

**Lake Simcoe Regional Airport
(LSRA) Solar Project -
Project Summary Report**

DRAFT REPORT



Prepared for:
LSRA Solar Energy Partnership
120 Front Street East, Suite 201
Toronto ON M5A 4L9

Prepared by:
Stantec Consulting Ltd.
1-70 Southgate Drive
Guelph ON N1G 4P5

File no. 160950886
July 10, 2017

Table of Contents

ABBREVIATIONS	I
1.0 INTRODUCTION	1.1
1.1 OVERVIEW.....	1.1
1.2 REPORT REQUIREMENTS.....	1.1
2.0 PROJECT OVERVIEW	2.1
3.0 SUMMARY OF DRAFT REA DOCUMENTS	3.1
3.1 PROJECT DESCRIPTION REPORT	3.1
3.2 CONSTRUCTION PLAN REPORT.....	3.1
3.3 DESIGN AND OPERATIONS REPORT	3.3
3.4 DECOMMISSIONING PLAN REPORT	3.5
3.5 NATURAL HERITAGE ASSESSMENT AND ENVIRONMENTAL IMPACT STUDY	3.6
3.6 WATER ASSESSMENT AND WATER BODY REPORT	3.8
3.7 NOISE STUDY REPORT	3.9
3.8 STAGES 1-2 ARCHAEOLOGICAL ASSESSMENT.....	3.11
3.9 REA CHECKLIST: CONSIDERATION OF POTENTIAL HERITAGE RESOURCES.....	3.11
4.0 CLOSURE	4.1
5.0 REFERENCES	5.1

LIST OF APPENDICES

APPENDIX A: FIGURE

Figure 1: Project Location

Abbreviations

CEMP	Construction Environmental Management Plan
EIS	Environmental Impact Study
ha	Hectare(s)
km	kilometer(s)
LSRCA	Lake Simcoe Region Conservation Authority
m	Metre(s)
MNRF	Ministry of Natural Resources and Forestry
MOECC	Ministry of the Environment and Climate Change (formerly the Ministry of the Environment)
MTCS	Ministry of Tourism, Culture and Sport
MW	megawatt
NPC-300	Ministry of the Environment and Climate Change Noise Pollution Control Guideline
NPC-104	Ministry of the Environment and Climate Change Sound level Adjustment Guideline
O. Reg.	Ontario Regulation
REA	Renewable Energy Approval
ROW	right-of-way
Stantec	Stantec Consulting Ltd.
SWH	Significant Wildlife Habitat
The airport	Lake Simcoe Regional Airport
ZOI	Zone of investigation

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Introduction
July 10, 2017

1.0 INTRODUCTION

1.1 OVERVIEW

LSRA Solar Energy Partnership (LSRA SEP or the Proponent) is proposing to develop, construct, and operate the Lake Simcoe Regional Airport (LSRA) Solar Project (the Project) in the Township of Oro-Medonte, within the County of Simcoe, Ontario. The Project was awarded a power purchase contract with the Independent Electricity System Operator in March 2016. The Project requires a Renewable Energy Approval (REA) as per Ontario Regulation (O. Reg.) 359/09 (as amended May 2016) under Part V.0.1 of the Ontario *Environmental Protection Act*. The Proponent has retained Stantec Consulting Ltd. (Stantec) to prepare the REA application, as required under O. Reg. 359/09.

The proposed 6.75 megawatt (MW) Project is considered a Class 3 Solar Facility according to subsection 4(1) of O. Reg. 359/09. Project components that are located on Lake Simcoe Regional Airport (the airport) lands include: solar panels and racking, access roads, inverters and transformers, a substation (if required), communications tower (if required), underground electrical lines, perimeter fencing, and temporary construction areas. In addition, overhead or underground electrical lines will carry the electricity south along the Line 6 North municipal road right-of-way (ROW), crossing under Highway 11, to the existing 44 kilovolt circuit located south of Highway 11 near the intersection of Line 6 South and Guest Road.

The Project must receive a REA from the Ministry of the Environment and Climate Change (MOECC) to proceed to construction. The REA application includes confirmation from the Ministry of Natural Resources and Forestry (MNRF) and the Ministry of Tourism, Culture and Sport (MTCS) that these ministries are satisfied with specific reports included in the application.

1.2 REPORT REQUIREMENTS

O. Reg. 359/09, Section 17 (1) 3 requires the preparation of a summary of the documents to be submitted as part of the REA application, to support Aboriginal community consultation and feedback. This REA Summary Report provides a summary of each draft report with the exception of the Consultation Report. Comments and feedback received from Aboriginal communities, municipalities, and the public will be considered and incorporated into the Consultation Report prior to submission of the REA application to the MOECC.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Introduction
July 10, 2017

This REA Summary Report includes a summary of the following draft reports:

- Project Description Report
- Construction Plan Report
- Design & Operations Report
- Decommissioning Plan Report
- Natural Heritage Assessment and Environmental Impact Study
- Water Assessment and Water Body Report
- Noise Study Report
- Stage 1-2 Archaeological Assessment Report
- REA-Checklist: Consideration of Potential for Heritage Resources.

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LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Project overview
July 10, 2017

2.0 PROJECT OVERVIEW

The Project will be primarily located on airport lands with electrical lines in the Line 6 North and Line 6 South municipal ROW. The airport is owned by the County of Simcoe, the City of Barrie, and the Township of Oro-Medonte.

The term "Project Location" is defined by O. Reg. 359/09 as:

"a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the project and any air space in which a person is engaging in or proposes to engage in the project".

The Project Location includes lands on which components will be located, as well as any temporary construction/decommissioning areas. An outer boundary of the Project Location is shown in **Figure 1, Appendix A**.

The Project Location covers approximately 21 hectares (ha) of land, but will only require about 16 ha during the operation phase. The Project Location on airport lands is generally bounded by neighboring agricultural and forested lands to the north, west, south, and north east. To the north east of the Project location there is also a biosolids facility for Barrie's wastewater treatment plant. The Project Location abuts Line 6 North and the airport directly to the east. The electrical line in the municipal ROW is generally adjacent to agricultural lands and residences on the west side of Line 6 North and Line 6 South and forested lands and residences on the east side. The electrical line will be installed beneath Highway 11.

A general overview of the activities during construction, operation, and decommissioning phases of the Project is provided in Section 4.5 of the [Project Description Report](#). Details on these activities are provided in **Section 2.3** of the [Construction Plan Report](#), **Section 4.0** of the [Design & Operations Report](#) and **Section 3.0** of the [Decommissioning Plan Report](#).

An overview of the proposed Project schedule is provided in **Section 4.8** of the [Project Description Report](#). It is anticipated that the REA application will be submitted to the MOECC in the fall of 2017, and a decision to be made approximately six months following submission. The approximate start of construction would be early to mid-2018, with the Commercial Operation Date at the end of 2018.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

3.0 SUMMARY OF DRAFT REA DOCUMENTS

The following sections provide a summary of draft documents that will be included as part of the Project's REA application, with the exception of the Consultation Report. The Consultation Report will be completed once comments and feedback from Aboriginal communities, municipalities, and the public have been incorporated.

Each document summarized below was prepared in accordance with O. Reg. 359/09, and in consideration of the MOECC's *Technical Guide to Renewable Energy Approvals* (MOECC 2017).

3.1 PROJECT DESCRIPTION REPORT

The Project Description Report provides: contact information for the Proponent; a list of federal, provincial, municipal and other authorizations that may be required for the Project; a general schedule; and a summary of Project information based on the content of the other draft REA reports. The latter includes a description of project components and activities, negative environmental effects that may result from engaging in the Project during construction, operation and decommissioning and mitigation and monitoring. The report also provides an overview of key residual environmental effects of the Project.

3.2 CONSTRUCTION PLAN REPORT

The Construction Plan Report describes the Project activities planned during the construction phase so that potential negative environmental effects may be identified and mitigation measures can be proposed where required.

Construction activities are anticipated to take approximately 6 to 8 months. The exact calendar dates are yet to be determined, and will be based on the timing of the REA approval. The selected general contractor will be required to provide a more detailed and updated construction schedule after detailed design work has been completed; the schedule will then be posted to the Project website: www.LSRAsolar.com. A summary and anticipated schedule of Project construction is provided in **Section 2.1** of the Construction Plan Report.

Proposed site preparation, construction, and installation activities for the Project are outlined in **Section 2.3** of the Construction Plan Report, including:

- staking and clearing
- installation of access roads and culverts
- construction staging and temporary storage areas
- solar panel and racking installation
- inverter station installation

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

- substation installation, if required
- electrical line installation
- perimeter fence installation
- communications tower installation, if required
- site clean-up and restoration
- commissioning.

The solar panels, racking, inverters, transformers, substation components and precast concrete products will be delivered by flatbed truck and trailer. A small truck-mounted crane will be used to lift components and skids from trucks and place them directly onto the prepared surfaces. The typical equipment used in construction of a solar project consists of excavators, bulldozers, dump trucks, compaction equipment, skid steer, and auger.

O. Reg. 359/09 requires that any adverse environmental effects that may result from construction and installation activities be described. The Project was sited to avoid natural and socio-economic features to the extent possible. The Project's design and component layout was developed by the Proponent in consultation with the airport, the Lake Simcoe Region Conservation Authority (LSRCA), and Stantec's terrestrial, aquatic, cultural heritage, stormwater and noise experts.

A summary of potential effects (with likelihood and magnitude, as applicable), performance objectives, and mitigation measures associated with construction of the Project is provided in **Table 3.1** of the Construction Plan Report. Impacts to the following were considered:

- built heritage, cultural heritage landscapes and archaeological resources
- wetlands, woodlands, wildlife and wildlife habitat
- Areas of Natural and Scientific Interest, Conservation reserves and areas protected under provincial plans and policies
- groundwater, surface water, fish and fish habitat
- air quality and noise
- land uses, socio-economic resources and infrastructure
- public health and safety.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

With the implementation of mitigation measures, construction impacts will be minimized. Mitigation measures include erosion and sedimentation control, spill prevention, vegetation management and restoration, general construction best management practices, and specific measures for candidate significant wildlife habitat and in-water works (if required). In addition, a Construction Environmental Management Plan (CEMP) will be prepared to cover critical construction and environmental management tasks including traffic management, emergency response, stormwater management, health and safety, and the mitigation measures identified within the Construction Plan Report. The CEMP will be the controlling plan for all construction activities, and will be designed to minimize potential adverse environmental effects.

Trained personnel will be on-site to monitor construction, and will ensure compliance with the mitigation and monitoring requirements outlined in the CEMP. The Construction Plan Report provides guidance to the Proponent and general contractor on how to monitor mitigation measures, and how to verify compliance with O. Reg. 359/09. The general contractor will be responsible for the implementation of construction effects monitoring. All monitoring measures will be conducted in compliance with regulatory and agency standards and guidelines.

3.3 DESIGN AND OPERATIONS REPORT

The Design & Operations Report provides the Project's site plan, facility design plan, and a description of the facility's components. It also contains operational details of the Project, including maintenance and staffing, and provides an overview of the Emergency Response and Communications Plan. Potential negative environmental effects from the operations phase, including maintenance, are described along with mitigation and monitoring measures in respect of those effects.

A site plan displaying the proposed location and extent of the Project components is included in **Appendix A (Figures 1-5)** of the Design & Operations Report, along with other figures showing land uses and infrastructure within 300 metres of the Project Location and existing environmental features. Additional information about site plan components is provided in **Table 2.1** of the Design & Operations Report. Descriptions of the facility components are provided in **Section 3.0** of the Design & Operations Report.

The Project's design and component layout was developed in consultation with the airport, the Lake Simcoe Region Conservation Authority, and Stantec's terrestrial, aquatic, cultural heritage, stormwater and noise experts. The airport required that the Project Location be a specific distance from the runway to comply with the *Lake Simcoe Regional Airport Land Development Guidelines* (WSP 2015). Based on conversations with staff at the Lake Simcoe Region Conservation Authority, all permanent Project components (except for an access road and underground collector lines) are to be located outside the floodplain. Once the airport and Lake Simcoe Region Conservation Authority's constraints were applied, the Project was designed to be setback as much as possible from natural heritage features (significant and non-significant) and water bodies, while still maintaining enough land to generate the contracted 6.75 MW nameplate capacity.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

The following summarizes the equipment and components that make up the Project Location during the operations phase:

- solar panels and racking
- inverters and inverter step-up transformers
- substation (if required), main transformer (if required), and switchyard (if required)
- electrical lines and interconnection
- access roads and entrances
- perimeter fencing
- stormwater management infrastructure (if required)
- communications tower (if required).

Operation activities include continuous remote monitoring of the facility, maintenance, and inspection/monitoring activities, and are detailed in **Section 4.0** of the Design and Operations Report.

A summary of potential effects, performance objectives, and mitigation/monitoring measures associated with the operation of the Project is provided in **Table 5.1** of the Design & Operations Report. The environmental effects monitoring plan for Project operation has been designed to provide guidance to the Proponent and/or Operations Manager on monitoring the proposed mitigation measures and to verify compliance of the Project with O. Reg. 359/09. The Proponent and/or the Operations Manager would be the primary party responsible for the implementation of operational-effects monitoring. Implementation of these measures would be undertaken in compliance with regulatory and agency standards and guidelines.

The Emergency Response and Communications Plan will be developed with and/or reviewed by First Responders and the airport and will be implemented throughout the life of the Project (from construction to decommissioning) and updated as required. The purpose of the Emergency Response and Communications Plan is to establish and maintain emergency procedures to effectively deal with an emergency situation and to minimize potential effects.

The Proponent will maintain contact with Project stakeholders (public, Aboriginal communities, and the municipalities) during the operation of the Project, as needed. Methods of communication could include providing Project updates on the Project website, by letters, newspaper notices, and/or direct contact via phone or email. A sign will be posted during all phases of the Project at the gates of the facility (also on the Project website and with the Township, County and Ministry of the Environment and Climate Change), which will include a telephone number, email, and mailing address for contacting the Proponent. Complaints would be recorded in a Complaint Response Document. Reasonable efforts would be made to take appropriate action as a result of concerns as soon as practical.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

3.4 DECOMMISSIONING PLAN REPORT

The Decommissioning Plan Report describes the Project activities planned during the decommissioning phase so that potential negative environmental effects may be identified and mitigation measures can be proposed where required.

The Project is anticipated to have an operational lifespan of 20 or more years. At the end of the Project's lifespan the majority of the Project Location lands at the airport will be returned to their current 2017 land use as agricultural lands, vegetated buffer areas, and wetland/forested land. However, the intended post-Project land use will be confirmed with the airport prior to decommissioning to determine whether lands are to be restored to their original condition or will be used by the airport for other purposes. Decommissioning activities are expected to take 3-6 months.

Assuming that at the time of decommissioning the airport will resume its agricultural land use, a Rehabilitation Plan will be designed to restore lands affected by the Project to a state suitable for this use. Previously forested lands and those maintained as a vegetated buffer will also be restored. The Rehabilitation Plan will be prepared prior to decommissioning. All decommissioning and restoration activities will be performed as per the requirements of relevant governing agencies, and will be in accordance with relevant statutes in effect at the time of decommissioning and with consideration of industry standard practices.

Section 3.2.2 of the Decommissioning Plan Report describes the process that will be undertaken to dismantle the various components associated with the Project and provides a brief overview of the potential environmental effects associated with each decommissioning activity. The majority of potential environmental effects related to decommissioning are similar to those during construction and are detailed, along with mitigation measures, in **Section 3.0** of the Construction Plan Report.

Prior to decommissioning the Project, the Proponent will complete a waste audit and prepare a waste reduction work plan in accordance with any applicable guidelines or requirements from the MOECC or relevant regulations in effect at the time of decommissioning. Much of the facility would consist of reusable or recyclable materials; as a result, there would be minimal residual waste for disposal from decommissioning the facility.

Advance notification of decommissioning will be provided to the airport, Township of Oro-Medonte, the County of Simcoe, Aboriginal communities, the LSRCA, other government agencies and the public. The Decommissioning Plan Report will be reviewed and updated as needed at least 6 months prior to the Project's retirement date, and if changes are required, a revised report will be provided to the MOECC.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

The Emergency Response and Communications Plan detailed in the Design & Operations Report will be updated and used during the decommissioning of the Project. This plan includes methods for informing the public, municipalities, Aboriginal communities, nearby landowners, other stakeholders, and relevant agencies about activities occurring at the Project site (from standard decommissioning activities to emergencies).

The Proponent would obtain authorizations, permits and approvals required at the time of decommissioning from the appropriate government and regulatory agencies/bodies.

3.5 NATURAL HERITAGE ASSESSMENT AND ENVIRONMENTAL IMPACT STUDY

The Natural Heritage Assessment and Environmental Impact Study is intended to satisfy the requirements outlined within O. Reg. 359/09 (s. 24 through 28, 34, 37, and 38). It is required to determine whether natural features exist in and/or within 50 metres of solar panels, electrical lines and transformers of the Project Location. The Natural Heritage Assessment and Environmental Impact Study report identifies the existence and boundaries of all natural features within the Project Location and a 50-m Zone of Investigation (ZOI) based on a records review and site investigation, and provides an evaluation of significance for each identified feature. Evaluations are based on either an existing MNRF designation of the feature or by using evaluation criteria or procedures established or accepted by the MNRF. An Environmental Impact Study (EIS) is included to identify and assess any negative environmental effects and identify mitigation measures for significant natural features within the Project Location or ZOI as per O. Reg. 359/09, s.38 (2).

For the Records Review, background data were used to identify natural features in the Project Location and ZOI, and wildlife species with range overlap with the Project Location and ZOI. The Records Review identified one evaluated non-provincially significant wetland, one unevaluated wetland, and MNRF Wooded Areas, including Significant Woodlands.

The Site Investigation was conducted to confirm the presence and boundaries of natural features within the Project Location and ZOI following the MNRF *Natural Heritage Assessment Guide* (2012) and recommended guidance documents and protocols. The site investigation identified the presence of five wetland features in the Project Location, confirmed the presence of a single woodland feature in the Project Location and four Woodland features in the ZOI, and documented the presence of six Candidate Significant Wildlife Habitat types (Turtle Wintering Areas, Waterfowl Nesting Areas, Amphibian Breeding Habitat – woodland, Amphibian Breeding Habitat – wetland, Marsh Bird Breeding Habitat, and Special Concern and Rare Wildlife Species) in the Project Location and nine Candidate Significant Wildlife Habitat types in the ZOI.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

For all natural features in the Project Location and ZOI, a determination was made of whether the natural feature is provincially significant, significant, not significant or not provincially significant. Significant features identified during the Evaluation of Significance and carried forward to the EIS include:

- three woodlands
- candidate significant wildlife habitat:
 - two turtle wintering areas
 - one waterfowl nesting area
 - five amphibian breeding habitats
 - four marsh bird breeding habitats
 - one habitat for eastern wood-pewee/wood thrush
- generalized candidate significant wildlife habitat.

Section 38(2) of O. Reg. 359/09 requires that an EIS be prepared for the construction of any solar project components proposed in or within 50 metres of significant natural features, or within 50 metres of a provincial park or conservation reserve.

Natural heritage features may be impacted during construction as follows:

- Direct impact to a small amount (0.2 ha) non-provincially significant wetland, significant woodland, and candidate amphibian breeding habitat will occur to construct the substation (if required) and access road.
- Direct impact to a small amount of non-provincially significant wetland, candidate turtle wintering habitat, candidate amphibian breeding habitat and candidate marsh bird breeding habitat in the municipal ROW may occur if poles are required for an overhead line.
- Direct impact (0.6 ha) and temporary impact (0.2 ha) to candidate waterfowl nesting area will occur as a result of construction of solar modules and access roads. However, there may be an increased benefit to aviation safety by the reduction of birds and the airport already actively manages bird populations at the airport.
- Temporary direct impact to a small amount of non-provincially significant wetland, candidate turtle wintering habitat, candidate amphibian breeding habitat and candidate marsh bird breeding habitat in the municipal ROW may occur if trenching is required for an underground line.
- Temporary direct impact (1.3 ha) to non-provincially significant wetland, significant woodland, candidate amphibian breeding habitat and candidate Significant Wildlife Habitat (SWH) will occur for the temporary construction area north of the runway.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

Indirect effects on natural features during construction and decommissioning (dust, spills, noise, sedimentation and erosion), accidental intrusion into natural features, and changes in surface water flow to natural features will be addressed with implementation of mitigation measures.

A restoration plan for temporary direct impact to natural features will revegetate lands post-construction. Some of the lands revegetated post-construction may be impacted again during decommissioning. Lands will be fully revegetated in consultation with the airport after decommissioning. No significant adverse residual effects are anticipated for natural features.

Construction monitoring commitments and mitigation measures have been specified in **Section 5.0** of the Natural Heritage Assessment and Environmental Impact Study to be implemented as part of the construction of the Project. These measures have been developed to avoid and reduce project impacts to the significant natural features and wildlife habitats.

3.6 WATER ASSESSMENT AND WATER BODY REPORT

The Water Assessment and Water Body Report identifies REA-defined water bodies that are within the Project Location and within 120 m of the Project Location (ZOI), assesses potential negative environmental effects that may result from the Project on water bodies, and identifies mitigation measures.

A Water Assessment includes a records review and site investigation to determine the presence and boundaries of water bodies within the ZOI (assuming that no Lake Trout lakes that are at or above development capacity are identified within 300 metres). If water bodies are identified within the ZOI, a Water Body Report must be prepared to assess impacts of the proposed work.

The definition of a water body is provided in O. Reg. 359/09 as follows:

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

A records review was conducted in accordance with section 30(1) of O. Reg. 359/09. Data was gathered through agency requests and accessing online databases and sources. Potential water bodies were also identified through a review of aerial photographs that included the ZOI. Watercourses and waterbodies as mapped by the MNRF may or may not meet the definition of a water body as per O. Reg. 359/09. As such, a site investigation was conducted in accordance with section 31 of O. Reg. 359/09. The investigation took place on July 27, 2016. The purpose of the site investigation was to: (1) ground truth results of the records review to identify any required corrections; (2) determine whether additional water bodies exist; and (3) identify boundaries of any water body located within the zone of investigation.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

Based on the results of the records review and field investigations, five reaches of water bodies were identified within the ZOI and carried forward for impact assessment. The Project Location is within the Shelswell's Creek subwatershed. Shelswell's Creek drains generally southeast through the Project Location and enters Lake Simcoe approximately 7.5 km downstream. There are no Lake Trout lakes that are at or above development capacity identified at or within 300 m of the Project Location.

Potential negative effects to water bodies at and within 120 m of the Project Location have been identified and generally include short-term increases in turbidity from runoff and soil erosion during construction, loss of shade, reduced bank stability, reduced organic input, and water quality and habitat disturbance effects to aquatic habitat. Potential impacts related to the installation and maintenance of culvert crossings and electrical lines are also identified.

There are no solar panels located within 30 m of water bodies. An overhead electrical line or underground electrical line will cross Shelswell's Creek in the vicinity of Station S5. No other Project components cross water bodies within the ZOI.

General mitigation measures for construction activities near a watercourse include completing in-water work within the MNRF timing windows, operating and storing materials and equipment in a manner that prevents any deleterious substance (e.g., petroleum products, silt, etc.) from entering the water, implementing sediment and erosion control measures, and maintaining sufficient stockpiles of contingency materials (e.g., silt fence, filter bags, etc.) on-site. Specific mitigation measures for new culvert crossings, overhead electrical lines, and underground electrical lines are provided.

With the appropriate mitigation measures implemented, the proposed Project activities are predicted to have no residual effect on water bodies.

3.7 NOISE STUDY REPORT

A Noise Study Report was prepared in accordance with O. Reg. 359/09, which requires that a ground mounted solar facility with a name plate capacity greater than 10 kilowatts produce a Noise Study Report to support the REA application. Table 1 Item 8 of O. Reg. 359/09 requires that noise studies for Class 3 facilities be conducted in accordance with "*Basic Comprehensive Certificates of Approval (Air) – User Guide*", dated April 2004 and subsequent amendments. In addition, the Noise Study Report follows the requirements described in the MOECC publications NPC-300, "Environmental Noise Guidelines" and NPC-104, "Sound Level Adjustments". The purpose of the Noise Study Report is to specifically discuss noise sources associated with the Project and their effects on the relevant points of reception.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

The noise sources for the Project are the three inverter stations (each with an inverter and inverter step-up transformer) and the substation transformer (if required) located within the substation (if one is required). It was conservatively assumed that all equipment units will operate at full rated capacity during the predictable worst case hour (i.e., the hour during regular operation when the most noise from the Project is produced).

The Project's dominant noise sources would consist of noise radiating from:

- three inverters each with 2.5 megawatt inverters
- three inverter step-up transformers rated at 2.25 megavolt ampere
- one 8.5 megawatt substation transformer (if required).

The Project is adjacent to two other existing and operating solar facilities (Midhurst Solar Facilities 3 and 4), and therefore the source data from these two facilities were also considered in the assessment.

The Project will operate throughout the year during daylight hours (i.e., from sunrise to sunset). Due to extended daylight hours during summer months, the facility could operate outside the daytime period defined by MOECC. Therefore, sound level effect during evening/nighttime hours (19:00 to 07:00) is considered in the assessment.

The assessment identified a total of 27 receptors within approximately one kilometre of the Project Location based on field verifications, review of parcel data, and aerial imagery from 2016. A point of reception was then identified for each noise receptor. Identified points of reception were modeled using a height of 4.5 metres above grade. For the purpose of the Noise Study Report, four points of reception were predicted through acoustical modelling to experience the highest sound levels of all the points of reception.

The noise sources were modelled as point sources. In addition, conservatively, no shielding or obstacles were included in the model. The results of the modelling assessment consider the total sound level from of all contributing sources, including sources from the adjacent solar facilities.

The predictive analysis presented in the Noise Study Report indicates that the cumulative noise effects from this Project comply with MOECC performance limits at all points of reception, without the need for noise control measures. Stantec's conservative assessment predicted that sound levels during the Project's predicted worst case scenario during operation presented within the Noise Study Report would also meet the MOECC criteria at applicable points of reception.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Summary of Draft REA Documents
July 10, 2017

3.8 STAGES 1-2 ARCHAEOLOGICAL ASSESSMENT

Stantec was retained by LSRA SEP to complete a Stage 1-2 archaeological assessment of the proposed location of project components for the LSRA Solar Project. The project layout design was revised on March 9, 2017, following the completion of the Stage 2 archaeological assessment fieldwork. As such, the area that was surveyed is greater than the revised Project Location. The study area comprises approximately 24.03 hectares of land located on part of Lot 17, Concession 6, and Lots 18 to 20 of Concessions 6 and 7, Geographic Township of Oro, County of Simcoe, Ontario.

The Stage 2 archaeological assessment of the study area was conducted on October 12-14, 2016 and November 1, 2016. Where the study area was deemed to be disturbed it was photographically documented and the remainder of the study area has been subject to Stage 2 assessment by a combination of pedestrian survey at 5 m intervals and test-pit survey at 5 m intervals, where appropriate. One location of Euro-Canadian cultural material was identified (Location 1). This location does not fulfill the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the MTCS 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 1 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 1.

3.9 REA CHECKLIST: CONSIDERATION OF POTENTIAL HERITAGE RESOURCES

Following the MTCS *REA Checklist: Consideration of Potential for Heritage Resources*, in accordance with subsection 23 (2) of O. Reg. 359/09, it was determined that no cultural heritage resources are present within the Project Location. Consultation with the Ontario Heritage Trust, MTCS, and the Township of Oro-Medonte confirmed that there are no protected heritage properties within or adjacent to the Project Location. Background research was completed following the MTCS REA Checklist screening questions and confirmed with a site visit on October 28, 2016. From this process, it was concluded that within the Project Location there are no plaques, National Historic Sites, cemeteries or burial sites, structures over 40 years of age, cultural heritage landscapes, landmarks and special associations with a community, person or historical event. As no impacts are anticipated and no heritage resources were identified, no further heritage work is required.

LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

Closure
July 10, 2017

4.0 CLOSURE

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Prepared by _____
DRAFT
(signature)

Trisha Hughes, M.Sc.
Environmental Scientist

Reviewed by _____
DRAFT
(signature)

Rob Rowland, M.Sc., B.Sc., P. Geo.
Senior Project Manager

Approved by _____
DRAFT
(signature)

Rob Nadolny
Principal – Power & Energy



LAKE SIMCOE REGIONAL AIRPORT (LSRA) SOLAR PROJECT - PROJECT SUMMARY REPORT

References
July 10, 2017

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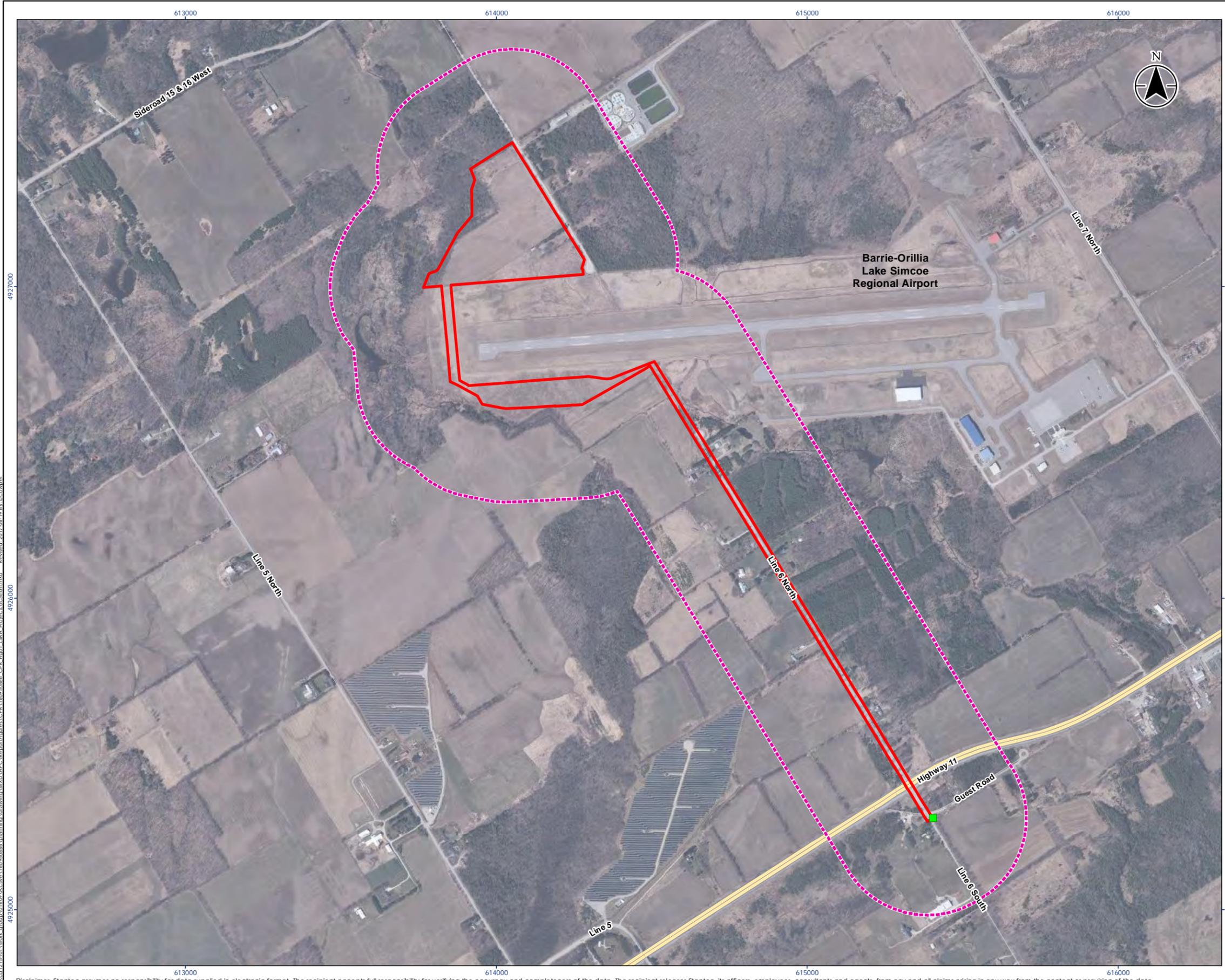
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DRAFT

**APPENDIX A:
FIGURE**



- Legend**
- Project Location
 - Connection Point (CP)
 - 300m from the Project Location Boundary
 - Expressway / Highway
 - Minor Road



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 17N
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2017.
 3. Orthoimagery Source: ©First Base Solutions 2017, imagery date 2016.



Project Location: Township of Oro-Medonte and County of Simcoe, ON
 Prepared by BCC on 2017-06-19
 Technical Review by ## on 2017-##-##
 Independent Review by ## on 2017-##-##

Client/Project: LSRA SOLAR ENERGY PARTNERSHIP
 LSRA SOLAR PROJECT

Figure No. 1

Title: Project Location

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