



May 23, 2017

Mr. Mansoor Mahmood  
**Director, Renewable Energy Approvals**  
Ministry of the Environment & Climate Change  
135 St. Clair Ave. West, 1<sup>st</sup> Floor  
Toronto Ontario  
M4V 1P5  
(Hand delivered – 2 copies)

Ms. Angela Whiteley  
**Area Supervisor**  
North Bay Office  
Ministry of the Environment & Climate Change  
(by mail)

**SUBJECT : Burk's Falls West Solar Farm – REA #5665-8YFKZU Amendment Application**

Northland Power Solar Burk's Falls West L.P. is submitting this application requesting the amendment of its Renewable Energy Approval #5665-8YFKZU.

The amendment is requesting a slight relocation of an existing stormwater drainage ditch/swale away from the built-up base of the solar farm's electrical sub-station, as the stormwater at times is undermining the retaining wall supporting the substation's earthworks. The relocated stormwater drainage ditch/swale will encroach slightly within the 30 meter set-back from a continuous seepage/ water course that flows down the hillside.

This amendment application is to permit the encroachment into the 30 meter set-back. Other than this naturally vegetated drainage ditch/swale, no other works will encroach within the 30 meter set-back.

Please note, this application is structured as follows:

This Cover Letter

Modification Document prepared by Hatch

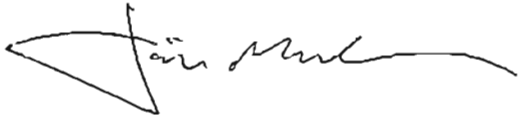
Note: Appendix "F" of the Hatch document is the completed MOE&CC REA Application Form

Note: Appendix "G" is the existing REA permit, as amended

I am submitting 2 copies of this application directly to 135 St. Clair Ave West, and a copy is being sent to the North Bay office of the MOE&CC.

Please feel free to contact me about this amendment application.

Regards

A handwritten signature in black ink, appearing to read "Jim Mulvale". The signature is stylized with a large, sweeping initial "J" and a long horizontal flourish extending to the right.

Jim Mulvale

Director, EH&S  
Northland Power Inc.  
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# Burk's Falls West Solar Project

## Modification Document – Proposed Relocation of Stormwater Diversion Channel

May 19, 2017

May 19, 2017

Director, Renewable Energy Projects  
Ministry of the Environment and Climate Change  
135 St. Clair Ave. W. Floor 1  
Toronto, On  
M4V 1L5

Mr. Mansoor Mahmood, Mr. Nick Colella

**Subject: Burk's Falls West Solar Project - Proposed Relocation of Stormwater Diversion Channel**

The Burk's Falls West Solar Project (the "Project") was developed in 2012 by Northland Power Inc. on behalf of Northland Power Solar Burk's Falls West L.P. ("Northland") under Renewable Energy Approval No. 5665-8YFKZU on November 21, 2012, as amended April 11, 2013.

Since the completion of construction in 2014, it has been identified that a portion of the built-up electrical substation yard is experiencing settlement and subsidence down the hill upon which it is founded. Engineering and geotechnical investigations have identified the need to re-route an existing stormwater drainage channel. Re-routing of the channel results in a minimal increase in project footprint which in turn triggers the need for a REA Amendment.

In accordance with the requirements of Ontario Regulation 359/09 an REA amendment package has been compiled in the form of a Modification Document and is provided for MOECC Review.

Should you have any questions or wish to discuss this further, please contact the undersigned at 905-490-0098 or [caleb.coughlin@hatch.com](mailto:caleb.coughlin@hatch.com)

Yours faithfully,





Caleb Coughlin  
Hatch Ltd.

## Report

# Modification Document - Proposed Relocation of Stormwater Diversion Channel

H353720-00000-121-066-0001

						
2017-05-19	0	Approved for Use	C. Coughlin	C. Coughlin	K. Vukovics	K. Vukovics
DATE	REV.	STATUS	PREPARED BY	CHECKED BY	APPROVED BY	APPROVED BY
				Discipline Lead	Functional Manager	Project Manager

H353720-00000-121-066-0001, Rev. 0,

## **Disclaimer**

This report has been prepared by or on behalf of Northland Power Inc (Northland) on behalf of Northland Power Solar Burk's Falls West L.P for submission to the Ontario Ministry of the Environment and Climate Change 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 Northland or Northland Power Solar Burk's Falls West L.P nor any of their 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.

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REA Application

## 1. Introduction

The Burk's Falls West Solar Project (the "Project") was developed in 2012 by Northland Power Inc. on behalf of Northland Power Solar Burk's Falls West L.P. ("Northland") under Renewable Energy Approval No. 5665-8YFKZU on November 21, 2012, as amended April 11, 2013.

Since the completion of construction in 2014, it has been identified that a portion of the built-up electrical substation yard is experiencing settlement and subsidence down the hill upon which it is founded. Geotechnical investigations have found that the perimeter support walls retaining the fill material under the substation yard are undersized, that some of the fill material is of poor quality and that the existing perimeter stormwater diversion channel (serves the substation and access road) is too close to the support walls allowing wash-out/undercutting to occur. Continued subsidence could have serious consequences in the event of a catastrophic avalanche and would likely cause the deposition of sand and soils in the nearby watercourse.

The proposed works would see a reinforcing of the substation retaining walls and the addition of rip-rap stone as extra mass against any unintended movement (all within the approved REA boundary) and the relocation of the perimeter stormwater diversion channel further away from the substation to prevent undercutting. The relocated stormwater diversion channel will be within the 30 m set-back established from a watercourse identified during the 2011 Site Investigations (Figure 1-1). The encroachment into the setback area is proposed to be approximately 6.6 m, thereby maintaining a 23.4 m setback from the watercourse. To complete the channel, approximately 204 m<sup>2</sup> of existing soils would be shaped, stabilized with rip/rap stone and revegetated; the discharge is not within a watercourse and as such, sediment or hydrology concerns are mitigated during storm events.

The Ontario Ministry of Natural Resources and Forestry was provided an updated Natural Heritage Report as per Sections 28 and 38 of the REA Regulation on March 27, 2017, with confirmation email received May 19 2017. MNRF was also consulted with in regards to the APRD with confirmation email received on April 18 2017.

This report summarizes the proposed changes to the Project that necessitate a proposed REA amendment, including the rationale for the changes and identifies the amendments to each of the supporting documents prepared for the REA application to incorporate the proposed Project changes. This report also provides further information relating to the water assessment amendment (Appendix C) and the natural heritage amendment provided to the MNRF (Appendix D)



## 2. Proposed Project Changes

Attachment 1 contains the original site plan, while Attachment 2 contains a proposed revised site plan.

Table 2-1 provides a description of each proposed change, the rationale for the change, an assessment of potential for altered environmental effects and any additional mitigation or monitoring required.

**Table 2-1: Table of Proposed Changes, Rationale for Change, Altered Effects and Additional Mitigation Measures and Monitoring**

Change	Rationale for Change	Altered Effect	Additional Mitigation Required	Additional Environmental Effects Monitoring
Relocation and extension of a stormwater drainage channel	To reduce surface waters entering an area of unstable soils beneath a substation that are currently shifting	Minor alteration in boundary of Project location. Potential adverse effects include encroachment into surrounding natural heritage features as well as the encroachment into a watercourse 30 m setback.	None Required. Originally proposed mitigation measures will be maintained. Attachment 3 discusses in detail.	None required

The proposed channel will be constructed and installed consistent with the original Project as identified within the Construction Plan Report and the Design and Operations Report. All mitigation identified in the original REA application (e.g., sediment and erosion controls during construction, stormwater management measures) remain valid and will be applied or modified as necessary.

As a minor alteration to the Project location, the proposed changes are considered to be a Project Design Change to the Project's existing REA.

## 3. Summary of Revisions to REA Supporting Documents

This section identifies the amendments to each of the supporting documents submitted with the REA application documents that are required to address the proposed Project changes. The Burk's Falls West Solar Project REA supporting documents will all have a change to the size of the Project location area, as well as changes to the Site Plan.

An amendment document completed for the Natural Heritage Assessment and Environmental Impact Study has been provided to MNRF for review. The originally completed Stage 1 and 2 Archaeological Assessment Report requires no revision as the required lands for the proposed channel were included in the original Stage 1 and 2 Archaeological Survey. Accordingly, no re-confirmation letter from MTCS is required.

The following sections identify the amendments to those REA application documents which require additional modification.

### 3.1 Construction Plan Report

No additional solar module, inverter or transformer installation is proposed; existing Project infrastructure will be utilized for access to the proposed channel. See Figure 1-1b (Revised Project Location).

### 3.2 Design and Operation Report

Table 3-1 outlines the changes to the Design and Operation Report.

**Table 3-1: Design and Operation Report Amendments**

Page	Section	Original Text	2013 Approved Amendment	Amended Text
10	3.3.1	Based on the results of the natural heritage and water body environmental studies, as identified above, constraints to development on the Project location include:  A 30-m setback from the identified seepage areas and associated watercourse.	Based on the results of the natural heritage and water body environmental studies, as identified above, constraints to development on the Project location include:  A 30-m setback from the identified seepage areas and associated watercourse.	Based on the results of the natural heritage and water body environmental studies, as identified above, constraints to development on the Project location include:  A 30-m setback from the identified seepage areas and associated watercourse. With the exception of the proposed diversion channel around the substation.
12	3.2.4	As stated above, drainage channels may be required along access roads to manage run-off. The design of the drainage channels/swales will be in accordance with industry standards.	As stated above, drainage channels may be required along access roads to manage run-off. The design of the drainage channels/swales will be in accordance with industry standards.	As stated above, drainage channels may be required along access roads to manage run-off. An additional channel is required around the inverter # 7 and the substation to ensure soil stability. The design of the drainage channels/swales will be in accordance with industry standards.

### 3.3 Decommissioning Plan Report

No Changes – see Figure 1-1b (Revised Project Location) attached.

### 3.4 Heritage Assessment Report

No Changes – see Figure 1-1b (Revised Project Location) attached.

### 3.5 Project Description Report

Table 3-2 outlines the changes to the Project Description Report.

**Table 3-2: Project Description Report Amendments**

Page	Section	Original Text	2013 Approved Amendment	Amended Text
9	2.10 (Table 2.1- Surface Waters)	A 30-m setback will be put in place from all water bodies in accordance with provincial requirements and regulations.	A 30-m setback will be put in place from all water bodies in accordance with provincial requirements and regulations.	A 30-m setback will be put in place from all water bodies, with the exception of the watercourse located east of the substation, in accordance with provincial requirements and regulations.
9	2.10 (Table 2.1- Aquatic Habitats/Biota)	A 30-m setback will be put in place from all water bodies in accordance with provincial requirements and regulations.	A 30-m setback will be put in place from all water bodies in accordance with provincial requirements and regulations.	A 30-m setback will be put in place from all water bodies, with the exception of the watercourse located east of the substation, in accordance with provincial requirements and regulations.
10	2.10 (Table 2.1- Vegetation)	Loss of some vegetation on site. At least a 30-m buffer for the watercourses will be retained.	Loss of some vegetation on site. At least a 30-m buffer for the watercourses will be retained.	Loss of some vegetation on site. At least a 30-m buffer for the watercourses will be retained, with the exception of the watercourse located east of the substation.

### 3.6 Protected Properties Assessment

No changes.

### 3.7 Water Assessment Report

Changes to the Water Assessment and Environmental Impact Study have been addressed by a separate letter provided as Appendix C.

### 3.8 Natural Heritage Assessment and Environmental Impact Study

Changes to the Natural Heritage Assessment and Environmental Impact Study have been addressed by a separate letter to the MNRF, which is provided as Appendix D.

### 3.9 Noise Assessment Study Report

No new noise emitting equipment will be installed nor will any existing noise emitting equipment be moved as such there is no noise concerns or concerns to receptors.

## **4. Conclusion**

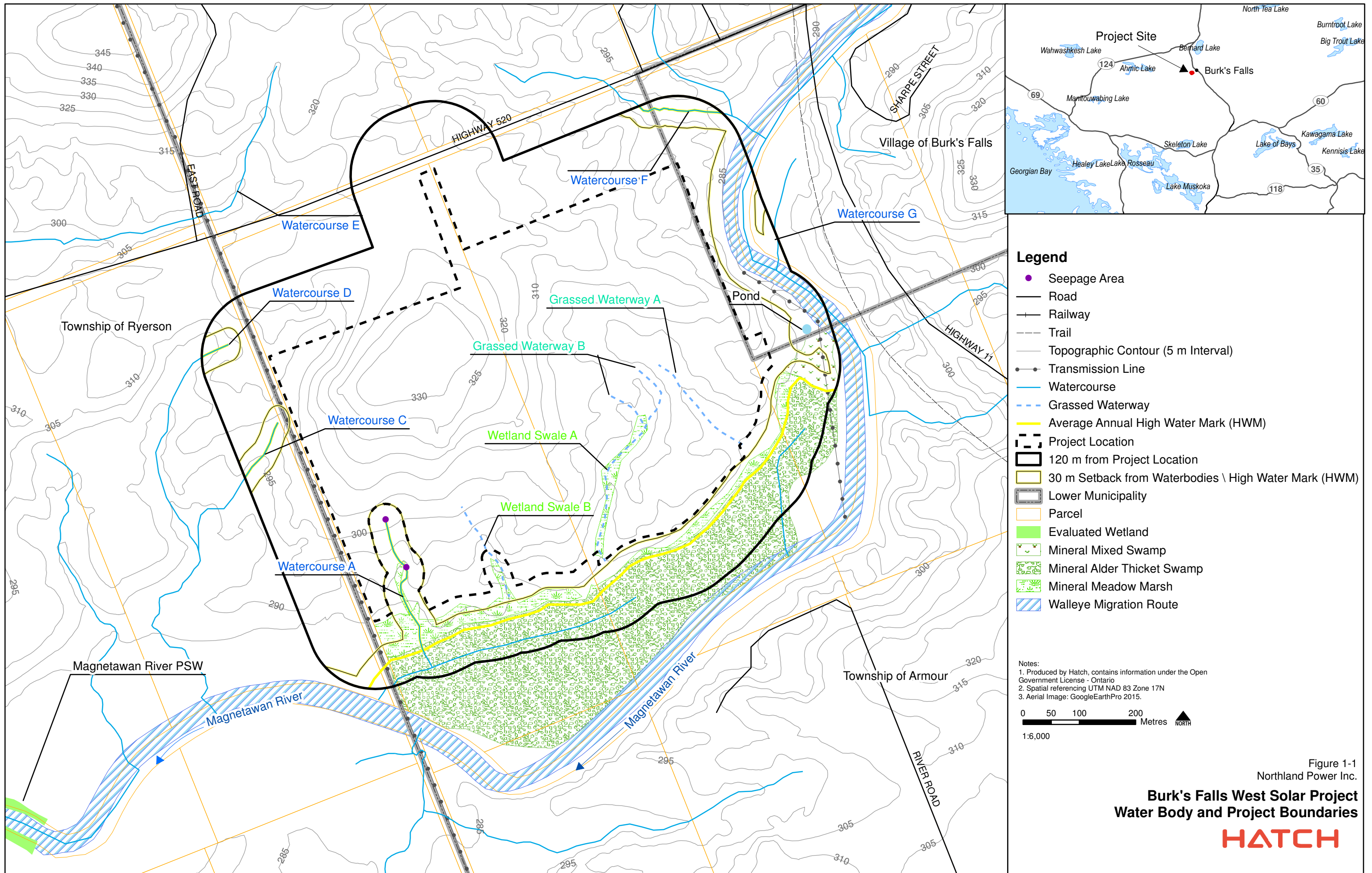
Given that the proposed changes outlined in this letter result in only minor alterations in Project location, it is our assessment that these proposed changes are Project Design Changes and that a minor amendment to the existing REA for the Project will be required.

In accordance with the requirements of Ontario Regulation 359/09. A Natural Heritage Confirmation email has been received. In addition, MNRF has confirmed that there are no concerns with APRD requirements provided construction occurs after August 1. Construction is currently scheduled to commence August 2.

Section 3 provides a summary of the consultation undertaken as a result of the Project Change. The Project Change has had little interest or opposition. As such, upon review and acceptance of the attached Water Assessment Amendment Report, Northland has performed the requirements with regard to this proposed Amendment to the REA.

# **Appendix A**

## **Original Project Location Figure**



**Legend**

- Seepage Area
- Road
- +— Railway
- - - Trail
- Topographic Contour (5 m Interval)
- Transmission Line
- Watercourse
- - - Grassed Waterway
- Average Annual High Water Mark (HWM)
- Project Location
- 120 m from Project Location
- 30 m Setback from Waterbodies \ High Water Mark (HWM)
- Lower Municipality
- Parcel
- Evaluated Wetland
- Mineral Mixed Swamp
- Mineral Alder Thicket Swamp
- Mineral Meadow Marsh
- Walleye Migration Route

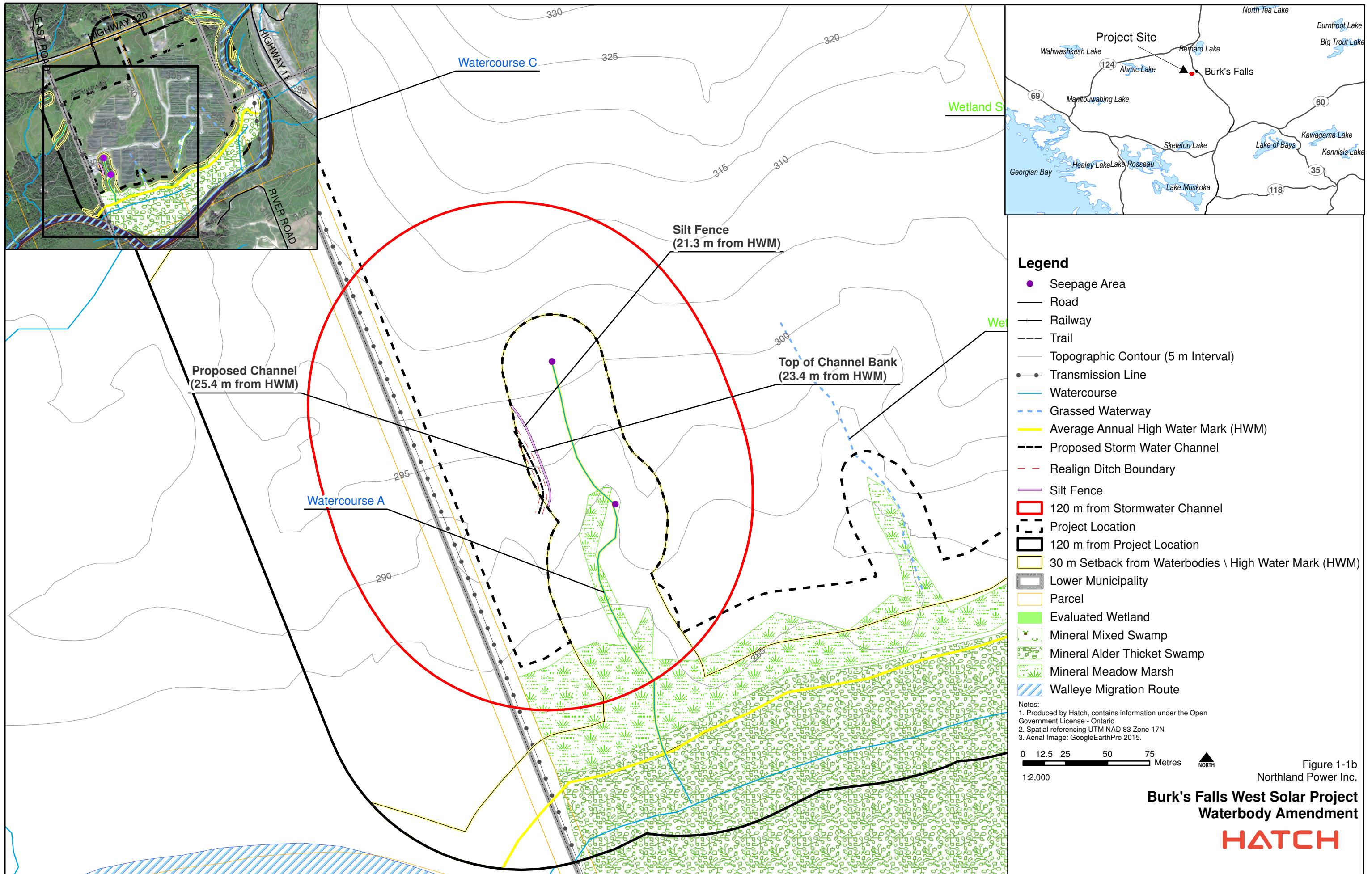
Notes:  
 1. Produced by Hatch, contains information under the Open Government License - Ontario  
 2. Spatial referencing UTM NAD 83 Zone 17N  
 3. Aerial Image: GoogleEarthPro 2015.

0 50 100 200 Metres NORTH  
 1:6,000

Figure 1-1  
 Northland Power Inc.  
**Burk's Falls West Solar Project**  
**Water Body and Project Boundaries**  
**HATCH**

# **Appendix B**

## **Revised Project Location Figure**





# **Appendix C**

## **Water Assessment Amendment Report**

April 5, 2017

Nick Colella  
Senior Project Evaluator  
Environmental Approvals Branch  
Ministry of the Environment and Climate Change  
135 St. Clair Avenue West, 1st Floor  
Toronto, ON  
M4V 1P5

Dear Mr. Colella

**Subject: Burk's Falls West - Amendment to the Project Location and Revisions to the Water Body Assessment Documentation**

## 1. Introduction

The Burk's Falls West Solar Project (the "Project") was developed in 2012 by Northland Power Inc. on behalf of Northland Power Solar Burk's Falls West L.P. ("Northland") under Renewable Energy Approval (REA) No. 5665-8YFKZU on November 21, 2012, as amended April 11, 2013.

Since the completion of construction in 2014, it has been identified that a portion of the built-up electrical substation yard is experiencing settlement and subsidence down the hill upon which it is founded. Geotechnical investigations have found that the perimeter support walls retaining the fill material under the substation yard are undersized, that some of the fill material is of poor quality and that the existing perimeter stormwater diversion channel (serves the substation and access road) is too close to the support walls allowing wash-out/undercutting to occur. Continued subsidence could have serious consequences in the event of a catastrophic avalanche and would likely cause the deposition of sand and soils in the nearby watercourse.

The proposed works would see a reinforcing of the substation retaining walls and the addition of rip-rap stone as extra mass against any unintended movement (all within the approved REA boundary) and the relocation of the perimeter stormwater diversion channel further away from the substation to prevent undercutting. The relocated stormwater diversion channel will be within the 30 m set-back established from a watercourse identified during the 2011/2012 Site Investigations (Figure 1-1). The encroachment into the setback area is proposed to be approximately 6.6 m,

thereby maintaining a 23.4 m setback from the watercourse (Figure 1-1b). To complete the channel, approximately 204 m<sup>2</sup> of existing soils would be shaped, stabilized with rip/rap stone and revegetated; the discharge is not within a watercourse and as such, sediment or hydrology concerns are mitigated during storm events.

The purpose of this document is to update the 2011 Water body reports, taking into consideration a records review of the water body features documented on and within 120 m of the lands; and to provide confirmation that the existing water body features on and within 120 m of the lands are consistent to those noted in the original Water Body assessment.

## 1.1 Water Body Assessment Requirements and Background Information

Sections 30, and 31 of O. Reg. 359/09 require that a Water Body assessment be completed for all solar projects to determine whether there are waterbodies on or within 120 m of the Project Location; furthermore to determine if the project is located within 300 m of a Lake Trout (*Salvelinus namaycush*) Lake. Should such features be found present within the prescribed setbacks contained within the REA Regulation, Section 39 requires that an Environmental Impact Study be completed to confirm that impacts to water body features can be mitigated. With respect to the Project, the following reports were produced to satisfy these requirements:

- Burk's Falls West Solar Project – Water Body Records Review Report (Hatch Ltd., 2011a).
- Burk's Falls West Solar Project – Water Body Site Investigation Report (Hatch Ltd., 2011b).
- Burk's Falls West Solar Project – Water Body Evaluation of Significance (Hatch Ltd., 2012a).
- Burk's Falls West Solar Project – Field Study Report (Hatch Ltd. 2012) (Hatch Ltd., 2012b).

The Ontario Ministry of Natural Resources and Forestry provided a confirmation letter, as required by Sections 39 and 40 of O. Reg. 359/09, on September 2, 2011 as well as a secondary confirmation letter on November 8, 2012 regarding wetland boundaries (Attachment 1).

## 2. Records Review

The previously completed Water Body Records Review Report (Hatch Ltd., 2011a) completed a records review of approximately 120 m from the original Project Location. The results of the 2011 records review are summarized along with an updated review of records undertaken on March 15, 2017. The recent records review ensures any recent additions within the original 120 m search radius are incorporated and discussed in Table 1.

The review of records included

- Ontario Crown Lands Use Atlas (CLUPA) Mapping.
- Land Information Ontario database.
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Records.

- Department of Fisheries and Oceans (DFO) website.
- Natura Resources Canada (NRCAN) website.
- Burk’s Falls West Solar Project Water Body Records Review Report (Hatch Ltd., 2011a) hereinafter referred to as “WBRR Document.”
- Burk’s Falls West Solar Project Water Body Site Investigation Report (Hatch Ltd., 2011b) hereinafter referred to as “WBSI Document.”

An overview of the water body features are discussed in Table 1, including a summary of the WBRR Document.

**Table 1 Water Body Features**

Water body Feature	2011 Records Review	2017 Records Review
Is the Project in a water body?	No	No
Is the Project within 120 m of the average annual high water mark or a lake, other than a lake trout lake that is at or above development capacity?	No	No
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
Is the Project within 120 m of the average annual high water mark of a permanent or intermittent stream?	Yes; there are seven (7) permanent or intermittent streams on and within 120 m of the Project Location.	Yes; there are seven (7) permanent or intermittent streams on and within 120 m of the Project Location
Is the Project within 120 m of a seepage area?	No	No

A review of the existing records confirmed that water body features noted in the WBRR (Hatch, 2011a), did not indicate the presence of any new features within 120 m of the Project Location nor are there any new Lake Trout Lakes within 300 m.

### 3. Site Investigation Methodology

#### 3.1 Photographic Record

Northland representatives were on site September 1, 2016 and photographed the setback encroachment area for Hatch, to determine if Watercourse A (Figure 1-1) was still present and still within the same channel. Furthermore to confirm previous ecological land classifications identified in 2011.

## **4. Results of Site Investigation**

### **4.1 General Site Description**

The stormwater diversion channel is described as a mixture of old field meadow and cultural thicket with rip/rap material associated with the existing substation base foundation fill along the western boundary. Within 120 m of the proposed works Watercourse A (new watercourse A) was confirmed to still be present 30 m east of the Project fence.

### **4.2 Permanent or Intermittent Streams**

The updated records review did not indicate any permanent or intermittent streams within 120 m of the Project Location. As stated during the in the Water Body Site Investigation Report (Hatch, 2011b), a watercourse not discovered during the Water Body Records Review (Hatch, 2011a) was observed in the southwestern portion of the property. It consists of a defined watercourse channel originated from several seepage zones and flowing south toward the Magnetawan River. Flow from the seepage areas was present during the 2011 and 2012 Site Investigations along with a defined channel with a variety of substrates including muck and rock (gravel and cobble). Wetland vegetation within and adjacent to the channel was predominately meadow marsh vegetation.

### **4.3 Lakes**

During the 2011 Site Investigation, no lakes were observed on or within 120 m of the Project Location and no lake trout lakes are present within 300 m of the Project Location

### **4.4 Groundwater Seepage Areas**

During the 2011 Site Investigation, several groundwater seepage areas were observed in the southwestern portion of the property. These seepage areas supply water to a short watercourse channel (Watercourse A – Figure 1-1), leading to the Magnetawan River.

### **4.5 Other Water body Features**

No other water body features were observed within 120 m of the Project Location.

## **5. Environmental Impact Study**

Section 39(1) of O. Reg. 359/09 prohibits the construction, installation or expansion of any component of a solar project within the following locations:

- a lake or within 30 m of the average annual high water mark of a lake
- a permanent or intermittent stream or within 30 m of the average annual high water mark of a permanent or intermittent stream
- a seepage area or within 30 m of a seepage area.

However, Section 39(2) allows proponents to construct Project components other than solar panels or transformers (e.g., access roads or distribution lines) within the locations noted above,

subject to the completion of an Environmental Impact Study to assess negative effects and required mitigation and monitoring measures.

Section 40(1) of O. Reg 359/09 prohibits construction, installation or expansion of any component of a solar project within the following locations:

- 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
- within 300 m of the average annual high water mark of a lake trout lake that is at or above development capacity
- within 120 m of the high water mark of a permanent or intermittent stream
- within 120 m of a seepage area.

However, Section 40(2) allows proponents to construct Project components within the locations noted above, subject to the completion of an Environmental Impact Study.

For the purpose of this amendment to the Environmental Impact Study, we will focus only on the proposed diversion channel to be located within 23.4 m of Watercourse A (Figure 1-1).

As per Sections 39 and 40 of O. Reg. 359/09 this Environmental Impact Study section will identify and assess any negative environmental effects of the Project on the waterbodies or lands within 30 m of the Watercourse A and identify and further mitigation measures with respect to any negative environmental effects not previous outlined in the Hatch 2011 Water Body Environmental Impact Study.

With the exception of the 30 m distance described in the Design and Operations Report and the Construction Plan Report all environmental effects monitoring and mitigation remains valid.

This Environmental Impact Study has been prepared to address these requirements for the construction of the diversion channel to encroach on Watercourse A 30 m setback reducing the setback to 23.4 m. Table 2 outlines proposed changes within Hatch’s 2011 Environmental Impact Study in order to facilitate this change.

**Table 2 Proposed Changes within Hatch 2011 Environmental Impact Study**

Section	Original Text	Amended Text
1.2	The Water Body Records Review Report (Hatch Ltd., 2011a) and Water Body Site Investigations Report (Hatch Ltd., 2011b) confirmed that the Project will be constructed between 30 and 120 m away from six watercourses and two seepage areas, as shown in Figure 1.1	The Water Body Records Review Report (Hatch Ltd., 2011a) and Water Body Site Investigations Report (Hatch Ltd., 2011b) confirmed that the Project will be constructed between 30 and 120 m away from five watercourses and two seepage areas, as shown in Figure 1.1  An exception to the 30 m setback is the

Section	Original Text	Amended Text
		encroachment of a diversion channel to within 23.4 m of Watercourse A (Figure 1-1).
4.1.1.3	No vegetation removal will be required within the 30-m buffer adjacent to any of the waterbodies.	No vegetation removal will be required within the 30-m buffer adjacent to any of the waterbodies. With the exception of the grading required for creation of the diversion channel located west of Watercourse A. (Figure 1-1).
4.2.1.1	Minimize the size of the cleared and disturbed areas at the construction site. Install limit of work devices to prevent the contractor from operating outside the defined construction area (e.g., silt fences at the edge of the 30-m setback around the waterbodies	Minimize the size of the cleared and disturbed areas at the construction site. Install limit of work devices to prevent the contractor from operating outside the defined construction area (e.g., silt fences at the edge of the applicable setbacks around the waterbodies
7	As discussed in the Water Body Records Review Report (Hatch Ltd., 2011a) and Water Body Site Investigations Report (Hatch Ltd., 2011b), some components of the Project will be located within 30 to 120 m of six watercourses and two seepage areas.	As discussed in the Water Body Records Review Report (Hatch Ltd., 2011a) and Water Body Site Investigations Report (Hatch Ltd., 2011b), some components of the Project will be located within 30 to 120 m of five watercourses and two seepage areas. With a project components (proposed channel) being 23.4 m from Watercourse
7	Mitigation measures have been proposed to prevent these effects from occurring or minimize the magnitude, extent, duration and frequency in the event that they do occur. The primary mitigation measure that will prevent adverse effects on the waterbodies is adherence to the 30-m setback requirement.	Mitigation measures have been proposed to prevent these effects from occurring or minimize the magnitude, extent, duration and frequency in the event that they do occur. The primary mitigation measure that will prevent adverse effects on the waterbodies is adherence to the 30-m setback requirement in all instance with the exception of the proposed channel which maintains a setback of 23.4 m.

## 6. Conclusions

An updated records review on and within 120 m of the proposed channel resulted in no additional water body features being identified. No Lake Trout Lakes were identified within 300 m. In addition, Northland's 2016 site investigation/photographic record indicates watercourse A location remained unchanged. With the exception of the setback distance changing from 30 to 23.4 m, all Environmental Impact Study mitigation remains valid. The purpose of the proposed channel is to collect surface waters and discharge below the substation within the original Project Location.

## 7. References

- Government of Ontario. 2017. Crown Land Use Policy Atlas (CLUPA) Interactive Mapping. Available on-line at: <http://www.gisapplication.lrc.gov.on.ca/CLUPA/Index.html?site=CLUPA&viewer=CLUPA&locale=en-US>. Accessed on: March 15, 2017.
- Hatch Ltd., 2011a. Burk's Falls West Solar Project Water Body Records Review. 11 pp.
- Hatch Ltd., 2011b. Burk's Falls West Solar Project Water Body Site Investigation Report. 33 pp.
- Hatch Ltd., 2012. Burk's Falls West Solar Project Water Body Environmental Impact Study 37 pp.
- Hatch Ltd., 2012b Burk's Falls West Solar Project – Field Study Report
- Ministry of Agriculture, Food and Rural Affairs (OMAFRA). 2017. Agricultural Information Atlas. Available on-line at: <https://www.gisapplication.lrc.gov.on.ca/AIA/Index.html?viewer=AIA.AIA&locale=en-US>. Accessed March 15, 2017.
- Ontario Ministry of Natural Resources, November 2012. Natural Heritage Assessment Guide for Renewable Energy Projects. 109 pp.

We trust that you will find this information satisfactory. Should you have any questions with respect to the information contained herein, or wish to discuss these observations further, please contact the undersigned at (905) 490-0098 or [caleb.coughlin@hatch.com](mailto:caleb.coughlin@hatch.com).

Sincerely,



Caleb Coughlin  
CC:lo'c

### Attachments

Attachment 1 – NHA Confirmation Letters  
Attachment 2 – Figure 1-1 and Figure 1-1b  
Attachment 3 – Northland Photographs



# **Attachment 1**

## **NHA Confirmation Letters**

September 2, 2011

Sean Male,  
Terrestrial Ecologist, Environmental Assessment & Management  
HATCH  
4342 Queen Street, Suite 500  
Niagara Falls, Ont.,  
L2E 7J7

Dear Mr. Male:

**SUBJECT: Burk's Falls West Solar Project: Natural Heritage Reports**

In accordance with the Ministry of the Environment's (MOE's) Renewable Energy Approvals Regulation (O.Reg.359/09), the Ministry of Natural Resources (MNR) has reviewed the natural heritage assessment and environmental impact study submitted by Northland Power for the Burk's Falls West Solar Project located in Armour Township. These reports are dated August 25, 2011 and submitted to MNR on August 31, 2011.

In accordance with Section 28(2) and 38(2)(b) of the Renewable Energy Approvals (REA) regulation, MNR provides the following confirmations following review of the natural heritage assessment and environmental impact study reports:

1. The MNR confirms that the determination of the existence of natural features and the boundaries of natural features was made using applicable evaluation criteria or procedures established or accepted by MNR.
2. The MNR confirms that the site investigation and records review were conducted using applicable evaluation criteria or procedures established or accepted by MNR.
3. The MNR confirms that the evaluation of the significance or provincial significance of the natural features was conducted using applicable evaluation criteria or procedures established or accepted by MNR.
4. The MNR confirms that the project location is not in a provincial park or conservation reserve.
5. The MNR confirms that the environmental impact assessment report has been prepared in accordance with procedures established by the MNR.

In accordance with Sections 28(3)(c) and 38(2)(c) of the REA regulation, MNR also offers the following comments in respect of the above reports:

- a) Figure 4.1 of the Site Investigation Report should be revised to reflect only the agreed upon setbacks identified on p.22 of the Environmental Impact Study.

Continued on Page 2 ...

- b) The preliminary layout at the back of the Environmental Impact Study should be revised to reflect the agreed upon setbacks and road restrictions identified on p.22 of that report.

This confirmation letter is valid for the project as proposed in the natural heritage assessment and environmental impact study, dated August 25, 2011, including those sections describing the Environmental Effects Monitoring Plan and Construction Plan Report. Should any changes be made to the proposed project that would alter these reports, MNR may need to undertake additional review of the reports.

Where specific commitments have been made by the applicant in the natural heritage assessment and environmental impact study with respect to project design, construction, rehabilitation, operation, mitigation, or monitoring, MNR expects that these commitments will be considered in MOE's Renewable Energy Approval decision and, if approved, be implemented by the applicant.

In accordance with S.12 (1) of the REA Regulation, this letter must be included as part of your application submitted to the MOE for a Renewable Energy Approval.

Please be aware that your project may be subject to additional legislative approvals as outlined in the Ministry of Natural Resources' *Approvals and Permitting Requirements Document*. These approvals are required prior to the construction of your renewable energy facility.

If you wish to discuss any part of this confirmation letter or the additional comments provided, please contact Dorothy Shaver, District Planner (telephone: 705-773-4231; or e-mail: dorothy.shaver@ontario.ca).

Sincerely,



Andy Heerschap  
District Manager  
Parry Sound District

- cc. Jim Beal, Renewable Energy Provincial Field Program Coordinator, Regional Operations Division, MNR;  
Andrea Fleischhauer, Southern Region Planning Unit, MNR;  
Narren Santos, Environmental Assessment and Approvals Branch, MOE;  
Tom Hockin, Northland Power, Toronto.

---

November 8, 2012

Sean Male,  
Terrestrial Ecologist, Environmental Assessment & Management  
HATCH  
4342 Queen Street, Suite 500  
Niagara Falls, Ont.  
L2E 7J7

**RE: Modifications to Burk's Falls West Solar Project Wetland Boundaries**

Dear Mr. Sean Male,

The Ministry of Natural Resources (MNR) has received the document dated November 1, 2012 which describes modifications to the Burk's Falls West Solar Project wetland boundaries made subsequent to MNR's letter confirming the Natural Heritage Assessment in respect of the project.

Upon review of the modifications, MNR is satisfied that the Natural Heritage Assessment requirements of Ontario Regulation 359/09 have been met. Please add this letter as an addendum to the confirmation letter issued September 2, 2011 for the Burk's Falls West Solar Project.

If you wish to discuss, please contact me at [amy.cameron@ontario.ca](mailto:amy.cameron@ontario.ca) or 705-875-7481.

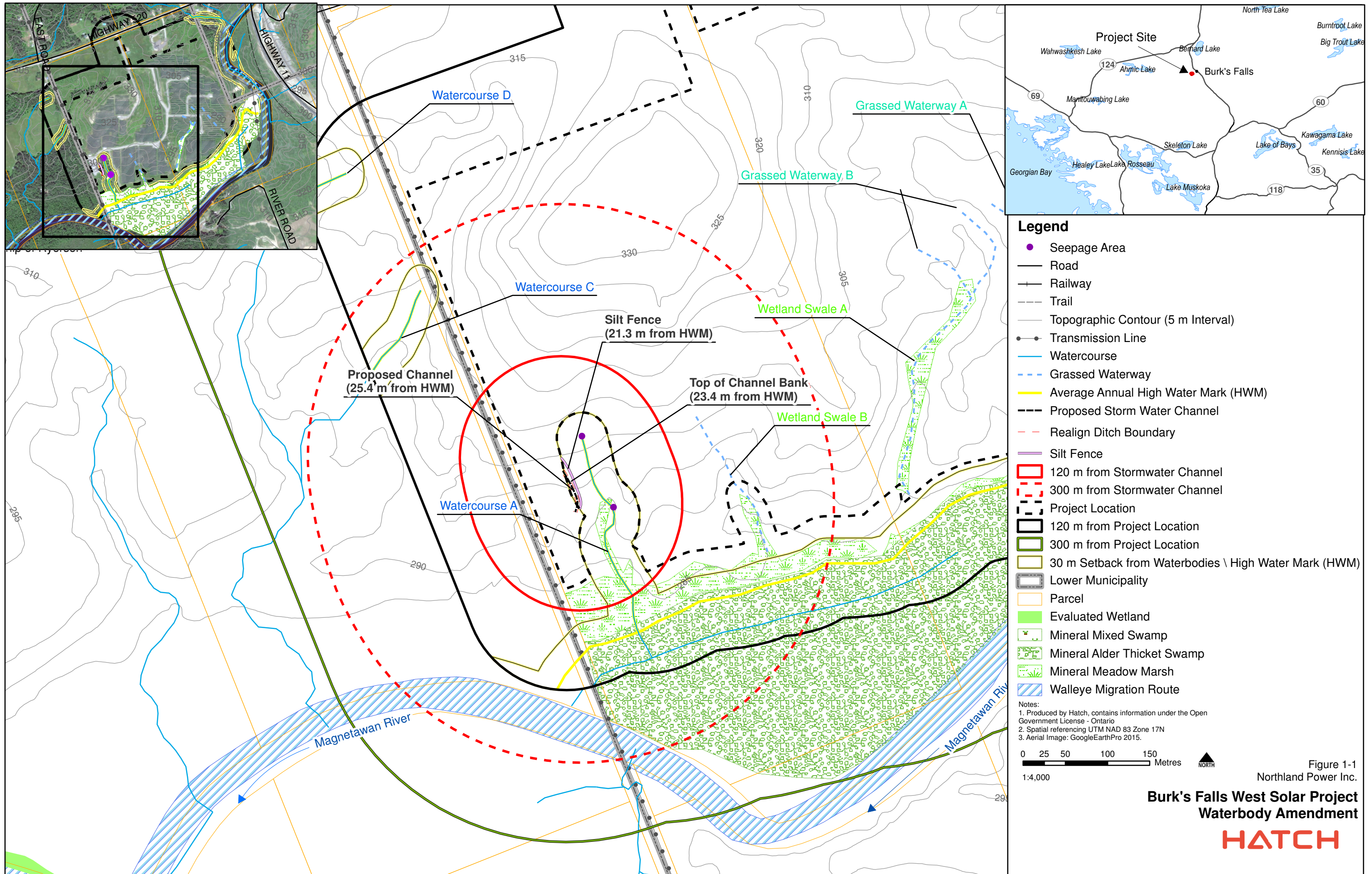
Sincerely,



Amy Cameron  
Coordinator  
Renewable Energy Operations Team  
Southern Region MNR

cc Emily Gryck, Renewable Energy Operations Team, Project Manager, MNR  
Erin Cotnam, Renewable Energy Operations Team, Project Manager, MNR  
Jason Webb, Renewable Energy Operations Team, Planning Ecologist, MNR  
Kathy Woeller, A/Parry Sound District Manager, MNR  
Narren Santos, Environmental Approvals Access & Service Integration Branch, MOE  
Zeljko Romic, Environmental Approvals Access & Service Integration Branch, MOE

**Attachment 2**  
**Figure 1-1 & 1-1b**



**Legend**

- Seepage Area
- Road
- +— Railway
- - - Trail
- Topographic Contour (5 m Interval)
- Transmission Line
- Watercourse
- - - Grassed Waterway
- Average Annual High Water Mark (HWM)
- - - Proposed Storm Water Channel
- - - Realign Ditch Boundary
- Silt Fence
- 120 m from Stormwater Channel
- 300 m from Stormwater Channel
- Project Location
- 120 m from Project Location
- 300 m from Project Location
- 30 m Setback from Waterbodies \ High Water Mark (HWM)
- ▭ Lower Municipality
- ▭ Parcel
- ▭ Evaluated Wetland
- ▭ Mineral Mixed Swamp
- ▭ Mineral Alder Thicket Swamp
- ▭ Mineral Meadow Marsh
- ▭ Walleye Migration Route

Notes:  
 1. Produced by Hatch, contains information under the Open Government License - Ontario  
 2. Spatial referencing UTM NAD 83 Zone 17N  
 3. Aerial Image: GoogleEarthPro 2015.

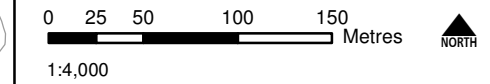
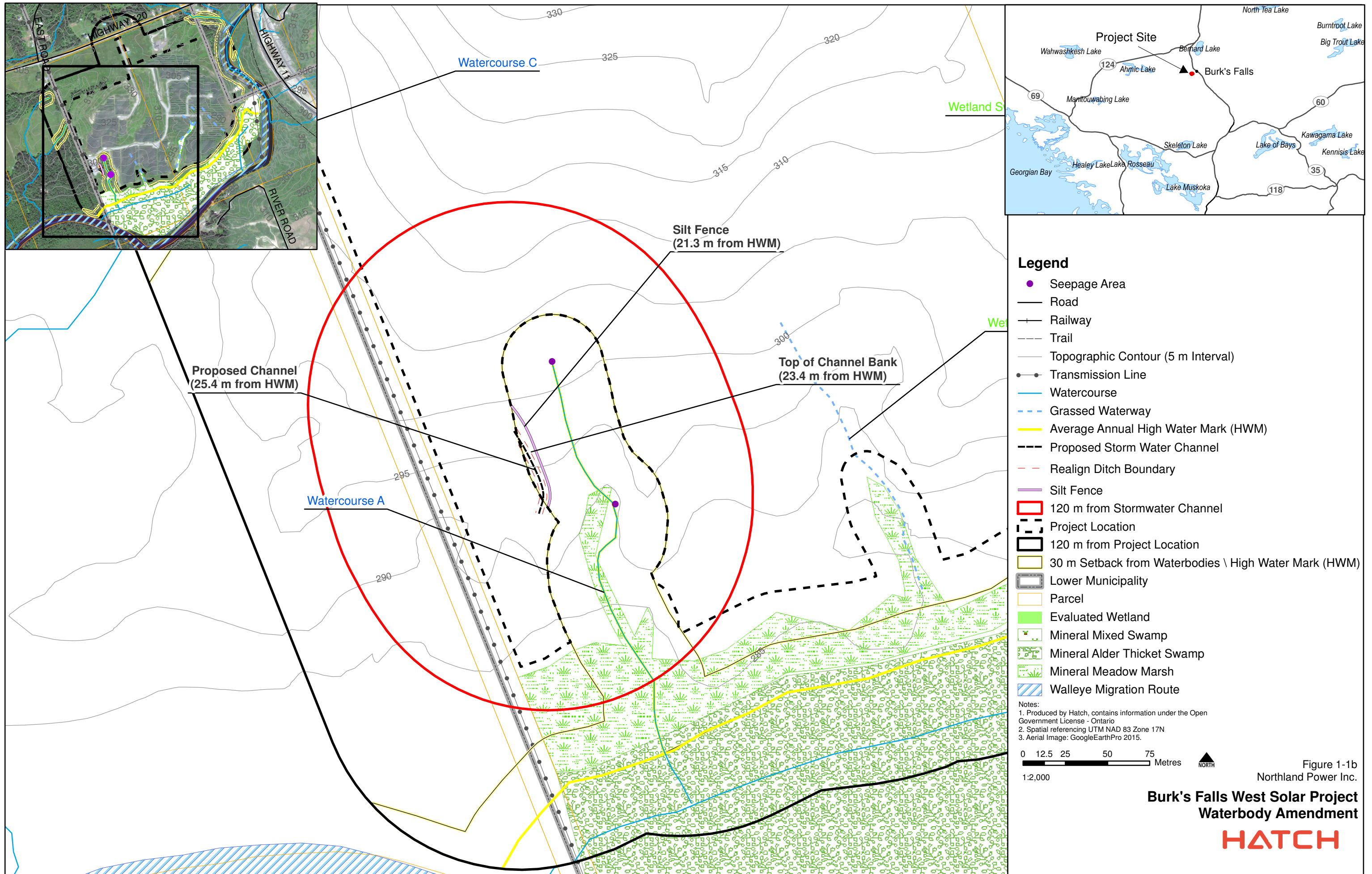


Figure 1-1  
 Northland Power Inc.  
**Burk's Falls West Solar Project**  
**Waterbody Amendment**  
**HATCH**



# **Attachment 3**

## **Northland Photographs**



## Transect C (Photos East to West)



**Figure 1** Looking Westward towards the Substation along Transect C



**Figure 2** Looking Westward towards Substation along Transect C

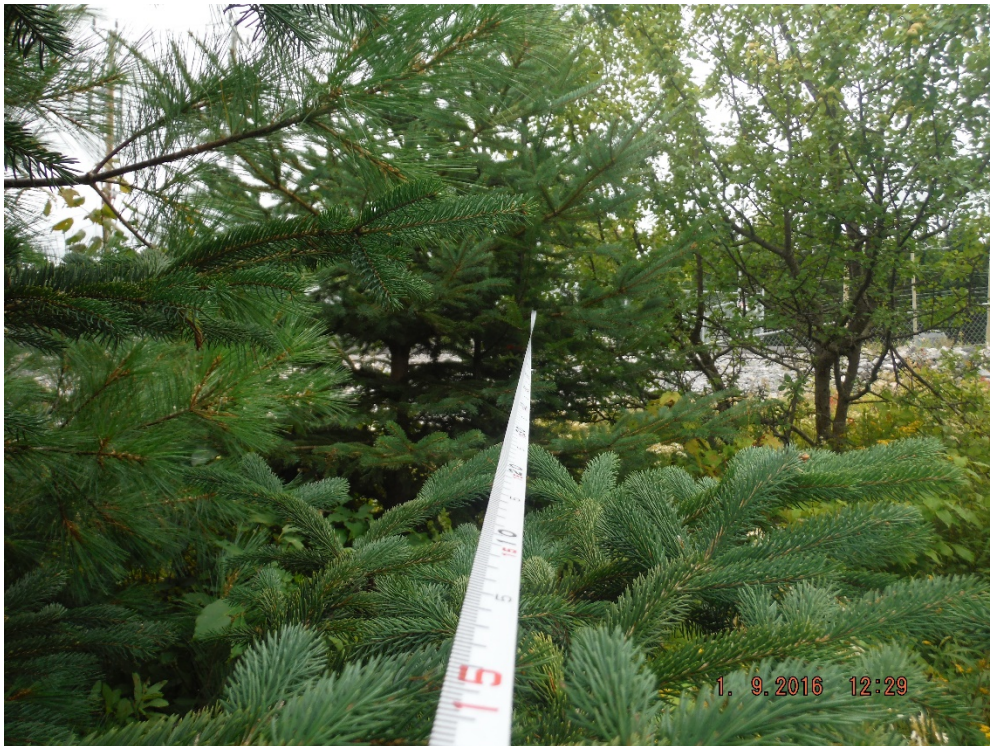


**Figure 3** Looking Westward towards Substation along Transect C



**Figure 4** Looking Westward from Substation along Transect C

## Transect A (Photos East to West)



**Figure 5** Looking Eastward towards Substation along Transect A



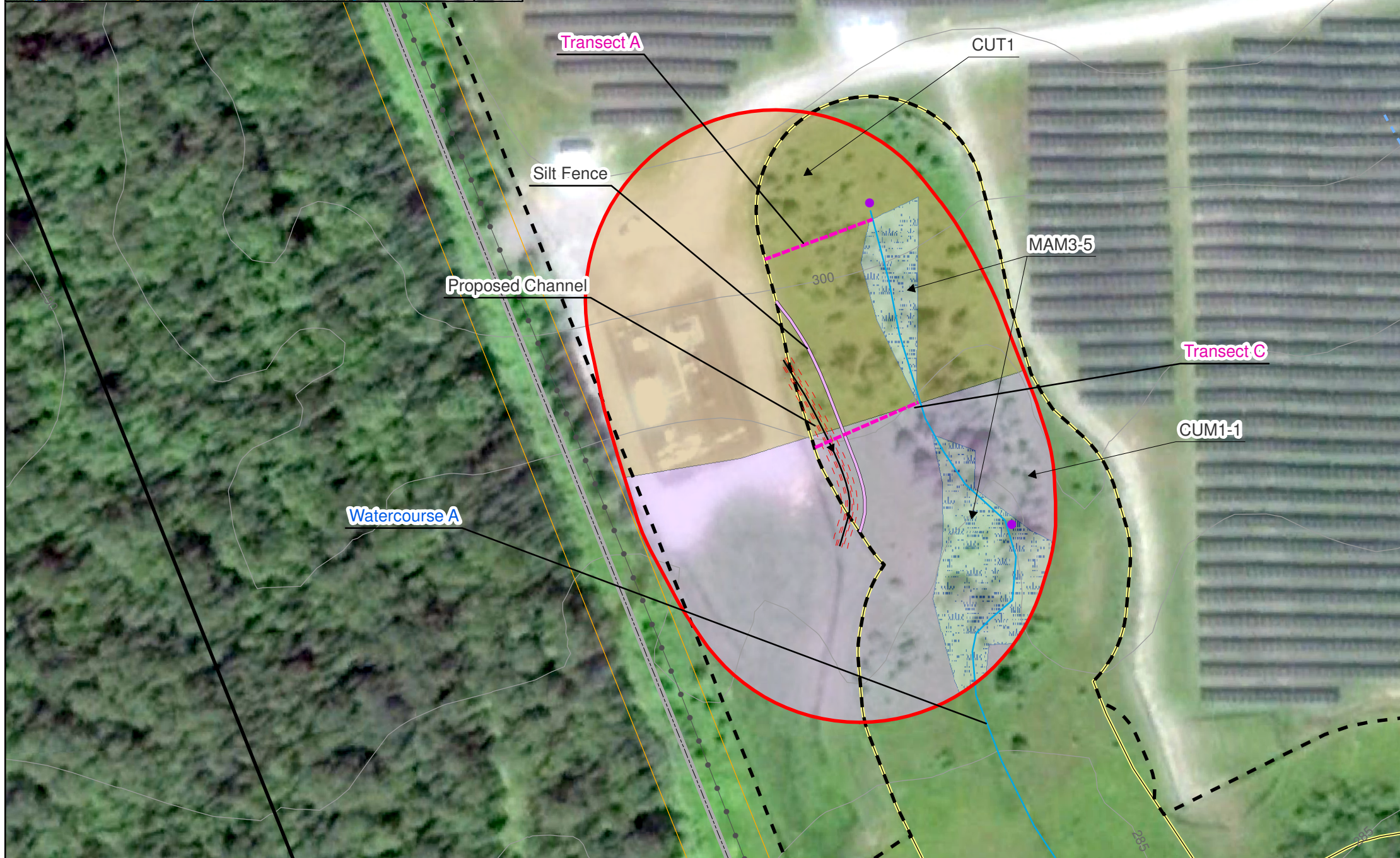
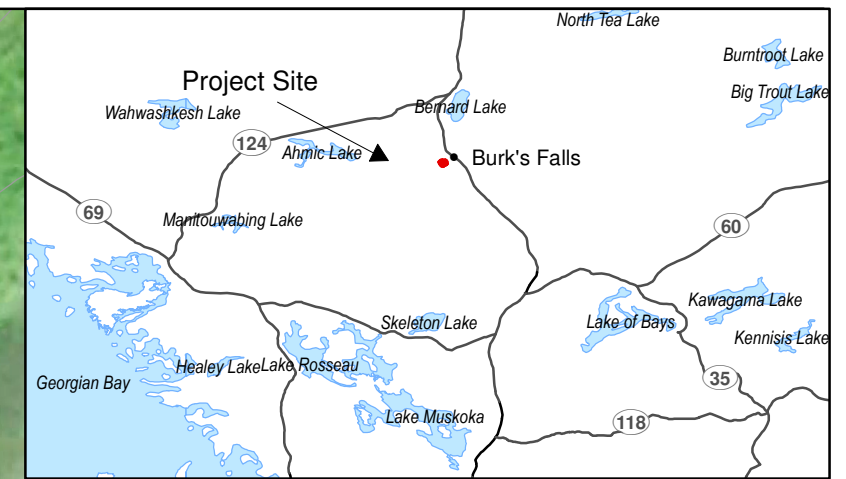
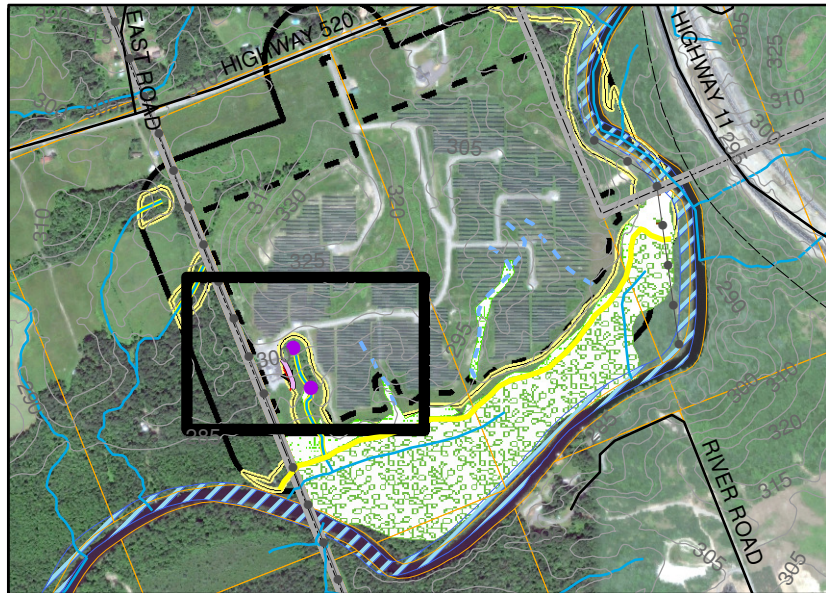
**Figure 6** Looking Eastward Towards Substation Transect A



**Figure 7** Looking Eastward towards Substation along Transect A



**Figure 8** Looking Westwards from Substation along Transect



**Legend**

- Seepage Area
- Photo Transect
- Road
- + Railway
- Trail
- Topographic Contour (5 m Interval)
- Transmission Line
- Watercourse
- Grassed Waterway
- Average Annual High Water Mark
- Stormwater Channel 50m Buffer
- Project Location
- 120 m from Project Location
- 30m Setback from Waterbodies\High Water Mark
- Lower Municipality
- Parcel
- Evaluated Wetland
- ▨ Walleye Migration Route

**ELC Vegetation Communities**

- CUM1-1 - Dry-Moist Old Field Meadow Type
- CUT1 - Mineral Cultural Thicket Ecosite
- MAM3-5 - Narrow Leaved Sedge Mineral Meadow Marsh

**Notes:**

1. Produced by Hatch, contains information under the Open Government License - Ontario
2. Spatial referencing UTM NAD 83 Zone 17N
3. Aerial Image: GoogleEarthPro 2015.

0 5 10 20 30 Metres

1:1,250

Figure A-1  
Northland Power Inc.  
**Burk's Falls West Solar Project  
Photo Transects**



**Appendix D**

**Natural Heritage Amendment Report, NHA  
Confirmation Email and APRD Confirmation Email**

April 5, 2017

Mike Poskin  
Renewable Energy Coordinator  
Ontario Ministry of Natural Resources and Forestry  
Regional Land Use Planning Team  
4th Floor S  
300 Water St.  
Peterborough, On  
K9J 8M5

Dear Mr. Poskin:

**Subject: Burk's Falls West- Amendment to the Project Location and Revisions to the Natural Heritage Assessment Documentation**

## 1. Introduction

The Burk's Falls West Solar Project (the "Project") was developed in 2012 by Northland Power Inc. on behalf of Northland Power Solar Burk's Falls West L.P. ("Northland") under Renewable Energy Approval No. (REA) No. 5665-8YFKZU on November 21, 2012, as amended April 11, 2013.

Since the completion of construction in 2014, it has been identified that a portion of the built-up electrical substation yard is experiencing settlement and subsidence down the hill upon which it is founded. Geotechnical investigations have found that the perimeter support walls retaining the fill material under the substation yard are undersized, that some of the fill material is of poor quality and that the existing perimeter stormwater diversion channel (serves the substation and access road) is too close to the support walls allowing wash-out/undercutting to occur. Continued subsidence could have serious consequences in the event of a catastrophic avalanche and would likely cause the deposition of sand and soils in the nearby watercourse.

The proposed works would see a reinforcing of the substation retaining walls and the addition of rip-rap stone as extra mass against any unintended movement (all within the approved REA boundary) and the relocation of the perimeter stormwater diversion channel further away from the

substation to prevent undercutting. The relocated stormwater diversion channel will be within the 30 m set-back established from a watercourse identified during the 2011 Site Investigations (Figure 1-1). The encroachment into the setback area is proposed to be approximately 6.6 m, thereby maintaining a 23.4 m setback from the watercourse. To complete the channel, approximately 204 m<sup>2</sup> of existing soils would be shaped, stabilized with rip/rap stone and revegetated; the discharge is not within a watercourse and as such, sediment or hydrology concerns are mitigated during storm events.

The purpose of this document is to update the 2011 Natural Heritage Assessment (NHA) reports, taking into consideration a records review of the natural features documented on and within 120 m of the additional lands; and to provide confirmation that the existing natural features on and within 50 m of the lands are consistent to those noted in the original NHA assessment.

The Ontario Ministry of Natural Resources and Forestry provided a confirmation letter, as required by Sections 28 and 38 of the REA Regulation, on September 2, 2011 as well as secondary confirmation letter on November 8, 2012 regarding wetland boundary changes (Attachment 1).

## 1.1 Natural Heritage Assessment Requirements and Background Information

Sections 25, 26, and 27 of O. Reg. 359/09 require that a Natural Heritage Assessment be completed for all solar projects to determine whether there are significant or provincially significant natural heritage features on or within 50 m of the Project Location. Should such features be found present within the prescribed setbacks contained within the REA Regulation, Section 38 requires that an Environmental Impact Study be completed to confirm that impacts to the significant/provincially significant features can be mitigated. With respect to the Project, the following reports were produced to satisfy these requirements:

- Burk's Falls West Solar Project - Natural Heritage Records Review Report (Hatch Ltd., 2011a). (Note: At the time that this report was prepared the assessment requirement was within 120 m of the Project Location)
- Burk's Falls West Solar Project - Natural Heritage Site Investigation Report (Hatch Ltd., 2011b). (Note: At the time that this report was prepared the assessment requirement was within 120 m of the Project Location)
- Burk's Falls West Solar Project - Natural Heritage Evaluation of Significance (Hatch Ltd., 2011c). (Note: At the time that this report was prepared the assessment requirement was within 120 m of the Project Location)
- Burk's Falls West Solar Project – Environmental Impact Study (Hatch Ltd., 2011d). (Note: At the time that this report was prepared the assessment requirement was within 120 m of the Project Location)
- Burk's Falls West Solar Project – Field Study Report (Hatch Ltd. 2012) Wetland Evaluation



The Ontario Ministry of Natural Resources and Forestry provided a confirmation letter, as required by Sections 28 and 38 of O. Reg. 359/09, on September 2, 2011 (Attachment 1).

## 2. Records Review

The previously completed Natural Heritage Records Review Report (Hatch Ltd., 2011) completed a records review of approximately 120 m from the original Project Location. The results of the 2011 records review are summarized along with an updated review of records undertaken on February 27 and 28, 2017. The recent records review ensures any recent additions within the original 120 m search radius and the additional 50 m are incorporated and discussed in Tables 1 and 2.

The review of records included:

- Land Information Ontario database.
- MNRF Natural Heritage Information Centre (NHIC) and Biodiversity Explorer.
- Birds Canada - Atlas of Breeding Bird of Ontario (ABBO).
- Ontario Natures - Ontario Reptile and Amphibian Atlas (ORAA).
- Important Bird Areas Canada and National Wildlife Areas.
- Burk's Falls West Solar Project Natural Heritage Records Review Report (Hatch Ltd., 2011) hereinafter referred to as "NHA Records Review Document."
- Burk's Falls West Solar Project Site Investigation Review Report (Hatch Ltd., 2011) hereinafter referred to as "NHA Site Investigation Document."

An overview of the Natural Heritage Features is discussed in Table 1, including a summary of the NHA Records Review Document.

**Table 1 Natural Heritage Features**

Natural Heritage Feature	2011 Records Review	2017 Records Review
Wetlands	Unevaluated wetland within 120 m south of the project location.  Magnetawan River Provincially Significant Wetland (PSW) within 1 km of the Project location.	Unevaluated wetland within 50 m south of the project location.  Magnetawan River PSW within 1 km of the Project location.
Areas of Natural and Scientific Interest (ANSI)	Not Present.	Not Present.
Valleylands	Not Present.	Not Present (No longer Applicable under REA).
Woodlands	No significant Woodlands are	No significant Woodlands are

Natural Heritage Feature	2011 Records Review	2017 Records Review
	present within 120 m of the Project Location	present within 50 m of the Project Location
Provincial Parks and Conservation Reserves	Not Present.	Not Present.

The NHA Records Review Document did not identify the presence of any wildlife habitat features. Furthermore, a review of existing records does not indicate the presence of any seasonal concentration areas, rare vegetation communities, specialized habitats, or animal movement corridors. However; the review of the OBBA (Grid # 17PL25) indicated two (2) additional species of conservation concern (Table 2) potentially residing on or within 50 m of the additional lands not listed during the original 2011 records review. These species were upgraded to Special Concern as of June 24, 2014. Additional species of conservation concern from those previously outlined in the 2011 NHA Records Review Document are provided in Table 2 below.

**Table 2 Newly Identified Species of Conservation Concern**

Species Name	Conservation Status	
	S-Ranked	SARO
Eastern Wood Pewee ( <i>Contopus virens</i> )	S4B	Special Concern
Wood Thrush ( <i>Hylochichla mustelina</i> )	S4B	Special Concern

The 2016 review of ORRA (Grid # 17PL25) did not indicate the presence of any new species of conservation concern on or within 120 m of the Project Location. As of June 15, 2016, the Eastern Milksnake (*Lampropeltis triangulum*) identified in the 2011 NHA Records Review Document, is no longer designated as Special Concern and removed from the Species at Risk in Ontario.

These additional species will be considered during subsequent stages of the natural heritage assessment.

### 3. Site Investigation Methodology

#### 3.1 Photographic Record

Northland representatives were on site September 1, 2016 and photographed the setback encroachment area for Hatch, to determine if any changes have occurred to the terrestrial flora since the 2011 NHA Site Investigation Document.

### 4. Results of Site Investigation

#### 4.1 General Site Description

The stormwater diversion channel is described as a mixture of old field meadow and cultural thicket with rip/rap material associated with the existing substation base foundation fill along the western boundary. Photographs and measurements provided by Northland site representatives have confirmed the existing 30 m distance to the watercourse. Photographs provided in

Figure 1-1 and within Attachment 4 also confirm the Ecological Land Classification communities of Mineral Cultural Thicket and Dry-Moist Old Field Meadow (as identified in Figure 4-1) remain valid, although have progressed in succession.

## **4.2 Vegetation Observations**

Natural vegetation communities have been identified on and within 50 m of the proposed channel and include thickets, meadows and wetlands. A discussion regarding these vegetation communities is provided below.

### **4.2.1 Wetland Communities**

The Land Information Ontario (LIO) mapping identified an unevaluated wetland within 50 m, south of the Project Location. Hatch 2012 site visits confirmed the presence of this wetland and determined that it extends beyond the area shown on the LIO mapping. The wetland communities are described further below, and locations of communities are shown in Figure 4-1.

#### **4.2.1.1 *Narrow-leaved Sedge Mineral Meadow Marsh (MAM3-5)***

This wetland community transitions from the alder thicket swamp to upland meadow communities. The community exists as a narrow band, 20 to 75 m wide, of vegetation between these two communities, and along the bottoms of drainage channels coming off the upland areas. Sedges dominated the vegetation community with green, beaked, awl fruited and small fruited sedges recorded. Horsetails, golden rods, and Canada blue joint grass was also present although primarily on the peripheries or any slightly higher topography areas within the marsh. Three narrow fingers extend northward within project location. The most western of the three follows a small watercourse to its origin, a seepage area located on a hill side. The other two fingers are low-lying areas which drain the project location. With no defined channel or observations of flow during any of the field visits, these are not considered either permanent or intermittent watercourses.

#### **4.2.2 Cultural Vegetation Communities**

In addition to the wetland communities described above, there are cultural vegetation communities recorded on and within 50 m of the proposed channel location. These communities are described as a Cultural Meadow (CUM) and a Cultural Thicket (CUT).

Cultural meadow areas were maintained in a cultural meadow state as a result of past agricultural use (e.g. lands actively used for production of hay/pasture of livestock). The communities have begun to transition into more thicket type habitat as a result of ceased agricultural practices however still appear to be predominantly CUM. There are scattered shrubs throughout the cultural meadow community on the proposed channel location.

The cultural thicket community exists within the northern portion of the proposed channel and 50 m setback, and consists of a mix of weedy species and immature tree species (balsam fir and poplar).

## 4.3 Wildlife Observations

Wildlife species observed within the Project Location during the time of the 2011 site investigation are listed in Table 3. All species are expected to have the potential to inhabit and/or utilize the proposed channel or 50 m setback, outside the existing project Location.

**Table 3 Wildlife Species Observed within the Project Location**

Common Name	Scientific Name	Rank		At Risk Status	
		Global (GRank)	Provincial (SRank)	COSEWIC	SARO
<b>Mammals</b>					
Moose	<i>Alces alces</i>	G5	S5	-	-
White-tailed Deer	<i>Odocoileus virginianus</i>	G5	S5	-	-
Skunk	<i>Mephitis mephitis</i>	G5	S5	-	-
Snowshoe Hare	<i>Lepus americanus</i>	G5	S5	-	-
<b>Birds</b>					
Canada Goose	<i>Branta canadensis</i>	G5	S5	-	-
Mallard	<i>Anas platyrhynchos</i>	G5	S5	-	-
Wood Duck	<i>Aix sponsa</i>	G5	S5	-	-
Ring-billed Gull	<i>Larus delawarensis</i>	G5	S5	-	-
Turkey Vulture	<i>Cathartes aura</i>	G5	S5B	-	-
American Woodcock	<i>Scolopax minor</i>	G5	S4B	-	-
Ruffed Grouse	<i>Bonasa umbellus</i>	G5	S4	-	-
Mourning Dove	<i>Zenaidura macroura</i>	G5	S5	-	-
American Crow	<i>Corvus brachyrhynchos</i>	G5	S5B	-	-
Common Raven	<i>Corvus corax</i>	G5	S5	-	-
Blue Jay	<i>Cyanocitta cristata</i>	G5	S5	-	-
Belted Kingfisher	<i>Megaceryle alcyon</i>	G5	S4B	-	-
Northern Flicker	<i>Colaptes auratus</i>	G5	S4B	-	-
Downy Woodpecker	<i>Picoides pubescens</i>	G5	S5	-	-
White-breasted Nuthatch	<i>Sitta carolinensis</i>	G5	S5	-	-
Red-eyed Vireo	<i>Vireo olivaceus</i>	G5	S5B	-	-
Willow Flycatcher	<i>Empidonax traillii</i>	G5	S5B	-	-
Swainson's Thrush	<i>Catharus ustulatus</i>	G5	S4B	-	-
Veery	<i>Catharus fuscescens</i>	G5	S4B	-	-
American Robin	<i>Turdus migratorius</i>	G5	S5B	-	-
Black-capped Chickadee	<i>Poecile atricapillus</i>	G5	S5	-	-
Cedar Waxwing	<i>Bombycilla cedrorum</i>	G5	S5B	-	-
Indigo Bunting	<i>Passerina cyanea</i>	G5	S4B	-	-
Common Yellowthroat	<i>Geothlypis trichas</i>	G5	S5B	-	-
Mourning Warbler	<i>Oporornis philadelphia</i>	G5	S4B	-	-
Black-and-White Warbler	<i>Mniotilta varia</i>	G5	S5B	-	-

Common Name	Scientific Name	Rank		At Risk Status	
		Global (GRank)	Provincial (SRank)	COSEWIC	SARO
Ovenbird	<i>Seiurus aurocapilla</i>	G5	S5B	-	-
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	G5	S5B	-	-
Black-throated Green Warbler	<i>Dendroica virens</i>	G5	S5B	-	-
American Redstart	<i>Setophaga ruticilla</i>	G5	S5B	-	-
American Goldfinch	<i>Carduelis tristis</i>	G5	S5	-	-
Common Grackle	<i>Quiscalus quiscula</i>	G5	S5B	-	-
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	G5	S4	-	-
Eastern Meadowlark	<i>Sturnella magna</i>	G5	S4B	-	-
European Starling	<i>Sturnus vulgaris</i>	G5	SE	-	-
White-throated Sparrow	<i>Zonotrichia albicollis</i>	G5	S5B	-	-
Chipping Sparrow	<i>Spizella passerina</i>	G5	S5B	-	-
Clay-Colored Sparrow	<i>Spizella pallida</i>	G5	S4B	-	-
Song Sparrow	<i>Melospiza melodia</i>	G5	S5B	-	-
Savannah Sparrow	<i>Passerculus sandwichensis</i>	G5	S4B	-	-
<b>Amphibians</b>					
Spring Peeper	<i>Pseudacris crucifer</i>	G5	S5	-	-
Western Chorus Frog	<i>Pseudacris triseriata</i>	G5	S3	THR	-
Northern Leopard Frog	<i>Rana pipiens</i>	G5	S5	-	-
American Toad	<i>Bufo americanus</i>	G5	S5	-	-
Gray Treefrog	<i>Hyla versicolor</i>	G5	S5	-	-
Green Frog	<i>Rana clamitans</i>	G5	S5	-	-
Wood Frog	<i>Rana sylvatica</i>	G5	S5	-	-
<b>Acronyms/Definitions</b>					
<b>Global</b>					
G5 – Very common (demonstrably secure under present conditions)					
G4 – Apparently Secure (Uncommon but not rare)					
T – Denotes that the rank applies to a subspecies or variety.					
<b>Provincial</b>					
S5 – Secure (Common, widespread, and abundant in the nation or state/province)					
S4 – Apparently Secure (Uncommon but not rare; some cause for long-term concern due to declines or other factors)					
B – Designation applies to a breeding population					
<b>At Risk Status</b>					
COSEWIC Committee on the Status of Endangered Wildlife in Canada					
SARO Species at Risk in Ontario					
THR Threatened					

## 4.4 Identification of Natural Heritage Features

### 4.4.1 Area of Natural and Scientific Interest

The NHA Records Review Document (Hatch Ltd., 2011a) and updated records review do not indicate the presence of any ANSI. Therefore, no further evaluation is required.

### 4.4.2 Woodlands

No additional significant woodlands were identified on or within 50 m of proposed channel location.

### 4.4.3 Valleylands

Though required to be assessed at the time of NHA Records Review Document, this is no longer required under O. Reg. 359/09.

### 4.4.4 Wetlands

No additional wetlands are identified within Hatch Ltd., 2011.

### 4.4.5 Wildlife Habitat

The updated records review indicates the presence of two (2) additional species of conservation concern.

Table 4 identifies these species, their habitat requirements and presence with the Project Location during the breeding bird surveys as documented in the NHA Records Review Document (Hatch, 2011a) and NHA Site Investigations (Hatch 2011b).

**Table 4 Additional Species of Conservation Concern**

Species Name	Habitat Characteristics	Habitat – Identified within 50 m of the Proposed Channel
Eastern Wood Pewee	Mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation. (Ontario 2015)	No
Wood Thrush	Lives in mature deciduous and mixed (conifer-deciduous) forests. These birds prefer large forests, but will also use smaller stands of trees. (Ontario 2015)	No

## 5. Evaluation of Significance

The mitigation measures within the Burk's Falls Solar Project - Natural Heritage Evaluation of Significance Report (Hatch Ltd., 2011d) will continue to be implemented for the proposed channel. The proposed channel is not within 50 m of any provincially significant features, and accordingly no additional mitigation is proposed.

## 6. Conclusions

An updated records review on and within 50 m of the proposed channel resulted in no additional natural features being identified. The updated consideration of species of conservation concern indicates no additional wildlife habitat. In addition, Northland's 2016 photographs indicate 2011 ELC communities remain unchanged. No new significant features were identified within 50 m of the proposed channel.

## 7. References


- Bird Studies Canada, Ontario Field Ornithologists, Environment Canada, Ontario Nature, and Ontario Ministry of Natural Resources, 2006. Ontario Breeding Bird Atlas Internet Site. Accessed on February 27, 2017. Available Online at: <http://www.birdsontario.org/atlas/index.jsp>
- Government of Ontario, 2015. *Eastern Wood Pewee*. Ministry of Natural Resources and Forestry. Peterborough, ON, Canada. Available Online at: <https://www.ontario.ca/page/eastern-wood-pewee>
- Government of Ontario, 2014. *Natural Heritage Areas Make A Map*. Ministry of Natural Resources. Accessed on February 27, 2017. Available Online at: [http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR\\_NHLUPS\\_NaturalHeritage&viewer=NaturalHeritage&locale=en-US](http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US)
- Government of Ontario, 2015. *Species at Risk in Ontario List*. Ministry of Natural Resources and Forestry, Peterborough, ON, Canada. Available Online at: <https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>
- Government of Ontario, 2015. *Wood Thrush*. Ministry of Natural Resources and Forestry, Peterborough, ON, Canada. Available Online at: <https://www.ontario.ca/page/wood-thrush>
- Hatch Ltd., 2011a. Burk's Falls West Solar Project Natural Heritage Records Review. 22 pp.
- Hatch Ltd., 2011b. Burk's Falls West Solar Project Natural Site Investigation Report. 76 pp.
- Hatch Ltd., 2011c. Burk's Falls West Solar Project Natural Heritage Evaluation of Significance Report. 21 pp.
- Hatch Ltd., 2011d. Burk's Falls West Solar Project Natural Heritage Environmental Impact Assessment Report.
- Hatch Ltd., 2012 Burk's Falls West Solar Project Field Study Report.
- Ontario Ministry of Natural Resources, November 2012. Natural Heritage Assessment Guide for Renewable Energy Projects. 109 pp.

Mike Poskin  
Renewable Energy Coordinator  
Ontario Ministry of Natural Resources and Forestry  
April 5, 2017

- Ontario Nature, 2016. Ontario Reptile and Amphibian Atlas Program. Accessed on February 27, 2017. Available on line at:  
[http://www.ontarionature.org/protect/species/herpetofaunal\\_atlas.php](http://www.ontarionature.org/protect/species/herpetofaunal_atlas.php).

We trust that you will find this information satisfactory. Should you have any questions with respect to the information contained herein, or wish to discuss these observations further, please contact the undersigned at (905) 490-0098 or [caleb.coughlin@hatch.com](mailto:caleb.coughlin@hatch.com).

Sincerely,



Caleb Coughlin  
CC:lo'c

**Attachments**

Attachment 1 – NHA Confirmation Letters  
Attachment 2 – Figure 1-1  
Attachment 3 – Figure 4-1  
Attachment 4 – Northland Photographs



# **Attachment 1**

## **NHA Confirmation Letters**

September 2, 2011

Sean Male,  
Terrestrial Ecologist, Environmental Assessment & Management  
HATCH  
4342 Queen Street, Suite 500  
Niagara Falls, Ont.,  
L2E 7J7

Dear Mr. Male:

**SUBJECT: Burk's Falls West Solar Project: Natural Heritage Reports**

In accordance with the Ministry of the Environment's (MOE's) Renewable Energy Approvals Regulation (O.Reg.359/09), the Ministry of Natural Resources (MNR) has reviewed the natural heritage assessment and environmental impact study submitted by Northland Power for the Burk's Falls West Solar Project located in Armour Township. These reports are dated August 25, 2011 and submitted to MNR on August 31, 2011.

In accordance with Section 28(2) and 38(2)(b) of the Renewable Energy Approvals (REA) regulation, MNR provides the following confirmations following review of the natural heritage assessment and environmental impact study reports:

1. The MNR confirms that the determination of the existence of natural features and the boundaries of natural features was made using applicable evaluation criteria or procedures established or accepted by MNR.
2. The MNR confirms that the site investigation and records review were conducted using applicable evaluation criteria or procedures established or accepted by MNR.
3. The MNR confirms that the evaluation of the significance or provincial significance of the natural features was conducted using applicable evaluation criteria or procedures established or accepted by MNR.
4. The MNR confirms that the project location is not in a provincial park or conservation reserve.
5. The MNR confirms that the environmental impact assessment report has been prepared in accordance with procedures established by the MNR.

In accordance with Sections 28(3)(c) and 38(2)(c) of the REA regulation, MNR also offers the following comments in respect of the above reports:

- a) Figure 4.1 of the Site Investigation Report should be revised to reflect only the agreed upon setbacks identified on p.22 of the Environmental Impact Study.

Continued on Page 2 ...

- b) The preliminary layout at the back of the Environmental Impact Study should be revised to reflect the agreed upon setbacks and road restrictions identified on p.22 of that report.

This confirmation letter is valid for the project as proposed in the natural heritage assessment and environmental impact study, dated August 25, 2011, including those sections describing the Environmental Effects Monitoring Plan and Construction Plan Report. Should any changes be made to the proposed project that would alter these reports, MNR may need to undertake additional review of the reports.

Where specific commitments have been made by the applicant in the natural heritage assessment and environmental impact study with respect to project design, construction, rehabilitation, operation, mitigation, or monitoring, MNR expects that these commitments will be considered in MOE's Renewable Energy Approval decision and, if approved, be implemented by the applicant.

In accordance with S.12 (1) of the REA Regulation, this letter must be included as part of your application submitted to the MOE for a Renewable Energy Approval.

Please be aware that your project may be subject to additional legislative approvals as outlined in the Ministry of Natural Resources' *Approvals and Permitting Requirements Document*. These approvals are required prior to the construction of your renewable energy facility.

If you wish to discuss any part of this confirmation letter or the additional comments provided, please contact Dorothy Shaver, District Planner (telephone: 705-773-4231; or e-mail: [dorothy.shaver@ontario.ca](mailto:dorothy.shaver@ontario.ca)).

Sincerely,



Andy Heerschap  
District Manager  
Parry Sound District

- cc. Jim Beal, Renewable Energy Provincial Field Program Coordinator, Regional Operations Division, MNR;  
Andrea Fleischhauer, Southern Region Planning Unit, MNR;  
Narren Santos, Environmental Assessment and Approvals Branch, MOE;  
Tom Hockin, Northland Power, Toronto.

---

November 8, 2012

Sean Male,  
Terrestrial Ecologist, Environmental Assessment & Management  
HATCH  
4342 Queen Street, Suite 500  
Niagara Falls, Ont.  
L2E 7J7

**RE: Modifications to Burk's Falls West Solar Project Wetland Boundaries**

Dear Mr. Sean Male,

The Ministry of Natural Resources (MNR) has received the document dated November 1, 2012 which describes modifications to the Burk's Falls West Solar Project wetland boundaries made subsequent to MNR's letter confirming the Natural Heritage Assessment in respect of the project.

Upon review of the modifications, MNR is satisfied that the Natural Heritage Assessment requirements of Ontario Regulation 359/09 have been met. Please add this letter as an addendum to the confirmation letter issued September 2, 2011 for the Burk's Falls West Solar Project.

If you wish to discuss, please contact me at [amy.cameron@ontario.ca](mailto:amy.cameron@ontario.ca) or 705-875-7481.

Sincerely,

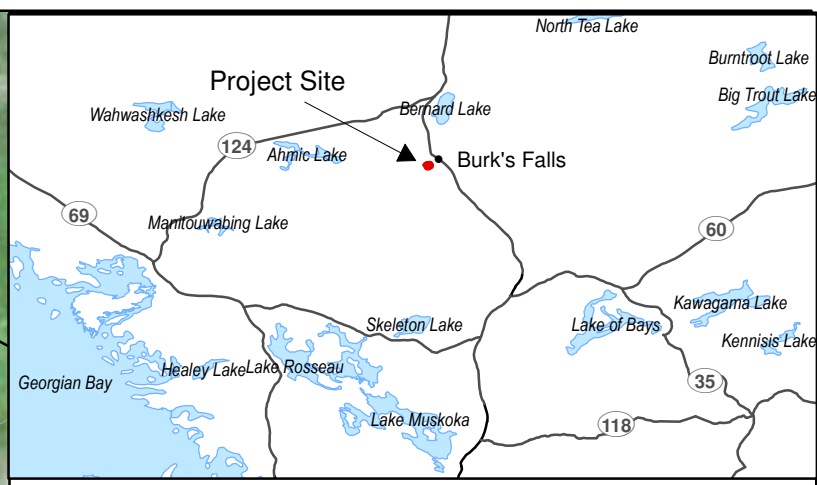


Amy Cameron  
Coordinator  
Renewable Energy Operations Team  
Southern Region MNR

cc Emily Gryck, Renewable Energy Operations Team, Project Manager, MNR  
Erin Cotnam, Renewable Energy Operations Team, Project Manager, MNR  
Jason Webb, Renewable Energy Operations Team, Planning Ecologist, MNR  
Kathy Woeller, A/Parry Sound District Manager, MNR  
Narren Santos, Environmental Approvals Access & Service Integration Branch, MOE  
Zeljko Romic, Environmental Approvals Access & Service Integration Branch, MOE

# **Attachment 2**

## **Figure 1-1**



**Legend**

- Seepage Area
- Road
- +— Railway
- - - Trail
- Topographic Contour (5 m Interval)
- Transmission Line
- Watercourse
- - - Grassed Waterway
- Average Annual High Water Mark
- ➔ Proposed Storm Water Channel
- - - Realign Ditch Boundary
- Silt Fence
- ▭ Lower Municipality
- ▭ Parcel
- ▭ Project Location
- ▭ 120 m from Project Location
- ▭ 30m Setback from Waterbodies/High Water Mark
- ▭ Evaluated Wetland
- ▭ Mineral Mixed Swamp
- ▭ Mineral Alder Thicket Swamp
- ▭ Mineral Meadow Marsh
- ▭ Walleye Migration Route

Notes:  
 1. Produced by Hatch contains information under the Open Government License - Ontario  
 2. Spatial referencing UTM NAD 83 Zone 17N  
 3. Aerial Image: GoogleEarthPro 2015.

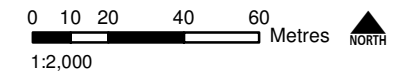
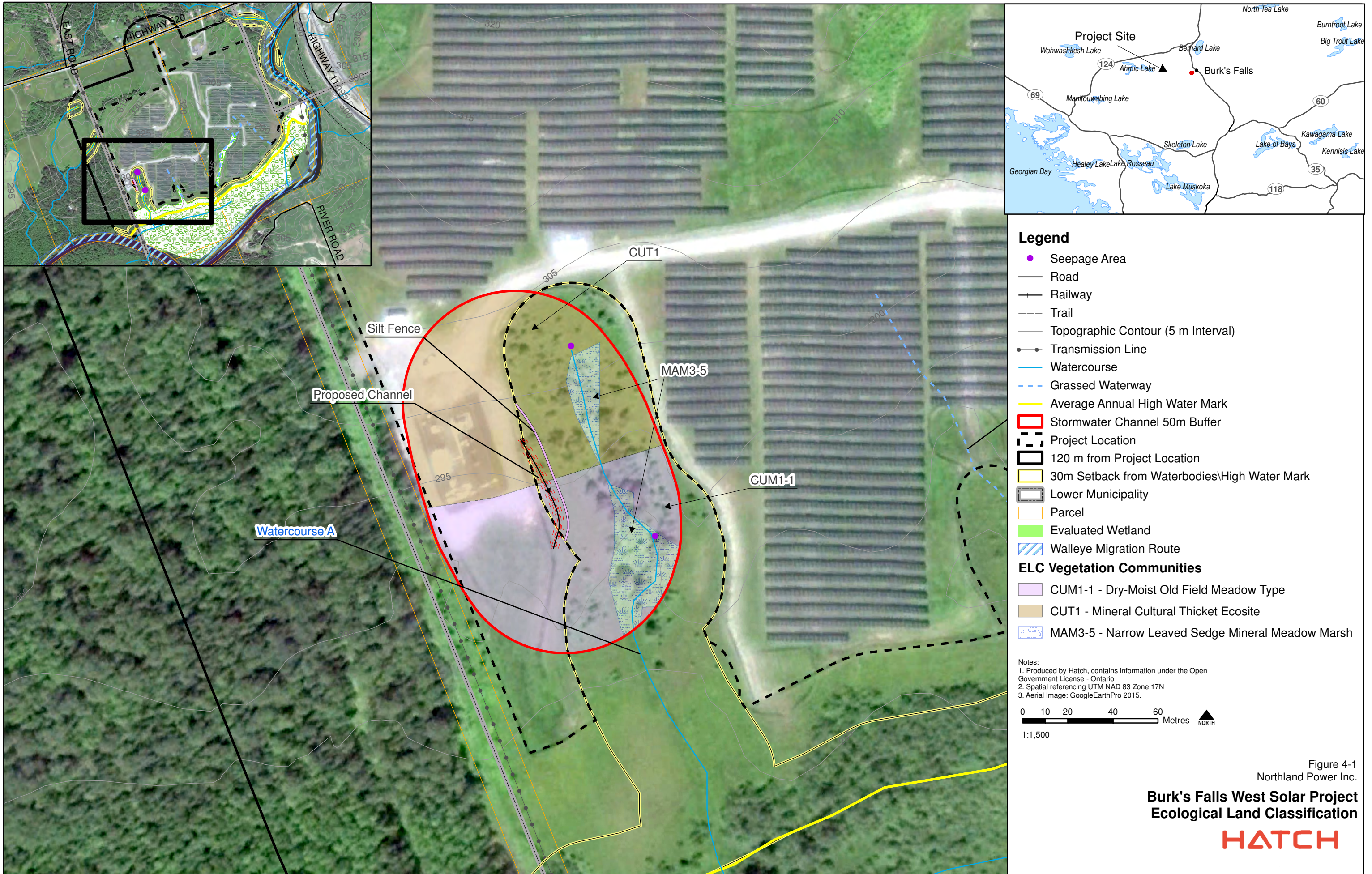


Figure 1-1  
 Northland Power Inc.  
**Burk's Falls West Solar Project  
 Proposed Stormwater  
 Channel Realignment**  
**HATCH**

# **Attachment 3**

**F][ i fY( !%**



**Legend**

- Seepage Area
- Road
- +— Railway
- - - Trail
- Topographic Contour (5 m Interval)
- Transmission Line
- Watercourse
- - - Grassed Waterway
- Average Annual High Water Mark
- ▭ Stormwater Channel 50m Buffer
- ▭ Project Location
- ▭ 120 m from Project Location
- ▭ 30m Setback from Waterbodies\High Water Mark
- ▭ Lower Municipality
- ▭ Parcel
- ▭ Evaluated Wetland
- ▭ Walleye Migration Route

**ELC Vegetation Communities**

- ▭ CUM1-1 - Dry-Moist Old Field Meadow Type
- ▭ CUT1 - Mineral Cultural Thicket Ecosite
- ▭ MAM3-5 - Narrow Leaved Sedge Mineral Meadow Marsh

Notes:  
 1. Produced by Hatch, contains information under the Open Government License - Ontario  
 2. Spatial referencing UTM NAD 83 Zone 17N  
 3. Aerial Image: GoogleEarthPro 2015.

0 10 20 40 60 Metres NORTH  
 1:1,500

Figure 4-1  
 Northland Power Inc.  
**Burk's Falls West Solar Project  
 Ecological Land Classification**  
**HATCH**



# **Attachment 4**

## **Northland Photographs**

## Transect C (Photos East to West)



**Figure 1** Looking Westward towards the Substation along Transect C



**Figure 2** Looking Westward towards Substation along Transect C

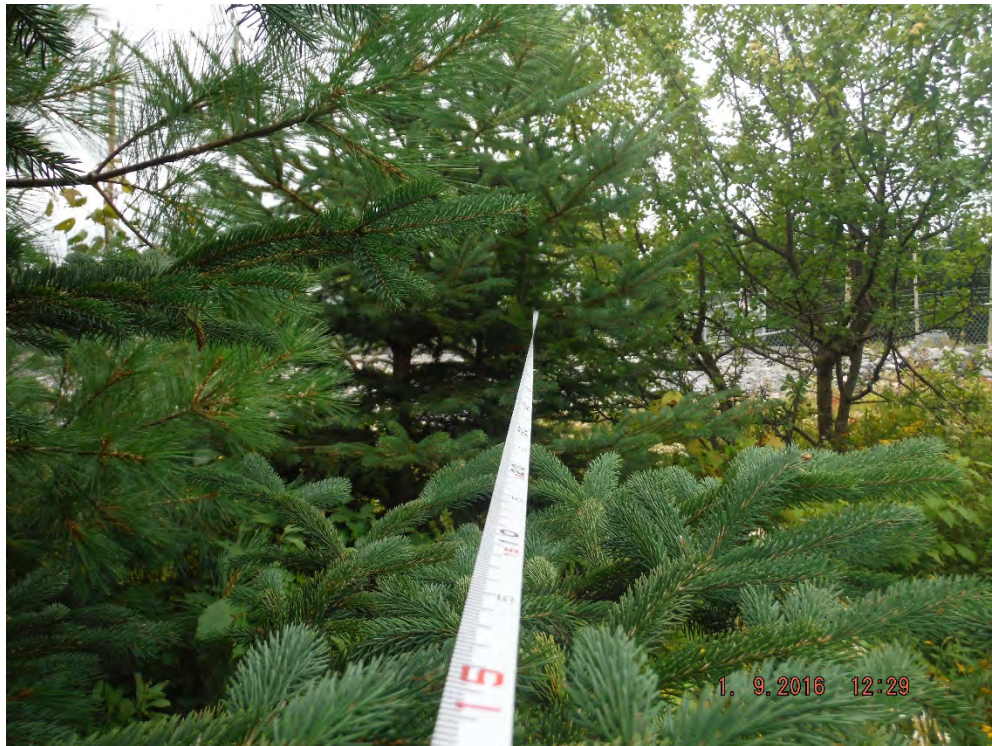


**Figure 3** Looking Westward towards Substation along Transect C



**Figure 4** Looking Westward from Substation along Transect C

## Transect A (Photos East to West)



**Figure 5** Looking Eastward towards Substation along Transect A



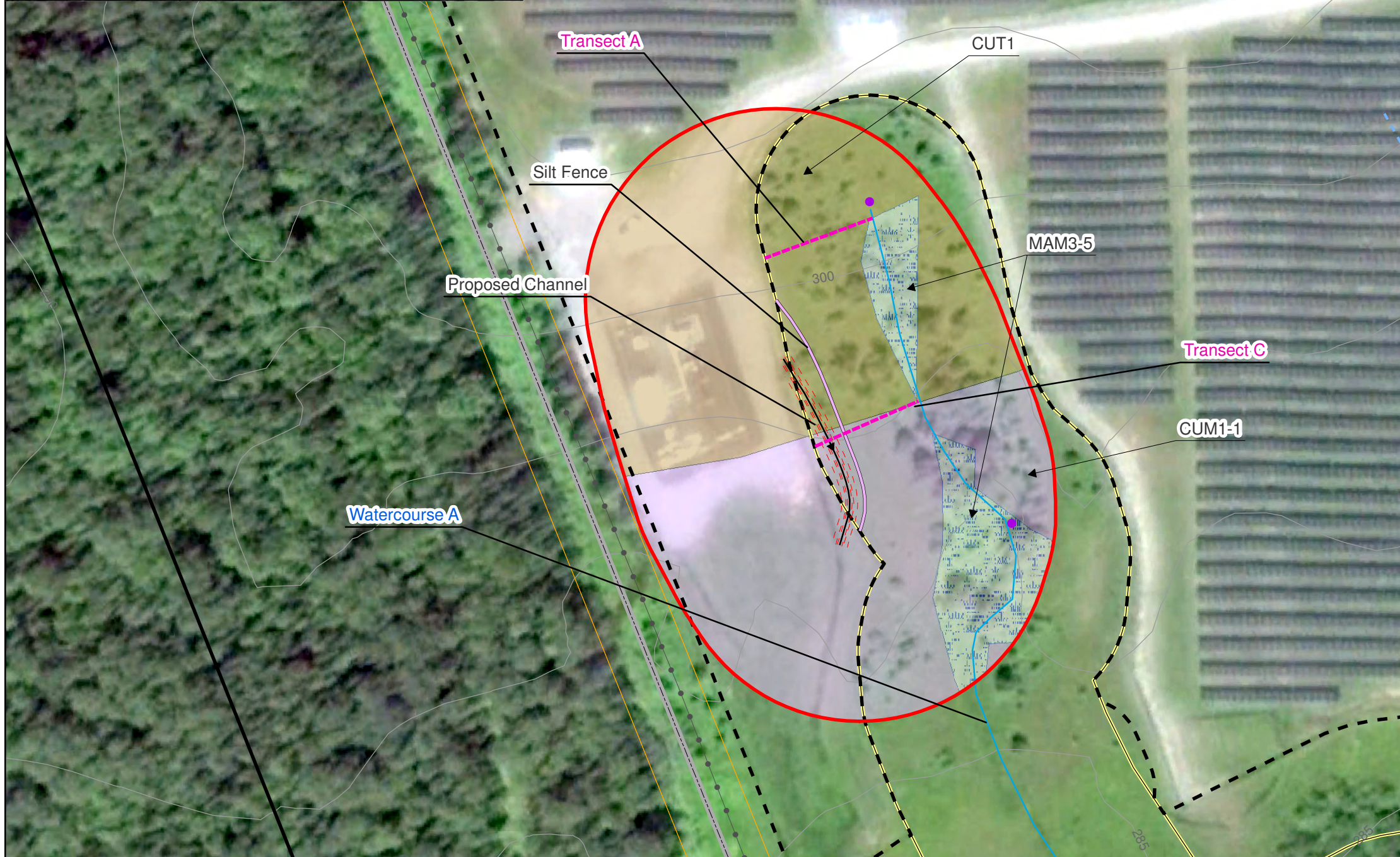
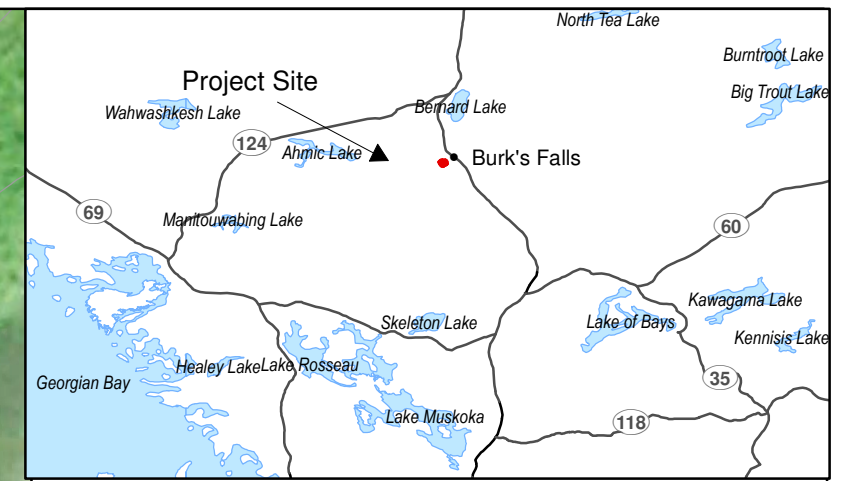
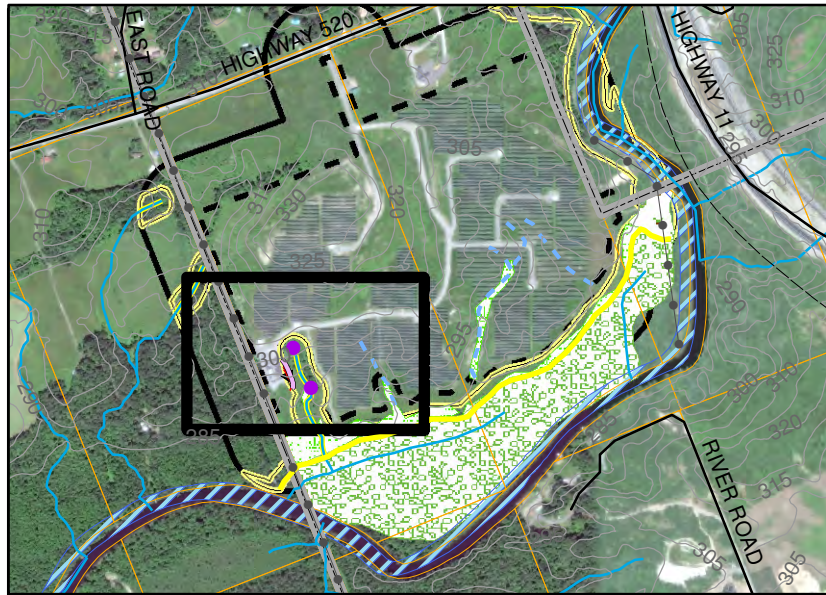
**Figure 6** Looking Eastward Towards Substation Transect A



**Figure 7** Looking Eastward towards Substation along Transect A



**Figure 8** Looking Westwards from Substation along Transect



**Legend**

- Seepage Area
- Photo Transect
- Road
- + Railway
- Trail
- Topographic Contour (5 m Interval)
- Transmission Line
- Watercourse
- Grassed Waterway
- Average Annual High Water Mark
- Stormwater Channel 50m Buffer
- Project Location
- 120 m from Project Location
- 30m Setback from Waterbodies\High Water Mark
- Lower Municipality
- Parcel
- Evaluated Wetland
- ▨ Walleye Migration Route

**ELC Vegetation Communities**

- CUM1-1 - Dry-Moist Old Field Meadow Type
- CUT1 - Mineral Cultural Thicket Ecosite
- MAM3-5 - Narrow Leaved Sedge Mineral Meadow Marsh

Notes:  
 1. Produced by Hatch, contains information under the Open Government License - Ontario  
 2. Spatial referencing UTM NAD 83 Zone 17N  
 3. Aerial Image: GoogleEarthPro 2015.

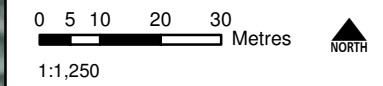


Figure A-1  
 Northland Power Inc.  
**Burk's Falls West Solar Project**  
**Photo Transects**



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**From:** Poskin, Mike (MNRF) <Mike.Poskin@ontario.ca>  
**Sent:** Friday, May 19, 2017 10:34 AM  
**To:** Coughlin, Caleb  
**Cc:** Colella, Nick (MOECC); jim.mulvale@Northlandpower.ca; Vukovics, Kathleen; Cotnam, Erin (MNRF)  
**Subject:** RE: Burk's Falls West Solar Project Natural Heritage and Water Body Report Amendments

Hi Caleb,

The Ministry of Natural Resources and Forestry (MNRF) has received the document dated March 24, 2017 which describes proposed modifications to the Burk's Falls West Solar Project components made subsequent to MNRF's letter (September 2, 2011) confirming the Natural Heritage Assessment in respect of the project.

Upon review of the changes, MNRF is satisfied that the Natural Heritage Assessment requirements of Ontario Regulation 359/09 have been met. MNRF is satisfied that, as outlined in the proposed Burk's Falls West - NHA Amendment documentation, the proposed project changes will not result in the relocation of any equipment outside the Project Location Boundary and will not affect the Natural Heritage Assessment already confirmed by MNRF. MNRF understands that any additional impacts associated with the work being done will be mitigated with measures already outlined within the original NHA. If other mitigation is to be applied or if additional impacts are anticipated outside of the amendment documentation provided, an additional addendum to the NHA would be required.

An MNRF re-confirmation letter is not required for the changes to the Burk's Falls West Solar Project. Please include this email as an addendum to the confirmation letter issued September 2, 2011 for the Burk's Falls West Solar Project.

Finally, MNRF does not issue a waterbody assessment confirmation and would suggest that further discussion between Hatch and MOECC is needed.

If you would like to discuss further, please feel free to call me.

Thanks.  
Mike

**Mike Poskin**  
**A/Renewable Energy Coordinator**  
Regional Resources Section | Southern Region  
Ministry of Natural Resources and Forestry  
T: 705-755-1362

---

**From:** [caleb.coughlin@hatch.com](mailto:caleb.coughlin@hatch.com) [<mailto:caleb.coughlin@hatch.com>]  
**Sent:** March-27-17 9:09 AM  
**To:** Poskin, Mike (MNRF)  
**Cc:** [nick.collella@ontario.ca](mailto:nick.collella@ontario.ca); [jim.mulvale@Northlandpower.ca](mailto:jim.mulvale@Northlandpower.ca); [Kathleen.vukovics@hatch.com](mailto:Kathleen.vukovics@hatch.com)  
**Subject:** Burk's Falls West Solar Project Natural Heritage and Water Body Report Amendments

You have received 2 secure files from [caleb.coughlin@hatch.com](mailto:caleb.coughlin@hatch.com).

Use the secure links below to download.

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Hello Mike,

As previously discussed please find attached Burk's Falls West amendment reports for your review.

I have cc'd Nick from MOECC he will be responsible for reviewing the overall REA amendment.

Please contact me if required any clarifications within the documents or project background. We are considering these works as time sensitive as there is no way in telling if or when the supporting fill may fail or to what degree. In any case any substantial movement would undoubtedly take the facility offline and cause safety and environmental concerns. As such we would appreciate anything you can do to prioritize this project; however understand MNRF's workload and mandate may cause the regular turnaround time.

Best Regards,

Caleb Coughlin  
Hatch Ltd.  
905 490 0098

### **Secure File Downloads:**

Available until: **26 April 2017**

Click links to download:

[H353720-00000-121-024-0006.pdf](#)

10.35 MB, Fingerprint: 793ee49c2c94ec5c5722818d93758b1b ([What is this?](#))

[H353720-00000-121-024-0001.pdf](#)

15.48 MB, Fingerprint: 5c36089fc568361e271edf4c4c10b124 ([What is this?](#))

You have received secure links within this email sent via [Hatch Ltd. Secure File Sharing](#). To retrieve the files, please click on the links above. To learn how your company can benefit from Accellion Secure File Sharing, please visit <http://www.accellion.com>

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**From:** Rouse, Jeremy (MNRF) <jeremy.rouse@ontario.ca>  
**Sent:** Tuesday, April 18, 2017 8:53 AM  
**To:** Jim Mulvale; Coughlin, Caleb; Black, Ron (MNRF)  
**Cc:** Kerry, Mara (MNRF)  
**Subject:** RE: Burk's Falls West Solar Project APRD Amendment

Hi Jim and Caleb,

Please do not conduct construction activities that disturb nesting birds. It would seem that you have planned to avoid the breeding period if birds are present so you are fine to proceed.

Regards,  
Jeremy

---

**From:** Jim Mulvale [mailto:jim.mulvale@Northlandpower.ca]  
**Sent:** April-03-17 12:57 PM  
**To:** Coughlin, Caleb; Rouse, Jeremy (MNRF); Black, Ron (MNRF)  
**Cc:** Kerry, Mara (MNRF)  
**Subject:** RE: Burk's Falls West Solar Project APRD Amendment

Hi Jeremy

This is Jim Mulvale from Northland Power and I wanted to add clarity to this request and add some of the history.

The Burk's Falls West site is the location where the presence eastern meadowlark interrupted our construction in 2013 and we already have a compensation planting habitat replacement for the full Burk's Falls West development, which was required under MNR&F permit PS-C-002-12.

While permit PS-C-002-12 allows the destruction of up to 24.2 hectares of habitat, we will monitor the site prior to construction starting to identify if any mating pairs are present. And in any event, we anticipate starting work in this area in early August following the bobolink and eastern meadowlark breeding window.

I would be happy to discuss this further with you.

Regards

**Jim Mulvale, P.Eng.** | Director, EH&S  
Northland Power Inc  
30 St. Clair Ave. West, 12th Floor  
Toronto, Ontario  
M4V 3A1

d: 647.288.1273 | c: 416 662 1437

---

**From:** Coughlin, Caleb [mailto:caleb.coughlin@hatch.com]  
**Sent:** April-03-17 9:19 AM  
**To:** jeremy.rouse@ontario.ca; ron.black@ontario.ca  
**Cc:** mara.kerry@ontario.ca  
**Subject:** Burk's Falls West Solar Project APRD Amendment

Hello Jeremy and Ron.

Hoping you can help me or direct to your Species at Risk Bio.

Northland Power requires to reroute a stormwater drainage channel on their Burk's Falls West Project redirect flows away from their substation foundation that is currently experiencing instability. Unfortunately given the location they were unable to reroute within the existing boundaries of the project, as such are required to amend the existing REA. As part of that process, Hatch has prepared and submitted amendments to the Natural Heritage and Water Assessment Reports to Mike Poskin at MNRF's Central REA Group, with this email beginning the APRD amendment process.

I have attached the original APRD report, the original APRD acceptance letter as well as figure produced for the Natural Heritage Amendment for you to become familiar with past/proposed works.

The proposed work would place a 40 m long x 5 m wide drainage channel within the existing 30 m watercourse setback with a total permanent encroachment of 6.6 m. The channel itself will primarily be reshaping of the existing grades with rip rap stabilization and revegetation occurring immediately after.

It is our opinion the greatest concern of the proposed work is the potential to disrupt breeding habitat for Eastern Meadowlark and/or Bobolink during the construction; however this will be dependent on REA amendment timelines. In any case the disruption to habitat is expected to be temporary as the area will be allowed to naturally revegetate to promote stabilization upon completion and would likely meet habitat requirements in summer of 2018 assuming work can be completed early enough in 2017 for vegetation to become reestablished fully.

We have performed similar APRD amendments throughout Ontario with different Districts preferring to go about minor APRD amendment in different ways. Some find the proposed works do not warrant an APRD amendment submission and subsequent MNRF review, others prefer to receive the amendment showing where the original may differ slightly and some prefer a quick site visit to discuss in person.

Hatch would be pleased to provide you with the input required in whatever format you feel is most appropriate to this situation, we would also be happy to have a call to discuss.

Appreciate your help,

**Caleb Coughlin**

Project Manager – Senior Fish and Wildlife  
Environmental Service Group  
Hatch Ltd.  
**Mobile: (905) 490 - 0098**  
Ontario, Canada

# **Appendix E**

## **Consultation Documents**

April 10, 2017

Addressee  
Company  
Full Address

Dear :

**Subject: Burk's Falls West Solar Project - Project Change Notice**

The Burk's Falls West Solar Project (the "Project") was developed in 2012 by Northland Power Inc. on behalf of Northland Power Solar Burk's Falls West L.P. ("Northland") under Renewable Energy Approval (REA) No. 5665-8YFKZU on November 21, 2012, as amended April 11, 2013. The Project was constructed in 2014.

This notice is provided to make you aware of a Project change identified in the attached figure. Northland proposes to reroute an existing stormwater drainage channel approximately 8 m to the east. The segment of the drainage channel to be relocated is approximately 40 m in length and 5 m in width. The drainage channel will collect stormwater run-off and conveys the waters to the downward side of the vegetated hill on which the facility's electrical substation yard is located. The purpose of the relocation is to keep stormwater from migrating beneath the substation and interfering with the integrity of the yard.

Memos outlining the changes to the Natural Heritage and Water Body Reports were submitted to the Ministry of Natural Resources and Forestry for review, on March 27, 2017, and are available online at: <http://burksfallswest.northlandpower.ca/>. These reports are also available at the Armour Township Office as part of the overall Modifications Document.

A revised submission detailing any changes to the REA supporting documents will be submit to the Ontario Ministry of the Environment and Climate Change and will also be made available on the website.

Should you have any questions or wish to discuss this further, please contact the undersigned at 905-490-0098 or [caleb.coughlin@hatch.com](mailto:caleb.coughlin@hatch.com)

Yours faithfully,



Caleb Coughlin

**Attachments:**

Attachment 1 –Modification Document  
Attachment 2 – Public Notice

# NOTICE OF PROJECT CHANGE

## By Northland Power

**Project Name** - Burk's Falls West Solar Project

**Project Applicant** - Northland Power Solar Burk's Falls West L.P

**Project Location** - The Project is located on part Lot 1 & 2, Concession 8, Township of Armour, Parry Sound District, ON.

**Project Description** - The Burk's Falls West Solar Project was developed in 2012 by Northland Power Solar Burk's Falls West L.P. under Renewable Energy Approval (REA) No. 5665-8YFKZU on November 21, 2012, as amended April 11, 2013. The Project is a Class 3 Solar Facility with a nameplate capacity of 10 MW (AC). The Project was constructed in 2014.

**Project Change** - Northland proposes to reroute an existing stormwater drainage channel approximately 8 meters to the east. The segment of the drainage channel to be relocated is approximately 40m in length and 5m in width. The drainage channel will collect stormwater run-off and will convey the waters to the downward side of the vegetated hill on which the facility's electrical substation yard is located. The purpose of the relocation is to keep stormwater from migrating beneath the substation and interfering with the integrity of the yard.

**Project Documents** - Copies of the Modification Documents including Natural Heritage and Water Body Amendment memos detailing the changes to the REA supporting documents are available at the Armour Township municipal office and online at <http://burksfallswest.northlandpower.ca/>.

### Project Contact Info

Northland Power Solar Burk's Falls West L.P

**Jim Mulvale**, P.Eng.

Northland Power Inc

30 St. Clair Ave. West, 12th Floor, Toronto, Ontario M4V 3A1

Email: [jim.mulvale@Northlandpower.ca](mailto:jim.mulvale@Northlandpower.ca)

Phone: 647 288 1273

Hatch Ltd.

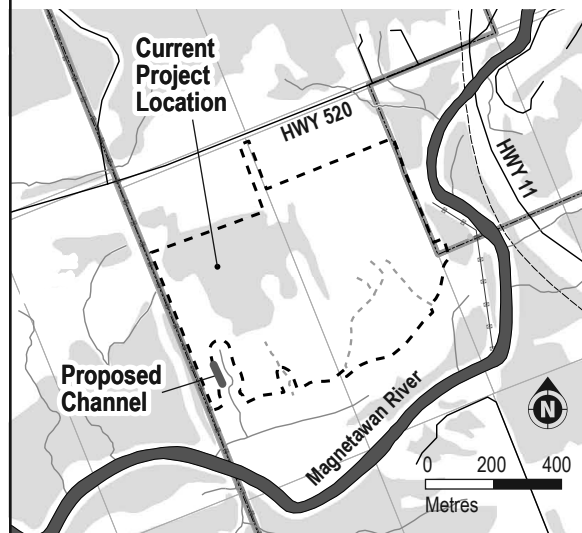
**Caleb Coughlin**

4342 Queen St. Niagara Falls, Ontario L2E 7J7

Environmental Coordinator

Email: [caleb.coughlin@hatch.com](mailto:caleb.coughlin@hatch.com)

Phone: 905 490 0098



---

**Subject:** FW: Burk's Falls West Solar Project

---

**From:** Coughlin, Caleb  
**Sent:** Wednesday, April 19, 2017 8:16 AM  
**To:** ANNA MAGNO <uwannawat@rogers.com>  
**Cc:** Jim Mulvale <jim.mulvale@Northlandpower.ca>  
**Subject:** RE: Burk's Falls West Solar Project

Hi Anna,

Thank you for the update.

We will remove you from the mailing list.

Best Regards,

**Caleb Coughlin**

Project Manager – Senior Fish and Wildlife  
Environmental Service Group  
Hatch Ltd.  
**Mobile: (905) 490 - 0098**  
Ontario, Canada

**HATCH**

---

**From:** ANNA MAGNO [<mailto:uwannawat@rogers.com>]  
**Sent:** Tuesday, April 18, 2017 4:06 PM  
**To:** Coughlin, Caleb  
**Cc:** [jim.mulvale@Northlandpower.ca](mailto:jim.mulvale@Northlandpower.ca)  
**Subject:** Burk's Falls West Solar Project

To whom it may concern;

I received a "project change notice" today for the Solar project. As I no longer own property in the Burk's Falls area, you may wish to send this notice to the current owners.

Thank you,

Anna Magno

---

**From:** Hollie Nolan <hollien@ramafirstnation.ca> on behalf of Chief Rodney Noganosh <chief@ramafirstnation.ca>  
**Sent:** Friday, May 05, 2017 10:28 AM  
**To:** Coughlin, Caleb  
**Subject:** re: Burke's Falls West Solar Project – Project Change Notice.

Dear Caleb;

Thank you for your letter re: Burke's Falls West Solar Project – Project Change Notice.

Please be advised that we reviewed your letter. I have shared it with Council and we've forwarded the information to Karry Sandy McKenzie, Williams Treaties First Nation Process Co-ordinator/Negotiator. Ms. McKenzie will review your letter and take the necessary action if required. In the interim, should you wish to contact Ms. McKenzie directly, please do so at [k.a.sandy-mckenzie@rogers.com](mailto:k.a.sandy-mckenzie@rogers.com)

Thank you,

Chief Rodney Noganosh

---

**Hollie Nolan**

*Executive Assistant to the Chief, Administration*

**Chippewas of Rama First Nation**

(ph) 705-325-3611,1216

(cell)

(fax) 705-325-0879

(url) [www.ramafirstnation.ca](http://www.ramafirstnation.ca)

-----  
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By submitting your or another individual's personal information to Chippewas of Rama First Nation, its service providers and agents, you agree and confirm your authority from such other individual, to our collection, use and disclosure of such personal information in accordance with our privacy policy.

-----  
 Please consider the environment before printing this e-mail.

---

**From:** Coughlin, Caleb  
**Sent:** Friday, May 19, 2017 1:36 PM  
**To:** Coughlin, Caleb  
**Subject:** Metroland Inquiry

**From:** Sarah Charuk  
**Sent:** April-27-17 11:29 AM  
**To:** 'amendler@metrolandnorthmedia.com' <[amendler@metrolandnorthmedia.com](mailto:amendler@metrolandnorthmedia.com)>  
**Cc:** Jim Mulvale <[jim.mulvale@Northlandpower.ca](mailto:jim.mulvale@Northlandpower.ca)>  
**Subject:** Burk's Falls West Solar Project

Hi Andrew,

Jim forwarded your email to me. Thanks for your questions.

To clarify, we are not relocating a drainage “pipe” – rather, it is basically a roadside ditch we are relocating, which we refer to it as a swale (a “u” shaped contour carved into the ground).

To address your specific questions, I have numbered your questions 1-4, and will start with question 2, which describes the main issue:

**2) The MOE documents mention "unstable soil" at one site...is this a threat to any other aspects of the project?**

The Burk's Falls West facility is built on a sloping hillside, which does not present a challenge for most of the solar farm components – the access roads and the layout of the panels can accommodate a hill. What can't be on a slope is the facility's substation – the main transformer and switching equipment need to be fairly level. To create the level area for the substation, the contractor used some of the excess soils from the rest of the site, as well as sand. It seems these soils were not sufficiently compacted; as a result, some subsidence (dropping of the ground level) is occurring in a section of the substation. Also, at the bottom of this built-up area is a retaining wall, to keep the aforementioned soil/sand up on the hill. The retaining wall has shifted in places, and this shifting is exacerbated by a roadside stormwater swale (ditch) located next to the retaining wall.

To be clear, there are no immediate concerns with the stability of the substation or retaining wall; we are undertaking this work because we are committed to ensuring that our facility operates safely and in an environmentally friendly manner over the long-term.

**1) Why is the storm water pipe being relocated? What potential impact could the storm water have if it is not diverted?**

We intend to add some extra mass to the bottom of the retaining wall, and also to move the stormwater swale (ditch) slightly further away (approximately 5 meters) from the retaining wall. This will prevent any excess water from impinging on the base of the retaining wall. If we don't move the stormwater swale, then there is no room to add extra mass to the retaining wall.

**3) What is the timeline for this work? When will the pipe relocation take place?**

We are aiming for this relocation work to begin in August 2017; the work will take approximately two months to complete.

**4) Does the work have any potential for disturbances in the area?**



No - any disturbance will be localized right next to the existing substation. We will be using a number of methods, including silt fences and straw mats, to stabilize any disturbed top soils.

I hope this information is helpful.

Best,  
Sarah

**Sarah Charuk** | Director of Communications  
Northland Power Inc.

d: 647.288.1105 | c: 416.886.8960



**From:** Mendler, Andrew [<mailto:amendler@metrolandnorthmedia.com>]  
**Sent:** April-26-17 4:25 PM  
**To:** Jim Mulvale <[jim.mulvale@Northlandpower.ca](mailto:jim.mulvale@Northlandpower.ca)>  
**Subject:** Burk's Falls West Solar Project

{ **CAUTION:** This email originated from a source external to NPI. Attachments and links are common sources of viruses. **PLEASE DO NOT** open attachments or click on links unless you are sure the sender is legitimate. Check that the name in the FROM field matches the sender email address. Please exercise caution and if there is any doubt, contact the Service Desk immediately. }

Hey Jim,

I saw the ad about the minor change to the Burk's Falls West Solar project and was hoping you might be able to answer a few questions for me.

- 1) Why is the storm water pipe being relocated? What potential impact could the storm water have if it is not diverted?
- 2) The MOE documents mention "unstable soil" at one site...is this a threat to any other aspects of the project?
- 3) What is the timeline for this work? When will the pipe relocation take place?
- 4) Does the work have any potential for disturbances in the area?

Any information you can provide me would be appreciated.

Thanks,

**ANDREW MENGLER** | Reporter/Photographer, Almaguin News

59 Ontario St, Burk's Falls, Ontario, POA 1C0  
Tel: (705) 382-9996 Ext. 22  
[amendler@metrolandnorthmedia.com](mailto:amendler@metrolandnorthmedia.com)



# **Appendix F**

## **REA Application**

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## General Information and Instructions

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### General Information

Information requested in this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990, c. E.19 (EPA) and will be used for the purposes of making decisions in respect of applications for the issue of, or amendment to, a Renewable Energy Approval. The information may also be used in connection with the Ministry's compliance and enforcement activities under the EPA.

For all questions related to preparing or submitting this form or about the Ministry's collection of information related to applying for a Renewable Energy Approval contact: Environmental Approvals Access and Service Integration Branch, 135 St. Clair Ave. W., 1<sup>st</sup> Floor, Toronto ON M4V 1P5. Telephone outside Toronto 1 800 461-6290 or in Toronto 416 314-8001. E-mail: [EAASIBGen@ontario.ca](mailto:EAASIBGen@ontario.ca).

### Instructions

1. **Applicants are responsible for ensuring that they complete the most recent application form.** Application forms and information about the required supporting documentation and technical requirements are available from the Environmental Approvals Access and Service Integration Branch (the address and phone number are provided in the General Information on this page). As well, you can get this information from your local District Office of the Ministry of the Environment and Climate Change, and in the "Renewable Energy Approvals" section of the Ministry of the Environment and Climate Change website at <https://www.ontario.ca/environment-and-energy/renewable-energy-approvals>.

2. **Complete Submission**

In order to be eligible for the issue of a renewable energy approval, a person who proposes to engage in or change a renewable energy project, or alter the terms and conditions of a renewable energy approval shall, before submitting an application to the Director,

- 1) prepare the application in a form or format approved by the Director;
- 2) obtain or prepare, as the case may be, any documents that,
  - a) are required under Part IV of O. Regulation 359/09 (the Regulation) to be submitted as part of the application; or,
  - b) are to be submitted as part of the application for the purposes of obtaining an exemption from a provision of Part V of the Regulation; and,
  - c) comply with all other requirements of Part IV of the Regulation;
- 3) If there is more than one person applying for the issue of a renewable energy approval in respect of a renewable energy project, those persons shall jointly submit one application for the issue of a renewable energy approval;

### New Renewable Energy Approval

Where a renewable energy approval has not yet been issued, a person who proposes to engage in a renewable energy project shall also

- 1) submit, as part of the application, the documents set out in Column 1 of Table 1 of the Regulation, wherever the renewable energy project is described opposite the document in Column 3 of Table 1 of the Regulation; and,
- 2) ensure the documents meet the requirements set out opposite the document in Column 2 of Table 1 of the Regulation.

### Amendment to Renewable Energy Approval

Where a renewable energy approval has been issued, a person making an application in respect of a **proposed change to a renewable energy project or alteration** to the terms and conditions of the renewable energy approval shall, also

- 1) obtain or prepare, as the case may be, one or more reports that set out a description of and rationale for the proposed change or alteration, including any proposed change or alteration in respect of the following:
  - a) the nameplate capacity of the renewable energy generation facility.
  - b) the energy sources to be used to generate electricity at the renewable energy generation facility.
  - c) the project location.
  - d) the renewable energy generation facility, including any associated or ancillary equipment, systems or technologies.
  - e) the activities that will be engaged in as part of the project.
  - f) the negative environmental effects that may result from engaging in the project.
  - g) the measures to mitigate the negative environmental effects that may result from engaging in the project.

### Supporting documents

- 1) Any document submitted as part of an application for the issue of a new, or amendment of an existing, renewable energy approval shall be in writing, with an electronic copy of the document attached.
- 2) Any document submitted as part of an application for the issue of a new, or amendment of an existing, renewable energy approval that is a diagram, map or plan shall be drawn to scale and shall include a scale bar and a north arrow.

Payment of the application fee (in Canadian funds) by certified cheque or money order made payable to the Minister of Finance, or credit card payment (for payments up to \$10,000) is required with the complete submission of your application.

### **INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT.**

The Ministry may require additional information during the technical review of any application.

3. Two (2) paper copies of the completed application form and the supporting documents required to be submitted as part of the application, one (1) electronic copy and the fee, must be sent to:

#### **Ministry of the Environment and Climate Change**

Director, Environmental Approvals Access and Service Integration Branch  
135 St. Clair Avenue West, 1<sup>st</sup> Floor  
Toronto ON M4V 1P5

The fee should be mailed or faxed to our office with the application. For the protection of your credit card information, do not submit the fee by email.

4. You must also send one (1) paper copy of the complete application without the fee to any local Ministry District Office having jurisdiction over the project location. To locate the appropriate local Ministry District Office, please visit the Ministry of the Environment and Climate Change Internet site at: <https://www.ontario.ca/environment-and-energy/ministry-environment-regional-and-district-offices>.
5. Information collected by the Ministry of the Environment and Climate Change is subject to the *Freedom of Information and Protection of Privacy Act* (FIPPA). If you are of the view that any part of your application is confidential on the grounds that such information constitutes a trade secret or scientific, technical, commercial, financial or labour relations information, please make this known now. Otherwise, the Ministry may make the information available to the public without further notice to you.

It is an offence under the EPA to provide false or misleading information in this application and/or accompanying documents.

For Office Use Only			
Reference Number	Payment Received	Date (yyyy/mm/dd)	Initials
	\$		

**Application Summary**

Applicant Name (Legal name of individual or organization as evidenced by legal documents)

**Northland Power Solar Burk's Falls West L.P.**

Project Name (Project identifier to be used as a reference in correspondence)

**Burk's Falls West Solar Project**

Project Description Summary (This summary should reflect the description in the documents upon which consultation has been completed and if it does not, the difference should be highlighted)

The proposed diversion channel is to reroute a portion of the existing stormwater drainage channel approximately 8 m to the east of the original before re-connecting. The segment of the drainage channel to be relocated is approximately 40 m in length and 5 m in width. The drainage channel collects stormwater run-off and conveys the waters to the downward side of the vegetated hill on which the facilities electrical substation yard is located. The purpose of the relocation is to keep stormwater from migrating beneath the substation and interfering with the integrity of the yard. Other project components include silt fencing and hay barrels.

Supplemental Application Information (Provide any other information that might be relevant to your application)

**Note:** This form has been save-enabled; you can save a copy of this form that includes any information you have entered.

Additional instructions and information on how to complete the application form can be found in the accompanying "Guide for Completing the Renewable Energy Approval Application".

**Section 1 – Applicant Information****1.1 – Applicant Information** (Owner of works/facility)

Applicant Name (Legal name of individual or organization as evidenced by legal documents)

Northland Power Solar Burk's Falls West L.P.

Business Identification Number

191194752

Business Name (The name under which the entity is operating or trading, also referred to as trade name)

 Same as Applicant Name**Applicant Type** Corporation Federal Government Individual Municipal Government Partnership Provincial Government Sole Proprietor Other (describe):

North American Industry Classification System (NAICS) Code

221119

Business Activity Description (A description of the business endeavour, this may include products sold, services provided or machinery/equipment used, etc.)

Northland Power specializes in the development and operation of renewable energy facilities, including solar power projects

**1.2 – Applicant Physical Address****Civic Address**

Unit Number

17

Street Number

30

Street Name (Include type and direction)

St. Clair Avenue West

City/Town

Toronto

Province

ON – Ontario

Postal Code

M4V 3A1

**Survey Address** (Not required if the Civic Address is provided)

Lot/Part

Concession/Reference Plan

Municipality/Unorganized Township

County/District

Province/State

Country

Postal Code

Telephone Number (incl. area code)

416 962-6262

ext.

Fax Number (incl. area code)

416 962-6266

Mobile Number (incl. area code)

416 662-1437

Email Address

Jim.mulvale@northlandpower.ca

**1.3 – Applicant Mailing Address**  Same as Applicant Physical Address**Civic Address**

Unit Number

Street Number

Street Name (Include type and direction)

PO Box

City/Town/Municipality/Unorganized Township

Province/State

Country

Postal Code

Delivery Designator

Delivery Identifier

Postal Station

**1.4 – Statement of Applicant**

I, the undersigned hereby declare that, to the best of my knowledge:

- The information contained herein is complete and accurate in every way and I am aware of the penalties against providing false information as per s. 184(2) of the *Environmental Protection Act*,
- I understand that by submitting this form, I am guaranteeing the completeness and accuracy of all the information provided on this form and included in the draft reports. Failure to submit the correct information will result in an incomplete application being returned;
- The Project Technical Information Contact identified below is authorized to act on my behalf for the purpose of obtaining approval under section 47.3 of the EPA for the Project identified herein.

Name of Signing Authority (Please print) (Last name, first name)

Jim Mulvale

Title

Director, EH&amp;S

Telephone Number (incl. area code)

416 962-6262

ext.

Fax Number (incl. area code)

416 962-6266

Mobile Number (incl. area code)

416 662-1437

Email Address

jim.mulvale@northlandpower.ca

Signature

Date (yyyy/mm/dd)

2017/05/23

**Section 2 – Project Information**

**2.1 – Application Type**

New Renewable Energy Approval

Amendment to existing Renewable Energy Approval  
Provide existing Renewable Energy Approval Number  
**5665-8YFKZU**

**Application Initiated by**

- Applicant
- Environmental Approvals Branch/Environmental Approvals Access and Service Integration Branch
- Provincial Officer Order (attach copy)
- Other (describe):

**Relevant pre-submission rules subject to/elected** (please select one of the following)

Notice of Proposal to Engage <b>and</b> if applicable, Notice of First Public Meeting, distributed on or before December 31, 2010.	<input type="checkbox"/> 2010 Rules <input type="checkbox"/> Elect into one or more 2011 Rules <input checked="" type="checkbox"/> Elect into Current Rules	If "Elect into one or more 2011 Rules", please specify which rules:
Notice of Proposal to Engage <b>and</b> Notice of First Public Meeting (or if public meeting not required, drafts of the documents identified in paragraphs 1 and 2 of subsection 18(2) of the Regulation) distributed after December 31, 2010 and on or before July 1, 2012.	<input type="checkbox"/> 2011 Rules <input checked="" type="checkbox"/> Elect into Current Rules	
Notice of Proposal to Engage <b>or</b> Notice of First Public Meeting distributed after July 1, 2012.	<input checked="" type="checkbox"/> Current Rules	

**Current Environmental Compliance Approvals** (please attach a separate list if more space is required)

Environmental Compliance Approval Number	Date of Issue (yyyy/mm/dd)
Environmental Compliance Approval Number	Date of Issue (yyyy/mm/dd)
Environmental Compliance Approval Number	Date of Issue (yyyy/mm/dd)
Environmental Compliance Approval Number	Date of Issue (yyyy/mm/dd)

**Current Permit(s) to Take Water** (please attach a separate list if more space is required)

Permit Number	Date of Issue (yyyy/mm/dd)
Permit Number	Date of Issue (yyyy/mm/dd)
Permit Number	Date of Issue (yyyy/mm/dd)
Permit Number	Date of Issue (yyyy/mm/dd)

**Project Schedule**

Estimated date for start of construction/installation (yyyy/mm/dd) <b>2017/08/01</b>	Estimated date for start of operation (yyyy/mm/dd) <b>2017/09/30</b>
---	---



**2.2 – Statement of Project Technical Information Contact**

The Project Technical Information Contact is the same as the Applicant (Identified in Section 1)

**I, the undersigned hereby declare that, to the best of my knowledge:**

- The information contained herein and the information submitted in support of this application (electronically and in hard copy) is complete and accurate in every way and I am aware of the penalties against providing false information as per s.184(2) of the *Environmental Protection Act*.
- I understand that by submitting this form, I am guaranteeing the completeness and accuracy of this form and the draft documents. Failure to submit the correct information will result in the application being returned as incomplete.
- That the information contained in the electronically submitted application form is the same as the information submitted in the hard copy submission.
- I have used the most recent application form (as obtained from the "Renewable Energy Approvals" section of the Ministry of the Environment and Climate Change website at <http://www.ontario.ca/environment-and-energy/renewable-energy-approvals> or from the Environmental Approvals Access and Service Integration Branch at 1 800 461-6290).

Name of Project Technical Information Contact (Please print) (Last name, first name)

**Caleb Coughlin**

Company

**Hatch Ltd.**

Telephone Number (incl. area code)

**905 490-0098**

ext.

Fax Number (incl. area code)

Mobile Number (incl. area code)

**905 490-0098**

Email Address

**caleb.coughlin@hatch.com**

Signature (hard copy submission **MUST** be signed)



Date (yyyy/mm/dd)

**2017/05/23**

**Address**

The Project Technical Information Contact Address is the same as the Applicant (Identified in Section 1)

Unit Number

**300**

Street Number

**4342**

Street Name (Include type and direction)

**Queen Street**

PO Box

City/Town/Municipality/Unorganized Township

**Niagara Falls**

Province/State

**Ontario**

Country

**Canada**

Postal Code

**L2E 7J7**

Delivery Designator

Delivery Identifier

Postal Station

**2.3 – Other Approvals for Facility** (Please attach a separate list if more space is required)

A separate list is attached

**List all other environmental approvals/permits applied for related to this project or received in relation to this project**

Approval Number

Approval Date (yyyy/mm/dd)

Approval Number

Approval Date (yyyy/mm/dd)

Approval Number

Approval Date (yyyy/mm/dd)

Approval Number

Approval Date (yyyy/mm/dd)

Ontario Power Authority Reference (i.e. FIT) Number (if applicable)

**FIT-FUDV9JL**

**2.4 – Type of Renewable Energy Generation Facility** (Select all that apply)

Wind  Class 2  Class 3  Class 4  Class 5

Other  Biofuel  Biogas  Other (if other please describe):

Anaerobic Digestion  Class 1  Class 2  Class 3

Solar Photovoltaic  Class 3

Thermal Treatment  Class 1  Class 2  Class 3

**2.5 – Generation of Electricity**

Total Maximum Name Plate Capacity

**10** MW (1 MW = 1000 kW / 1 kW = 0.001 MW)

Total Expected Generation Capacity

**10** MW (1 MW = 1000 kW / 1 kW = 0.001 MW)

Days and Hours of Operation

**365d/yr, sunlight hours**

**Section 3 – Site Information****3.1 – Project Location** (The site/location where project will be located)

The Project Location is the same as the Applicant's Address (Identified in Section 1)

**Civic Address**

Unit Number	Street Number	Street Name (Include type and direction)
-------------	---------------	--

City/Town	Province	Postal Code
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**Survey Address** (Not required if the Civic Address is provided)

Lot/Part 1 to 3	Concession/Reference Plan 8	Municipality/Unorganized Township Township of Armour
--------------------	--------------------------------	---

County/District Parry Sound District	Province/State Ontario	Country Canada	Postal Code P0A 1C0
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Non Address Information (where the project spans many locations or a large rural area, specify how the project area relates to the address provided)  
The Project is location on approximately 40 ha of land on a property associated with the above address.

**Geo Reference** (Southwest corner of property)

Map Datum NAD83	Zone 17	Accuracy Estimate +/- 10 m
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Geo Referencing Method GIS Mapping	UTM Easting 622810	UTM Northing 5051694
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**3.2 – Municipal or Local Authority Information** (List all municipal or board authorities where the project is located. Attach a separate list if more space is necessary.)**Local Municipality (include each Single Tier or Lower Tier in which the project location is situated) / Unorganized Township**

Name of Municipality/Unorganized Township

Armour Township

**Address**

Unit Number	Street Number	Street Name (Include type and direction)	PO Box
	56	Ontario Street	533

City/Town Burk's Falls	Province ON – Ontario	Postal Code P0A 1C0
---------------------------	--------------------------	------------------------

Telephone Number (incl. area code) 705 385-3332	ext.	Fax Number (incl. area code) 705 385-3332	Mobile Number (incl. area code)
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Email Address  
clerk@armourtownship.ca**Clerk**

Last Name Whitwell	First Name Wendy	Middle Initial
-----------------------	---------------------	----------------

Telephone Number (incl. area code) 705 382-2068	Email Address clerk@armourtownship.ca
--	--

**Is the project location situated in one or more Upper Tier Municipality?** (i.e., county, regional or district municipality) Yes  No**Is the project location situated in a Local Roads area?** Yes  No**Is the project location in a Local Service Board area?** Yes  No

**3.3 – Site Information** (Information about the site/location where project will be located)

Site Name

**Burk's Falls West Solar Project**

MOE District Office

**Sudbury District Office**

Is any portion of the Project location on federally owned land or a reserve?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is any portion of the Project location on Crown Land?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location that is the subject of this application owned by the Applicant? If "no", please attach the owner's name, address and a signed letter granting consent for the installation and operation of the facilities.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the Applicant the operating authority of the facility that is the subject of this application? If "no", please attach the operating authority name, address and phone number.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the Project location in the area of the Niagara Escarpment Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the area subject to the Oak Ridges Moraine Conservation Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the Protected Countryside as shown in Schedule 1 to the Greenbelt Belt Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the Lake Simcoe Watershed as defined in the <i>Lake Simcoe Protection Act, 2008</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the Central Pickering Development Planning Area as shown in Schedule 1 to the Central Pickering Development Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Has an Archaeological Report (s. 22) been prepared as part of the complete submission?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has a Heritage Report (s.23) been prepared as part of the complete submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Has an Environmental Impact Study Report (s.38, s. 41 or s. 43) been prepared as part of the complete submission?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has a Water Assessment Report or supplementary reporting on any additional mitigation (s.39, s. 40, s.44 s. 45) been prepared as part of the complete submission?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the Project require any authorizations under the <i>Endangered Species Act, 2007</i> ?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
If "yes", have they been obtained from the Ministry of Natural Resources?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

## Section 4 – Supporting Documents

### 4.1 – Supporting Documentation and Technical Requirements

This is a list of all supporting information to this application and is subject to the FIPPA and EBR.

Mandatory	Attachment	Attached	Reference	Confidential*
Yes	Proof of Legal Name of Applicant.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Always Mandatory	<input type="checkbox"/>
Yes	A map that identifies the project location.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Always Mandatory	<input type="checkbox"/>
	Name, Address and Phone Number of the Operating Authority.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mandatory if applicant not operating authority.	<input type="checkbox"/>
	Name, Address and consent of land/site owner for the installation/construction and operation of the facility.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mandatory if applicant not landowner	<input type="checkbox"/>
Yes	Project Description Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory	<input type="checkbox"/>
Yes	Design and Operations Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
Yes	Decommissioning Plan Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
Yes	Construction Plan Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
Yes	Consultation Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
	Development Permit under the <i>Niagara Escarpment Planning and Development Act</i> .	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mandatory where permit required by NEC.	<input type="checkbox"/>
Yes	A copy of this application has been sent to the Ministry local district office(s).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Always Mandatory	<input type="checkbox"/>
	Report(s) that sets out a description of and rationale for the proposed change or alteration.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for Amendment to REA applications.	<input type="checkbox"/>
	Document(s) required under Part IV the Regulation to be submitted as part of the application (list below).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
	Document(s) required for the purposes of obtaining an exemption from a provision of Part V of the Regulation (list below).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>

Other Information Submitted in Support of the Application for the issue of a new, or amendment to an existing, Renewable Energy Approval, including any document that is required under Part IV of the Regulation and/or for the purposes of obtaining an exemption from a provision of Part V of the Regulation.

Title	Reference	Confidential*
Noise Assessment Study		<input type="checkbox"/>
Executive Summary		<input type="checkbox"/>
Natural Heritage Records Review Report		<input type="checkbox"/>
Natural Heritage Site Investigations Report		<input type="checkbox"/>
Natural Heritage Evaluation of Significance Report		<input type="checkbox"/>
Natural Heritage Environmental Impact Study		<input type="checkbox"/>
Stage 1 and 2 Archaeological Assessment		<input type="checkbox"/>
Water Body Records Review		<input type="checkbox"/>
Water Body Site Investigation Report		<input type="checkbox"/>
Water Body Environmental Impact Study		<input type="checkbox"/>
	[ Note these reports were submitted as part of the original REA submission ]	<input type="checkbox"/>

Are you attaching an additional list of documents?  Yes  No

If there is not enough space to list all of the attached documents included in this application package, please include an additional listing of these attachments.

**\*Note:** The collection of personal information in this application is necessary to administer the Ministry's approvals program, which is authorized pursuant to the *Environmental Protection Act*. The personal information collected in this application will be used to administer the program, including for the purposes of the Ministry's compliance and enforcement activities under the aforementioned acts, and for the purposes of making information in respect of the Renewable Energy Approval available to the public with the exception of payment information. Questions about the collection of the information can be directed to a Client Service Representative, Environmental Approvals Access and Service Integration Branch, 135 St. Clair Avenue West, 1st Floor, Toronto Ontario M4V 1P5; Telephone outside Toronto 1 800 461-6290 or in Toronto 416 314-8001 or Fax 416 314-8452.



## Renewable Energy Approval Application

### Payment Information

For Office Use Only			
Reference Number	Payment Received	Date (yyyy/mm/dd)	Initials
	\$		

- Note:**
- All fees should be paid in Canadian funds, payable to the Ontario Minister of Finance.
  - Credit card payments are accepted for payments under \$10,000 only.
  - This page can only be mailed or faxed to our office with this application. For the protection of your credit card information, do not submit by email.
  - If you are paying by certified cheque or money order, please staple your payment to this page.
  - Do not include this page in the copies of your application that are being provided to the local MOE District Office or the local municipality(s).
  - The information collected in this section of the form is considered confidential and will only be used to process your application fee.

Amount enclosed

\$ **300.00**

Method of Payment

- Certified Cheque  
 Money Order  
 Visa  
 MasterCard

Name on Card (please print)

**Jim Mulvale**

Credit Card Number

Expiry Date (mm/yyyy)

Cardholder Signature

Date (yyyy/mm/dd)

If paying by certified cheque or money order, please attach it here.

**Appendix G**  
**REA Permit and First Amendment**

**AMENDMENT TO RENEWABLE ENERGY APPROVAL**NUMBER 5665-8YFKZU  
Issue Date: April 11, 2013

Northland Power Solar Burk's Falls West GP Inc.  
30 St. Clair Ave W 17th Floor  
Toronto, Ontario  
M4V 3A1

Site Location: Burk's Falls West Solar Project  
Lot 1 to 3, Concession 8  
Armour Township, District of Parry Sound

*You are hereby notified that I have amended Approval No. 5665-8YFKZU issued on November 21, 2012 for Burk's Falls West Solar Project , as follows:*

**The definitions of Application on page 2 of the Approval are deleted and substituted with the following:**

7. "Application" means the application for a Renewable Energy Approval dated November 8, 2011, and signed by John Brace, President & CEO, Northland Power Solar Burk's Falls West GP Inc. and all supporting documentation submitted with the application, including amended documentation submitted up to November 21, 2012, and the application for a Renewable Energy Approval dated January 16, 2013 to amend the Renewable Energy Approval number 5665-8YFKZU, and signed by Sam Mantenuto, COO & CDO, Northland Power Solar Burk's Falls West GP Inc., on behalf of Northland Power Solar Burk's Falls West L.P., and all supporting documentation submitted with the application, including amended documentation submitted up to January 23, 2013;

**All other Terms and Conditions remain the same.**

**This Notice shall constitute part of the approval issued under Approval No. 5665-8YFKZU dated November 21, 2012.**

*In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.*



Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The signed and dated notice requiring the hearing should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

This notice must be served upon:

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto, Ontario M5G 1E5

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario M5S 2B1

AND

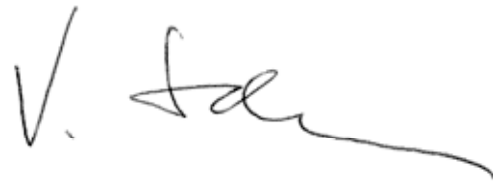
The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario M4V 1L5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca), you can determine when this period ends.*

*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.*

DATED AT TORONTO this 11th day of April, 2013



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Vic Schroter, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

HM/

c: District Manager, MOE North Bay  
Sean Male, Hatch

## RENEWABLE ENERGY APPROVAL

NUMBER 5665-8YFKZU  
Issue Date: November 21, 2012

Northland Power Solar Burk's Falls West GP Inc.  
30 St. Clair Ave W, 12th Floor  
Toronto, Ontario  
M4V 3A1

Project Burk's Falls West Solar Project  
Location: Lot 1 to 3, Concession 8  
Armour Township, District of Parry Sound

*You have applied in accordance with Section 47.4 of the Environmental Protection Act for approval to engage in a renewable energy project in respect of a Class 3 solar facility consisting of the following:*

- the construction, installation, operation, use and retiring of a Class 3 solar facility with a total name plate capacity of up to approximately 10 megawatts (AC).

*For the purpose of this renewable energy approval, the following definitions apply:*

1. "Acoustic Assessment Report" means the report included in the Application and entitled "Burk's Falls West Solar Project Noise Assessment Study Report", dated September 13, 2012, prepared by Hatch Ltd. and signed by Oleg Belashov, Hatch Ltd. on September 13, 2012;
2. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Equipment, assessed to determine compliance with the Noise Performance Limits set out in this Approval;
3. "Acoustic Audit Report" means a report presenting the results of an Acoustic Audit;
4. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from solar facilities;
5. "Act" means the *Environmental Protection Act*, R.S.O 1990, c.E.19, as amended;

6. "Adverse Effect" has the same meaning as in the Act;
7. "Application" means the application for a Renewable Energy Approval dated November 8, 2011, and signed by John Brace, President & CEO, Northland Power Solar Burk's Falls West GP Inc. and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval is issued;
8. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
9. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (itches) of sound. It is denoted as "A";
10. "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";
11. "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum";
12. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:
  - (a) sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);
  - (b) low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);
  - (c) no clearly audible sound from stationary sources other than from those under impact assessment.
13. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:
  - (a) a small community with less than 1000 population;
  - (b) agricultural area;
  - (c) a rural recreational area such as a cottage or a resort area; or
  - (d) a wilderness area.

14. "Company" means Northland Power Solar Burk's Falls West GP Inc., as general partner for and on behalf of Northland Power Solar Burk's Falls West L.P., the partnership under the laws of Ontario, and includes its successors and assignees;
15. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
16. "Director" means a person appointed in writing by the Minister of the Environment pursuant to section 5 of the Act as a Director for the purposes of section 47.5 of the Act;
17. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
18. "Equipment" means the twelve (12) inverters, six (6) transformers, and one (1) transformer substation, and associated ancillary equipment identified in this Approval and as further described in the Application, to the extent approved by this Approval;
19. "Equivalent Sound Level" is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is denoted  $L_{eq}$  and is measured in dB A-weighting (dBA);
20. "Facility" means the renewable energy generation facility, including the Equipment, as described in this Approval and as further described in the Application, to the extent approved by this Approval;
21. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment;
22. "Ministry" means the ministry of the government of Ontario responsible for the Act and includes all officials, employees or other persons acting on its behalf;
23. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, barriers, silencers, acoustical louvres, hoods and acoustical treatment, described in the Acoustic Assessment Report;
24. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
25. "Point of Reception" has the same meaning as in Publication NPC-205 or Publication NPC-232, as applicable, and is subject to the same qualifications described in those documents;
26. "Publication NPC-103" means the Ministry Publication NPC-103, "Procedures", August 1978;

27. "Publication NPC-104" means the Ministry Publication NPC-104, "Sound Level Adjustments", August 1978;
28. "Publication NPC-205" means the Ministry Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October 1995;
29. "Publication NPC-232" means the Ministry Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October 1995;
30. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;
31. "Sound Level" means the A-weighted Sound Pressure Level;
32. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level  $L_{eq}$ ;
33. "Sound Power Level" is ten times the logarithm to the base of 10 of the ratio of the sound power (Watts) of a noise source to standard reference power of  $10^{-12}$  Watts;
34. "Sound Pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given location. The unit of measurement is the micro Pascal ( $\mu\text{Pa}$ );
35. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure ( $\mu\text{Pa}$ ) of a sound to the reference pressure of  $20 \mu\text{Pa}$ ;
36. "UTM" means Universal Transverse Mercator coordinate system.

*You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **A - GENERAL**

- A1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application and in accordance with the following schedules attached hereto:
  - (a) Schedule A - Facility Description
  - (b) Schedule B - Coordinates of the Equipment and Noise Specifications
- A2. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.

- A3. The Company shall ensure a copy of this Approval is:
- (a) accessible, at all times, by Company staff operating the Facility and;
  - (b) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated.
- A4. If the Company has a publicly accessible website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.
- A5. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.
- A6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.
- A7. The Company shall provide the District Manager and the Director advanced written notice of the following:
- (a) the commencement of any construction or installation activities at the project location; and
  - (b) the commencement of the operation of the Facility.

**B - EXPIRY OF APPROVAL**

- B1. Construction and installation of the Facility must be completed within three (3) years of the later of:
- (a) the date this Approval is issued; or
  - (b) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.
- B2. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition B1.

**C - NOISE PERFORMANCE LIMITS**

- C1. The Company shall ensure that:

- (a) the Sound Levels from the Equipment, at the Points of Reception identified in the Acoustic Assessment Report, comply with the Sound Level Limit of 40 dBA as described in Publication NPC-232, subject to adjustment for tonality as described in Publication NPC-104;
  - (b) the Equipment is constructed and installed at either of the following locations:
    - (i) at the locations identified in Schedule B of this Approval; or
    - (ii) at a location that does not vary by more than 10 metres from the locations identified in Schedule B of this Approval and provided that,
      - 1) the Equipment will comply with Condition C1 (a), and
      - 2) all setback prohibitions established under O. Reg. 359/09 are complied with.
  - (c) the Equipment complies with the noise specifications set out in Schedule B of this Approval; and
  - (d) all of the Noise Control Measures are fully implemented prior to the commencement of the operation of the Facility.
- C2. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition C1 (b), prior to the construction and installation of the Equipment in question, the Company shall apply to the Director for an amendment to the terms and conditions of the Approval.
- C3. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the UTM coordinates of the "as constructed" Equipment comply with the requirements of Condition C1 (b).

#### **D - STORMWATER MANAGEMENT**

- D1. The Company shall employ best management practices for stormwater management and sediment and erosion control during construction, installation, use, operation, maintenance and retiring of the Facility, as outlined in the Application.

#### **E - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY**

- E1. The Company shall design and construct a transformer/substation spill containment facility which meets the following requirements:
  - (1) the spill containment area serving the transformer substation shall have a minimum volume equal to the volume of transformer oil and lubricants plus the volume equivalent to providing a minimum 24-hour duration, 50-year return storm capacity for the stormwater drainage area around the transformer under normal operating conditions;

- (2) the containment facility shall have an impervious concrete floor and walls or impervious plastic liner on floor and walls, sloped toward an outlet, maintaining a freeboard of approximately 0.25 metres terminating approximately 0.30 metres above grade, and a minimum 300mm layer of crushed stoned (typically 19mm to 38mm in diameter) within, all as needed in accordance to site specific conditions and final design parameters;
- (3) the containment facility shall drain to an oil control device, such as an oil/water separator, a pump-out sump, an oil absorbing material in a canister or a blind sump; and
- (4) the oil control device shall be equipped with an oil detection system and appropriate sewage appurtenances, such as, but not limited to: sump, oil/grit separator, pumpout manhole, level controllers, floating oil sensors, etc., that allows for batch discharges or direct discharges and for proper implementation of the monitoring program described in Condition E4.

E2. The Company shall:

- (1) prior to the construction of the transformer substation spill containment facility, provide the District Manager and Director a report and drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario and competent in electrical engineering;
- (2) within six (6) months of the completion of the construction of the transformer substation spill containment facility, provide the District Manager and Director a report and drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario which includes the following:
  - (a) as-built drawings of the sewage works;
  - (b) confirmation that the transformer substation spill containment facility has been designed and installed according to appropriate specifications; and
  - (c) confirmation of the adequacy of the operating procedures and the emergency procedures manuals as it pertains to the installed sewage works.
- (3) as a minimum, check the oil detection system on a monthly basis and create a written record of the inspections;
- (4) ensure that the effluent is essentially free of floating and settle-able solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters;
- (5) immediately identify and clean-up all losses of oil from the transformer;
- (6) upon identification of oil in the effluent pumpout, take immediate action to prevent the further occurrence of such loss; and



- (7) ensure that equipment and material for the containment, clean-up and disposal of oil and materials contaminated with oil are kept within easy access and in good repair for immediate use in the event of:
  - (a) loss of oil from the transformer,
  - (b) a spill within the meaning of Part X of the Act, or
  - (c) the identification of an abnormal amount of oil in the effluent.

E3. The Company shall design, construct and operate the sewage works such that the concentration of the effluent parameter named in the table below does not exceed the maximum concentration objective shown for that parameter in the effluent, and shall comply with the following requirements:

<b>Effluent Parameters</b>	<b>Maximum Concentration Objective</b>
Oil and Grease	15mg/L

- (1) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
- (2) take immediate action to identify the cause of the exceedance; and
- (3) take immediate action to prevent further exceedances.

E4. Upon commencement of the operation of the Facility, the Company shall establish and carry out the following monitoring program for the sewage works:

- (1) the Company shall collect and analyze the required set of samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified for the effluent parameter, oil and grease, and create a written record of the monitoring:

<b>Effluent Parameters</b>	<b>Measurement Frequency and Sample Points</b>	<b>Sample Type</b>
Oil and Grease	B – Batch, i.e., for each discrete volume in the sewer appurtenance as per E1(4) prior to pumpout; or Q – Quarterly for direct effluent discharge, i.e., four times over a year, relatively evenly spaced.	Grab

- (2) in the event of an exceedance of the maximum concentration objective set out in the table in Condition E3, the Company shall:
  - (a) increase the frequency of sampling to once per month, for each month that effluent discharge occurs, and
  - (b) provide the District Manager, on a monthly basis, with copies of the written record created for the monitoring until the District Manager provides written direction that monthly sampling and reporting is no longer required; and

- (3) if over a period of twenty-four (24) months of effluent monitoring under Condition E4 (1), there are no exceedances of the maximum concentration set out in the table in Condition E3, the Company may reduce the measurement frequency of effluent monitoring to a frequency as the District Manager may specify in writing, provided that the new specified frequency is never less than annual.

E5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition E4:

- (1) Ministry of the Environment publication "Protocol for the Sampling and Analysis of Industrial/ Municipal Wastewater", January 1999, as amended from time to time by more recently published editions, and
- (2) the publication "Standard Methods for the Examination of Water and Wastewater", 21st edition, 2005, as amended from time to time by more recently published editions.

#### **F - WATER TAKING ACTIVITIES**

F1. The Company shall not take more than 50,000 litres of water on any day by any means during the construction, installation, use, operation, maintenance and retiring of the Facility.

#### **G - NATURAL HERITAGE RESOURCES**

G1. No construction or installation activities shall be commenced in areas at the project location that support habitat for Eastern Meadowlark until the Company has received any required authorizations under the *Endangered Species Act, 2007* .

#### **H - TRAFFIC MANAGEMENT PLANNING**

H1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Township of Armour.

H2. Within three (3) months of having provided the Traffic Management Plan to the Township of Armour, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Township of Armour.

H3. If a Road Users Agreement has not been signed with the Township of Armour within three (3) months of having provided the Traffic Management Plan to the Township of Armour, the Company shall provide a written explanation as to why this has not occurred.

## **I - ARCHAEOLOGICAL RESOURCES**

- I1. The Company shall implement all of the recommendations, if any, for further archaeological fieldwork and for the protection of archaeological sites found in the consultant archaeologist's report included in the Application, and which the Company submitted to the Ministry of Tourism, Culture and Sport in order to comply with clause 22 (2) (b) of O. Reg. 359/09.
- I2. Should any previously undocumented archaeological resources be discovered, the Company shall:
  - (a) cease all alteration of the area in which the resources were discovered immediately;
  - (b) engage a consultant archaeologist to carry out the archaeological fieldwork necessary to further assess the area and to either protect and avoid or excavate any sites in the area in accordance with the *Ontario Heritage Act*, the regulations under that act and the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists*; and
  - (c) notify the Director as soon as reasonably possible.

## **J - OPERATION AND MAINTENANCE**

- J1. Prior to the commencement of the operation of the Facility, the Company shall prepare a written manual for use by Company staff outlining the operating procedures and a maintenance program for the Equipment that includes as a minimum the following:
  - (a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
  - (b) emergency procedures;
  - (c) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
  - (d) all appropriate measures to minimize noise emissions from the Equipment.
- J2. The Company shall;
  - (a) update, as required, the manual described in Condition J1; and
  - (b) make the manual described in Condition J1 available for review by the Ministry upon request.
- J3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition J1.

## **K - RECORD CREATION AND RETENTION**

K1. The Company shall create written records consisting of the following:

- (a) an operations log summarizing the operation and maintenance activities of the Facility;
- (b) within the operations log, a summary of routine and Ministry inspections of the Facility; and
- (c) a record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility.

K2. A record described under Condition K1 (c) shall include:

- (a) a description of the complaint that includes as a minimum the following:
  - (i) the date and time the complaint was made;
  - (ii) the name, address and contact information of the person who submitted the complaint;
- (b) a description of each incident to which the complaint relates that includes as a minimum the following:
  - (i) the date and time of each incident;
  - (ii) the duration of each incident;
  - (iii) the wind speed and wind direction at the time of each incident;
  - (iv) the ID of the Equipment involved in each incident and its output at the time of each incident;
  - (v) the location of the person who submitted the complaint at the time of each incident; and
- (c) a description of the measures taken to address the cause of each incident to which the complaint relates and to prevent a similar occurrence in the future.

K3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition K1, and make these records available for review by the Ministry upon request.

## **L - NOTIFICATION OF COMPLAINTS**

L1. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.

- L2. The Company shall provide the District Manager with the written records created under Condition K2 within eight (8) business days of the receipt of the complaint.
- L3. If the Company receives a complaint related to groundwater, the Company shall contact the District Manager within one (1) business day of the receipt of the complaint to discuss appropriate measures to manage any potential groundwater issues.

#### **M - CHANGE OF OWNERSHIP**

- M1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:
- (a) the ownership of the Facility;
  - (b) the operator of the Facility;
  - (c) the address of the Company;
  - (d) the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act* , R.S.O. 1990, c.B.17, as amended, shall be included in the notification; and
  - (e) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act* , R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

## SCHEDULE A

### Facility Description

The Facility shall consist of the construction, installation, operation, use and retiring of the following:

- (a) Six (6) arrays of photovoltaic (PV) modules or panels with a total name plate capacity of up to approximately 10 megawatts (AC), with each array containing one (1) cluster consisting of two (2) 800 kW inverters and one (1) 27.6 kV/1.6-MVA transformer; and
- (b) associated ancillary equipment, systems and technologies including one (1) transformer substation, on-site access roads, underground cabling and overhead distribution lines,

all in accordance with the Application.

## SCHEDULE B

### Coordinates of the Equipment and Noise Specifications

Coordinates of the Equipment are listed below in UTM, Z17-NAD83 projection:

Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
Sub	90.8	622,723	5,051,685	27.6-kV/44-kV/10-MVA Transformer Substation
Inv1	91.3	623,202	5,052,134	1.6 MW Inverter Cluster
Inv2	91.3	623,045	5,051,778	1.6 MW Inverter Cluster
Inv3	91.3	622,773	5,051,768	1.6 MW Inverter Cluster
Inv4	91.3	623,274	5,051,851	1.6 MW Inverter Cluster
Inv5	91.3	623,322	5,052,039	1.6 MW Inverter Cluster
Inv6	91.3	622,847	5,051,939	1.6 MW Inverter Cluster
Trans1	80.1	623,202	5,052,129	360-V/27.6-kV/1.6-MVA Transformer
Trans2	80.1	623,039	5,051,778	360-V/27.6-kV/1.6-MVA Transformer
Trans3	80.1	622,768	5,051,769	360-V/27.6-kV/1.6-MVA Transformer
Trans4	80.1	623,274	5,051,857	360-V/27.6-kV/1.6-MVA Transformer
Trans5	80.1	623,316	5,052,039	360-V/27.6-kV/1.6-MVA Transformer
Trans6	80.1	622,847	5,051,934	360-V/27.6-kV/1.6-MVA Transformer

Note: The inverter and transformer Sound Power Level values in the above table correspond to the combined output of all the inverters in each cluster, and include the 5 Decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Conditions A1 and A2 are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in the manner in which it was described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.
2. Conditions A3 and A4 are included to require the Company to provide information to the public and the local municipality.
3. Conditions A5 and A6 are included to ensure that final retirement of the Facility is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure long-term protection of the health and safety of the public and the environment.
4. Condition A7 is included to require the Company to inform the Ministry of the commencement of activities related to the construction, installation and operation of the Facility.
5. Condition B is intended to limit the time period of the Approval.
6. Condition C1 is included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Equipment and to ensure that the noise emissions from the Equipment will be in compliance with applicable limits set in Publication NPC-232.
7. Conditions C2 and C3 are included to ensure that the Equipment is constructed, installed, used, operated, maintained and retired in a way that meets the regulatory setback prohibitions set out in O. Reg. 359/09.
8. Conditions D, F, G and H are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.
9. Condition E1 is included to ensure that the sewage works of the transformer substation spill containment facility are designed to have adequate capacity to provide spill control. This condition is also included to enable compliance with this Approval, such that the environment is protected and deterioration, loss, injury or damage to any person, property or the environment is minimized and/ or prevented.
10. Condition E2 is included to ensure that the sewage works of the transformer substation spill containment facility will be designed, installed, operated and maintained in accordance with the information submitted by the Company, and to adequately manage and clean-up any oil spill from the transformer.
11. Condition E3 is included to establish non-enforceable effluent quality objectives which the Company is required to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.

12. Conditions E4 and E5 are included to require the Company to demonstrate that the performance of the sewage works of the transformer substation spill containment facility is at a level consistent with the design and effluent objectives specified in the Approval and is not causing any impairment to the environment.
13. Condition I is included to protect archaeological resources that may be found at the project location.
14. Condition J is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, O. Reg. 359/09 and this Approval.
15. Condition K is included to require the Company to keep records and provide information to the Ministry so that compliance with the Act, O. Reg. 359/09 and this Approval can be verified.
16. Condition L is included to ensure that any complaints regarding the construction, installation, use, operation, maintenance or retirement of the Facility are responded to in a timely and efficient manner.
17. Condition M is included to ensure that the Facility is operated under the corporate name which appears on the application form submitted for this Approval and to ensure that the Director is informed of any changes.

## NOTICE REGARDING HEARINGS

*In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.*

*Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:*

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The signed and dated notice requiring the hearing should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;



*This notice must be served upon:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto, Ontario  
M5G 1E5

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario  
M5S 2B1

AND

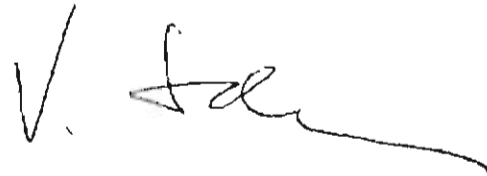
The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca), you can determine when this period ends.*

*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.*

DATED AT TORONTO this 21st day of November, 2012



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Vic Schroter, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

SR/

c: District Manager, MOE North Bay  
Sean Male, Hatch