

# RE SMITHS FALLS 5 SOLAR PROJECT

Water Body Records Review Report

April 15, 2011

RECURRENT  
ENERGY





RE Smiths Falls 5 ULC

Water Body  
Records Review Report

RE Smiths Falls 5 Solar Project

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Project Report

April 15, 2011

**RE Smiths Falls 5 ULC**  
**RE Smiths Falls 5 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 ..... 5

2.5.1 Methodology..... 5

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 ..... 6

## List of Figures

Figure 3.1 Water Body Features ..... 7

## 1. Introduction

### 1.1 Project Description

RE Smiths Falls 5 ULC is proposing to develop and operate a 10-megawatt (MW) solar photovoltaic (Solar PV) facility, on an approximately 40-hectare (ha) parcel of land, located approximately 8 km northwest of Smiths Falls in the Township of Drummond/North Elmsley in Lanark County; herein referred to as “RE Smiths Falls 5” 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 do 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 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 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, 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](http://www.geographynetwork.com))
- Natural Heritage Information Centre (NHIC) online 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 adjacent to the Project. Information was received on July 7, 2010.

### **2.1.2 Results**

Mapping data obtained from LIO indicates that there is one watercourse on the Project site (Healy-MacPherson Drain) and one unnamed watercourse within 120 m north of the Project site (Watercourse A). It also indicates that there is an unevaluated wetland within 120 m of the northern and eastern Project boundaries. Both of these watercourses run through the unevaluated wetland.

The upgraded existing distribution line would cross the Healy-MacPherson Drain within the Armstrong Road municipal road allowance. It would also cross Black Creek Drain approximately 2.4 km east of the Project site, and two other unnamed drains (Drains A and B – Figure 3.1).

Information received from the Kemptville MNR office indicated that Healy-MacPherson Drain may serve as habitat for fisheries (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](http://www.lio.ontario.ca/imf-ows/imf.jsp?site=ads_en)).

### **2.2.2 Results**

Rural drainage mapping identified the two watercourses noted in Section 2.1.2 on and in proximity to the Project site. Watercourse A is not identified as a municipal drain. Within the Project area, the Healy-MacPherson Drain is identified as a natural watercourse. Approximately 1 km downstream, the drain is classified as a Class F (intermittent or ephemeral) drain according to the DFO classification system (DFO, 2010). This drain is a tributary of the Black Creek Drain, located approximately 2.4 km east of the Project site. The proposed upgraded distribution line from the facility crosses the drain at a location where it is identified as a Class F drain.

## 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 (<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 adjacent to the Project site was found on the DFO website.

No Species At Risk (SAR) are known to be located in close proximity to the Project site, 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 site.

## 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 property.

### 2.4.2 Results

The watershed regulation map provided by the RVCA indicates the same watercourses shown on the LIO mapping (RVCA, 2010). However, these watercourses are not located within the RVCA Regulated Area.

## 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 reviewed as part of the Records Review.

**2.5.2 Results**

**County of Lanark**

A general map of the County was reviewed on the website, although no water features were found for the Project site.

**Township of Drummond/North Elmsley**

The Township of Drummond/North Elmsley website provides 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 site that have been previously discussed.

Appendix A of the official plan is a generalized environmental and infrastructure map, which shows water features previously discussed.

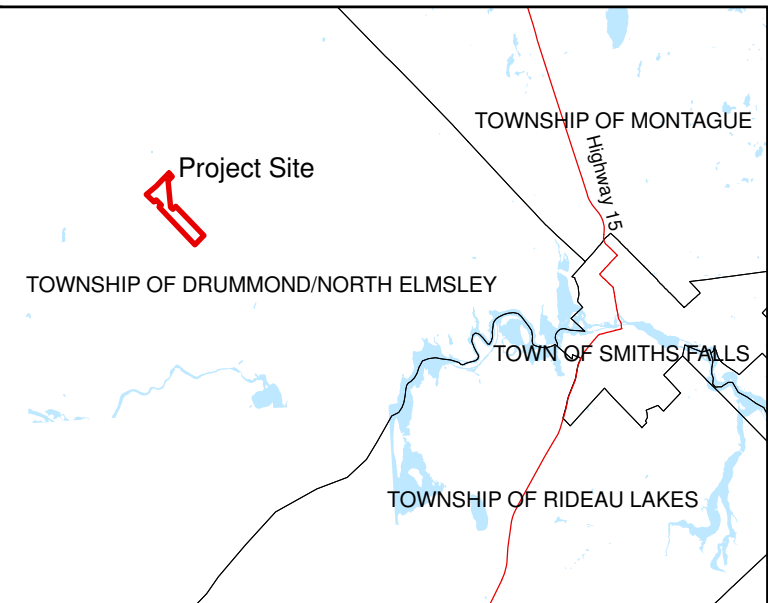
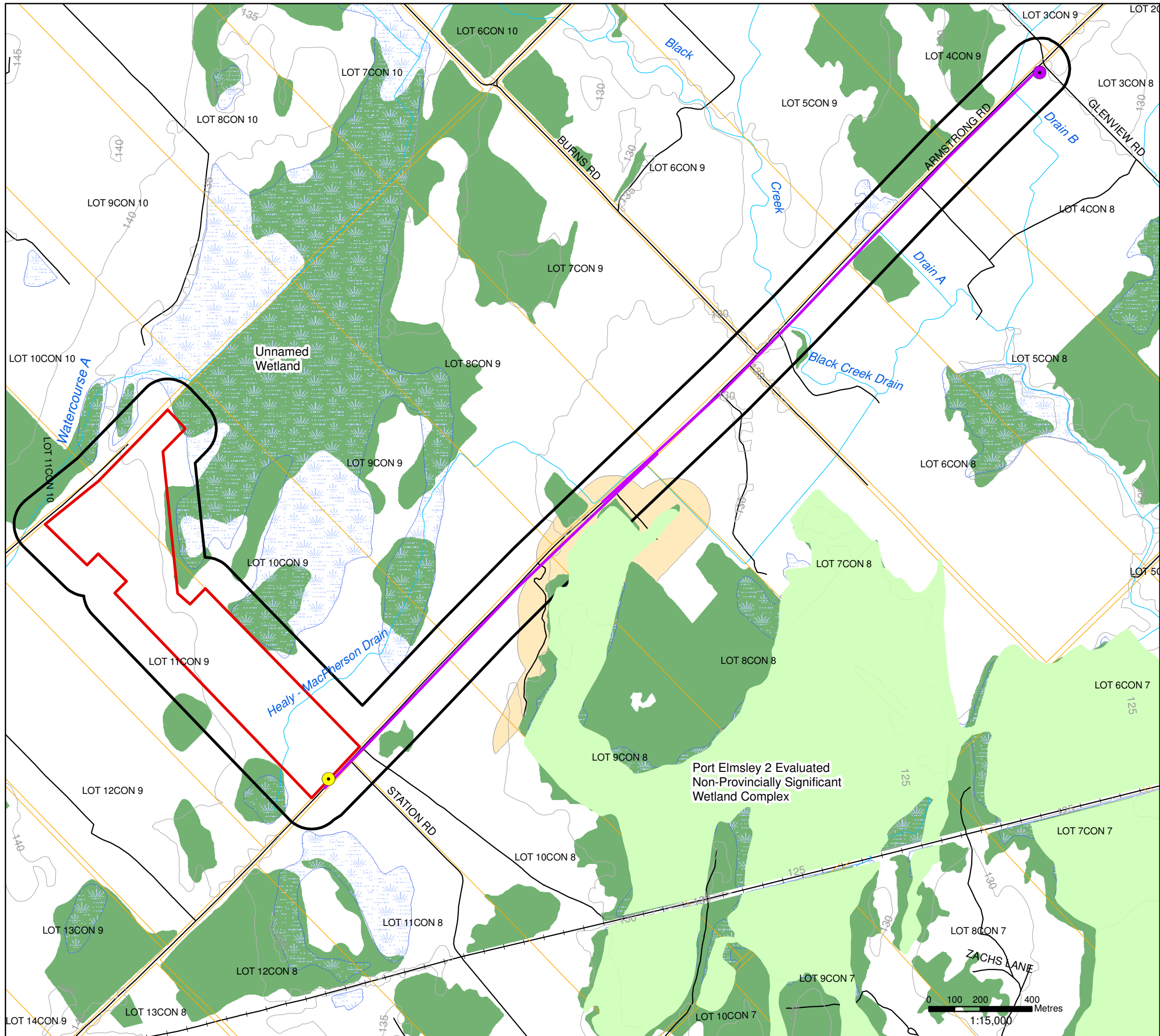
**3. Summary of Results and Next Steps**

**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 waterbody?	Yes	An access road water crossing upgrade or new crossing may be required on the Healy-MacPherson 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 capacity?	No	No lakes are present 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 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	Two watercourses are within 120 m of the Project site. The potentially upgraded distribution line would cross four watercourses in the municipal road allowance.
Is the Project within 120 m of a seepage area?	No	No groundwater seepage information for the area was found during the records review.



**Legend**

- Connection Point With Existing Distribution Line
- Potential Point of Common Coupling With Feeder Line
- Potential Upgraded Existing Distribution Line
- Roads
- +— Railway
- Topographic Contour (5m Interval)
- Watercourse
- Project Site
- Study Area
- Parcels
- Wetland
- Evaluated Wetland
- Wooded Area

**Rideau Valley Conservation Authority Data**

- Regulation Limit

Notes:  
 1. Spatial Referencing: UTM NAD 83  
 2. OBM and NRVIS data downloaded from LIO-MNR with permission.  
 3. RVCA data provided by RVCA, March 2010.



Figure 3.1  
 Recurrent Energy  
**RE Smiths Falls 5**  
 Water Body Features



Back of Figure

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 two permanent or intermittent streams. A new or upgraded water crossing structure may be required along the facility access road and the proposed upgraded distribution line, which may be owned by RE Smiths Falls 5 ULC, would also cross four other watercourses.

### 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

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.

