Water Body Records Review
Newboro 1 Solar Energy Project
Township of Rideau Lakes, Ontario

September 2012

Prepared for:
SunEdison
595 Adelaide Street, Suite 400
Toronto, Ontario
M5A 1N8

Prepared by:
GENIVAR Inc.
1091 Gorham Street, Suite 301
Newmarket, Ontario L3Y 8X7

Project No. 111-18739-00

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GENIVAR

Project No. 111-18739-00

September 12, 2012

Robert Miller, M.Sc., P.Eng.
Director of Development
SunEdison Canada
595 Adelaide Street, Suite 400
Toronto, Ontario
M5A 1N8

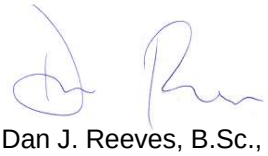
Re: Water Body Records Review
Newboro 1 Solar Energy Project
Part of Lots 25, 26 and 27, Concession 1,
Township of Rideau Lakes, Leeds County, Ontario

Dear Mr. Miller:

GENIVAR Inc. (GENIVAR) is pleased to provide you with our Water Body Records Review for the Newboro 1 Solar Energy Project described as Part of Lots 25, 26 and 27, Concession 1, South Crosby Ward, Township of Rideau Lakes, Leeds and Grenville County, Ontario. Please find the document attached for your records.

Thank you for the opportunity to complete this assessment. Please contact the undersigned if you have any questions.

Yours truly,
GENIVAR Inc.



Dan J. Reeves, B.Sc., M.Sc.
Project Biologist
Environment

RWJD:nah

1091 Gorham Street, Suite 301, Newmarket, Ontario L3Y 8X7
Telephone: 905.853.3303 • Fax: 905.853.1759• www.genivar.com

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Appendix A Agency Correspondence

1. Introduction

GENIVAR Inc. (GENIVAR) has been retained by SunEdison Canada (SunEdison) to conduct a Water Body Records Review for the proposed Newboro 1 Solar Power Project; herein referred to as the "Project Location". The Project Location is described as Part of Lots 25, 26 and 27, Concession 1, South Crosby Ward, Township of Rideau Lakes, Leeds and Grenville County, Ontario. This review has been prepared in accordance with Ontario Regulation (O.Reg.) 359/09 Renewable Energy Approvals made under Part V.0.1 of the Environmental Protection Act (Government of Ontario (Ontario), 2009); herein referred to as the "REA Regulation".

The owner of the subject property is investigating the feasibility of developing a solar power project. The Project Location totals approximately 142 ha (351 acres) and is located 5 km east of the Village of Newboro, and approximately 40 km north of the Town of Gananoque. Figure 1 outlines the Project Location, the associated 120 m area of influence and any nearby water bodies.

1.1 Renewable Energy Legislative Requirements

O.Reg. 359/09 – Renewable Energy Approvals under Part V.0.1 of the Act identifies Renewable Energy Approval (REA) requirements for renewable energy generation facilities in Ontario. As per the REA Regulation, ground-mounted solar facilities with a capacity greater than 10 kilowatts (kW) are classified as Class 3 solar facilities and require an REA.

1.2 Purpose of Report

Subsection 30 (1) of the REA Regulation (Ontario, 2009) requires proponents of Class 3 solar projects to undertake a Water Body Records Review to identify whether a project is:

- In a water body;
- 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 average annual high water mark of a permanent or intermittent stream, or;
- within 120 m of a seepage area.

Subsection 30 (2) of the REA Regulation requires the proponent to prepare a report summarizing the efforts taken within the records review portion of the process. This Water Body Records Review report has been prepared to meet these requirements.

2. Records Review Methodology

The following report sections document the records that were assessed, to determine if the Project Location is within or adjacent to any water body features, as outlined within Section 1.2 of this report. Section 1 (1) of the REA Regulation (Ontario, 2009) defines a "water body" as a lake, a permanent stream, an intermittent stream and seepage area but does not include:

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

2.1 Qualifications of the Investigators

Background searches were conducted by James Dennis and the report was written by Erin Corstorphine and reviewed by Dan Reeves.

James Dennis, M.Sc.F., Biologist. James has developed a diverse background in biology, ecology and environmental science. He has conducted and participated in a variety of natural heritage studies throughout Ontario. James has extensive experience collecting, analyzing and reporting scientific data as a result of his academic and professional pursuits. His practice in field biology, from conducting tree inventories to collecting insects, is complemented by his ability to organize and analyze information and report on any findings.

Erin Corstorphine, M.Sc., Biologist. With a strong foundation in biological and ecological sciences, Erin has experience planning terrestrial and marine field programs, collecting and analyzing data, and preparing detailed scientific reports. Through various roles in the public and private sectors, she has gained experience with project design and implementation through involvement with class environmental assessments, renewable energy projects, species at risk surveys, vegetation surveys, stream rehabilitation and flood risk analysis.

Dan Reeves, M.Sc., Project Biologist. Dan has a diverse background in environmental sciences, ecology, and biology gained through eight (8) years of experience in academia, and work in both the private and public sectors. He has conducted multi-scale vegetation assessments and worked on a variety of long-term abundance and diversity indices. Dan has extensive experience collecting, analyzing, and reporting publication quality scientific data through experiences at several institutions. Work history paired with educational background has given him a well rounded knowledge of scientific methods, an understanding of the scientific process from concept to publication, and solid scientific communication skills.

3. Water Body Records Review

3.1 Information Resources

A records review was conducted in accordance with Section 30 of the REA Regulation (Ontario, 2009). The following relevant information resources were consulted over the course of the records review stage to determine if the Project Location is located in or within 120 m of a water body, as defined in the Section 1.1 of the REA Regulation. References for the documents utilized are provided in the Literature Cited Section of this report.

- Ontario Ministry of Natural Resources (OMNR), Peterborough Office;
- Rideau Valley Conservation Authority;
- Cataraqui Region Conservation Authority;
- The Atlas of Canada, Toporama - Online Topographic Maps (2010);
- Township of Rideau Lakes Official Plan (2004);
- Land Information Ontario (LIO) (OMNR, 2008);
- Renewable Energy Atlas (OMNR, 2011)
- Ontario Crown Land Use Policy Atlas (OMNR, 2007)

3.2 Records Review Results

3.2.1 Ontario Ministry of Natural Resources

The Kemptville District OMNR provided information for the proposed Newboro 1 Solar Power Project in a letter dated August 16, 2011 (Appendix A).

At the time of initial contact, an unnamed watercourse was identified within 100 m of the northern boundary of the Project Location; however, the boundaries of the Project Location have been modified since that time. Due to the modification of the boundaries, this watercourse is no longer located within 120 m of the Project Location.

3.2.2 Ecological Services

Figure 4.0 within the Natural Heritage Assessment Site Investigation Report (NHASI) by Ecological Services (2012) shows a watercourse on the Project Location (refer to Figure 1). The presence and extent of this watercourse will be discussed within the Water Body Site Investigation Report.

3.2.3 Rideau Valley Conservation Authority

A property inquiry was initiated by GENIVAR on September 15, 2011 for the proposed Newboro 1 Solar Power Project. No information pertaining to specific water bodies within the vicinity of the Project Location was provided by the Rideau Valley Conservation Authority (RVCA) on September 15, 2011 (Appendix A). RVCA staff noted that the Project Location is not located within a regulated limit or flood plain and so the proposal does not require written approval from the RVCA.

3.2.4 Cataraqui Region Conservation Authority

A property inquiry was initiated on September 15, 2011 for the proposed Newboro 1 Solar Farm. Information pertaining to water bodies within the vicinity of the Project Location was provided by the Cataraqui Region Conservation Authority (CRCA) on September 15, 2011 (Appendix A). The CRCA noted that much of the Project Location falls under the authority of the RVCA and that the small portion under the CRCA's jurisdiction would not be covered by "[their] regulation" (O. Reg. 148/06 under the Conservation Authorities Act).

Upon further inquiry, it was discovered that the watercourse noted in the NHASI (Ecological Services, 2012a) and described in the Water Body Site Investigation Report (Ecological Services, 2012b) may fall under the jurisdiction of the CRCA. The CRCA reviewed the Water Body Site Investigation Report (Ecological Services, 2012) and reiterated its prior position that the RVCA will have complete jurisdiction over this project (J. Messenger pers. comm. March 19, 2012; refer to Appendix A).

Additional contact with CRCA on April 11, 2012 confirmed that the watercourse is regulated by CRCA for its hydraulic function only. (T. Beaubiah, pers. comm. April 11, 2012; refer to Appendix A). The watercourse does not support fish habitat and provides limited ecological function due to limited hydro-period.

3.2.5 The Atlas of Canada, Toporama - Online Topographic Maps

The Atlas of Canada online topographic mapping tool (Toporama; Department of Natural Resources Canada, 2010) was reviewed for water bodies within the Project Location and its area of influence. Using the revised boundaries of the Project Location, the Toporama map showed no watercourses on or within 120 m of the Project Location.

3.2.6 Township of Rideau Lakes, Official Plan

Municipal records from the Township of Rideau Lakes were consulted for information regarding locally or regionally significant natural features, including water bodies.

There was no specific information regarding locally or regionally significant natural features on the Township of Rideau Lakes website or Official Plan; however, under the Official Plan, fish habitat is provided a 30 m setback from "significant development or site alteration" (Township of Rideau Lakes, 2004).

3.2.7 Land Information Ontario (LIO)

Land Information Ontario (LIO; OMNR, 2008)) is managed by the OMNR and provides a forum for the creation, access and exchange of key geospatial datasets about Ontario. LIO data was reviewed for the presence of water bodies. Shapefiles from LIO were used to create a map showing the water bodies on or within 120 m of the Project Location (refer to Figure 1).

LIO did not provide any additional water body information for the Project Location.

3.2.8 Renewable Energy Atlas

The Renewable Energy Atlas (OMNR, 2011) is an interactive map browser based on the Ontario Base Maps. It is managed by the OMNR and provides a forum for the creation, access and exchange of key geospatial datasets about Ontario. Within the map layers available for query, the Renewable Energy Atlas includes information on Aquatic Resource Areas, viewable at scales of 1:75,000 or finer. For the purposes of the Renewable Energy Atlas application in LIO, Aquatic Resource Areas are defined as descriptions of the "physical characteristics and fish species of lakes[,] rivers or streams and links to more detailed external fish survey information for that waterbody," (OMNR, 2010).

The Renewable Energy Atlas Atlas did not provide any additional water body information for the Project Location.

3.2.9 Ontario Crown Land Use Policy Atlas

The Ontario Crown Land Use Policy Atlas (OMNR, 2007) hosts an interactive map browser based on the Ontario Base Mapping resources. The browser enables users to view the boundaries of Crown land use areas and associated land use policies. The Atlas shows locations for regulated areas such as provincial parks, conservation reserves and Crown game preserves, recommended protected areas and other reserves or parks that are not subject to provincial policy including national parks and Indian reserves.

The Ontario Crown Land Use Policy Atlas did not provide any additional water body information for the Project Location.

4. Summary of Water Body Records Review

The information and mapping resources outlined above were assessed to determine the presence and location of any water body on or within 120 m of the Project Location. A review of available mapping and background sources did not show any lakes within 120 m; however, an unnamed watercourse is located within the Project Location. The presence of the watercourse was confirmed through correspondence with the Ecological Services, RVCA, and CRCA (refer to Appendix A). No other water bodies were noted on or within 120 m of the Project Location. The results of the Water Body Records Review are summarized in Table 1.

Table 1 Water Records Review Summary

Feature	Presence and Notes
In a water body.	The Project Location is not located within a water body.
Within 120 metres of the average annual high water mark of a lake, other than a lake trout lake that is at or above development capacity.	The Project Location is not located within 120 metres of the average annual high water mark or a lake, other than a lake trout lake that is at or above development capacity.
Within 300 metres of the average annual high water mark of a lake trout lake that is at or above development capacity.	The Project Location is not located within 300 metres of the annual high water mark of a lake trout lake that is at or above development capacity.
Within 120 metres of the average annual high water mark of a permanent or intermittent stream.	One watercourse is located within the northwest quadrant of the Project Location. The locations and characteristics of this watercourse will be documented in the Water Body Site Investigation Report.
Within 120 metres of a seepage area.	The Project Location is not within 120 metres of any recorded seepage area.

5. Conclusion

It was noted during the Natural Heritage Assessment Records Review (GENIVAR, 2012) that initial mapping of the study area showed an unnamed watercourse within the wetland northeast of the Project Location. The boundaries of the Project Location were subsequently amended so these features were outside the 120 m area of influence of the Project Location. During the site investigation an additional watercourse was discovered within the Project Location (Ecological Services, 2012a). The presence and extent of the unnamed watercourse will be discussed in the Water Body Site Investigation Report.

6. Closure

This report has been prepared by GENIVAR Inc. The assessment represents the conditions at the subject property only at the time of the assessment, and is based on the information referenced and contained in the report. GENIVAR Inc. attests that to the best of our knowledge, the information presented in this report is accurate. The use of this report for other projects without written permission of SunEdison and GENIVAR Inc. is solely at the user's own risk.

We trust that this evaluation is satisfactory for your current needs. Please contact us if you have any questions.

Yours truly,
GENIVAR Inc.

Erin Corstorphine, M.Sc.
Biologist

Reviewed by:

Dan Reeves, M.Sc.
Project Biologist

7. Literature Cited

Department of Natural Resources Canada. 2010. The Atlas of Canada: Toporama – Topographic Maps. http://atlas.nrcan.gc.ca/site/english/maps/topo/map. Accessed March 2012.

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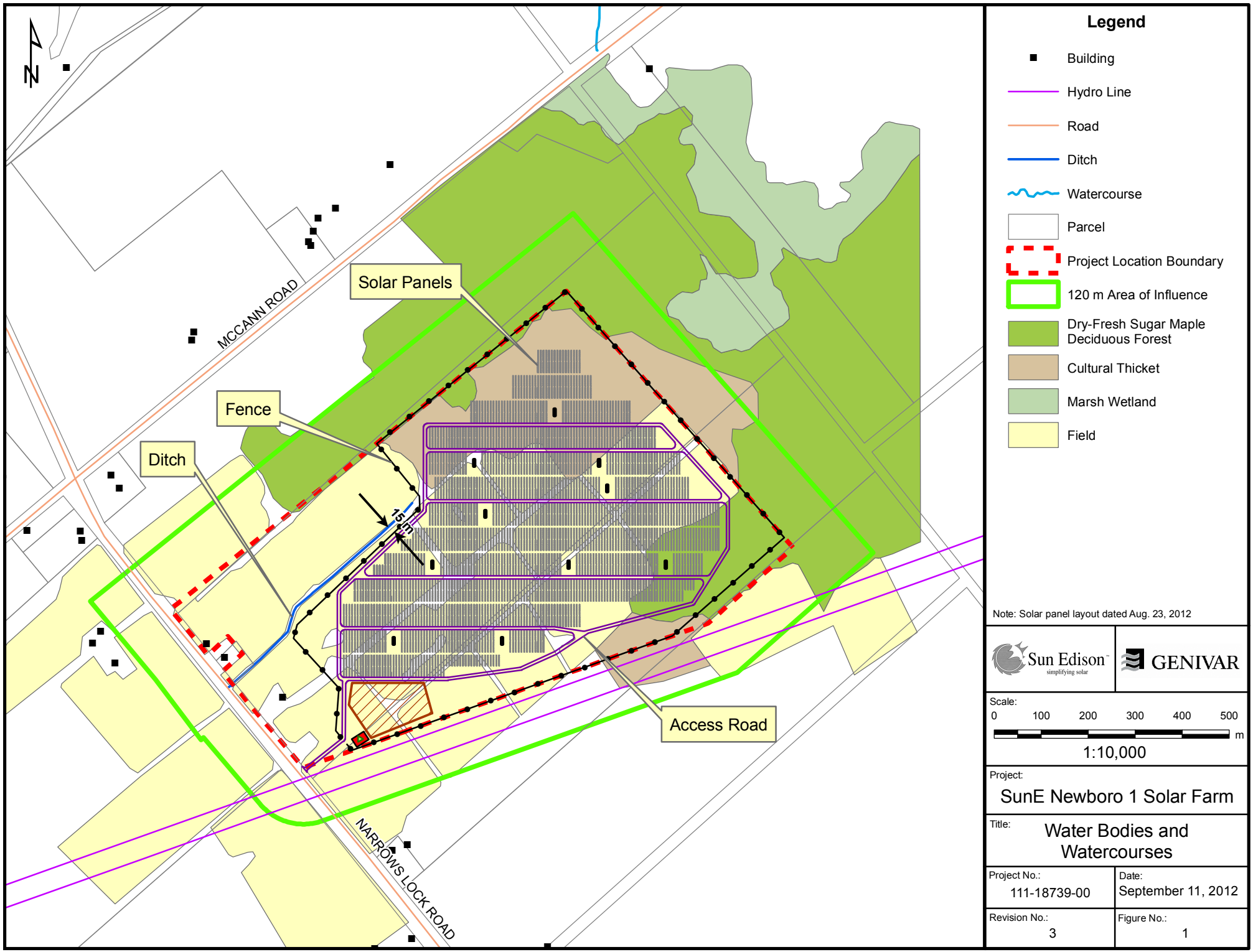
Figures


N
MCCANN ROAD
Solar Panels
Fence
Ditch
15 m
Access Road
NARROWS LOCK ROAD
Legend
Building
Hydro Line
Road
Ditch
Watercourse
Parcel
Project Location Boundary
120 m Area of Influence
Dry-Fresh Sugar Maple Deciduous Forest
Cultural Thicket
Marsh Wetland
Field
Note: Solar panel layout dated Aug. 23, 2012
Sun Edison
simplifying solar
GENIVAR
Scale:
0 100 200 300 400 500
m
1:10,000
Project:
SunE Newboro 1 Solar Farm
Title:
Water Bodies and Watercourses
Project No.:
111-18739-00
Date:
September 11, 2012
Revision No.:
3
Figure No.:
1

Appendices

Appendix A

Agency Correspondence

Erin Corstorphine

From: Jaclyn Rodo
Sent: Friday, September 16, 2011 8:33 AM
To: Erin Corstorphine
Subject: FW: Re: Newboro 1 - Proposed Solar Farm

Erin,

I figure you may want to keep this email on file regarding the Newboro 1 solar farm. This property falls within both the Cataraqui Region and Rideau Lakes CA's jurisdiction so I emailed both authorities with the same request.
Below is the CRCA's response.

Thanks,
Jaclyn

From: Christie MacIsaac [mailto:macisaac@cataraquiregion.on.ca]
Sent: Thursday, September 15, 2011 11:16 AM
To: Jaclyn Rodo
Cc: beaubiah@cataraquiregion.on.ca
Subject: RE: Re: Newboro 1 - Proposed Solar Farm

Hi Jaclyn,

I have reviewed our watershed map for this property – and it appears that the majority of this property is in RVCA's jurisdiction. The minute portion that is within our jurisdiction consists of fields and 'wooded areas' in the south east corner – nothing that our regulation would cover. We suggest that RVCA holds most of the information that you require for the purposes of information gathering for this project. We will not require review of the project.

Thank you,

Christie

Christie MacIsaac
Environmental Planner
Cataraqui Region Conservation Authority
Tel: 613-546-4228 ext. 236
Fax: 613-547-6474
macisaac@cataraquiregion.on.ca
www.cataraquiregion.on.ca

From: Sukriti Agarwal [mailto:sagarwal@cataraquiregion.on.ca]
Sent: Thursday, September 15, 2011 10:40 AM
To: 'Christie MacIsaac'
Subject: FW: Re: Newboro 1 - Proposed Solar Farm

From: Jaclyn Rodo [mailto:Jaclyn.Rodo@genivar.com]
Sent: Thursday, September 15, 2011 10:24 AM
To: kellie.adams@rvca.ca; jennifer.lamoureux@rvca.ca; sagarwal@cataraquiregion.on.ca; beaubiah@cataraquiregion.on.ca
Subject: FW: Re: Newboro 1 - Proposed Solar Farm

Hello,

We are currently trying to compile information pertaining to a proposed solar farm development located on Part of Lots 26, 27, and 28, Concession 1 within the Township of Rideau Lakes (South Crosby Ward). Interestingly, the property falls within both the Cataraqui and Rideau Lakes CA jurisdiction, so I'm passing this email to both authorities.

I have attached a figure to better assist in locating the property of interest. We are seeking information pertaining to development constraints located on-site, including the wetland, Significant Forest (?), as well as the small watercourse which exists east of the site.
Do you have any records of species at risk on or within the vicinity of the project area?

In regards to the watercourse on-site, we have been provided with minimal information thus far. Are you able to provide us with the name, species present, key spawning or habitat areas and any other crucial information we should be aware of.

If you could provide a map outlining the "adjacent lands" for these features and / or hazard lands, that would be great.

I appreciate your assistance!

Thanks,

GENIVAR

Jaclyn Rodo, B.Sc. | Biologist
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C 705-991-1881

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Erin Corstorphine

From: Jaclyn Rodo
Sent: Friday, September 16, 2011 8:26 AM
To: Erin Corstorphine
Cc: Terence Rasmussen
Subject: FW: Re: Newboro 1 - Proposed Solar Farm (Lots 25 - 27, Conc 1, South Crosby - now Rideau Lakes Twp.
Attachments: Lots 25, 26 & 27, Conc 1, S.Crosby.pdf; Newboro 1 Figure 1.pdf

Erin,

Please see RVCA's response (below) regarding the proposed Newboro 1 solar farm.

Jaclyn

From: Kellie Adams [mailto:kellie.adams@rvca.ca]
Sent: Thursday, September 15, 2011 4:08 PM
To: Jaclyn Rodo
Cc: Jennifer Lamoureux; Kellie Adams
Subject: FW: Re: Newboro 1 - Proposed Solar Farm (Lots 25 - 27, Conc 1, South Crosby - now Rideau Lakes Twp.

Good Afternoon Jaclyn,

Please find attached the RVCA's regulation limit map. It would appear that the property in question (Lots 25, 26 & 27, Conc 1, S.Crosby) is not within a regulated limit or flood plain area and therefore from a regulations perspective written approval would not be required.

This being said however, please note that if there are any watercourses on the property or within the 120 metre buffer that you have identified on your Natural Heritage Features map, the Authority would require appropriate development setbacks and that any alteration to a waterway including shoreline work and crossing structures requires written approval from the Conservation Authority.

Please note that I have also been in contact with the Authority's Planner and Biologist who had the following comments to offer.

The Conservation Authority does not have any fish and fish habitat information for the tributary watercourse at this time. The area in question does likely have fish habitat, however this would have to be assessed in the Spring. We strongly recommend that prior to completing a fish and fish habitat assessment that you contact our Aquatic Biologist, Jennifer Lamoureux so that she can determine study requirements based on potential impacts from the proposed project.

Regards, Kellie

Kellie Jennifer Adams, Resource Specialist
Rideau Valley Conservation Authority/LRC
Box 599, 3889 Rideau Valley Drive, North
Manotick ON K4M 1A5
613-692-3571 ext. 1128
Fax: 613-692-0831
E-MAIL: kellie.adams@rvca.ca

WEBSITE: www.rvca.ca

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From: Jaclyn Rodo [mailto:Jaclyn.Rodo@genivar.com]
Sent: Thursday, September 15, 2011 10:24 AM
To: Kellie Adams; Jennifer Lamoureux; sagarwal@cataraquiregion.on.ca; beaubiah@cataraquiregion.on.ca
Subject: FW: Re: Newboro 1 - Proposed Solar Farm

Hello,

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Do you have any records of species at risk on or within the vicinity of the project area?

In regards to the watercourse on-site, we have been provided with minimal information thus far. Are you able to provide us with the name, species present, key spawning or habitat areas and any other crucial information we should be aware of.

If you could provide a map outlining the "adjacent lands" for these features and / or hazard lands, that would be great.

I appreciate your assistance!

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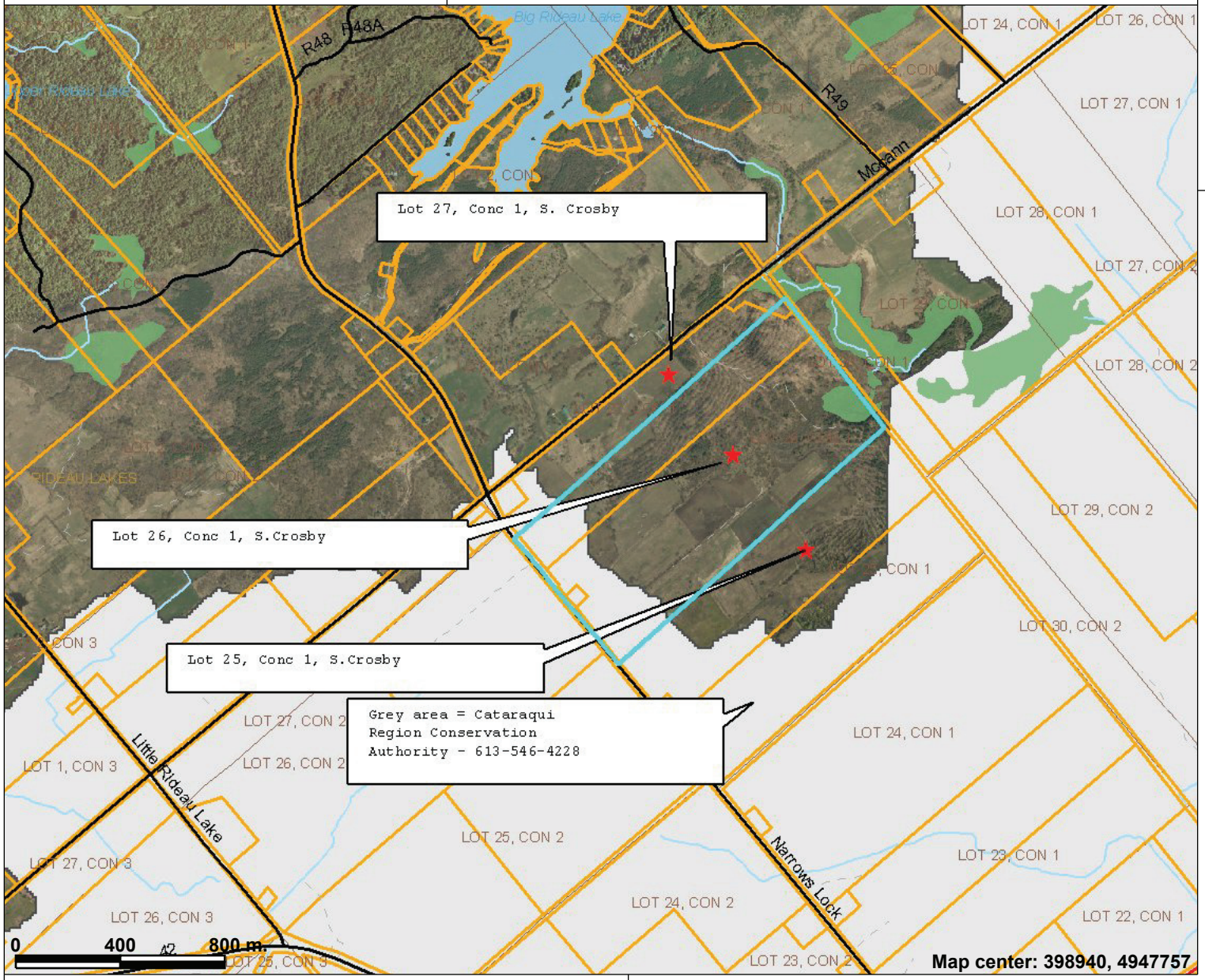
Lots 25, 26 & 27, Conc 1, S.Crosby



Legend

Drain Classification

DrainClass

- A
- B
- C
- D
- E
- F
- Abandoned
- Buried
- Not Rated
- Tile
- Regulation Limit
- 100yr Floodline
- Provincially Significant Wetland + 120m
- 100yr Floodline + 15m
- Top of Slope + 15m
- Stable Slope Allowance (where toe of slope is less than 15m from waters edge) + 15m
- Stable Slope Allowance (where toe of slope is greater than 15m from waters edge) + 15m

Evaluated Wetlands

WTLNDSIGCD

- Provincially Significant
- Other

- Freeway
- Expressway / Highway
- Collector
- Local / Street
- Private/Rural
- Ramp
- Rapid Transit
- Service
- Parcel - Assesment
- Municipal Boundary
- Lot
- Intermittent Stream
- Permanent Stream
- Seasonal Lake or River
- Permanent Lake or River
- Permanent Wetland
- RVCA Sub-Watersheds
- Other CA

N

Scale: 1:22,883

geocortex INTERNET MAPPING

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Erin Corstorphine

Subject: FW: Newboro 1 Solar Power Project - Unnamed watercourse

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From: James Dennis
Sent: Monday, March 19, 2012 10:43 AM
To: Dan Reeves; Erin Corstorphine
Subject: FW: Newboro 1 Solar Power Project - Unnamed watercourse

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From: Jason Messenger [mailto:jmessenger@cataraquiregion.on.ca]
Sent: Monday, March 19, 2012 10:47 AM
To: James Dennis
Subject: RE: Newboro 1 Solar Power Project - Unnamed watercourse

James,

Based on the information provided – Project: SunE Newboro 1 Solar Farm, No. 111-18739-00, Titled: Water Bodies and Watercourses, Dated: March 14, 2012, Figure No. 1 – the majority of the proposal is outside of the review area of the Cataraqui Region Conservation Authority. It appears that a small area in the northwest corner is within the review area of the CRCA, but no features trigger the jurisdiction of Ontario Regulation 148/06 in this location. Based on the site plan no permits from this office under Ontario Regulation 148/06 are required.

The majority of the subject lands are under the review of the Rideau Valley Conservation Authority and would be subject to their regulations. Please contact the RVCA to discuss their requirements.

If you have any other questions or concerns please do not hesitate to get in touch.

Thank you,

Jason Messenger
Development Technician

Cataraqui Region Conservation Authority
PO Box 160, 1641 Perth Road
Glenburnie, ON K0H 1S0
Phone: (613) 546-4228 ext 286
Toll Free: (877)956-2722
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From: James Dennis [mailto:James.Dennis@genivar.com]
Sent: March-19-12 10:05 AM
To: jmessenger@cataraquiregion.on.ca
Cc: Erin Corstorphine; Dan Reeves
Subject: Newboro 1 Solar Power Project - Unnamed watercourse

Hi Jason,

Thanks for the call this morning.

Further to our conversation, I've forwarded a figure of the property that shows the watercourse that was identified in site visits (I will send pictures in another email).

The primary concern of our inquiry is the amount of buffer space the watercourse should be provided. In the figure, you will see that there is currently approximately 9 m between the development footprint and the top of bank. If the watercourse is covered under the CRCA regulation 148/06, how big should the buffer be? Notwithstanding the regulation status of the watercourse, is the CRCA satisfied with providing a 9 m buffer to the watercourse, or should the buffer be larger (and if so, what is the minimum distance the development footprint should be from the top of bank?)?

Thanks for your help.

Sincerely,

GENIVAR
James Dennis, M.Sc.F.
Biologist
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Erin Corstorphine

From: Jennifer Lamoureux [jennifer.lamoureux@rvca.ca]
Sent: Monday, March 26, 2012 1:23 PM
To: Erin Corstorphine
Subject: RE: KP-10-710 - Proposed Newboro Solar Farm Site

The watercourse straddles the border between RVCA and CRCA. It appears to flow towards the CRCA so that is why I thought it was within their jurisdiction. I am not sure if we have more detailed flow data in that location I can check.

Jennifer Lamoureux
Aquatic and Fish Habitat Biologist
Rideau Valley Conservation Authority
3889 Rideau Valley Drive Box 599
Phone 613-692-3571 Ext 1108
Fax 613-692-0831
jennifer.lamoureux@rvca.ca
www.rvca.ca

From: Erin Corstorphine [mailto:Erin.Corstorphine@genivar.com]
Sent: Monday, March 26, 2012 1:19 PM
To: Jennifer Lamoureux
Subject: RE: KP-10-710 - Proposed Newboro Solar Farm Site

Hi Jennifer,

Thanks for this. We contacted CRCA initially but they told us to contact RVCA. We have been in touch with both Christine MacIsaac and Jason Messenger. Jason acknowledged that the northwest corner of the Project Location falls within the review area of CRCA, but "no features trigger the jurisdiction of Ontario Regulation 148/06 in this location".

We haven't spoken to Tom Beaubiah yet, so I will try him just to make sure!

Thanks again!
Erin

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From: Jennifer Lamoureux [mailto:jennifer.lamoureux@rvca.ca]
Sent: Monday, March 26, 2012 12:59 PM
To: Erin Corstorphine
Subject: FW: KP-10-710 - Proposed Newboro Solar Farm Site

Hi Erin,

Sorry for not getting back to you sooner. The watercourse is considered to be in the CRCA watershed. It would be best to contact my counterpart who is mentioned below. Hope this helps. J

Jennifer Lamoureux
Aquatic and Fish Habitat Biologist
Rideau Valley Conservation Authority
3889 Rideau Valley Drive Box 599
Phone 613-692-3571 Ext 1108
Fax 613-692-0831
jennifer.lamoureux@rvca.ca
www.rvca.ca

From: Megan Watters
Sent: Tuesday, October 25, 2011 12:27 PM
To: 'j.sharp@mcintoshperry.com'
Subject: RE: KP-10-710 - Proposed Newboro Solar Farm Site

Hi Jason,

After reviewing our mapping with Jennifer it would appear that it is a watercourse but we believe it likely flows into Cataraqui's watershed. Therefore it would be best to contact Tom Beaubiah (beaubiah@cataraquiregion.on.ca) at their office.

Regards,
Megan

Megan Watters
Resource Specialist
Rideau Valley Conservation Authority
3889 Rideau Valley Dr, Box 599
Manotick, ON
K4M 1A5
www.rvca.ca
(613) 692-3571 x 1132

From: Jennifer Lamoureux
Sent: Monday, October 24, 2011 10:09 AM
To: Megan Watters
Subject: FW: KP-10-710 - Proposed Newboro Solar Farm Site

Hey megan,
Can you look this one up? It might be in the Cataraqui. Do you mind getting back to him? J

Jennifer Lamoureux
Aquatic and Fish Habitat Biologist
Rideau Valley Conservation Authority
3889 Rideau Valley Drive Box 599
Phone 613-692-3571 Ext 1108
Fax 613-692-0831
jennifer.lamoureux@rvca.ca
www.rvca.ca

From: Jason Sharp [mailto:j.sharp@mcintoshperry.com]
Sent: Friday, October 21, 2011 3:48 PM
To: Jennifer Lamoureux
Cc: Adam O'Connor
Subject: KP-10-710 - Proposed Newboro Solar Farm Site

Hi Jennifer,

I wanted to follow up on my voicemail that I left you, we are performing a preliminary site investigation for a proposed solar farm in Newboro. On site there is what appears to be a man made ditch/ low lying area between two worked fields. This ditch commences further north on site and would appear to outlet to the roadside ditch at County Road 14. (Please see attached sketch)

We would like to inquire if this ditch is actually a regulated watercourse or simply a man-made ditch. Any further information regarding this ditch would be greatly appreciated.

If you have any questions or concerns please feel free to contact me.

Thanks for all your help,

Jason Sharp, EIT
McIntosh Perry Consulting Engineers Ltd.
3240 Drummond Conc 5A
Perth, ON, K7H 3C9
W.613.267.6524 x 206
C.613.812.0651
F. 613.267.7992

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Erin Corstorphine

From: Tom Beaubiah [beaubiah@cataraquiregion.on.ca]
Sent: Wednesday, April 11, 2012 10:53 AM
To: Erin Corstorphine
Subject: RE: KP-10-710 - Newboro Watercourse

It will be up to the proponent on how to proceed. I feel that any issue relating to the watercourse can be resolved without alteration to the layout. There is ample room to move the watercourse if necessary. If the proponent would rather not relocate the watercourse a brief hydraulic study of the floodplain could be undertaken. It will depend on what is the most cost effective means for the proponent to achieve their desired result.

Sincerely,

Tom Beaubiah
Biologist
Cataraqui Region Conservation Authority
P.O. Box 160 – 1641 Perth Road
Glenburnie, Ontario
K0H 1S0
Phone: 613-546-4228 ext 240
Fax: 613-547-6474
Webiste: www.cataraquiregion.on.ca

From: Erin Corstorphine [mailto:Erin.Corstorphine@genivar.com]
Sent: Wednesday, April 11, 2012 10:10 AM
To: Tom Beaubiah
Subject: RE: KP-10-710 - Newboro Watercourse

Hi Tom,

Thank you for getting back to me so quickly and for confirming the watercourse will only be considered for its hydraulic function. To follow-up on your earlier email and to make sure I understand correctly, I have a few questions. Are you recommending that the best course of action is for the proponent to delineate the floodplain boundary to ensure that a 5 m buffer is maintained between the development and the floodplain?

Were options discussed regarding the potential for realignment of the watercourse to achieve a 15 m buffer, or alteration of the floodplain through grading to maintain the current design footprint which currently has a 9 m buffer between the top of bank and the development zone?

Do you feel that the design plan can go to public consultation now, or will this issue have to be resolved beforehand? Is there a chance that the design footprint will have to be altered to provide a minimum buffer distance?

I just want to make sure everything is crystal clear before I approach the rest of the team with any changes.

Thanks,
Erin

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From: Tom Beaubiah [mailto:beaubiah@cataraquiregion.on.ca]
Sent: Wednesday, April 11, 2012 10:00 AM
To: Erin Corstorphine
Subject: FW: KP-10-710 - Newboro Watercourse

Below is the message that I provided to Jason Sharp. I spoke with my supervisor and the watercourse would be regulated. As per below we will try to accommodate the project to the best of our ability. Given the small watershed it should be relatively easy to distinguish the floodplain if the proponent wishes to pursue that option. The watercourse should not be an issue that would be hard to address.

Sincerely,

Tom Beaubiah
Biologist
Cataraqui Region Conservation Authority
P.O. Box 160 – 1641 Perth Road
Glenburnie, Ontario
K0H 1S0
Phone: 613-546-4228 ext 240
Fax: 613-547-6474
Webiste: www.cataraquiregion.on.ca

From: Tom Beaubiah [mailto:beaubiah@cataraquiregion.on.ca]
Sent: Thursday, November 17, 2011 1:37 PM
To: 'Jason Sharp'
Subject: RE: KP-10-710 - Newboro Watercourse

The Authority would not be supportive of piping the watercourse, we have reduced our standard setback from a watercourse of 30m to 15m for other solar projects and have suggested that it can be reduced to 5m from the floodplain (provided the floodplain is identified by the proponent). I am out for the afternoon and will be out of town most of tomorrow, if you reply to this e-mail with any questions or comments I'll try to get back to you ASAP, but I will not be available by phone unfortunately.

Sincerely,

Tom Beaubiah
Biologist

Cataraqui Region Conservation Authority
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Glenburnie, Ontario
K0H 1S0
Phone: 613-546-4228 ext 240

Fax: 613-547-6474
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From: Jason Sharp [mailto:j.sharp@mcintoshperry.com]
Sent: Tuesday, November 15, 2011 4:38 PM
To: Tom Beaubiah
Cc: Adam O'Connor
Subject: FW: KP-10-710 - Newboro Watercourse

Hi Tom,

Has there been any update with regards to the Newboro site. You mentioned on the phone that you would look into it and get back to me before the end of the day yesterday.

If it is easier for you, please feel free to call me at the number below.

I would really appreciate hearing from you tomorrow morning.

Thanks,

Jason Sharp, EIT
McIntosh Perry Consulting Engineers Ltd.

From: Jason Sharp
Sent: November-14-11 3:52 PM
To: 'Tom Beaubiah'
Cc: Adam O'Connor
Subject: KP-10-710 - Newboro Watercourse

Hi Tom,

I wanted to check in and see if you had a chance to review the Newboro site with regards to our conversation this morning.

I should be here until about 430pm if you have a chance to call if not back in tomorrow at 8am.

Hope to hear from you soon – Thanks,

Jason Sharp, EIT
3240 Drummond Concession 5A, Perth, ON K7H 3C9
T. 613.267.6524 (206) | **F.** 613.267.7992 | **C.** 613.812.0651
j.sharp@mcintoshperry.com | www.mcintoshperry.com

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Erin Corstorphine

From: Tom Beaubiah [beaubiah@cataraquiregion.on.ca]
Sent: Wednesday, April 11, 2012 10:12 AM
To: Erin Corstorphine
Subject: RE: Newboro 1 proposed solar farm

Just as a follow up, the watercourse will be regulated for its hydraulic function not its ecological function. Under our agreement with Fisheries and Oceans Canada I can state that the feature would not be providing fish habitat. Ecological function would not be significant as standing water is not anticipated for any extended period of time. The ecology of the watercourse in my opinion would be limited to a moist environment suitable for amphibian movements, however without standing water again this would be short term habitat.

Sincerely,

Tom Beaubiah
Biologist
Cataraqui Region Conservation Authority
P.O. Box 160 – 1641 Perth Road
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K0H 1S0
Phone: 613-546-4228 ext 240
Fax: 613-547-6474
Webiste: www.cataraquiregion.on.ca

From: Erin Corstorphine [mailto:Erin.Corstorphine@genivar.com]
Sent: Monday, March 26, 2012 2:04 PM
To: beaubiah@cataraquiregion.on.ca
Subject: Newboro 1 proposed solar farm

Hello Tom,

I just called and left a voice mail regarding the a watercourse that exists on the property known as Newboro 1 which is described as Part of Lots 25, 26 and 27, Concession 1, South Crosby Ward, Township of Rideau Lakes. This property is being investigated for its potential as a solar energy farm.

Due to the location of the property on the boundary between the CRCA and RVCA review areas, there has been some debate as to who should be concerned with the watercourse on the property. I have attached a copy of our site plan, two maps generated by RVCA and two photographs taken of the farm drain/ watercourse in question.

The team that conducted the site investigation felt that this watercourse did not support fish habitat, based on the fact that it didn't appear to be directly connected to any permanent water bodies and was dry at the time of the site visits in June, July and December. The channel was estimated to be approximately 2 m wide and 1.5 m deep and was likely dug to facilitate drainage on the adjacent agricultural fields. The drain appears to outlet into the roadside ditch at County Road 14 / Narrows Lock Road. At present, the development envelope is approximately 9 m from the top of bank of this watercourse.

We would like establish whether or not this drain is considered a regulated watercourse from a CRCA perspective. My colleague, James Dennis, consulted with Jason Messenger early last week and was informed that there are no features on the property that trigger the jurisdiction of O.Reg. 148/06 and as such permits from CRCA would not be required.

Jason also encouraged us to consult RVCA which we have done. RVCA has encouraged us to consult with you at CRCA, so I thought I'd follow up and make sure we had covered all bases thoroughly!

Our main concern is whether or not this drain should be classified as a watercourse (and therefore addressed in an Environmental Impact Study as part of the water body component of the REA) and/or whether or not the proposed 9 m buffer would be deemed adequate when paired with appropriate mitigation. If CRCA has no concerns then we are happy to go forward with the existing plan.

I look forward to hearing from you.

Thank you,
Erin

GENIVAR

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Biologist
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