

# RE SMITHS FALLS 2 SOLAR PROJECT

Water Body Records Review Report

April 15, 2011

RECURRENT  
ENERGY





RE Smiths Falls 2 ULC

Water Body  
Records Review Report

RE Smiths Falls 2 Solar Project

H334680-0000-07-124-0031

Rev. 1

April 15, 2011

**Disclaimer**

This report has been prepared by or on behalf of RE Smiths Falls 2 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 Smiths Falls 2 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

April 15, 2011

**RE Smiths Falls 2 ULC  
RE Smiths Falls 2 Solar Project****Water Body Records Review Report****Table of Contents**

|  |          |
|--|----------|
| <b>1. Introduction .....</b>   | <b>3</b> |
| 1.1 Project Description .....  | 3        |
| 1.2 Legislative Requirements.....  | 3        |
| <b>2. Methodology and Results .....</b>                                  | <b>3</b> |
| 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        |
| <b>3. Summary of Results and Next Steps .....</b>                        | <b>6</b> |
| 3.1 Summary of Results.....  | 6        |
| 3.2 Next Steps.....  | 7        |
| <b>4. References.....</b>  | <b>7</b> |

## 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 Smiths Falls 2 ULC is proposing to develop and operate a 10-megawatt (MW) solar photovoltaic (Solar PV) facility, on an approximately 35-hectare (ha) parcel of land located approximately 8 km northwest of Smiths Falls in the Township of Drummond/North Elmsley in the County of Lanark; herein referred to as “RE Smiths Falls 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 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
- 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 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 of this Report 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 location (i.e., the Project footprint) 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 location is not 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](http://www.geographynetwork.com)).
- Natural Heritage Information Centre (NHIC) on-line mapping (<http://nhic.mnr.gov.on.ca/MNR/nhic/queries/nhic.mwf>).

The Kemptville District MNR office was also asked to provide any information they had available regarding water features on or within 120 m of the Project location. This information was received on July 7, 2010.

### **2.1.2 Results**

Mapping data obtained from LIO indicates there are no watercourses or waterbodies within the proposed solar panel development area. However, Black Creek Drain runs along the southeastern boundary of the Project location. The existing access road, which may require upgrading, crosses the Black Creek Drain immediately south of the Project location. The proposed new section of distribution line from the Project will also cross Black Creek Drain at the site of the existing access road water crossing.

Black Creek Provincially Significant Wetland (PSW) is present adjacent to the eastern section of the Project location.

No additional water features were identified on the mapping available on the NHIC website. Available mapping does identify the Black Creek PSW and Black Creek Drain.

Information received from the Kemptville MNR office indicated that the Black Creek Drain may be home to a variety of fish species (MNR, 2010).

## **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](http://www.lio.ontario.ca/imf-ows/imf.jsp?site=ads_en)).

### **2.2.2 Results**

Rural drainage mapping identified Black Creek Drain, as noted in Section 2.1.2 as an open, constructed drain. It is classified as a Class B drain according to the Fisheries and Oceans Canada (DFO) classification system, meaning that is a permanent warm watercourse with sensitive species or communities present (DFO, 2010). No other watercourses or drains were present on or within

120 m of the Project location. Systematic tile drainage is located on the property south 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 within 120 m of the Project location were available:

- DFO website (www. <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](http://ess.nrcan.gc.ca/mapcar/index_e.php)).

### **2.3.2 Results**

No reference to waterbodies on or within 120 m of the Project location was found on the DFO website.

No 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 within the jurisdiction of the Rideau Valley Conservation Authority (RVCA). RVCA maintains an on-line mapping database showing its regulated area under O. Reg. 174/06 (Regulation for Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses). The Regulated Areas map for the project area was downloaded and reviewed. The RVCA 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**

Mapping provided by the RVCA indicates the presence of Black Creek Municipal Drain previously discussed, although no Flood Hazard or Erosion Hazard information is available for the drain. RVCA confirmed that the drain is classified as Class B and provides habitat for a number of fish species, including Smallmouth Bass (*Micropterus dolomieu*) (RVCA, 2010).

RVCA also indicated that a portion of the property on which the Project is located is within the RVCA Regulated Area. The Regulated Area consists of the Black Creek PSW and a 120-m buffer around the PSW boundary.

## 2.5 Municipal Records

### 2.5.1 Methodology

#### ***County of Lanark***

The Project is located within the upper tier municipality of County of Lanark. The County maintains an on-line mapping database (<http://www.county.lanark.on.ca/AssetFactory.aspx?did=1114>) showing the general environmental and infrastructure features of the area. This mapping was reviewed as part of the Records Review. Other information on the County website was also reviewed as part of the Records Review.

#### ***Township of Drummond/North Elmsley***

The project is located within the lower tier municipality of the Township of Drummond/North Elmsley. The municipal website (<http://www.drummondnorthelmsley.com/siteengine/activepage.asp>) was reviewed as part of the Records Review.

The Official Plan for the Township (Township of Drummond/North Elmsley, 2004) was also examined as part of the Records Review.

### 2.5.2 Results

#### ***County of Lanark***

A map of the County was reviewed from the County's website. The general environmental features noted in previous sections of this report were depicted on the map, although no additional site specific information on waterbodies was available at the resolution of the map.

#### ***Township of Drummond/North Elmsley***

Township of Drummond/North Elmsley provide a general overview map showing the water features associated with the area, although it does not show any of the streams relating to the Project location.

Appendix A of the Official Plan provides a general environmental and infrastructure map, which shows the Black Creek Drain, but no other water 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.

**Table 3.1 Summary of Records Review Determinations**

| Determination to be Made  | Yes/No | Description  |
|---|--------|--|
| Is the Project in a waterbody?  | Yes    | An access road water crossing may be constructed within the Black Creek Drain. |
| 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 | No     | No lakes are present on or within 120 m of the Project location.               |



| Determination to be Made   | Yes/No | Description   |
|--|--------|---|
| capacity?  |        |   |
| 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?                         | Yes    | Black Creek Drain is located within 120 m of the Project location.          |
| Is the Project within 120 m of a seepage area?   | No     | No groundwater seepage information was noted 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 Black Creek Drain, a warmwater, permanent watercourse. This drain will also be crossed by a permanent access road and a new distribution line from the Project.

### 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 location to the water body boundaries.

## 4. References

Fisheries and Oceans Canada (DFO). 2010. What you should know about fish habitat and a class authorization system for the maintenance of agricultural municipal drains in Ontario. On-line at <http://www.dfo-mpo.gc.ca/regions/central/pub/drain-egout-on/index-eng.htm>. Accessed April 5, 2010.

Ministry of Natural Resources (MNR). 2010. Letter. L. Melvin (Resource Management Planner, MNR) to S. Male (Terrestrial Ecologist, Hatch Ltd.). July 7, 2010.

Rideau Valley Conservation Authority (RVCA). 2010. Letter. M. Watters (Resource Specialist, RVCA) to N. Boucher (Aquatic Biologist, Hatch Ltd.). March 29, 2010.

Township of Drummond/North Elmsley. 2004. Official Plan for the Township of Drummond/North Elmsley. February 4, 2004. On-line at <http://www.drummondnorthelmsley.com/files/%7B8710BA66-BAB5-4906-A4DD-9C4FBC67416E%7DOfficial%20Plan%20text.pdf>. Accessed April 5, 2010.



Back of Figure

