



Future Solar Developments Inc.

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Water Assessment Records Review LP1 Report
9307 Union Drive
Strathroy, ON

Project Number:

WSL-00002250

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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.

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Appendix A – Site Plan

**Water Assessment Records Review
Proposed Groundmount Solar Facility LP 1
9307 Union Drive,
Strathroy-Caradoc, 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 1 located at 9307 Union Dr, Strathroy-Caradoc, Ontario. For the purpose of this report the entire Site including the 120 metre buffer from the solar panel 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 one (1) 100 kW solar farm.

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 (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 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 for to identify whether the project location is:

- a. In a water body.
- b. 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.
- c. Within 300 m of the average annual high water mark of a lake trout lake that is at or above development capacity.
- d. Within 120 m of the average annual high water mark of a permanent or intermittent stream.
- e. Within 120 m 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” (O. Reg. 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 O. Reg. 359/09. The objective of this assessment is to determine if the Site is located within or in close proximity to any of the water features listed in section 1.2 of this report.

Section 30 (2) of O. Reg. 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 m 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 St. Clair Region Conservation Authority (SCRCA). Therefore the *Distribution of Fish Species at Risk* map was obtained for the SCRCA 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 SCRCA was contacted regarding water features on or in close proximity to the subject property. The SCRCA on-line mapping website was also reviewed to obtain records of natural water features on or in close proximity to the subject property (SCRCA, 2012).

2.5 Municipalities

The subject property is situated within the County of Middlesex. The County of Middlesex was 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 located within 120 m of the Site (OMNR, 2012). However, NHIC records revealed that tributaries of the non-provincially significant Gold Creek wetland are located in close proximity to the subject property. The Gold Creek wetland complex contains locally significant winter cover for wildlife, suitable habitat for breeding waterfowl, and locally significant fish spawning and nursery habitat. The Gold Creek wetland may also provide suitable habitat to support Snapping Turtles (*Chelydra serpentina*) (OMNR, 2012). This wetland complex has two (2) communities on the property located at 9307 Union Drive. One (1) community is located approximately 120 metres from the Site, while the other community is located 220 metres away. A third community is known to exist approximately 400 metres from the proposed solar farm Site. The OMNR district office indicated the creek may be potential habitat for blanding's turtle (*Emydoidea blandingii*), spiny softshell (*Apalone spinifera spinifera*) and eastern hog-nosed snake (*Heterodon platirhinos*).

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

OMAFRA rural drainage mapping records indicate that a watercourse and a constructed drain (open or unknown) is located approximately 120 m north-east of the Site (**Figure 1**). Additionally, a small pond is situated ~130 m north of the Site. There are, however, no agricultural tile drains located within 120 m of the Site (Land Information Ontario, 2008).

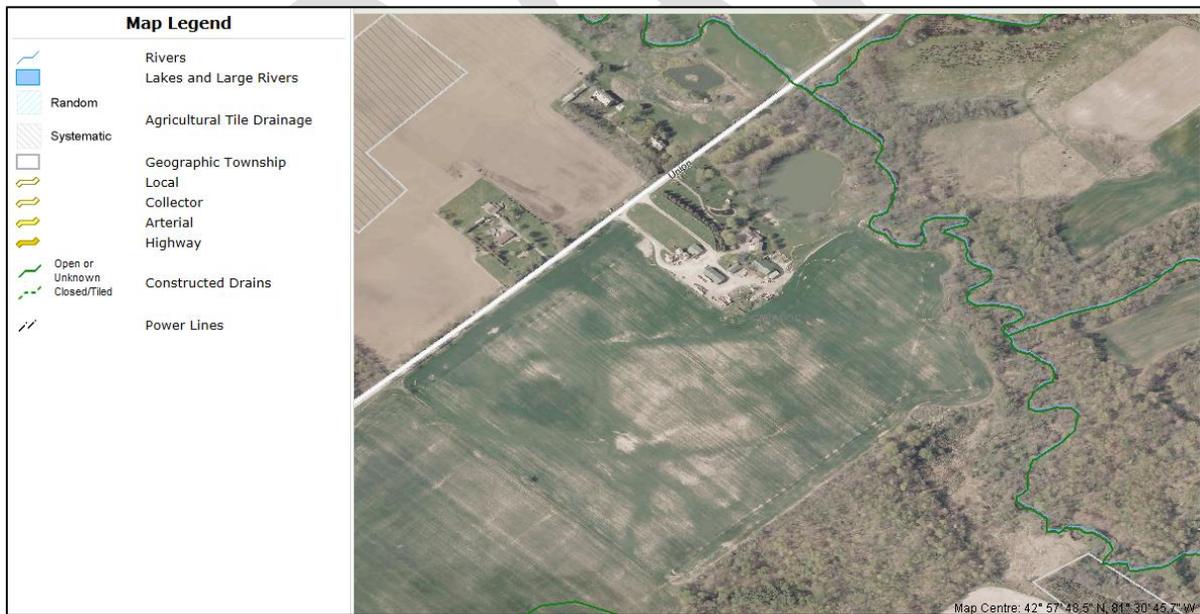


Figure 1: Rural drainage map (Land Information Ontario, 2008)

3.3 Department of Fisheries and Oceans Canada (DFO)

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

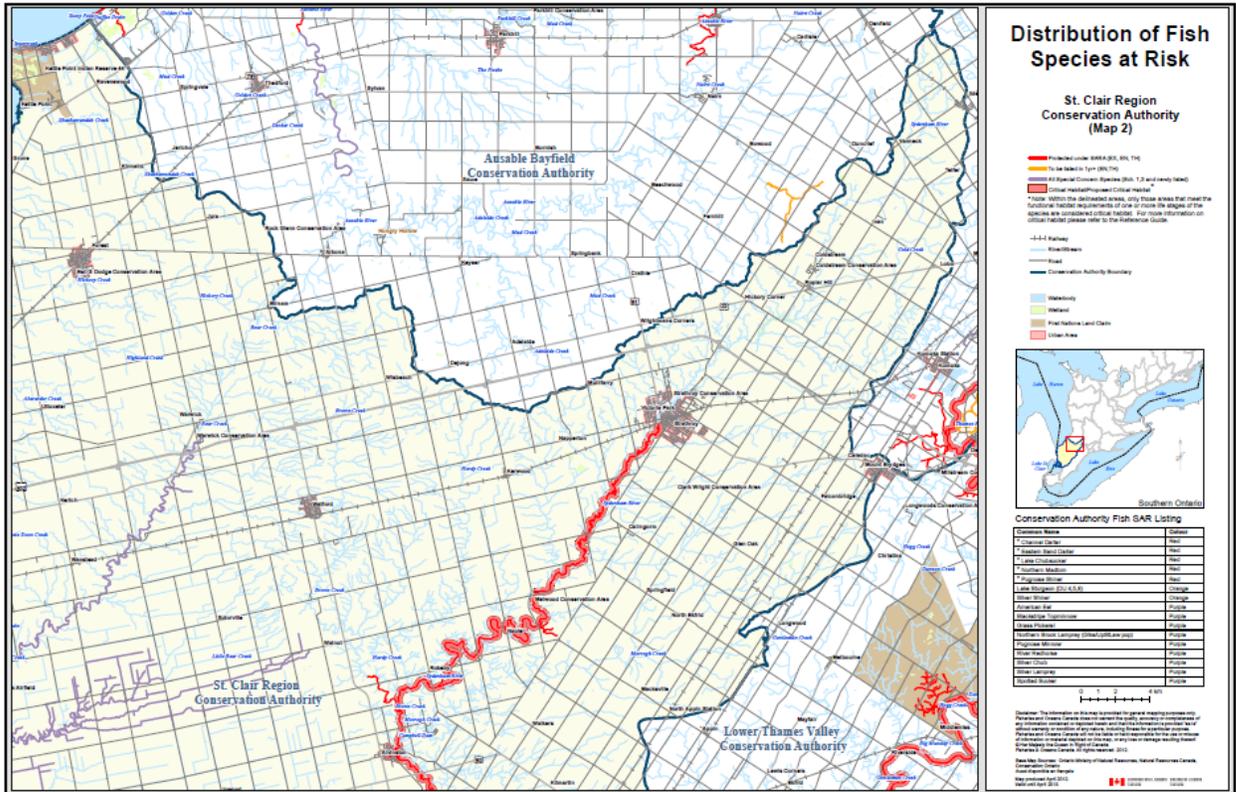


Figure 2: Distribution of fish species at risk (Conservation Ontario, 2009).

3.4 Conservation Authorities

The SCRCA mapping records indicate that the Gold Creek is located approximately 120 m north-east of the Site. The Gold Creek wetland complex is classified as locally significant in the province of Ontario.

3.5 Municipalities

Authorities contacted from the County of Middlesex indicated that a surface water feature was located within 120 metres from the Site location. The surface water feature is known as Gold Creek.

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 O. Reg. 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 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	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 m 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 300m of a lake trout lake of any status.
Is the Project within 120 m of the average annual high water mark of a permanent or intermittent stream?	Yes	The Site is located within 120m of the annual high water mark of Gold Creek which meanders through a wooded valleyland, located northeast of the Site.
Is the Project within 120 m of a seepage area?	Unknown	No known seepages were identified during the Records Review

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 O.Reg 359/09. The site investigation will also help determine the boundaries of the waterbodies that presently 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.

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6 References

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Appendix A:
Site Plan

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