sp.*). MNR indicated that there is no fish community data for the watercourses on or immediately adjacent to the Project location.

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 both tributaries of Matheson Creek discussed in Section 2.1.2. No other drains were present within 120 m of the Project location. No Fisheries and Oceans Canada (DFO) drain classification was available for the watercourses.

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:

- DFO website (<http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/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 did show the Project location but only identified the tributary of Matheson Creek that parallels Old Second Road in a southern direction from the Project location. The general area, including this watercourse and the main branch of Matheson Creek are not known to have any aquatic species at risk.

The NRCan mapping search resulted in a general environment map showing some of the streams in the general Project area, but 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 the Nottawasaga Valley Conservation Authority (NVCA). NVCA maintains an on-line mapping database showing its regulated area under O. Reg. 172/06 (Regulation for Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses). GIS information on regulated areas, including flood hazards, erosion hazards and wetlands, was obtained from the NVCA.

2.4.2 Results

The Regulated Areas map indicates that the Matheson Creek tributary originating on the southwestern corner of the property is within the NVCA's Regulated Area. As shown in Figure 3.1, the regulated area includes flood and meander belt hazards and appropriate setbacks.

The NVCA information also notes the presence of a wetland in the woodlot on and within 120 m of the Project location. The wetland is not identified as being provincially significant in the NVCA data and is not noted on the LIO data from MNR, but it appears to be large enough to meet the size requirement for protection in the NVCA Regulation regarding *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*.

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 on or within 120 m of the Project location.

Township of Springwater

The Project is located within the lower tier municipality of the Township of Springwater. Searches of information available on the township website (<http://www.springwater.ca>) were conducted. The Official Plan for the Township (Township of Springwater, 2000) was also reviewed for any references regarding water features on or within 120 m of the Project location.

2.5.2 *Results*

Simcoe County

Satellite imagery on the Simcoe County website showed the same waterbodies previously discussed in Section 2.1.2. In addition, it appeared as though there are several constructed surface water drains running across the Project location (Figure 3.1). These drains are not indicated as such on the OMAFRA Rural Drainage Mapping. It is not clear from the satellite imagery whether or not these drains would meet the definition of a water body in the REA Regulation [Section 1(1)]. This will have to be confirmed during the site investigation.

The Official Plan – Land Use Designation Map (County of Simcoe, 2007) shows the watercourse which originates within the southwest corner of the property, but it does not identify the watercourse that LIO mapping shows as being located in the woodlot south of the Project location.

Township of Springwater

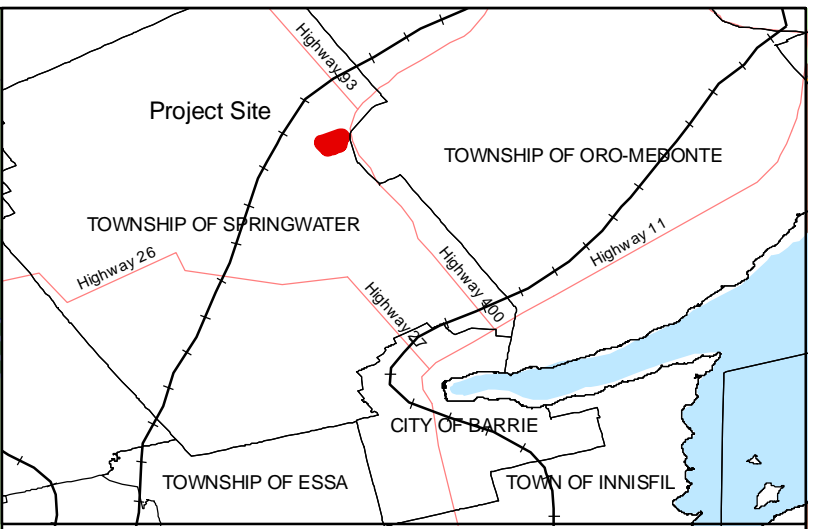
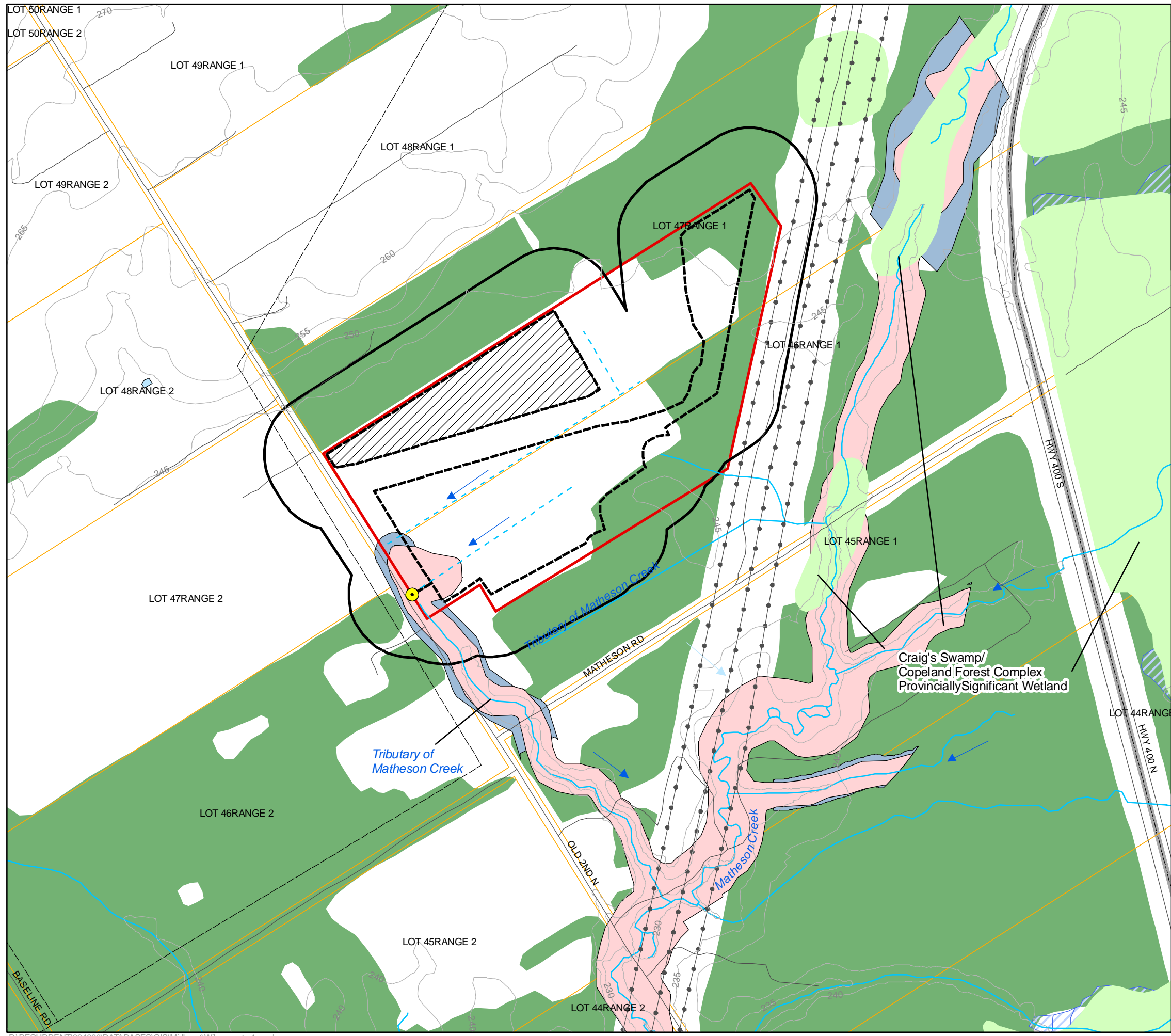
The Township of Springwater website provided a link to the above-mentioned County of Simcoe interactive map as well as a general map for the Township showing natural features. No new features were found in relation to the Project location.

The Official Plan (Township of Springwater, 2000) contains a Natural Features map in Schedule B. The map showed no additional water body features on or within 120 m 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 Project location is provided in Figure 3.1.



Legend

- Connection Point With Existing Distribution Line
- Roads
- Trail
- Rail
- Topographic Contour(5m interval)
- Watercourse
- Excavated Drains
- 120 m From Project Location
- Available Lands
- Project Location
- Temporary Construction Laydown Area
- Provincially Significant Wetlands
- Wooded Area

Nottawasaga Valley Conservation Authority

- Meander Belt
- Flood Hazard Area

0 100 200 400
Metres
1:7,500

NORTH

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

Figure 3.1
 Recurrent Energy
 RE Midhurst 2
 Water Body Features

Back of Figure

Table 3.1 Summary of Records Review Determinations

Determination to be Made	Yes/No	Description
Is the Project in a water body?	Yes	A culvert may be required within the tributary of Matheson Creek on the access road from Old Second Road North.
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 on or within 300 m in the Project location.
Is the Project within 120 m of the average annual high water mark of a permanent or intermittent stream?	Yes	Two small tributaries of Matheson Creek originate within 120 m of the Project location.
Is the Project within 120 m of a seepage area?	No	No seepage areas were identified during the Records Review.

Therefore, depending on the layout of the proposed solar facility, some components on the Project location could potentially be located within 120 m of the average annual high water mark of two permanent or intermittent streams. An access road crossing of one of the waterbodies may also be required. In addition, drains crossing the Project location, as visible on satellite imagery, may also be defined as waterbodies, but this will require confirmation during the site investigation.

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 body 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.

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

Township of Springwater. 2000. Township of Springwater Official Plan. On-line at http://www.springwater.ca/ws_par/groups/public/@pub/@springwater/documents/web_content/wspar_021709.pdf. Accessed March 19, 2010.

