



Future Solar Developments Inc.

**3400 Pharmacy Avenue, Unit 8
Scarborough, Ontario
M1W 3J8**

Water Assessment Records Review LP 9 and 10 Report
1572 Story Road
Midhurst, ON

Project Number:

WSL-00002250

Prepared By:

exp Services Inc.
1595 Clark Blvd
Brampton, ON L6T 4V1
Canada

Date Submitted:

August 2012



Legal Notification

This report has been prepared by **exp** Services Inc. on behalf of Mr. Sam Qin of Future Solar Developments Inc. for the submission to the Ontario Ministry of the Environment as part of the Renewable Energy Approval process.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. **Exp** Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this project.

DRAFT

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**Water Assessment Records Review
Proposed Groundmount Solar Facility LP 9 and 10
1572 Story Road,
Midhurst, Ontario**

1 Introduction

1.1 Project Description

Exp Services Inc. (**exp**) was retained by Mr. Sam Qin of Future Solar Developments Inc. to conduct a records review of waterbodies located on, and/or in the surrounding areas of the proposed ground-mounted solar facility set for plot LP 9 and 10 located at 1572 Story Road, Midhurst, Ontario. For the purpose of this report the entire Site including the 120 metre buffer from each of the solar panels will be identified as “subject property”, those areas including the panel and construction limits will be identified as “Site”. The project involves the design and construction of two (2) 100 kW solar farms.

The purpose of this investigation was to identify waterbodies located in close proximity of the proposed solar farm and to resolve any potential effect(s) that the construction activities will have on the natural environment.

1.2 Legislative Requirements

Ontario Regulation 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 renewable 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 Class 3 solar facilities, and therefore, 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 location is:

- a. In a water body.
- b. Within 120 metres of the average annual high water mark of a lake, other than a lake trout lake that is at or above development capacity.
- c. Within 300 metres of the average annual high water mark of a lake trout lake that is at or above development capacity.
- d. Within 120 metres of the average annual high water mark of a permanent or intermittent stream.
- e. Within 120 metres of a seepage area.

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” (Ontario Regulation

359/09). This water assessment records review report has been prepared to meet these requirements.

2 Methodology

Records were reviewed and analyzed in accordance with section 30 of Ontario Regulation 359/09. The objective of this assessment is to determine if the Site is located within or is in close proximity to any of the water features listed in section 1.2 of this report.

Section 30 (2) of Ontario Regulation 359/09 identifies the records that should be reviewed and analyzed. The following are records that were reviewed and/or government agencies that were contacted for the purposes of this report. Refer to Site Plan in Appendix A for Site location.

2.1 Ontario Ministry of Natural Resources (OMNR)

The OMNR Natural Heritage Information Centre (NHIC) on-line mapping website was consulted to obtain records for aquatic species, and natural water features present in close proximity to the subject property (OMNR, 2012). In addition, the OMNR district office was consulted on natural features within the subject property.

2.2 Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

The OMAFRA rural drainage on-line mapping website was reviewed to obtain records of natural water or drainage features within 120 metres of the Site (Land Information Ontario, 2008).

2.3 Department of Fisheries and Oceans Canada (DFO)

Conservation Ontario provides maps of the *Distribution of Fish Species at Risk* for the various conservation authorities in the province. The fish distribution data represented on these maps was obtained from a national freshwater fish distribution database maintained by DFO (Conservation Ontario, 2009).

The subject property is situated within the jurisdiction of the Nottawasaga Valley Conservation Authority (NVCA). Therefore the *Distribution of Fish Species at Risk* map was obtained for the NVCA region, and reviewed to extract records on the extent of critical habitats with fish and mussel species at risk in relation to the subject property.

2.4 Conservation Authorities

The NVCA was contacted regarding drainage and water features on or in close proximity to the subject property. NVCA maps were also reviewed to obtain records of natural water features on or in close proximity to the subject property (NVCA, 2006).

2.5 Municipalities

The subject property is situated in the Township of Springwater, within the County of Simcoe. Authorities from the township and county were contacted regarding water features on or in close proximity to the subject property.

3 Records Review Results

3.1 Ontario Ministry of Natural Resources (OMNR)

OMNR NHIC records indicate that there are no aquatic species, and no significant natural features located within 120 metres of the Site (OMNR, 2012). The OMNR did indicate a series of unevaluated wetlands to occur within 120 metres of the Site.

3.2 Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

OMAFRA rural drainage mapping records indicate that there are no water bodies or drains located within or close to the subject property (Land Information Ontario, 2008). The closest water body to LP9 is a stream that is located approximately 520 metres north of the Site, and the closest water body to LP10 is a stream that is located approximately 270 metres north of the Site (**Figure 1**).

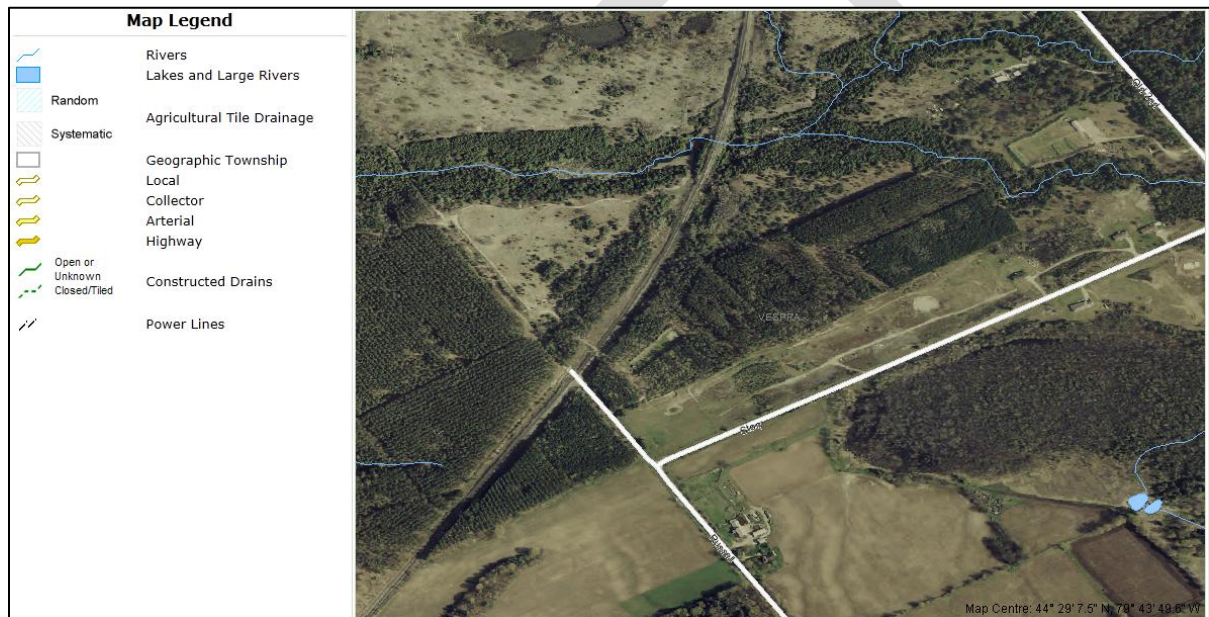


Figure 1: Rural drainage map (Land Information Ontario, 2008)

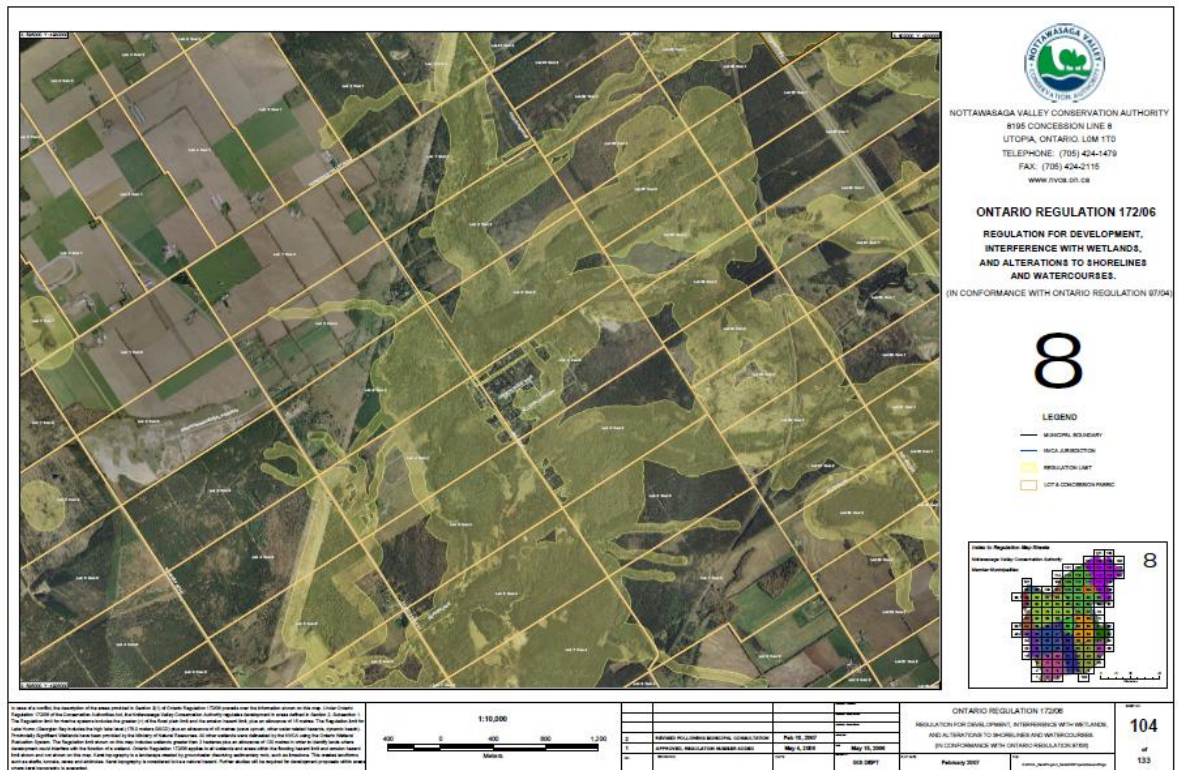
3.3 Department of Fisheries and Oceans Canada (DFO)

The *Distribution of Fish Species at Risk* map for the NVCA revealed that there is no critical habitat with fish or mussel species at risk located within 120 metres from the Site (**Figure 2**).

Figure 2: Distribution of fish species at risk (Conservation Ontario, 2009).

3.4 Conservation Authorities

The NVCA mapping records indicate that LP10 is located within the area that pertains to the *Conservation Authorities Act* Ontario Regulation 172/06, the regulation for development interference with wetlands and alterations to shorelines and watercourses (NVCA, 2006). The regulation boundary is located beyond 120 metres from the LP9 Site; measuring 230 metres east of the LP9 Site (**Figure 3**). The NVCA commented on February 14, 2012 concerning these two (2) panel locations relative to the Regulation. The plot identified for LP9 is outside the regulated area and therefore would require a clearance letter from the NVCA to conduct the project as proposed. They also noted that a detailed Site drawing was required that will identify the exact location of the solar panels, transformer and buried transmission lines. All road upgrades or access may require a permit along with the construction of alternative road allowances to access the proposed solar panel and transformer area. For LP10, the NVCA require a permit to construct the proposed project. The NVCA also commented that the Site is located within the wetland boundary of an unevaluated wetland. A minimum 30 metre vegetated buffer is proposed between the wetland and cleared access and facility areas. A sediment and erosion control plan will also be required as part of the complete permit application.



3.5 Municipalities

Authorities contacted from the Township of Springwater, and the County of Simcoe indicated that the Simcoe County Geo-mapping tool be used to identify water features in close proximity to the Site. The Geo-mapping tool indicated unevaluated wetlands exist within 120 metres from LP10, with watercourses present outside the 120 metre boundary.

4 Summary of Results of Records Review

Based on the current Site and subject property the following **Table 4-1** summarizes the results as they pertain to the water bodies that are known to exist within the subject property.

Table 4-1: Project Location in accordance with Ontario Regulation 359/09

Project Location	Yes/No/Unknown	Project Description
Is the Project within a water body?	No	The Site is not located within a water body.
Is the Project within 120 metres of the average annual high water mark of a lake, other than a lake trout lake that is at or above development capacity?	No	The Site is not located within 120 metres of an average annual high water mark Lake that is at or above development capacity.
Is the Project within 300 metres of the average annual high water mark of a lake trout lake that is at or above development capacity?	No	The Site is not located within 300 metres of a lake trout lake of any status.
Is the Project within 120 metres of the average annual high water mark of a permanent or intermittent stream?	No	The Site is not located within 120 metres of the annual high water mark of a permanent or intermittent stream.
Is the Project within 120 metres of a seepage area?	Unknown	The LP 10 Site lies within area affected by Ontario Regulation 172/06. Seepage areas will need to be identified during the Site Investigation.

As per Section 29 of the REA Regulation, a site investigation will be required to confirm the features identified during this records review. This site investigation will confirm and provide any correction to the information presented within this records review, along with identifying additional waterbodies that exist on-Site or within the subject property (120 metres). It will be conducted in accordance with Section 31 of Ontario Regulation 359/09. The site investigation will also help determine the boundaries of those waterbodies that may exist on-Site or within the subject property, and determine their distance from the proposed project location for the ground-mounted solar facility.

5 Closure

We trust this report is satisfactory for your purposes. We would be pleased to provide additional information, to clarify any questions that arise following the review of this report.

Sincerely,

exp Services Inc.

DRAFT

Melissa Torchia M.A.Sc.
Environmental Scientist
Environmental Sciences Division

DRAFT

Dean Fitzgerald, M.Sc., Ph.D.
Team Leader – Ecological Services
Environmental Sciences Division

6 References

- Conservation Ontario. (2009). *2012 Aquatic Species At Risk*. Retrieved from Conservation Ontario Projects: <http://www.conservation-ontario.on.ca/projects/DFO.html>
- Land Information Ontario. (2008). *Agricultural Information Atlas*. Retrieved from Ontario Ministry of Natural Resources: http://www.lio.ontario.ca/imf-ows/imf.jsp?site=aia_en
- NVCA. (2006). *Planning Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation*. Retrieved from Nottawasaga Valley Conservation Authority: <http://nvca.on.ca/OurProgramsandServices/Planning/PlanningDevelopmentInterferencewithWetlandsandAlterationstoShorelinesandWatercoursesRegulation/index.htm>
- OMNR. (2012, July). *Biodiversity Explorer*. Retrieved from Ontario Ministry of Natural Resources: <https://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/main.jsp>

Appendix A – Site Plan

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Legend

- Pond
- Proposed Solar Panel
- Construction Limit
- 120 m Buffer
- Forest
- Hedgerow

Source: County of Simcoe GIS Mapping, based on 2008 Aerial Photography

0 10 20 40 60 80 100 Meters



exp Services Inc.

1595 CLARK BOULEVARD
BRAMPTON, ONTARIO
L6T 4V1
T - (905) 793-9800
F - (905) 793-0641

PROJECT TITLE:

SOUTHERN ONTARIO LAND RESOURCE
INFORMATION SYSTEM (SOLRIS)
WATER ASSESSMENT MAP LP9
MIDHURST, ONTARIO

DRAWING TITLE:

**WATER ASSESSMENT
SITE MAP**

PROJECT No.:

WSL-00002250-00

DWN:

PS

SCALE:

AS NOTED

CHKD:

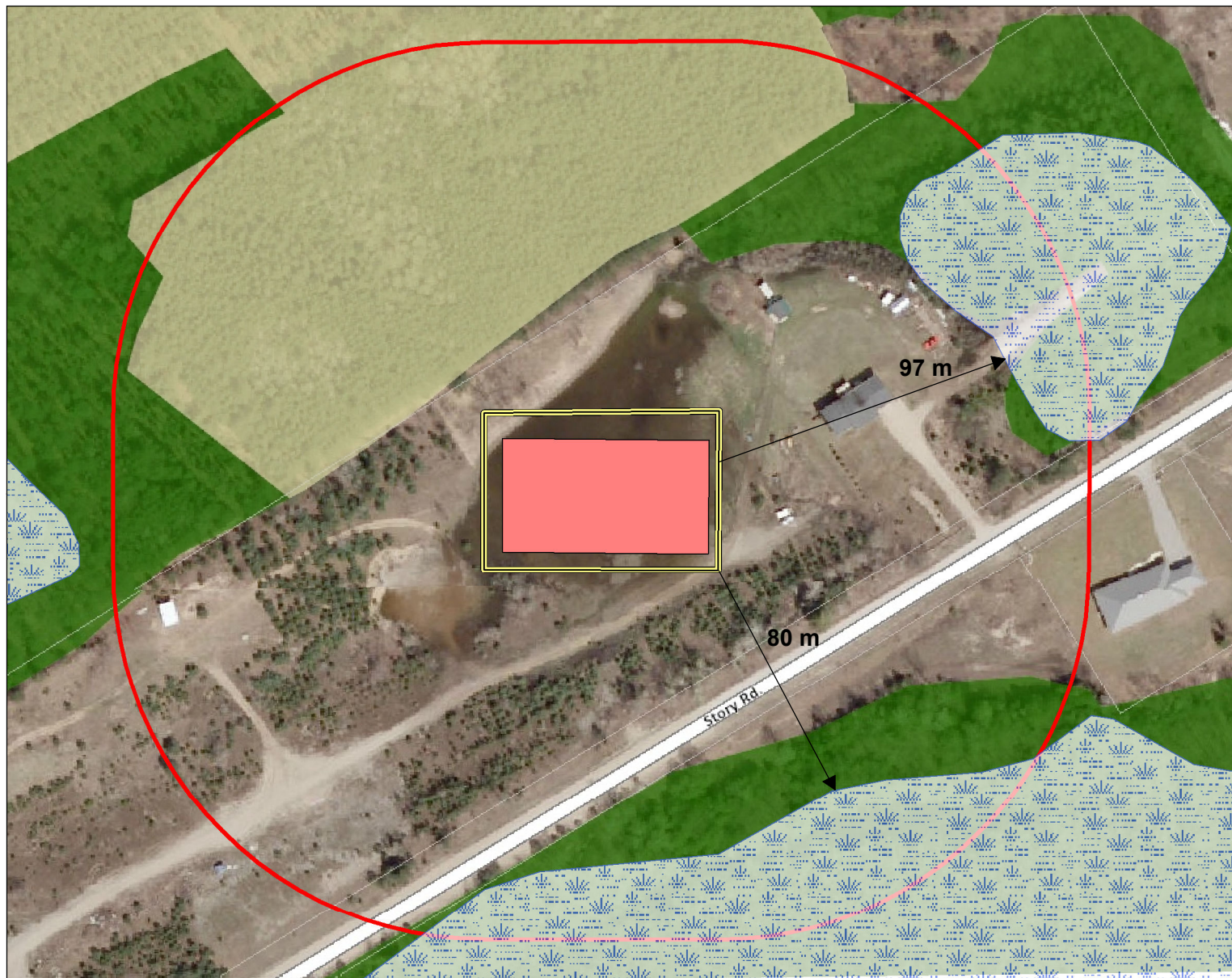
DF

DATE:

AUGUST 2012

FIG. No.:







1



Source: County of Simcoe GIS Mapping, based on 2008 Aerial Photography

0 5 10 20 30 40 50
Meters

Legend

-  MNR Unevaluated Wetland
-  Proposed Solar Panel
-  Construction Limit
-  120 m Buffer
-  Forest
-  Hedgerow



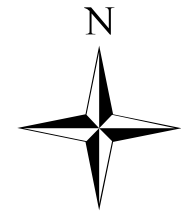
exp Services Inc.
1595 CLARK BOULEVARD
BRAMPTON, ONTARIO
L6T 4V1
T - (905) 793-9800
F - (905) 793-0641

PROJECT TITLE:
SOUTHERN ONTARIO LAND RESOURCE
INFORMATION SYSTEM (SOLRIS)
WATER ASSESSMENT MAP LP10
MIDHURST, ONTARIO

DRAWING TITLE:
WATER ASSESSMENT
SITE MAP

PROJECT No.:	WSL-00002250-00	DWN:	PS
SCALE:	AS NOTED	CHKD:	DF
DATE:	AUGUST 2012	FIG. No.:	2

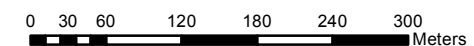
**Appendix B-
Nottawasaga Valley Conservation Authority
Ontario Regulation 172/06 Limit**



Legend

- Proposed Solar Panel
- Construction Limit
- 120 m Buffer
- Regulation Limit

Source: County of Simcoe GIS Mapping, based on 2008 Aerial Photography



exp Services Inc.
 1595 CLARK BOULEVARD
 BRAMPTON, ONTARIO
 L6T 4V1
 T - (905) 793-9800
 F - (905) 793-0641

PROJECT TITLE:

FUTURE SOLAR DEVELOPMENTS INC.
 (LP9/10) 1572 STORY ROAD
 MIDHURST, ONTARIO

DRAWING TITLE:

NOTTAWASAGA VALLEY
 CONSERVATION AUTHORITY
 ONTARIO REGULATION 172/06 LIMIT

PROJECT No.:

WSL-00002250-00

SCALE:

AS NOTED

DATE:

AUGUST 2012

DWN:

PS

CHKD:

DF

FIG. No.:

1