

December 11, 2012

Ms. Sarah Raetsen
Senior Program Support Coordinator

Approvals Service Unit - Team 5
Environmental Approvals Branch
2 St. Clair Avenue West – Floor 12A
Toronto, Ontario M4V 1L5

Dear Ms. Raetsen,

Re: Renewable Energy Approval (REA) Application for the proposed Sol-luce Kingston Solar PV Project

Kingston Solar LP (the "Proponent") has prepared this letter to provide the Ministry of the Environment (Ministry) with additional clarity regarding Ministry's comments with respect to the Renewable Energy Approval (REA) submission and specific REA reports for the proposed Sol-luce Kingston Solar PV Project.

This letter with its attachments 'A' Through 'D' is also available electronically at the following address:

Should you have any difficulties accessing this site, please contact the undersigned as well as: Rob Young via e-mail at rob.young@amec.com or via telephone at: (905) 568-2929 x 4325.

The following are Ministry's comments provided on December 5, 2012 and Proponent's responses:

1. ABORIGINAL CONSULTATION

Ministry's Comments:

- *It is not clear whether any of the Aboriginal communities on the Section 14 list (other than the Mohawks of the Bay of Quinte (Tyendinaga Mohawk Territory)) were provided notices prior to October 3, 2011. Please confirm which of the seven Aboriginal communities were contacted prior to October 3, 2011 and provide documentation to that effect.*

KINGSTON SOLAR LP

9th Fl. 55 Standish Court, Mississauga, ON. L5R 4B2 Canada TEL: 905-501-5658 FAX: 905-285-1852

- *Please provide a copy of the April 3, 2012 invitation that was sent to each Aboriginal community inviting them to the Interim Community Session. The Consultation Report indicates that an invitation was sent; however there is no documentation for this.*
- *Appendix M of the Consultation Report only shows that the second notice of the final open house was provided to the Aboriginal communities on July 27, 2012. If the first notice was provided please provide documentation to show this.*
- *Please provide an update on any Aboriginal consultation that has occurred since the final public meeting. Have any Aboriginal communities contacted Kingston Solar LP to discuss the project?*

Proponent Response

- ✓ In Section 5.1 (and subsequently in Section 5.2) of the Consultation Report, submitted as part of the REA Application for the proposed Sol-luce Kingston Solar PV Project, it is noted that in advance of the receipt of the List of Aboriginal communities from the Ministry on August 26, 2011, the Proponent pro-actively distributed Notice of Proposal to Engage in a Renewable Energy Project and Notice of Public Open House for the Sol-luce Solar PV Energy Project (Notice) to seven (7) Aboriginal communities who may have interest in the Project. Some of these communities were not included on the List provided by the Ministry. The Proponent decided to continue to inform (and where requested, engage) these communities in case they had an interest in the Project. These notices were distributed on July 28, 2011 to the following communities:

1. Algonquins of Pikwàkanagàn ;
2. Ardoch Algonquin First Nation;
3. Mohawk Council of Akwesasne;
4. Mohawks of the Bay of Quinte (Tyendinaga Mohawk Council) (also identified by MOE);
5. Shabot Obaadjiwan First Nation;
6. Wendat (Hurons) of Wendake; and,
7. Métis Nation of Ontario (MNO).

On October 17, 2012 (the Notices were dated October 3, 2012) the Proponent sent additional Notices to the five (5) Aboriginal communities identified on the List. The five Aboriginal communities who received this Notice were:

1. Alderville First Nation;
2. Curve Lake First Nation;
3. Hiawatha First Nation;
4. Kawartha Nishnawbe First Nation; and,
5. Mississaugas of Scugog Island First Nation.

- ✓ Copy of the April 3, 2012 invitation that was sent to each Aboriginal community inviting them to the Interim Community Meeting is enclosed in **Attachment 'A'** of this letter.

- ✓ Letters which include the First Notice of the Final Open House and the summaries of the REA technical reports were issued to Aboriginal communities on June 13, 2012. Copies of these letters can be found in Appendix K of the *Consultation Report* submitted as part of the REA Application for the proposed Sol-luce Kingston Solar PV Project. A copy of a sample of this letter is enclosed in **Attachment 'A'** of this letter. We have not had any information from the Aboriginal communities we contacted regarding the Project after the final Open house.

2. MUNICIPAL CONSULTATION

Ministry's Comments:

- *It is unclear whether the concern from the City of Kingston regarding the location of part of the project on Prime Agricultural Land as designated in the City's Official Plan has been addressed. Please provide an update on this matter.*
- *Section 4.2.5 of the Consultation Report states that Kingston Solar LP received the completed Municipal Consultation Form (MCF) from the County of Lennox and Addington on September 18, 2012; however, there is no copy of the completed MCF in the application. Please provide a copy of the County's completed MCF to the MOE.*

Proponent Response

- ✓ On Thursday August 23 2012, the Proponent held discussions with Municipal officials regarding this matter. During the meeting City of Kingston's officials agreed that under the Feed-in-Tariff (FIT) program the Proponent was not bound by the Municipality's Official Plan for land use matters such as the designation of the Prime Agricultural Land, instead the Proponent will follow the FIT rules regarding Prime agricultural lands, as identified by the Ministry of Agriculture Food and Rural Affairs (OMAFRA) under Canada Land Inventory (CLI).

After an extensive stakeholder consultation, the Proponent avoided property 11B as a mitigation measure to establish a setback from Quabbin Road, evidently by avoiding this property the Proponent was able to reduce the footprint of the project in the area designated by the City of Kingston as Prime Agricultural Land.

Furthermore the Proponent generated a soil reclassification study report on September 2011. This report along with all the mapping data was provided to the Ontario Power Authority (OPA) for review. Copy of the correspondence between the OPA and the Proponent is enclosed in **Attachment 'C'** of this letter.

- ✓ The Proponent received the completed Municipal Consultation Form (MCF) from the County of Lennox and Addington on September 17 2012. Copy of the completed MCF is enclosed in **Attachment 'B'** of this letter.

3. AGENCY CONSULTATION

Ministry's Comment:

- *How did Kingston Solar LP respond to the letter from Cataraqui Region Conservation Authority dated August 17, 2012? How were their comments considered and addressed in the project?*

Proponent Response

- ✓ The letter was addressed to the City of Kingston and therefore the Proponent deferred responding to the letter until the City of Kingston's Municipal Consultation Form (MCF), as the City's official comment on the Project, was provided to the Proponent. The City of Kingston MCF was provided to the Proponent on October 22, 2012 after the REA application was submitted (September 21, 2012) as a result, the Proponent has not specifically addressed the comments in the Project to date. It is noted that several of CRCA's comments are more appropriately addressed during the detail design and permitting stage of the Project and the Proponent plans to consult with CRCA when that stage of the project is initiated. If required by MOE for REA approval, the Proponent will prepare a response to CRCA. Copy of correspondence with CRCA is enclosed in **Attachment 'C'** of this letter.

4. NATURAL HERITAGE ASSESSMENT ENVIRONMENTAL IMPACT STUDY

Ministry's Comment:

- *The Sol-luce Kingston Solar PV Energy Project is following the 2011 version of O. Reg. 359/09. Part V of this Regulation speaks to prohibitions, and Sections 37 to 40 speak to prohibitions related to natural features and water bodies.*
- *Section 38 of O. Reg. 359/09 permits the construction, installation or expansion of a renewable energy approval within a natural feature (as outlined in the Regulation) so long as:*
 - *an environmental impact study report is prepared in accordance with any procedures established by the Ministry of Natural Resources, as amended from time to time, that,*
 - *describes how the environmental effects monitoring plan set out in paragraph 4 of item 4 of Table 1 addresses any negative environmental effects mentioned in subclause (i), and*
 - *describes how the construction plan report prepared in accordance with Table 1 addresses any negative environmental effects mentioned in subclause (i);*
- *There is no information in the Natural Heritage Assessment Environmental Impact Study (NHA-EIS) to show how the environmental effects monitoring plan in the Construction Plan Report and the Design and Operations Report addresses any negative environmental effects mentioned in the NHA-EIS. Please provide this information to the MOE.*

- *The information in Appendix L of the NHA-EIS is missing. Please provide the MOE with a copy.*

Proponent Response

- ✓ First Bullet - information only, no response required.
- ✓ Second Bullet - information only, no response required.
- ✓ The negative environmental effects and proposed mitigation measures summarized in Section 5.2 and Section 5.3 of the NHA-EIS and provided in Table 5.1 in Appendix A of the NHA-EIS were implemented in the development of the environmental effects monitoring plan (EEMP) in the Design and Operations report and in Table 4-1 *Overall Summary of Potential Construction Effects and Proposed Mitigation Measures* in the Construction Plan Report. The authors of the NHA-EIS had direct input into the EEMP and Table 4-1 noted above and the authors confirm that the EEMP and mitigation measures provided in the Design and Operations Report and the Construction Plan Report will address any negative effects identified in the NHA-EIS.
- ✓ Appendix L was removed from the NHA/EIS because it contains information on the specific locations of Species At Risk which cannot be released to the public. Information provided in Appendix L is confidential. This document is provided in **Attachment 'D'** of this letter.

5. PROJECT DESCRIPTION REPORT

Ministry's Comment:

- *The Project Description Report notes that a total of 8.1 hectares of woodland habitat will be cleared of all vegetation to accommodate project components. Are there any tree cutting by-law permits required from any of the municipalities? What is the status of these? What discussions have occurred with the municipalities on this matter?*

Proponent Response

- ✓ Tree cutting permits are required by both municipalities: City of Kingston and Loyalist Township. Applications for the tree cutting permits will be filed with the City of Kingston and Loyalist Township during the detailed design and permitting stage of the project. Areas where tree cutting will be required are also identified in the NHA/EIS and the removal of the woodland habitat is acceptable to the Ministry of Natural Resources by way of the Letter of Confirmation issued June 11, 2012.

6. DESIGN AND OPERATIONS REPORT

Ministry's Comment:

- *The Design and Operations Report states in one area that “once the revised O. Reg. 359/09 and the Technical Guide are finalized, the Proponent may incorporate, where applicable, revisions to the Draft Design and Operations Report and/or appended reports to reflect changes in O. Reg. 359/09 of the Technical Guide”. Please note that no further revisions to this report (or any REA report) are permissible once a REA application is submitted to the MOE. If Kingston Solar LP is considering a change to a report or a project component, please contact the MOE as soon as possible to discuss.*

Proponent Response

The Proponent is not considering any revisions to the proposed Project and therefore to any of the REA Technical reports. If in future changes are considered, the Proponent will contact the Ministry to discuss the changes.

7. NOISE STUDY REPORT

Ministry's Comment:

- *The MOE also has some additional questions related to the noise study report:*
 1. *Receptor Height: Please confirm that all receptors are single storey dwellings.*
 2. *Barrier effects in the Cadna/A calculation: Please explain why there are values in the barrier attenuation section (Abar) in Appendix I of the Cadna/A sample calculations.*
 3. *Substation transformer barrier coordinates: It seems that the acoustic barriers are far from the transformer. Please confirm the UTM coordinates and dimensions.*

Proponent Response

As per MOE's direction December 5, 2012 regarding additional information for the noise study report the following are clarifications and additional comments:

1. Receptor Height

As discussed with the MOE all existing residential receptor locations (77) are at 1.5 m above the grade and 30 m away from the house as they are the worst impact location. All vacant lots (46) were modeled at 4.5 m above grade. Vacant lots considered in this assessment are only those which experience 35 dBA or higher noise levels from the Sol-Luce Kingston Solar PV Energy Project.

2. Barrier Effects in Cadna Calculation

KINGSTON SOLAR LP

9th Fl. 55 Standish Court, Mississauga, ON. L5R 4B2 Canada TEL: 905-501-5658 FAX: 905-285-1852

The non-zero Abar shown for some sources in the sample calculation is a result of the internal model calculation to allow for signal reduction from those sources for which the transformer sub-station sound barriers are in a direct line-of-sight with the chosen receptor.

3. Substation Transformer Barrier Coordinates

As is typical in the Cadna model, the transformer UTM coordinates are given for a point source which will appear to be some distance from the barriers. The UTM coordinates are correct as modelled as are the barrier location, length and height (Table 2b of the Noise Study Report).

I trust that the above information satisfies Ministry's comments with respect to the Renewable Energy Approval (REA) submission and specific REA reports for the proposed Sol-luce Kingston Solar PV Project. If you have any questions please do not hesitate to contact me, or Beatrice Ashby at Samsung at Direct: 905.501.5663 or E-mail: b.ashby@samsung.com.

Sincerely,

A. José De Armas
Project Development Manager

Cc. Doris Dumais, Director, EAASIB, MOE
Vic Schroter - Team 5, EAB, MOE
Sandra Guido, Senior Program Support Coordinator, Service Integration, EAASIB, MOE

Attachment 'A'

Aboriginal Consultation



KINGSTON SOLAR LP

Interim Community Session

Tuesday April 17, 2012

3:00 pm to 8:00 pm

INVISTA Centre

Meeting Rooms A & B

1350 Gardiners Road (*at Fortune Crescent*)

Kingston, Ontario



You are Invited - Please join us for an Interim Community Session for the Sol-luce Kingston Solar PV Energy Project.

What to expect:

- *Formal Presentations-by the project team member at 4:00 pm and 6:00 pm.*
- *Roundtable Topic Discussions continuing for the duration of the Interim Session. Each roundtable will be facilitated by a project team member or technical expert.*
- *Posterboards-providing up to date information. Available for viewing for the duration of the Interim Session.*

The Project website has been updated. Please visit:
<http://www.samsungrenewableenergy.ca/kingston>

José De Armas, Manager, Project Development
solucekingston@samsungrenewableenergy.ca



KINGSTON SOLAR LP

9th Fl. 55 Standish Court, Mississauga, ON L5R 4B2 Canada Tel: 905-501-5658 Fax: 905-285-1852

June 13, 2012

Chief Kirby Whiteduck
Algonquins of Pikwàkanagàn
1657A Mishomis Inamo, Pikwàkanagàn
Golden Lake, Ontario K0J 1X0

Dear Chief, Council and Members of Community;

**Re: Sol-luce Kingston Solar PV Energy Project (Project)
Draft Renewable Energy Approval (REA)**

On July 28, 2011, Kingston Solar LP sent a letter to your community informing of the proposed Sol-luce Kingston Solar PV Energy Project (the Project). Kingston Solar LP would like to follow up with the Algonquins of Pikwàkanagàn regarding the Project and Kingston Solar LP's communications with your community.

Kingston Solar LP on April 16, 2012 provided update on progress of Archaeological Assessment Studies to your community. Subsequently we have also invited your community to the Interim Community Session held on April 17, 2012.

This letter is being sent to your community as a reminder that Kingston Solar LP proposes to develop the Sol-luce Kingston Solar PV Energy Project, located to the north and south of Unity Road and south of Mud Lake Road in the City of Kingston and Loyalist Township in Eastern Ontario. The proposed solar facility will have a maximum name plate capacity of approximately 100 MW AC (megawatts of alternating current). If approved, this facility would use photovoltaic (PV) technology to convert solar energy into electricity. Power generated by the Project will be fed into the provincial grid via a substation located adjacent to the Hydro One Networks Inc. (HONI) transmission line which crosses the study area.

The proposed project will require approval under Ontario Regulation 359/09 (O.Reg 359/09) the Renewable Energy Approval (REA) under the *Green Energy Act*. In accordance with the REA regulations (Section 17), Kingston Solar LP has:

- ✓ Notified Algonquins of Pikwàkanagàn of our intent to develop the Project;
- ✓ Submitted a Project Description; and,
- ✓ Requested information regarding any adverse impacts that the project may have on constitutionally protected Aboriginal or treaty rights that the Algonquins of Pikwàkanagàn may have.

Further to above activities, Kingston Solar LP would like to;

- ✓ Provide a summary of each of the Draft REA Reports that are to be released.

As required by O.Reg 359/09, Kingston Solar LP has prepared Draft REA reports which are now available for a 60-day review period. Hard copies of these reports are available at the following locations:

- ✓ City of Kingston, City Hall, Clerk's Office, 216 Ontario Street, Ontario
- ✓ Kingston Frontenac Public Library – Isabel Turner Branch, 935 Gardiners Road, Kingston, Ontario
- ✓ Loyalist Township, 263 Main Street, Odessa, Ontario
- ✓ Odessa Branch Library, 102 Main Street, Odessa, Ontario

KINGSTON SOLAR LP

9th Fl. 55 Standish Court, Mississauga, ON L5R 4B2 Canada Tel: 905-501-5658 Fax: 905-285-1852

- ✓ County of Lennox-Addington, 97 Thomas Street East, Napanee, Ontario

Electronic copies of the Project Draft REA reports are also available on Project website via the following link: www.samsungrenewableenergy.ca/kingston

Kingston Solar LP considers communication with Aboriginal communities to be a valuable component of the REA process. Accordingly, we would like to better understand your interest in this Project and how we might be involved in those interests. Kingston Solar LP would be pleased to meet with Chief, Council, Elders and youth from your community to discuss the proposed Project and to learn about your community's interests in the lands and any other interests that may relate to your community.

The Final REA Application will be submitted to the Director of the Environmental Assessment and Approvals Branch (EAAB) at the MOE. Once the application is reviewed and deemed complete by the MOE, the MOE will post an abstract of the project on the Registry for a minimum 30-day public comment period.

The following is a summary of each of the Draft REA Reports.

Summary of REA Reports

Project Description Report

This report provides a project description including technical details on the project, solar facility layout and facility components, project activities, potential project effects and mitigation measures.

Construction Plan Report

This report includes a description of the following:

- ✓ Construction Activities
- ✓ The location and timing of the construction;
- ✓ Potential negative effects that might be incurred during construction;
- ✓ Mitigation measures to be implemented to avoid/minimize the identified effects.

Natural Heritage Assessment and Environmental Impact Study (NHA/EIS) Report

This report will include a description of the natural heritage features in the Project location (birds, vegetation and terrestrial wildlife) and demonstration that the required REA setbacks from natural heritage features have been met and any potential effects mitigated.

Water Assessment and Water Body Report

This report includes a description of the water bodies (i.e., permanent watercourses, intermittent watercourses, seepage areas or lakes) in the project location and demonstration that the required REA setbacks from significant water features have been met and any potential effects mitigated.

Decommissioning Plan Report

This report includes a description of the activities that are to be undertaken should the facility be decommissioned including:

- ✓ Procedures to dismantle the facility;
- ✓ Land restoration activities; and,
- ✓ Procedures for waste management.

KINGSTON SOLAR LP

9th Fl. 55 Standish Court, Mississauga, ON L5R 4B2 Canada Tel: 905-501-5658 Fax: 905-285-1852

Design and Operations Report

This report includes a description of the following:

- ✓ Site plan of the project showing all project components and their location;
- ✓ Surface water supplies to be used;
- ✓ An environmental effects monitoring plan; and,
- ✓ A plan to inform interest and the response plan to address potential future.

Noise Study Report

A Noise Study Report was prepared to demonstrate that the facility is in compliance with regulatory requirements pertaining to the types of operations that may occur at the facility. The report was prepared in accordance with the MOE requirements as set out in NPC-232, NPC-233, and NPC-205.

Stage 1 and 2 Archaeological Assessments (AAs) and Cultural Heritage Assessment Report

Stage 1 and 2 Archaeological Assessments (AAs) and a Cultural Heritage Assessment Report were prepared to outline the archaeological and cultural potential of the project location and mitigate any potential negative effects of the proposed project. Stage 1 and 2 Archaeological Assessment Reports were submitted to the Ministry of Tourism, Culture and Sport (MTCS). MTCS has provided written acknowledgement that the field work and reports were carried out in accordance with the Standards and Guidelines for Consultant Archaeologists.

For your convenience we have provided summaries to the above reports enclosed in this letter.

A Consultation Report will be provided as part of the final REA submission to MOE. This report will include summary of communication and consultation activities conducted to date with the public, government agencies and Aboriginal communities as well as a summary of the communication and consultation activities that are planned to be undertaken under the REA process, including responses to concerns that are received.

Request for Information

Since 2011, Kingston Solar LP has had correspondence with a number of Aboriginal communities identified by the MOE as well as other Aboriginal communities that Kingston Solar LP identified as those who may have interest in the Project. Kingston Solar LP has stated its willingness to meet with your community representatives to discuss the Project and to receive comments or questions. Kingston Solar LP has no specific information in regards to potential adverse effects that the Project could have on the constitutional and/or treaty rights of your community and would like to confirm this with you. In this regard, Kingston Solar LP requests that your community provide in writing any information available to the community that in your opinion, should be considered in preparing the REA Reports and in particular, any information your community may have about the adverse impacts that the project may have on constitutionally protected Aboriginal or treaty rights and any measures for mitigating those adverse impacts. We have not to date received a response from you.

KINGSTON SOLAR LP

9th Fl. 55 Standish Court, Mississauga, ON L5R 4B2 Canada Tel: 905-501-5658 Fax: 905-285-1852

Closing

Kingston Solar LP is pleased to continue its communications with Aboriginal communities with respect to this Project and would like to better understand your interest in this Project. We would be pleased to meet with you and representatives from your community to discuss the proposed Project and to learn about your community's interests and potential concerns. We will follow-up with a telephone call to you.

Please do not hesitate to contact me at: 905-501-5658.

Yours truly,

Kingston Solar LP

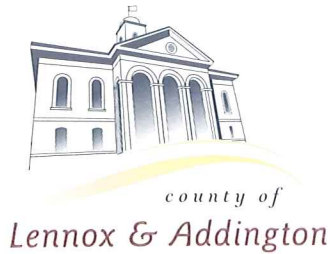
By: _____

Name: Lee Jeong Tack
Title: President

Encl: Summaries of REA Technical Reports

Attachment 'B'

Municipal Consultation



September 17, 2012

VIA EMAIL

Kingston Solar LP
55 Standish Court, 9th Floor
Mississauga, Ontario L5R 4B2

**Attention: A. José De Armas
Manager, Project Development**

Dear Sir:

Re: Kingston Solar LP, Sol-Luce Kingston, Solar PV Energy Project

Senior Staff of the County of Lennox & Addington have reviewed the following draft documents submitted in support of the Kingston Solar LP, Sol-Luce Kingston, Solar PV Energy Project:

- Draft Project Description Report (May 2012)
- Draft Construction Plan Report (May 2012)
- Draft Decommissioning Plan Report (May 2012)
- Draft Design & Operations Report (May 2012)
- Draft Noise Study Report (July 2012)
- Draft Water Assessment and Water Body Report (May 2012)
- Natural Heritage Assessment and Environmental Impact Study (June 2012)
- Final Report – Stage 1 Archaeological Background Study and Stage 2 Property Assessment (February 2012)
- Cultural Heritage Assessment Report (June 2012)
- Stage 2 Archaeological Assessment (May 2012)
- Stage 2 Property Assessment (May 2012)

The County's interests will primarily be with any proposed works within the County Road 19 (Mud Lake Road) road allowance as well as traffic impacts.

.../2

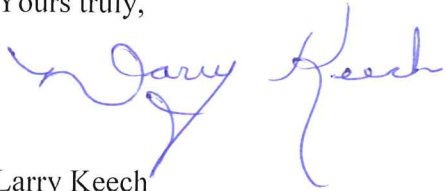
Any infrastructure proposed to be installed in the County Road 19 right of way such as poles and transmission lines will require County approval and permitting. Approval and permitting will also be required for the two entrances proposed off County Road 19.

Traffic management during construction, and possible damage or debris on County Road 19 will be of concern to us. Roadway damage could occur due to the increased heavy truck traffic during construction. The County will require a pre-construction road condition survey and a post construction survey to determine if any damage has occurred. In the event that any damage occurs, the developer will be responsible to return the roads to their pre-construction condition.

As requested we have completed Part B of the Municipal Consultation Forms.

We thank you for providing this material for our review. If you have any questions, please contact us.

Yours truly,



Larry Keech

Copy: Murray Beckel, Director of Planning and Development Services
Loyalist Township

Rob Young, P.Geo., MCIP, RPP, Associate Environmental Scientist
AMEC Environment and Infrastructure

PART A: TO BE COMPLETED BY THE APPLICANT BEFORE SUBMITTING TO MUNICIPALITY OR LOCAL AUTHORITY
Section 1 - Project Description

1.1 - Renewable Energy Project					
Project Name (<i>Project identifier to be used as a reference in correspondence</i>) SOL-LUCE KINGSTON SOLAR PV ENERGY PROJECT					
Project Location					
Same as Applicant Physical Address? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If no, please provide site address information below)					
Civic Address- Street information (<i>includes street number, name, type and direction</i>)					Unit Identifier (<i>i.e. apartment number</i>)
Survey Address (<i>Not required if Street Information is provided</i>) SEE FIGURE 1-1 IN ATTACHED Draft Project Description Report					
Lot and Conc.: used to indicate location within a subdivided township and consists of a lot number and a concession number.		Part and Reference: used to indicate location within unorganized territory, and consists of a part and a reference plan number indicating the location within that plan. Attach copy of the plan.			
Lot	Conc.	Part	Reference Plan		
Location Information (<i>includes any additional information to clarify physical location</i>)(e.g. municipality, ward/ township) Loyalist Township and City of Kingston					
Geo Reference (<i>e.g. southwest corner of property</i>)					
Map Datum	Zone	Accuracy Estimate	Geo Referencing Method	UTM Easting	UTM Northing
Project Phasing (<i>outline construction, operation and decommissioning activities</i>)					
There are three phases in a solar farm Project lifecycle: construction, operation and decommissioning. Construction activities are short-lived, extending over a period of approximately one year. Once operational, the solar panels can be expected to be in service for at least 20 years, after which, a decision would be made whether to extend the life of the Project or to decommission.					
1.2 - Environmental Context					
Describe any negative environmental effects that may result from engaging in the project (<i>consider construction, operation and decommissioning activities.</i>)					
The construction of the project will temporarily increase traffic in the project area for the duration of the construction. Construction of project components will occur within up to 30m of sensitive natural heritage features. Environmental Impact Studies will be completed for those areas between 120 and 30 m of sensitive features as per O.Reg 359/09 and Ministry of Natural Resources guidance documents. Potential also exists for increased short-term and localized noise levels and dust from excavation.					
During operations the project will emit low levels of noise. Noise studies have been completed.					
Decommissioning will result in increased traffic flows, potential noise and dust effects until the completion of decommissioning.					
Propose early avoidance/prevention/mitigation concepts and measures.					
A Construction Plan Report will be submitted for the Renewable Energy Approval, which will cover environmental effects and mitigation to minimize environmental effects during the construction phase.					
A Design and Operations Plan will be submitted for the Renewable Energy Approval, which will cover design components and operational practices to minimize environmental effects both during construction and operations.					
A Decommissioning Plan will be submitted for the Renewable Energy Approval, which will cover the removal of project components and restoration of sites to					

minimize environmental effects.

1.3 - Renewable Energy Generation Facility

Type of Facility / Operation (select all that apply & complete all appropriate sections)

Wind Facility (Land Based)

Wind Facility (Off-Shore)

Biogas Facility (Anaerobic Digesters)

Biomass Facility (Thermal Treatment)

Biofuel Facility

Solar Photo Voltaic Facility

Other Describe :

Class (if applicable) :

Name Plate Capacity	Expected Generation	Service Area	Total Area of Site (hectares)
100MW AC			325

Provide a description of the facilities equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity.

The generation equipment will consist of fixed ground mounted photovoltaic panels to generate approximately 100MW AC of power. The Project will use crystalline solar cells (solar panels). The panel manufacturer and model type has not yet been chosen.

1.4 – Renewable Energy Generation Activities

Describe the activities that will be engaged in as part of the renewable energy project

There are three phases of a solar power project lifecycle: construction, operation and decommissioning. Construction activities are short-lived, extending over a period of up to approximately 2 years. Once operational, the solar panels can be expected to be in service for approximately 20 years, after which, a decision would be made whether to extend the life of the Project or to decommission.

In accordance with Ontario Regulation 359/09, separate detailed reports will be prepared to cover each of the phases of the Project as follows:

- Construction Plan Report;
- Design and Operations Report; and
- Decommissioning Report.

Section 2 – Supporting Documents

2.1 – Requirement	Name of Draft documents distributed for consultation	Date available to Municipal or Local Authority Contact
Project Description Report	DRAFT PROJECT DESCRIPTION REPORT	9-May-2012
Design and Operations Report	DRAFT DESIGN AND OPERATIONS REPORT	9-May-2012
Construction Plan Report	DRAFT CONSTRUCTION PLAN REPORT	9-May-2012
Decommissioning Plan Report	DRAFT DECOMMISSIONING PLAN REPORT	9-May-2012
Natural Heritage Assessment	DRAFT NATURAL HERITAGE ASSESSMENT/ENVIRONMENTAL IMPACT STUDY	9-May-2012
Archaeological Resources	FINAL REPORT STAGE 1 BACKGROUND STUDY AND STAGE 2 PROPERTY ASSESSMENT SOL-LUCE ERNESTOWN AND KINGSTON TOWNSHIPS	9-May-2012
	STAGE 2 ARCHAEOLOGICAL ASSESSMENT KINGSTON SOLAR LP SOL-LUCE KINGSTON SOLAR PV PROJECT VARIOUS LOTS AND CONCESSIONS GEOGRAPHIC TOWNSHIPS OF KINGSTON AND ERNESTOWN	9-May-2012
Protected Properties and Heritage Resources	CULTURAL HERITAGE ASSESSMENT REPORT FOR SOL-LUCE KINGSTON SOLAR PV PROJECT	9-May-2012
Water Assessment	APPENDIX C of the DRAFT DESIGN AND OPERATIONS REPORT	9-May-2012
Site-specific Noise Study Report	APPENDIX D of the DRAFT DESIGN AND OPERATIONS REPORT	9-May-2012

Location where written draft reports can be obtained for public inspection (*physical location for viewing and the applicants project website if one is available*):
 N/A

Section 3 – Applicant Address and Contact Information

3.1 - Applicant Information (<i>Owner of project/facility</i>)				
Applicant Name (<i>legal name of individual or organization as evidenced by legal documents</i>)			Business Identification Number	
Kingston Solar LP				
Business Name (<i>the name under which the entity is operating or trading - also referred to as trade name</i>)			<input type="checkbox"/> same as Applicant Name	
Kingston Solar LP				
Civic Address- Street information (<i>includes street number, name, type and direction</i>)			Unit Identifier (<i>i.e. apartment number</i>)	
55 Standish Court			9 th Floor	
Survey Address (<i>Not required if Street Information is provided</i>)				
Lot and Conc.: used to indicate location within a subdivided township and consists of a lot number and a concession number.		Part and Reference: used to indicate location within an unsubdivided township or unsurveyed territory, and consists of a part and a reference plan number indicating the location within that plan. Attach copy of the plan.		
Lot	Conc.	Part	Reference Plan	
Municipality	County/District	Province/State	Country	Postal Code
Mississauga		ON	Canada	L5R 4B2

PART B: TO BE COMPLETED BY THE MUNICIPALITY OR LOCAL AUTHORITY

Section 4 - Municipal or Local Authority Contact Information (check the one that applies)

Local Municipality <i>(include each local municipality in which project location is situated)</i>				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Name of Municipality	Address	Phone	Clerk's Name	Clerk's Phone/Fax	E-Mail Address
Upper Tier Municipality <i>(include each upper tier municipality in which project location is situated)</i>				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Name of Municipality	Address	Phone	Clerk's name	Clerk's Phone/Fax	E-Mail Address
County of Lennox & Addington	97 Thomas Street East, Napanee, ON K7R 4B9	613-354-4883	Larry Keech	PH 613-354-4883 FX 613-354-3112	lkeech@lennox-addington.on.ca
Local roads area <i>(include each local roads area in which project location is situated)</i>				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Name of local roads board	Address	Phone	Secretary-treasurer's Name	Secretary-treasurer's Phone/Fax	E-Mail Address
Board Area <i>(include each board area in which project location is situated)</i>				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Name of Local Service Board	Address	Phone	Secretary's name	Secretary's Phone/Fax	E-Mail Address

Section 5: Consultation Requirement

5.1 - Project Location
Provide comment on the project location with respect to infrastructure and servicing.
The two sites accessed via County Rd 19 appear to be suitable. Supporting documents/reports do not indicate if there is an existing Hydro One Networks Inc (HONI) line on County Rd (CR) 19 (Mud Lake Rd) suitable for power transmission. Any additional poles or transmission lines proposed within the CR19 ROW will require County approval and permitting.
5.2 – Project Roads
Provide comment on the proposed project's plans respecting proposed road access.
Entrance permits must be obtained from the County to authorize the construction of the two entrances proposed off CR19. These permits will specify the entrance locations and construction requirements.
Identify any issues and provide recommendations with respect to road access
Site distance for westbound traffic approaching the entrance to Property No.21 is limited. During construction warning signs must be in place to provide advanced warning of trucks turning. Some brushing in the CR19 ROW may also be required to improve sight distance.
The tracking of mud/debris onto CR19 could be an issue. Possible mitigation measures include ensuring there is adequate gravel on-site and or the construction of a mud mat on-site near the entrance. The contractor must be responsible for the prompt removal of any such debris from CR19.
Roadway damage could occur due to the increased heavy truck traffic during construction. The County will require a pre-construction road condition survey and a post construction survey to determine if any damage has occurred. The developer will be responsible to return the roads to their pre-construction condition.
Provide comment on any proposed Traffic Management Plans
A traffic management plan has not been provided. Supporting documents/reports indicate that these will be developed in consultation with Loyalist Township and the City of Kingston. The County of Lennox & Addington must also be consulted as CR19 (Mud Lake Rd) is under County jurisdiction.
Identify any issues and provide recommendations with respect to the proposed Traffic Management Plans
A traffic management plan has not been provided.
Traffic control must be carried out in accordance with the latest edition of the Ontario Traffic Manual – Book 7 (Temporary Condition).
The traffic management plan should address truck routing, speeds, noise, dust, safety, etc.

5.3 – Municipal or Local authority Service Connections
Provide comment on the proposed project plans related to the location of and type of municipal service connections, other than roads.
The local municipality (Loyalist Township) should be consulted with regard to this item.
Identify any issues and provide recommendations with respect to the type of municipal service connections, other than roads.
The local municipality (Loyalist Township) should be consulted with regard to this item.
5.4 – Facility Other
Identify any issues and recommendations with respect to the proposed landscaping design for the facility
The local municipality (Loyalist Township) should be consulted with regard to this item.
Provide comment on the proposed project plans for emergency management procedures / safety protocols.
An emergency response plan has not been provided, but reports indicate that one will be developed. Supporting documents/reports indicate that these will be developed in consultation with Loyalist Township and the City of Kingston. The County of Lennox & Addington EMS staff should also be consulted.
Identify any issues and recommendations with respect to the proposed emergency management procedures / safety protocols.
An emergency response plan has not been provided, but reports indicate that one will be developed. Supporting documents/reports indicate that these will be developed in consultation with Loyalist Township and the City of Kingston. The County of Lennox & Addington EMS staff should also be consulted.
Identify any issues and recommendations with respect to any Easements or Restrictive Covenants associated with the Project Location
The County of Lennox & Addington has not researched easements or restrictive covenants at this location. The local municipality (Loyalist Township) and other applicable agencies should be consulted with regard to this item.
5.5 Project Construction
Identify any issues and recommendations with respect to the proposed rehabilitation of any temporary disturbance areas and any municipal or local authority infrastructure that could be damaged during construction.
Some County roads are subject to a reduced load period which typically occurs from March 1 to April 30 of each year. County roads could be subject to damage by construction traffic. A pre-construction road condition survey of County Road haul routes must be conducted by the proponent prior to the commencement of construction. Upon completion of the construction a post construction survey of road conditions should be conducted to determine if any damage has occurred. In the event that damage has occurred the proponent shall be responsible to return the roads to their pre-construction condition. Any loads that exceed the Highway Traffic Act loading regulations will require excess load permits from the County of Lennox & Addington, Loyalist Township, City of Kingston and MTO.
Identify any issues and recommendations with respect to the proposed location of fire hydrants and connections to existing drainage, water works and sanitary sewers.
The local municipality (Loyalist Township) should be consulted with regard to this item.
Identify any issues and recommendations with respect to the proposed location of buried kiosks and above-grade utility vaults
The local municipality (Loyalist Township) and/or utility companies should be consulted with regard to this item.
Identify any issues and recommendations with respect to the proposed location of existing and proposed gas and electricity lines and connections
Supporting documents/reports do not indicate if there is an existing Hydro One Networks Inc (HONI) line on County Rd (CR) 19 (Mud Lake Rd) suitable for power transmission. Any additional poles or transmission lines proposed within the CR19 ROW will require County approval and permitting.
Provide comment on the proposed project plans with respect to Building Code permits and licenses.
The local municipality (Loyalist Township) should be consulted with regard to this item.
Identify any issues and recommendations related to the identification of any significant natural features and water bodies within the municipality or territory.
The local municipality (Loyalist Township) and/or applicable agencies should be consulted with regard to this item.
Identify any issues and recommendations related to the identification any archaeological resource or heritage resource.
The local municipality (Loyalist Township) and/or applicable agencies should be consulted with regard to this item.

Attachment 'C'
Agency Consultation

A. José De Armas

From: A. José De Armas [jose.dearmas@samsung.com]
Sent: Wednesday, August 01, 2012 9:08 PM
To: 'Jesse Laine'
Cc: 'SIMON KIM(김준성)'; 'Katherine Park'
Subject: RE: Soil Investigation Results

Good evening Jesse,

Regarding the upper most part of the development area on Fig 1, currently our consultants are clarifying this section, I will get back to you as soon I receive their feedback.

Thank you for your cooperation regarding this matter,

Sincerely,

José

A. José De Armas
Manager, Project Development

 **SAMSUNG Renewable Energy Inc.**
55 Strandish Court, 9th Floor
Mississauga, ON L5R 4B2
Tel: 905-501-5658
Mobile: 647-838-5774

Jose.DeArmas@samsung.com
<http://www.samsungrenewableenergy.ca/>

From: Jesse Laine [mailto:Jesse.Laine@powerauthority.on.ca]
Sent: Wednesday, August 01, 2012 12:26 PM
To: 'jose.dearmas@samsung.com'
Cc: 'SIMON KIM(김준성)'; 'Katherine Park'
Subject: RE: Soil Investigation Results

Hi Jose,

Under the original land use rules for FIT (<http://fit.powerauthority.on.ca/agricultural-land-restrictions-solar-pv>) you are not allowed to develop ground mount solar projects on lands classified 1, 2 or 3. After reviewing these maps there are a couple issues with the planned development area.

1. Property Reference #7 on "Figure 2" of the most recent maps sent, has class 2P lands inside your development area.
2. In "Figure 1" of the most recent maps you sent, there appears to be a section of Class 1 lands at the top of the development area. This land appears above class 5R lands (reclassified as 5R after the soil study). You mention in your previous email that it was reclassified from Class 1 to Class 4R and 5R which appears to be the case for most of the property, so maybe you can clarify the uppermost part of the development area appearing to be Class 1.

As stated previously, Classes 1 and 2 are lands which can not be developed on. Please ensure the project development area is on class 4-7 land. Feel free to get in touch if you have any questions concerning land use.

Regards,

Jesse Laine | *Contract Analyst*

FIT Contract Management

Ontario Power Authority

T: (416) 969-6236

E: Jesse.Laine@powerauthority.on.ca

From: A. José De Armas [<mailto:jose.dearmas@samsung.com>]

Sent: July 26, 2012 7:34 PM

To: Jesse Laine

Cc: 'SIMON KIM(김준성)'; 'Katherine Park'

Subject: RE: Soil Investigation Results

Hello Jesse,

Yes in figure one (attached) the yellow sections represent areas that are classified the same as the CLI map underneath it, which in this case is CLI 6 (marginal land). Additionally the red/pink sections represent the reclassification from class 1 to marginal (4R and 5R) based on the soil studies (report) that was generated late last year.

If you have any questions please do not hesitate to contact me as I will gladly address them for you.

Kindly advise what are the next steps to follow in order to finalize the soil re-classification.

Thank you for your assistance,

Sincerely,



A. José De Armas
Manager, Project Development

Samsung Renewable Energy Inc.
55 Standish Court, 9th Floor
Mississauga, ON L5R 4B2
Tel: 905-501-5658
Mobile: 647-838-5774

Jose.DeArmas@samsung.com
<http://www.samsungrenewableenergy.ca/>

From: Jesse Laine [<mailto:Jesse.Laine@powerauthority.on.ca>]

Sent: Thursday, July 26, 2012 3:06 PM

To: 'jose.dearmas@samsung.com'

Cc: 'SIMON KIM(김준성)'; 'Katherine Park'

Subject: RE: Soil Investigation Results

Hi Jose,

Thanks, this is what I was hoping to see. If you turn off the CLI map layer will you be able to show what the soil classification for each part of the development area is? I noticed in Figure one there are sections of the development area that are plain yellow, am I to assume that the lands in these yellow areas are classified the same as the CLI map underneath it?

Regards,

Jesse Laine | *Contract Analyst*

FIT Contract Management

Ontario Power Authority

T: (416) 969-6236

E: Jesse.Laine@powerauthority.on.ca

From: A. José De Armas [<mailto:jose.dearmas@samsung.com>]

Sent: July 23, 2012 3:24 PM

To: Jesse Laine

Cc: 'SIMON KIM(김준성)'; 'Katherine Park'

Subject: RE: Soil Investigation Results

Good afternoon Jesse,

As requested, attached are the maps showing the layout and the results of AMEC's assessment of soil capability in the areas overlapped by the panels. Please advise if this is what the OPA is looking for. Should we 'turn off' the overall CLI layer to make the mapping less busy?.

If you have any questions please do not hesitate to contact me.

Sincerely,

José



A. José De Armas

Manager, Project Development

Samsung Renewable Energy Inc.

55 Standish Court, 9th Floor

Mississauga, ON L5R 4B2

Tel: 905-501-5658

Mobile: 647-838-5774

Jose.DeArmas@samsung.com

<http://www.samsungrenewableenergy.ca/>

From: A. José De Armas [<mailto:jose.dearmas@samsung.com>]

Sent: Friday, July 13, 2012 9:52 AM

To: 'Jesse Laine'

Cc: 'SIMON KIM(김준성)'; 'Katherine Park'

Subject: FW: Soil Investigation Results

Good morning Jesse,

As agreed over the phone attached are the maps. Additionally below is a table that will be able to provide you with further information regarding the soils studies.

If you require any additional information please do not hesitate to contact me.

Regards,

José

A. José De Armas
Manager, Project Development


SAMSUNG Renewable Energy Inc.
55 Strandish Court, 9th Floor
Mississauga, ON L5R 4B2
Tel: 905-501-5658
Mobile: 647-838-5774

Jose.DeArmas@samsung.com
<http://www.samsungrenewableenergy.ca/>

From: Young, Rob [<mailto:rob.young@amec.com>]

Sent: Friday, July 13, 2012 9:35 AM

To: jose.dearmas@samsung.com; jose.dearmas@samsungrenewableenergy.ca

Cc: 'Simon Kim'; Katherine Park; b.ashby@samsung.com; 'Daniel Choi'; Warren, Jim; Johnston, David; Marangi, Karen

Subject: Soil Investigation Results

José:

As requested, below is a table showing depth to bedrock and soil texture from the soil investigation sites that overlap with the panel locations. The attached figures show the sampling locations.

ID	Ref__ID	Depth to Bedrock (m)	Texture (by feel)	name	cmt	desc	la
1	7	0.25	Loam	22	16-AUG-11 2:34:00PM	16-AUG-11 2:34:00PM	
2	7	0.25	Loam	23	16-AUG-11 2:50:57PM	16-AUG-11 2:50:57PM	
7	11A/11B	0.15	Clay loam	26	16-AUG-11 3:18:05PM	16-AUG-11 3:18:05PM	
8	11A/11B	0.25	Clay Loam	27	16-AUG-11 3:22:54PM	16-AUG-11 3:22:54PM	
11	19	0.30	Clay Loam	8	16-AUG-11 11:16:02AM	16-AUG-11 11:16:02AM	
12	19	0.30	Clay	9	16-AUG-11 11:22:06AM	16-AUG-11 11:22:06AM	
14	19	0.35	Clay	11	16-AUG-11 11:48:51AM	16-AUG-11 11:48:51AM	
18	20	0.20	Clay	14	16-AUG-11 12:15:12PM	16-AUG-11 12:15:12PM	
19	20	0.30	Clay	15	16-AUG-11 12:21:40PM	16-AUG-11 12:21:40PM	

Regards,
Rob.

Rob Young, P.Geo., MCIP, RPP
Associate Environmental Scientist, Power Sector Co-Lead
AMEC

Environment & Infrastructure
160 Traders Blvd. E., Unit 110, Mississauga, Ontario, L4Z 3K7, Canada
Tel +1 (905) 568-2929 x 4325, Fax +1 (905) 568-1686
Mobile/cell +1 (647) 923-7659
rob.young@amec.com
amec.com

The information contained in this e-mail is intended only for the individual or entity to whom it is addressed.
Its contents (including any attachments) may contain confidential and/or privileged information.
If you are not an intended recipient you must not use, disclose, disseminate, copy or print its contents.
If you receive this e-mail in error, please notify the sender by reply e-mail and delete and destroy the message.

This e-mail message and any files transmitted with it are intended only for the named recipient(s) above and may contain information that is privileged, confidential and/or exempt from disclosure under applicable law. If you are not the intended recipient(s), any dissemination, distribution or copying of this e-mail message or any files transmitted with it is strictly prohibited. If you have received this message in error, or are not the named recipient(s), please notify the sender immediately and delete this e-mail message.

MEMO

To **Andrew Moores,** File no **TC111406**
Manager, Renewable Energy
Approvals
Samsung Renewable Energy Inc.

From **Jim Warren, AMEC** cc **Peter Rostern, AMEC**
Gail Simon, AMEC
Rob Young, AMEC

Tel **519-830-2404**




Fax

Date **September 13, 2011**

Subject Samsung Solar REA
Assessment of Agricultural Capability Classification of Soils
Site Visit - Odessa Ontario

IMPORTANT NOTICE

This Document was prepared exclusively for Samsung Renewable Energy Inc., by AMEC Americas Limited. The quality of information contained herein is consistent with the level of effort involved in AMEC services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions and qualifications set forth in this document. This document is intended to be used by Samsung Renewable Energy Inc. only, subject to the terms and conditions of its contract with AMEC. Any other use of, or reliance upon this document by any third party for any other purpose than will be at that party's sole risk.

REV.	DATE	DETAILS OR PURPOSE OF REVISION	PREPARED	CHECKED	APPROVED
0	06/28/2011	Issued for information			



INTRODUCTION

During the gap analysis study completed by AMEC for the Sol-Luce Kingston Solar PV project, it was noted that a small portion of the Project site was classified as Canada Land Inventory (CLI) Class 1. The development of solar projects on CLI Class 1 – 3 Soil Capability for Agriculture is not permitted under the Renewable Energy Approvals Regulation. The area of Class 1 lands overlaps portions of properties currently leased by Samsung Renewable Energy Inc. for the development of the Sol-luce Kingston Solar PV project.

A site visit to inspect areas of soil to assess the agricultural capability classification according to the CLI capability classification for agriculture was conducted on August 16, 2011. The site visit involved travel by Dr. Jim Warren from AMEC’s Mississauga, Ontario office, to the sites near Odessa, Ontario, near Kingston. The objective of this cursory site visit was to inspect the soils in question and to review their CLI capability classification for agriculture. The intent was to collect sufficient site-specific information for re-assessment of the current classifications.

APPROACH

The specific areas identified as potential sites for construction of solar arrays were identified as Reference Sites 7, 11A/11B, 19 and 20. These four sites were classified previously as Class 1 agricultural land based on original soil maps at the 1:63,360 scale as follows:

Site Reference #	Soil Series as Mapped	Description from Soil Reports
7, 11A/11B	Bondhead Loam ¹	Grey-Brown Luvisol developed on well drained till.
19, 20	Guerin Loam ²	Grey-Brown Luvisol developed on calcareous moderately stony till, imperfect drainage.

Notes: 1. Soil Survey of Frontenac County, Report #39, 1966, 1:63,360 Scale.
 2. Soil Survey of Lennox and Addington County, Report #36, 1963, 1:63,360 Scale.

It should be noted that the dataset provided by Canada land Inventory (CLI) states that it may contain errors and omissions. The site-specific work described here during the site visit included auguring of holes, hand-texturing of soil materials, and visual inspection of surface soils, growing crops, fence rows and other local features. Photographs were taken for some features. The collected information was used to assess the agricultural capability classification following the CLI framework (CLI, 1972).

OBSERVATIONS

The following observations were collected at each of the sites.

General

- The topography at all sites was level to slightly undulating with slopes not greater than about 3%.

- Stone piles were noted among the fence rows between fields at all sites indicating that larger stones were historically collected and cleared from the fields for agricultural production. This observation agrees with the soil survey reports indicating that the soils were developed on a slightly stony till. Stones remaining on the fields may or may not interfere with current cultivation and tillage; however, the size and abundance of stones on the soil surface of some fields indicated that these soils are likely “moderately stony” according to the Stoniness Class as described by CanSIS (1982).
- Depth to bedrock is variable in the area but generally found at shallow depths ranging from greater than 1 m depth to 0 m (i.e., at-surface) at several locations including within some fields and on the bottom of shallow (30 cm deep) ditches adjacent to the sites.

Site Ref#7

- At the time of inspection, the southern half of Site Ref#7 was fallow (bare soil), and the northern half appears to be pasture or derelict forages/hay.
- Bedrock was encountered at 25 cm depth in two of four augured holes near the middle of the site. On the north edge of the site, bedrock was encountered at 65 cm depth and at 45 cm depth in the southern corner.
- Texture of the soil materials was loam, with increasing clay content with depth.

Site Ref#11A/11B

- At the time of inspection, the north half of Site Ref #11A/11B was in soybean production. The south eastern side was used for production of commercial turf grass (sod), and the south western side appears to be derelict pasture or forages.
- Bedrock was encountered at 50 cm depth along the northern edge of the site; at 15 cm depth near the center and 25 cm in the field towards the south western corner.
- Soil texture was loam at the northern side and clay to clay loam towards the south western corner.

Site Ref#19

- At the time of inspection the agricultural land use at Site Ref #19 was primarily hay (forage) production.
- Bedrock was encountered at all auger hole locations ranging in depth from at-surface to 40 cm depth.
- Historic stone piles including some large boulders were found in the fields at several locations and piled in fence rows.
- Soil texture ranged from loam on the surface to clay loam and heavy clay at depth.

Site Ref#20

- Site Ref #20, appears to be in derelict pasture or forages with many small trees growing on the field.
- Bedrock was encountered at depths between 20 to 35 cm depth in all auger holes.
- Soil texture ranged from loam on the surface to clay loam and heavy clay at depth.

CAPABILITY CLASSIFICATION FOR AGRICULTURAL

Based on the above observations the agricultural production capability of the soils at these four sites could potentially be limited by three possible factors (CLI, 1972):

- *Consolidated bedrock (Subclass R)*: This subclass includes soils where the presence of consolidated bedrock restricts the depth of the rooting zone. As a general guide, where depth to bedrock is less than 12 inches (0.3 m) the soil will not be rated higher than Class 5, and where depth to bedrock is more than 3 feet (about 1.0 m) the class rating will not be affected except under irrigation.
- *Stoniness (Subclass P)*: This subclass is made up of soils sufficiently stony to significantly hinder tillage, planting, and harvesting operations. Stony soils are usually less productive than comparable non-stony soils.
- *Undesirable soil structure and/or low permeability (Subclass D)*: This subclass is used for soils difficult to till, or which absorb water very slowly or in which the depth of rooting zone is restricted by conditions other than a high water table or consolidated bedrock.

The revised capability classifications for the reference sites are shown in Figures 1, 2 and 3 attached. Note that the proposed CLI boundaries are approximate based on the current investigations. The proposed classifications are as follows:

Site Ref#7

- Based on the observations made the middle third of the Site Ref#7 (about 1.9 ha) is classified as 5_R based on the shallow (<0.3 m) depth to bedrock.
- The remaining areas (north and south edges) are classified as 2_P (total about 1.9 ha) based on the size and abundance of stones on the surface.

Site Ref#11A/11B

- Based on the field observations described above, the field currently in soybean production plus some of the adjacent field to the south (about 4.4 ha; northern third of Site Ref #11A/11B) is classified as Class 1 agricultural land or possibly 2_P depending on the abundance of stones on the surface which could not be accurately assessed due to the presence of the growing soybean crop.
- The southern (roughly) two-thirds of Site Ref #11A/11B (about 3 ha) is classified as 5_R based on the shallow (<0.3 m) depth to bedrock.

Site Ref#19

- Based on the field observations described above, most of Site Ref#19 (about 11.2 ha) is classified as 5_R based on the shallow (<0.3 m) depth to bedrock.
- Areas in the central portion of Site Ref#19 (about 4.6 ha) may be classified as 4_R or higher with bedrock depths of 0.4 m or greater below surface at some locations.
- The classification may also be reduced to 5^P_R depending on the size and abundance of stones on the surface which could not be assessed due to the presence of the vegetation.

Site Ref#20

- Based on the field observations described above, most of Site Ref#20 (5.2 ha) is classified as 5_R based on the shallow (<0.3 m) depth to bedrock.

CONCLUSIONS

Based on this field assessment it would appear that soil at these sites originally mapped as Guerin Loam, would be more accurately mapped mostly as Guerin Loam – Shallow Phase. As a consequent, Site Ref# 19 and 20 are more accurately classified as Class 4R or 5R (total about 16.4 ha) for agricultural capability as described above. The site identified as Site Ref #7 and Ref#11A/11B are classified as Class 1 of 2P with significant areas of Class 5R (total about 4.9 ha).

NEXT STEPS

To proceed with documentation and formal recognition of reclassification of the CLI classes for these sites, AMEC recommends the following:

- Samsung should approach the Ontario Power Authority (OPA) to request their requirements for formal procedures and documentation to officially reclassify the sites as described above and in the attached figures.
- The formal process may include the information documented here and/or more detailed site and field investigations including excavation of test pits and collection of samples for analyses. This work should be completed prior to freezing conditions.

REFERENCES

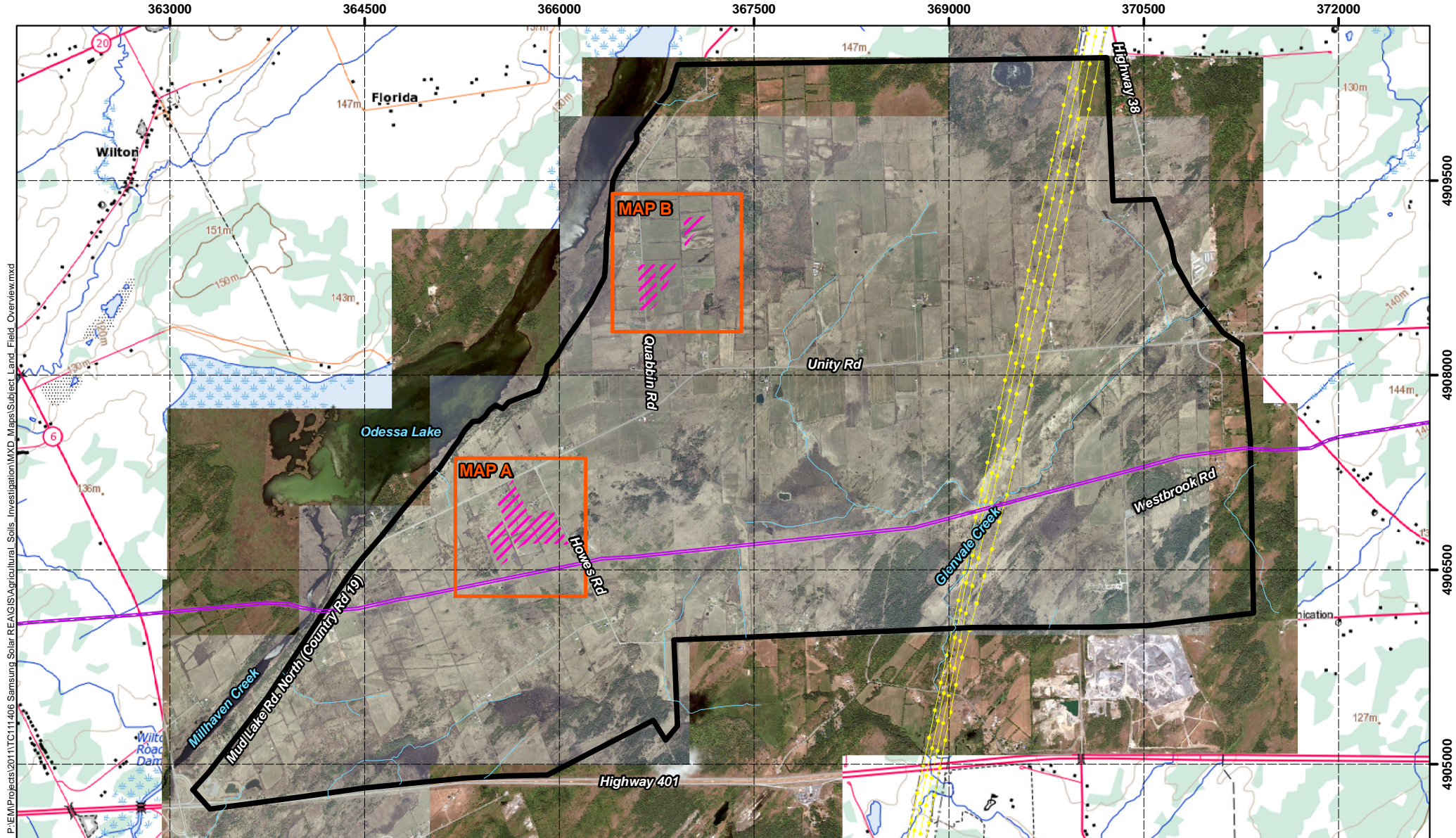
Canada Department of Agriculture, 1963. The Soil Survey of Lennox and Addington County, Report No. 36 of the Ontario Soil Survey, Research Branch.

Canada Department of Agriculture, 1966. The Soils of Frontenac County, Report No. 39 of the Ontario Soil Survey, Research Branch.

Environment Canada, (CLI) 1972. The Canada Land Inventory – Soil Capability Classification for Agriculture. The Canada Land Inventory Report No. 2. – 1965, (reprinted 1969, 1972) 16pp.





The Canada Soil Information System (CanSIS), 1982. Manual for describing soils in the field 1982 Revised J.H. Day (ed,) LRRRI Contribution No. 82-52. Research Branch, Agriculture Canada, Ottawa, 172pp.

Attachments: Figures 1, 2 and 3



P:\EMF\Projects\2011\TC11406_Samsung Solar REAGS\Agricultural_Soils_Investigation\MXD_Maps\Subject_Land_Field_Overview.mxd



LEGEND

-  Canadian Land Inventory - Areas on Subject Land Considered to be Primary Agricultural Land
-  Large Scale Map Extent
-  General Study Area Boundary
-  Transmission Lines

Datum: NAD83
Projection: UTM Zone 18N

0 0.5 1 2 3 4 5 Kilometres

NOTES:
- Agricultural Land field investigation conducted in August 2011

SAMSUNG RENEWABLE ENERGY INC.

SOL-LUCE KINGSTON PHASE 2

Agricultural Land Capability Investigation Overview Map

PROJECT N ^o : TC11406	FIGURE: 1
SCALE: 1:41,000	DATE: August 2011

365250

365500

365750

366000

4907250

4907000

4906750

4906500



P:\EM\Projects\2011\TC111406 Samsung Solar REAGIS\Agricultural_Soils_Investigation\WXD_Maps\Ag_ReClass_MAP_A.mxd

LEGEND

- Approximate Property Boundary
- General Area Rated as Class 1 Agricultural Capability *
- Field Investigation Agricultural Capability Rating ****
- 4R
- 5R

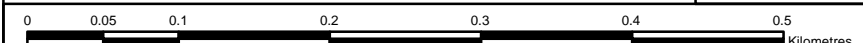
NOTES:
 - Agricultural Land field investigation conducted in August 2011
 * Rating based on Ministry of Agriculture, Food and Rural Affairs - Canada Land Inventory Agricultural Capability, map 31C7, June 2009
 **For full description of class rating, and subclass rating, refer to Ministry of Agriculture, Food and Rural Affairs map 31C7, June 2009

SAMSUNG RENEWABLE ENERGY INC.

SOL-LUCE KINGSTON PHASE 2

**MAP A
Agricultural Land Investigation
Summary Map**

Datum: NAD83
Projection: UTM Zone 18N



PROJECT N^o: TC111406

FIGURE: 2

SCALE: 1:5,000

DATE: August 2011

366500

366750

367000

367250

4909250

4909000

4908750

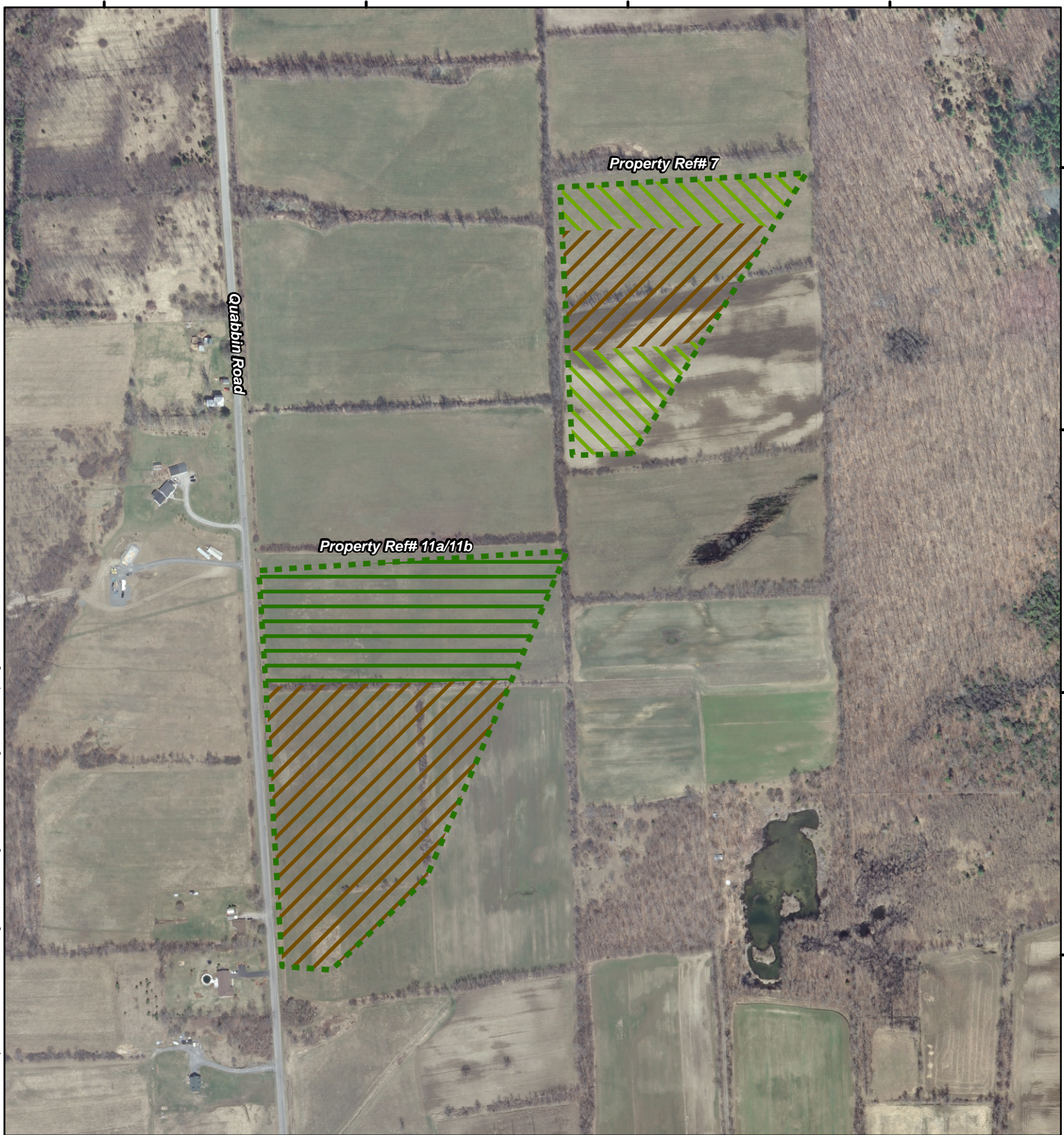
4908500

Quabbin Road






Property Ref# 7

Property Ref# 11a/11b

P:\EM\Projects\2011\TC111406 Samsung Solar REAGIS\Agricultural_Soils_Investigation\WXD_Maps\Ag_ReClass_MAP_B.mxd



LEGEND

-  Approximate Property Boundary
-  General Area Rated as Class 1 Agricultural Capability *
- Field Investigation Agricultural Capability Rating ****
-  1
-  2P
-  5R

NOTES:
 - Agricultural Land field investigation conducted in August 2011
 * Rating based on Ministry of Agriculture, Food and Rural Affairs - Canada Land Inventory Agricultural Capability, map 31C7, June 2009
 **For full description of class rating, and subclass rating, refer to Ministry of Agriculture, Food and Rural Affairs map 31C7, June 2009

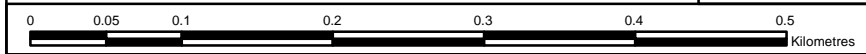



SAMSUNG RENEWABLE ENERGY INC.

SOL-LUCE KINGSTON PHASE 2

**MAP B
Agricultural Land Investigation
Summary Map**

Datum: NAD83
Projection: UTM Zone 18N

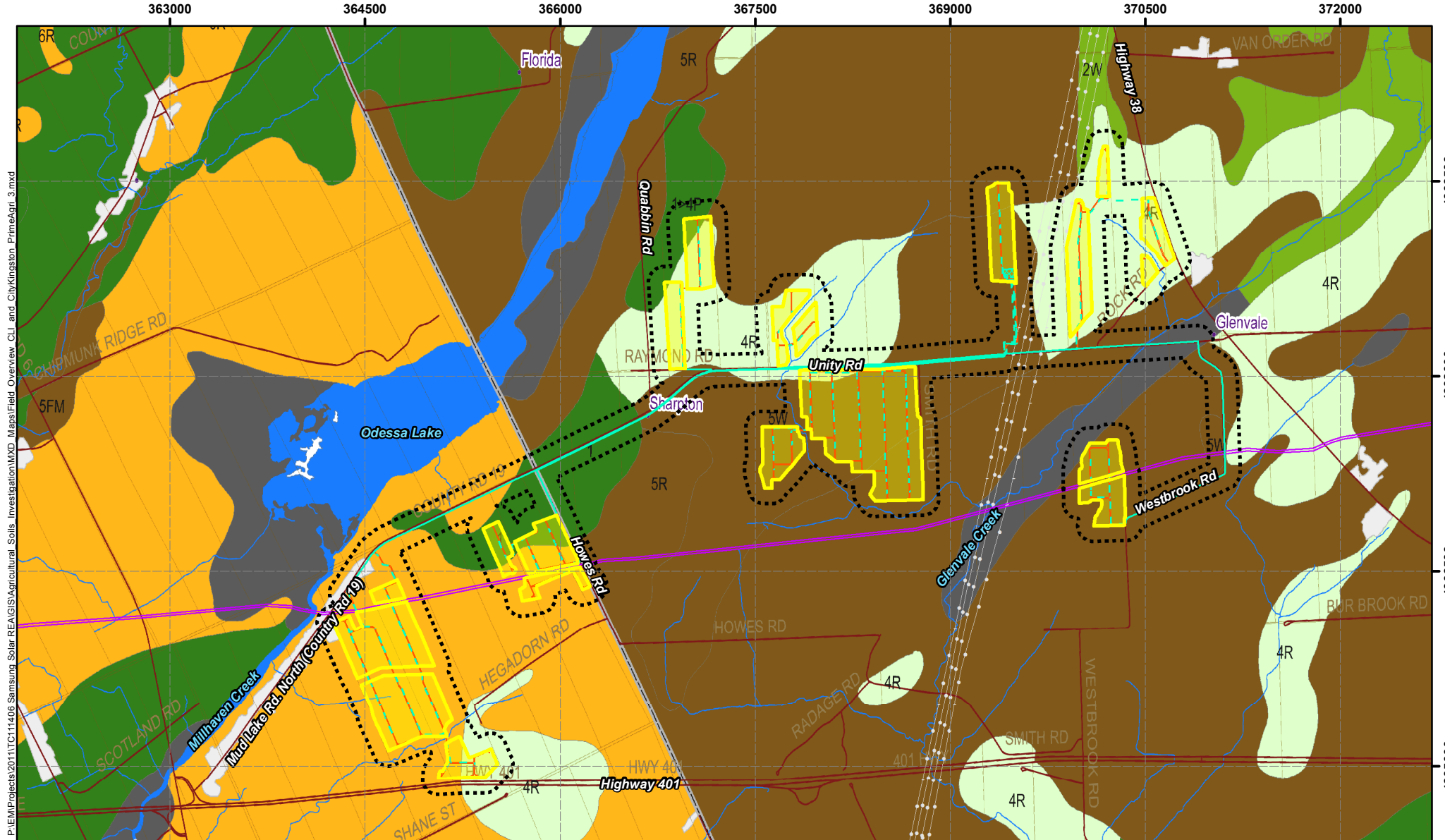


PROJECT N^o: TC111406

FIGURE: 3

SCALE: 1:5,000

DATE: August 2011



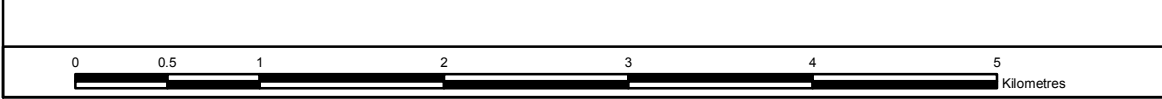
P:\EM\Projects\2011\TC121406_Samsung Solar REAGIS\Agricultural Soils_ Investigation\MXD_Maps\Field Overview_CLI and City\Kingslon_PrimeApr_3.mxd

- LEGEND**
- Development Area (Solar Panels)
 - Access Road
 - Collector Line (Overhead)
 - Collector Line (Underground)
 - Substation Location
 - Project Location
 - 120 m Setback Investigation Area *
 - TransCanada Natural Gas Pipeline ROW (Approx.)
 - Transmission Lines

- Canada Land Inventory Rating**
- | | |
|--|---|
| 1 | 6 |
| 2 | 7 |
| 3 | Organics |
| 4 | N/A |
| 5 | Water |

NOTES:
 * Investigation area includes the 120m buffer from the proposed fenceline for development sites, overhead and underground collector lines and access roads (Site Plan April 20, 2012)

<p>KINGSTON SOLAR LP</p>
<p>SOL-LUCE KINGSTON SOLAR PV ENERGY PROJECT</p>
<p>Canadian Land Inventory Soil Capability for Agriculture</p>



Datum: NAD83
 Projection: UTM Zone 18N

PROJECT N^o: TC121402
 SCALE: 1:41,000

FIGURE:
 DATE: June 2012

P:\EM\Projects\2011\TC121406 Samsung Solar REAGIS\Agricultural_Soils_Investigation\MXD_Maps\Field_Overview_CLI_and_ChKingston_PrimeAgri_8fig1.mxd

365000

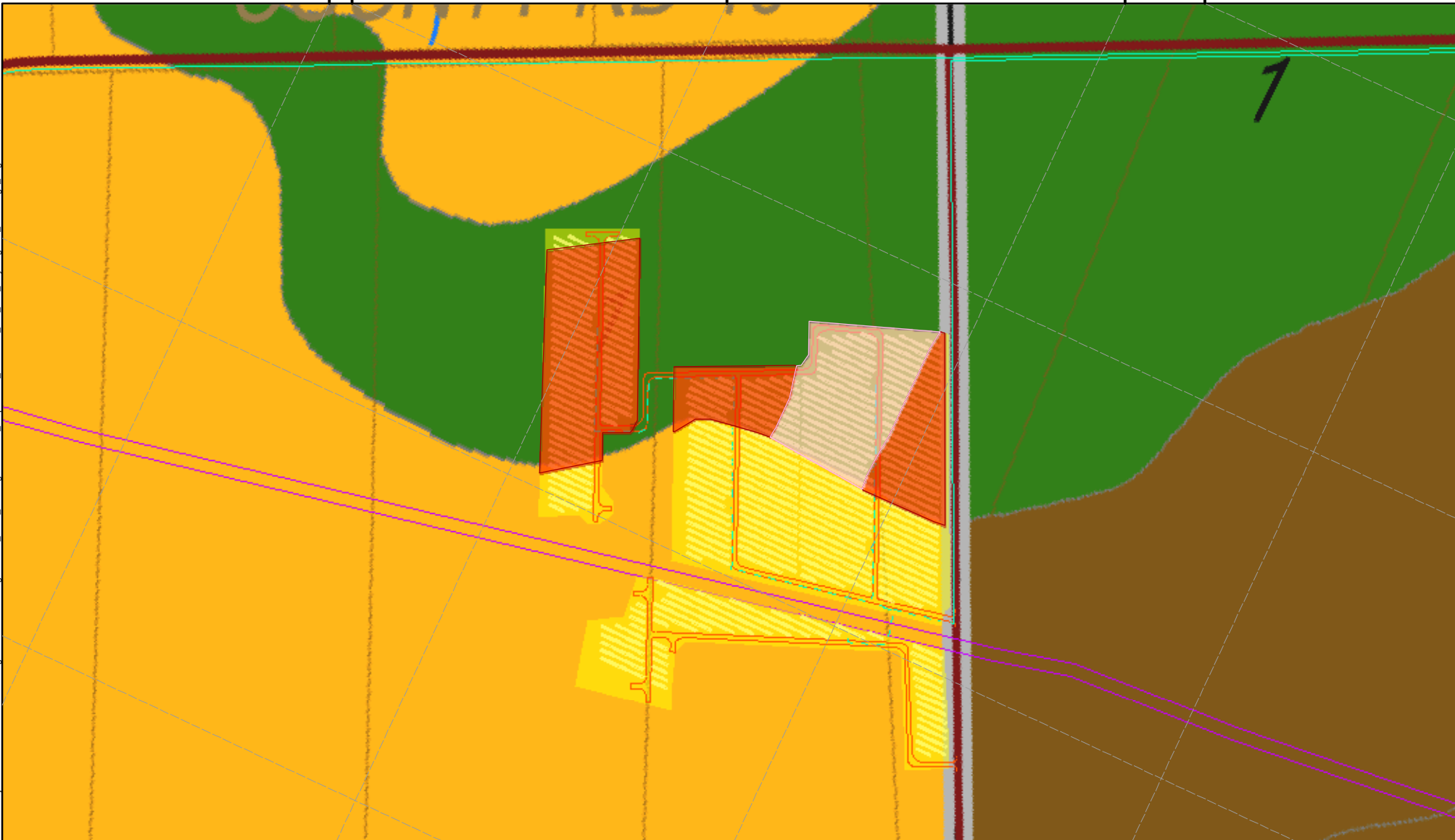
365500

366000

4907500

3665000

4907000



LEGEND AMEC Field Investigation Agricultural Capability Rating * 4R 5R Development Area (Solar Panels)		Access Road Collector Line (Overhead) Collector Line (Underground) TransCanada Natural Gas Pipeline ROW (Approx.) Transmission Lines Substation Location		Canada Land Inventory Rating 1 2 3 4 5 6 7 Organics N/A Water		NOTES: * For full description of class rating, and subclass rating, refer to Ministry of Agriculture, Food and Rural Affairs map 31C7, June 2009		KINGSTON SOLAR LP 	
						SOL-LUCE KINGSTON SOLAR PV ENERGY PROJECT		Soil Investigation Locations	
						Datum: NAD83 Projection: UTM Zone 18N			
						PROJECT N ^o : TC121402		FIGURE: 1	
						SCALE: 1:7,600		DATE: July 2012	

From: [Katherine Park](#)
To: ["Christine Woods"](#)
Cc: _____; ["jose.dearmas@samsung.com"](mailto:jose.dearmas@samsung.com)
Subject: RE: CRCA comments on Kingston Solar Project
Date: August-22-12 4:17:00 PM
Attachments: [image001.jpg](#)

Thanks Christine for CRCA's comments on our Project.

We will contact you, should we need to clarify any things on your comments.

Thank-you.

Regards,

SRE-LOGO-Resized-Small



Katherine Park, M.P.L
Project Development Associate

Solar Division,Samsung Renewable Energy
55 Standish Court, Mississauga
ON. L5R-4B2

O): 905-501-5661
C): 416-414-1653

SRE Confidential Communication

This message and any attachments are solely for the use of intended recipients. They may contain privileged and/or confidential information, or other information protected from disclosure. If you are not an intended recipient, you are hereby notified that you received this mail in error, and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this email in error, please contact the sender and delete the message and any attachment from your system. Thank you for your cooperation.

From: Christine Woods [mailto:woods@cataraquiregion.on.ca]
Sent: August-17-12 10:18 AM
To: kathy.park@samsung.com
Subject: CRCA comments on Kingston Solar Project

Kathy,

Please find attached CRCA staff comments on the Sol-luce Kingston Solar Farm Project, as requested by the City of Kingston.

Christine Woods MCIP, RPP
Environmental Planner

Cataraqi Region Conservation Authority
1641 Perth Road
P.O. Box 160, Glenburnie ON K0H 1S0
tel: 613.546.4228 x 235
toll free in 613 area code: 1.877.956.2722
fax: 613.547.6474
e-mail: woods@cataraquiregion.on.ca
