



**NORTHLAND  
POWER**

# Long Lake Solar Project

## Draft Water Body Records Review Report

April 27, 2012



Northland Power Inc.  
on behalf of  
Northland Power Solar  
Long Lake L.P.  
Toronto, Ontario

DRAFT Water Body  
Records Review Report

Long Lake Solar Project

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Project Report

April 27, 2012

**Northland Power Inc.  
Long Lake Solar Project**

**DRAFT Water Body Records Review Report**

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## 1. Introduction

### 1.1 Project Description

Northland Power Solar Long Lake L.P. (hereinafter referred to as “Northland”) is proposing to develop a Class 3 10-megawatt (MW) ground mounted solar photovoltaic (Solar PV) facility in the unorganized township of Calder. This Project, known as the Long Lake Solar Project, is hereafter referred to as “Long Lake” or the “Project.”

The Project location is approximately 123 hectares (ha) in size and located on Lots 2 and 3, in the unorganized Township of Calder. The Project location is situated on Clute, Concession Road 8 (shown in Figure 1.1).

### 1.2 Legislative Requirements

Ontario Regulation (O. Reg.) 359/09 – *Renewable Energy Approvals Under Part V.0.1 of the Act*, (herein referred to as the REA Regulation), came into force on September 24, 2009 and identifies the Renewable Energy Approval (REA) requirements for renewable energy generation facilities in Ontario. The REA Regulation has since been amended by O. Reg. 521/10, which came in effect as of January 1, 2011.

As per the REA Regulation (Part II, Section 4), ground-mounted solar facilities with a nameplate capacity greater than (>) 12 kilowatts (kW) are classified as Class 3 solar facilities and 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:*”

1. *in a water body*
2. *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*
3. *within 300 m of the average annual high water mark of a lake trout lake that is at or above development capacity*
4. *within 120 m of the average annual high water mark of a permanent or intermittent stream, or*
5. *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.

## 2. Methodology and Results

The following sections document the records that were reviewed and assessed. The focus of the assessment was to identify whether or not the Project Location is situated on or adjacent to any water body features. The definition of a water body is stated in subsection 1 (1) of the REA regulation:

*“‘water body’ includes a lake, a permanent stream, an intermittent stream and a seepage area but does not include,*

- (a) grassed waterways,*
- (b) temporary channels for surface drainage, such as furrows or shallow channels that can be tilled and driven through,*
- (c) rock chutes and spillways,*
- (d) roadside ditches that do not contain a permanent or intermittent stream,*
- (e) temporarily ponded areas that are normally farmed,*
- (f) dugout ponds, or*
- (g) artificial bodies of water intended for the storage, treatment or recirculation of runoff from farm animal yards, manure storage facilities and sites and outdoor confinement areas.”*

The following sections of this report were organized with respect to the governing bodies identified in Column 1 of the Table in section 30 of the REA Regulation.

Records were searched within a minimum distance of 1 km from the Project site. The 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 (Section 1.2).

There are no Conservation Authorities, Planning Boards, Municipal Planning Authorities, or Local Services Boards with jurisdiction in the project study area. Also, the Project location is not located within the Niagara Escarpment Commission Plan Area, the Greenbelt Plan area or the Oak Ridges Moraine Conservation Plan Area. Therefore, records from these agencies were not reviewed.

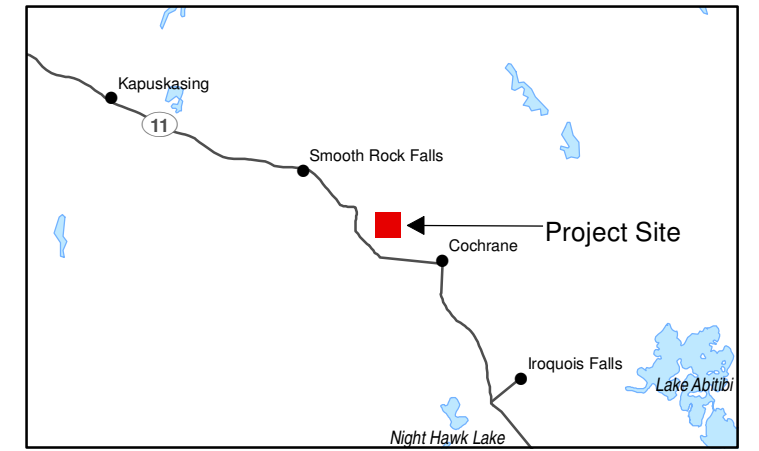
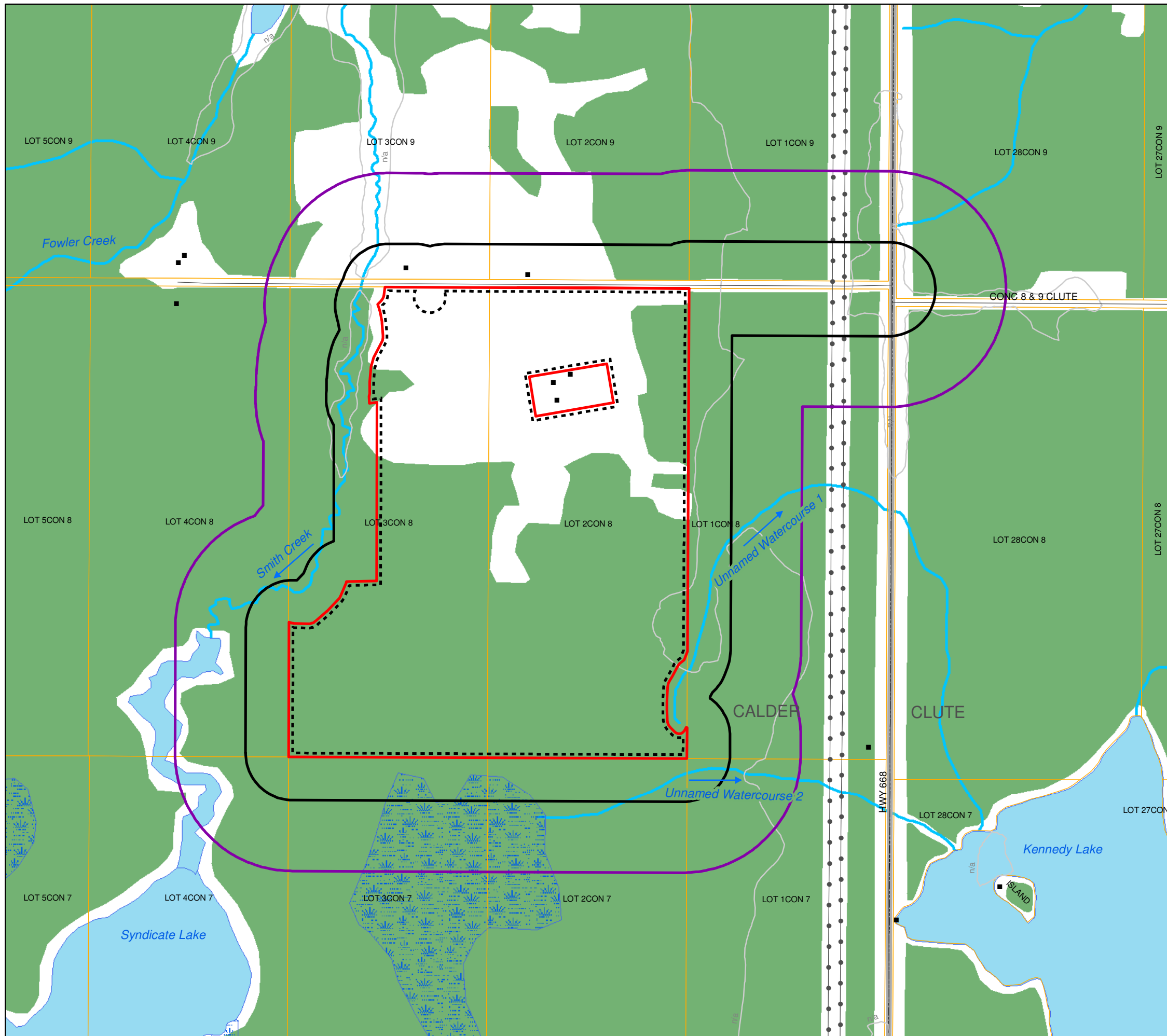
## **2.1 Ministry of Natural Resources Records**

### **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) (<http://www.geographynetwork.ca/website/obm/viewer.htm>). Data layers were requested on March 11 and 12, 2010, with results received on March 12, 2010. Layers requested from the Natural Resources Values Information System with applicability to the Water Body Records Review are described below:
  - ◆ Layers with data:
    - Provincial Park Regulated
    - Conservation Reserve, Regulated
    - Significant Ecological Area
    - Wooded Area
    - Beaver Dam





**Legend**

- Building
- Road
- +— Railway
- Topographic Contour (5m interval)
- Transmission Line
- Watercourse
- ▭ Parcel
- ▭ Project Location
- ▭ 120 m from Project Location
- ▭ 300 m from Project Location
- ▭ Project Site
- ▭ Township
- ▭ Water Body
- ▭ Wetland Area
- ▭ Wooded Area

Notes:  
 1. Produced by hatch under license from Ontario Ministry of Natural Resources, Copyright (c) Queens Printer 2011.



Figure 1.1  
 Northland Power Inc.  
 Long Lake Solar Project  
**Water Body Features**

- Back of figure



- Wild Rice Stand
- Aquatic Feeding Area
- ◆ Layers without data:
  - National Park
  - National Wildlife Area
  - NGO Nature Reserve
  - Conservation Area
  - ANSI
  - Environmentally Sensitive Area
  - Natural Heritage Values Area
  - Wetland Unit.

### 2.1.2 **Results**

The MNR natural features layer from LIO identifies Smith Creek, which is a tributary of Syndicate Lake, as being within 120 m of the northwestern portion of the Project Location (Figure 1.1). An unnamed tributary of Kennedy Lake (referred to as Unnamed Watercourse 1 on Figure 1.1) originates on the southeastern portion of the property on which the Project is located (and approximately 30 m from the Project location), while another tributary of Kennedy Lake (referred to as Unnamed Watercourse 2 on Figure 1.1) runs within 120 m south of the Project Location. Syndicate Lake is located approximately 320 m southwest of the Project Location, and Kennedy Lake is located approximately 700 m southeast of the Project Location (Figure 1.1).

## 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 Syndicate Lake, Kennedy Lake and the watercourses previously mentioned in Section 2.1.2. The drainage mapping did not indicate what type of drainage was present on the Project Location, nor did it identify any constructed drains.

## 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/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

The review of the DFO website resulted in no site-specific information regarding waterbodies on or within 120 m of the Project location.

A review of the Species at Risk Distribution Map does not indicate any Species at Risk or of Special Concern in the watercourses within 120 m of the Project location.

The NRCAN mapping review did not identify any new watercourses not already identified in previous sections of this report.

## 2.4 Hunta Local Roads Board

### 2.4.1 Methodology

The Project location is within the jurisdiction of the Hunta Local Roads Board. Information on water body features was requested from the Hunta Local Roads Board during a phone conversation on May 2, 2011.

### 2.4.2 Results

No additional information on water body features on or within 120 m of the Project location was available from the Hunta Local Roads Board.

## 3. Summary of Results and Next Steps

### 3.1 Summary of Results

Table 3.1 summarizes the results of the records 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 1.1.

**Table 3.1 Summary of Records Review Determinations**

| Determination to be Made   | Yes/No | Description   |
|--|--------|---|
| Is the Project Location in a water body?   | No     | The Project location is not located within a water body.                                    |
| Is the Project Location 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 Project location is not within 120 m of the average annual high water mark of any lake. |
| Is the Project Location within 300 m of the average annual high water mark of a lake trout lake  | No     | The Project location is not within 300 m of the average annual high water mark of any lake. |

|   |     |   |
|---|-----|---|
| that is at or above development capacity?   |     |   |
| Is the Project Location within 120 m of the average annual high water mark of a permanent or intermittent stream? | Yes | The Project location is between 30 and 120 m from three watercourses (Smith Creek, Unnamed Watercourse 1 and Unnamed Watercourse 2) |
| Is the Project Location within 120 m of a seepage area?   | No  | No seepage areas were identified on or within 120 m of the Project Location.  |

Therefore, the Project location is within 120 m of the average annual high water mark of Smith Creek and two unnamed tributaries of Kennedy Lake.

#### 4. 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 any identified water body boundaries.

#### 5. References

Fisheries and Oceans Canada (DFO). Available on-line at <http://www.dfo-mpo.gc.ca/index-eng.htm> Accessed December 2, 2010.

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Natural Heritage Information Centre (NHIC) Biodiversity Explorer. Available on-line at <https://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/mainSubmit.do> Accessed December 2, 2010.

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