Napanee Solar Energy Centre Site Considerations Report



Prepared for: EDF EN Canada Development Inc. 53 Jarvis Street, Suite 300 Toronto ON M5C 2H2

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

Table of Contents

ABBR	EVIATION	IS	I
1.0	INTROD	UCTION	1.1
2.0	METHO	DS	2.1
3.0 3.1 3.2	•) MTCS ARCHAEOLOGICAL SITES CONFIRMATION	3.1
4.0	CLOSUI	RE	4.1
5.0	REFERE	NCES	5.1
LIST C	F TABLES		
Table	3.1:	Site and Connection Point Approximate Coordinates	3.1
LIST C	F APPEN	DICES	
Appe Appe Appe	endix B: endix C: endix D:	Site Considerations Mapping Site Considerations Concordance Table Team Qualifications Supporting Information and Resources Supporting Documentation for 3.2.6(b)(i)(1) – MTCS	
Appe	endix D2:	Archaeological Site Confirmation Supporting Documentation for 3.2.6(b)(i)(9) - National Parks, Provincial parks, and COnservation Reserves (15)(iii) – Wetlands, (15) (ii) - ANSIs, and (15) (iv) – Approved plans	
Appe	endix D3:	Supporting Documentation for 3.2.6(b)(i)(15) (i) -Endangered or Threatened Species	
Appe	endix D4:	Supporting Documentation for 3.2.6(b)(i)(15) (iv) – Heritage resources	



Abbreviations

ANSI Area of Natural and Scientific Interest

CLI Canada Land Inventory

IESO Independent Electricity System Operator

LIO Land Information Ontario

LRP I RFP Large Renewable Procurement Request for Proposals

NHIC Natural Heritage Information Centre

MOECC Ministry of the Environment and Climate Change

MNRF Ministry of Natural Resources and Forestry

MTCS Ministry of Tourism, Culture, and Sport

PSW Provincially Significant Wetland

Stantec Stantec Consulting Ltd.

ECDI EDF EN Canada Development Inc.



i

Introduction July 6, 2015

1.0 INTRODUCTION

Site Considerations Information is required as part of a proposal for the procurement of up to 565 MW of new large renewable energy projects as specified in Section 3.2.6(a) and 3.2.6 (b) of the Independent Electricity System Operator (IESO)'s Large Renewable Procurement Request for Proposals (the LRP I RFP).

Stantec understands that the Qualified Applicant, EDF EN Canada Development Inc. (ECDI), through its subsidiary Napanee Energy Centre Limited Partnership (the Registered Proponent), is considering applying for a contract with the IESO for a proposed Non-Rooftop Solar energy generating facility known as the Napanee Solar Energy Centre (the proposed Project).

The proposed Project is located in the Town of Greater Napanee within the County of Lennox and Addington, Ontario. The proposed Project will consist of photovoltaic panels and ground mount infrastructures, inverters and a substation. It will feed the public grid with a maximum nameplate capacity of 60 megawatts alternative current (MWac).

The proposed Project is situated on six (6) parcels of privately-owned lands with the solar infrastructure to occupy approximately 300 acres. It is located south of River Road, north of Little Creek Road and North of County Road 9 (immediately to the west of Little Creek Road) in South Napanee, Ontario (Figure 1, Appendix A). The proposed Connection Point to the transmission system is anticipated to be located immediately adjacent to the Project Site, near the intersection of County Road 9 and Hambly Road (Figure 2, Appendix A).

ECDI has retained Stantec to compile the Site Considerations Information associated with Sections 3.2.6(a) and 3.2.6(b) (i) of the LRP I RFP into this report, which includes the following sections:

- A description of the methods used to obtain Site Considerations Information for the Project area (Section 2.0);
- Results of the information obtained (Section 3.0);
- Detailed maps of the Project and proposed Connection Line that identify the Site Considerations Information (Appendix A); and,
- A concordance table that relates the information required by Section 3.2.6 (b) of the LRP I RFP to the information provided in this report, including the date on which the information was obtained, the source of that information, and the findings (Appendix B).



Methods July 6, 2015

2.0 METHODS

Site Considerations Information for the proposed Project Site, Connection Point and Connection Line was reviewed by Stantec staff (qualifications for team members are provided in Appendix C) by accessing publicly available data and information provided by ECDI. The following sources were accessed:

- 1. EDF EN Development Canada Inc. (2015);
- 2. Government of Canada weather radar data (2015);
- 3. Land Information Ontario (LIO) digital mapping (2015);
- 4. Ministry of the Environment and Climate Change (MOECC) (2015);
- 5. Ministry of Tourism, Culture, and Sport (MTCS) (2015)
- 6. Ministry of Natural Resources and Forestry (MNRF) Crown Land Use Policy Atlas (2014);
- 7. Natural Heritage Information Centre (NHIC) natural areas and species records search (2014);
- 8. Ontario Heritage Trust Online Plaque Guide (2015);
- 9. Parcel property data from First Base Solutions (2015); and,
- 10. Parks Canada Directory of Federal Heritage Designations (2012).

The information collected included:

- Project information: proposed Site, proposed Connection Point, proposed Connection Line route, available area for Solar Infrastructure;
- Boundaries of any municipality, geographic township, or unorganized territory;
- Boundaries of First Nation Lands;
- Highways and railways;
- National parks, provincial parks, and conservation reserves;
- Airports, aerodromes, and weather radars;
- Property boundaries: Properties on which the proposed Site and proposed Connection Line are located, and Properties abutting the Site;
- Permanent known waterbodies:
- Crown lands:
- Endangered and threatened species (NHIC);
- Provincially significant areas of scientific interest (ANSI);



Methods July 6, 2015

- Provincially significant wetlands;
- Approved plans; and,
- Recognized heritage resources.

This Site Considerations analysis is based on:

- Mapping and Project information provided by ECDI;
- Topographic map data;
- Publicly available information and published reference materials and,
- Results of the consultation of governmental agencies and public utilities.

Changes to any of the information provided in these sources after the date these sources were reviewed may result in changes to the Site Considerations Information provided in this report.



Results July 6, 2015

3.0 RESULTS

The Site Considerations Information requirements for the LRP I RFP are detailed in Section 3.2.6 of the Rules.

3.1 3.2.6 (A) MTCS ARCHAEOLOGICAL SITES CONFIRMATION

On June 2, 2015, the Ministry of Tourism, Culture and Sports (MTCS) was contacted regarding registered Archaeological Sites within 250m of the Proposed Site (Appendix D1).

On June 23, 2015, confirmation was received from the MTCS in the form of an email that reported there were a few Archaeological Sites on or within 250 m of the Proposed Site (Appendix D1).

3.2 3.2.6 (B) SITE CONSIDERATIONS INFORMATION

Detailed mapping showing a suitable and clearly-labelled scale with the Site Considerations Information found is provided in Appendix A. A concordance table listing the information sources for each type of Site Consideration Information and the date the source was accessed is provided in Appendix B.

As shown conceptually in Appendix A, the approximate proposed Site and Connection Point coordinates are as follows:

Table 3.1: Site and Connection Point Approximate Coordinates

Item	Easting	Northing	Datum		
Proposed Site – North West Corner (A)	343327.09	4899290.37	NAD 83 UTM Zone 18		
Proposed Site – North East Corner (B)	344246.12	4900296.55	NAD 83 UTM Zone 18		
Proposed Site – South West Corner (C)	344957.50	4896055.31	NAD 83 UTM Zone 18		
Proposed Site – South East Corner (D)	345968.58	4896152.41	NAD 83 UTM Zone 18		
Proposed Connection Point	345237.4331	4895734.4262	NAD 83 UTM Zone 18		

^{*}Note: This information is provided in accordance with 3.2.6 (b)(i)(2) of the LRP

The proposed Connection Line is also shown in Appendix A, and is estimated to be 196.09 meters long.



Closure July 6, 2015

4.0 CLOSURE

This Site Considerations Report has been prepared on behalf of, and for the exclusive use of, ECDI, its affiliates, and its representatives, for the Napanee Solar Energy Centre. This review only represents the information and literature available at the time of its preparation. The conclusions presented herein represent the best judgment of Stantec Consulting Ltd. based on current knowledge and standards. Stantec Consulting Ltd. attests that to the best of our knowledge, the information presented in this report is accurate.

STANTEC CONSULTING LTD.

Andrea Terella

Junior Environmental Planner Environmental Services

Tel: 519-780-8193

andrea.terella@stantec.com

Chris Powell

Senior Project Manager Environmental Services

Tel: 519-780-8172

chris.powell@stantec.com



References July 6, 2015

5.0 REFERENCES

- Canada Flight Source Supplement. 2015. Available at: http://www.plews.ca/AirportsinCanada.htm. Accessed: April 2015.
- Government of Canada. 2015. Canadian Weather Radar. Available at: http://weather.gc.ca/radar/. Accessed: April 2015.
- Ministry of Natural Resources and Forestry (MNRF). 2014. Crown Land Use Policy Atlas. Available at: http://www.giscoeapp.lrc.gov.on.ca/web/MNR/NHLUPS/CLUPA/Viewer/Viewer.html. Accessed: April 2015.
- Ministry of Natural Resources and Forestry (MNRF), Land Information Ontario (LIO). 2015. Open Data. Available at:

 https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home. Accessed: April 2015.
- Ministry of Tourism, Culture, and Sport (MTCS). 2015. Available at:

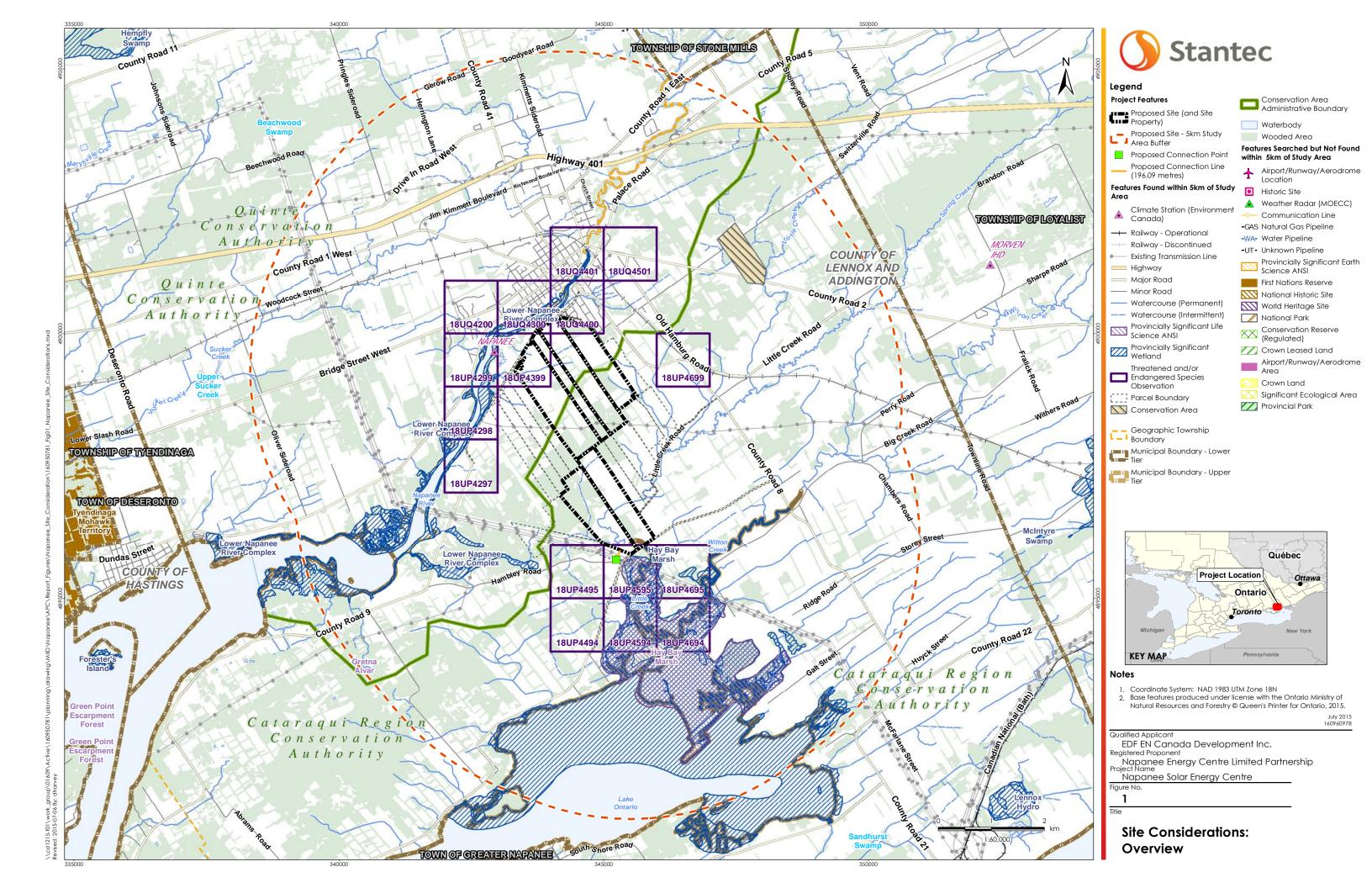
 http://www.hpd.mcl.gov.on.ca/scripts/hpdsearch/english/default.asp. Accessed: April 2015.
- Natural Heritage Information Centre (NHIC). 2014. Natural Areas and Species records search. Available at: https://www.ontario.ca/environment-and-energy/natural-heritage-information-centre. Accessed: April 2015.
- Ontario Heritage Trust. 2015. Online Plaque Guide. Available at:

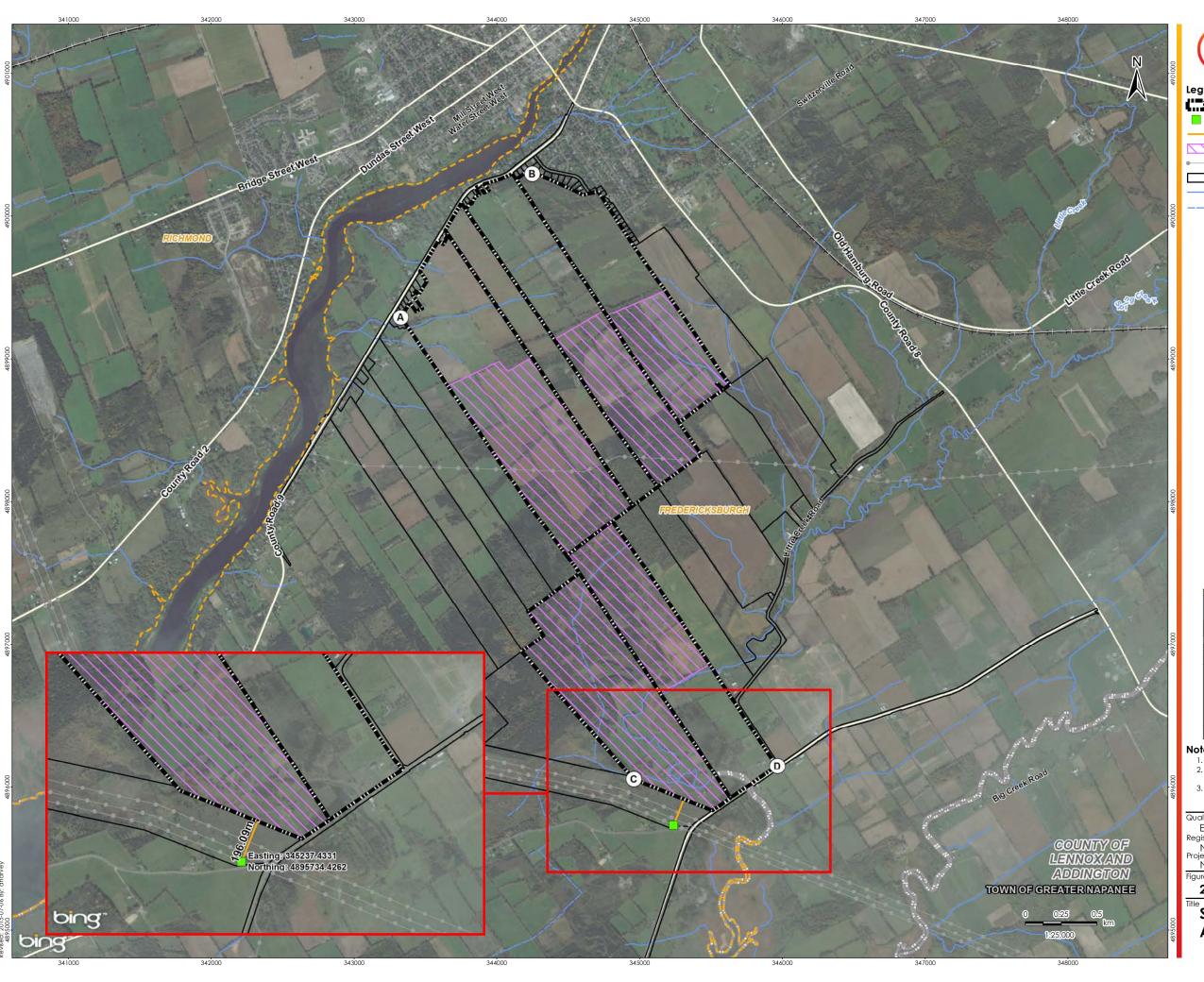
 http://www.heritagetrust.on.ca/Resources-and-Learning/Online-Plaque-Guide.aspx and http://www.ontarioplaques.com. Accessed: May 2015.
- Parks Canada. 2012. Directory of Federal Heritage Designations. Available at: http://www.pc.gc.ca/apps/dfhd/default_eng.aspx . Accessed: April 2015.



APPENDIX A: SITE CONSIDERATIONS MAPPING









Proposed Site (and Site Property)

- Proposed Connection Point
- Proposed Connection Line (196.09 metres)
- Proposed Area for Solar Infrastructure
- Existing Transmission Line
- Abutting Property Boundary
- Watercourse (Permanent)
- Watercourse (Intermittent)
 - A 343327.09 4899290.37
 - B 344246.12 4900296.55
 - C 344957.50 4896055.31
 - D- 345963.56 4896148.95



- 1. Coordinate System: NAD 1983 UTM Zone 18N
- 2. Base features produced under license with the Ontario Ministry of
- Natural Resources and Forestry @ Queen's Printer for Ontario, 2015.

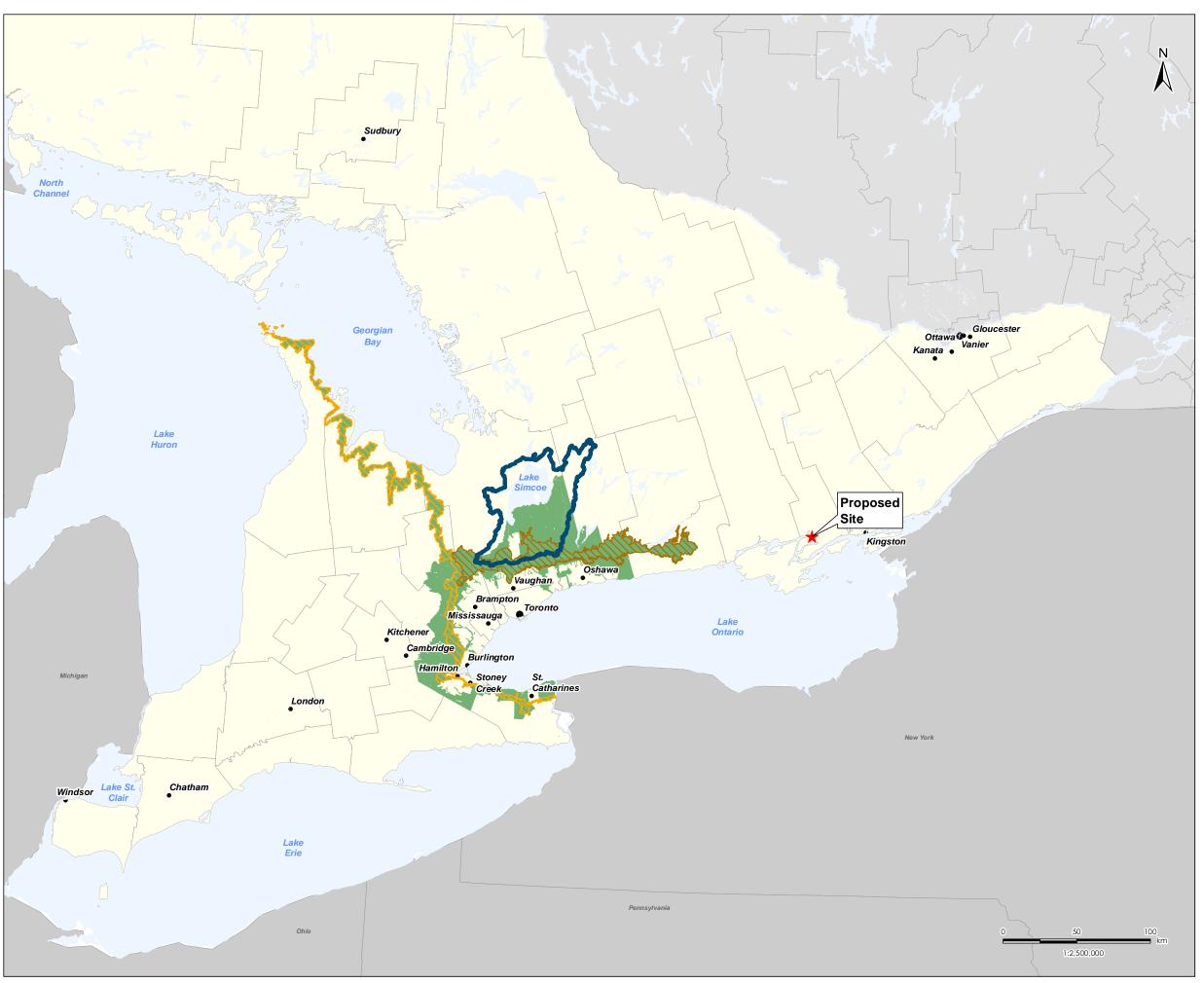
 3. Orthoimagery @ Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation, 2015

 July 2017

Qualified Applicant EDF EN Canada Development Inc. Registered Proponent

Napanee Energy Centre Limited Partnership Project Name Napanee Solar Energy Centre

Site Considerations: **Abutting Properties**



\\Cd1215-f01\work_group\0160 Revised: 2015-06-22 By: sallen



Legend

★ Proposed Site

Niagara Escarpment Commission

Oak Ridges Moraine

Greenbelt Boundary

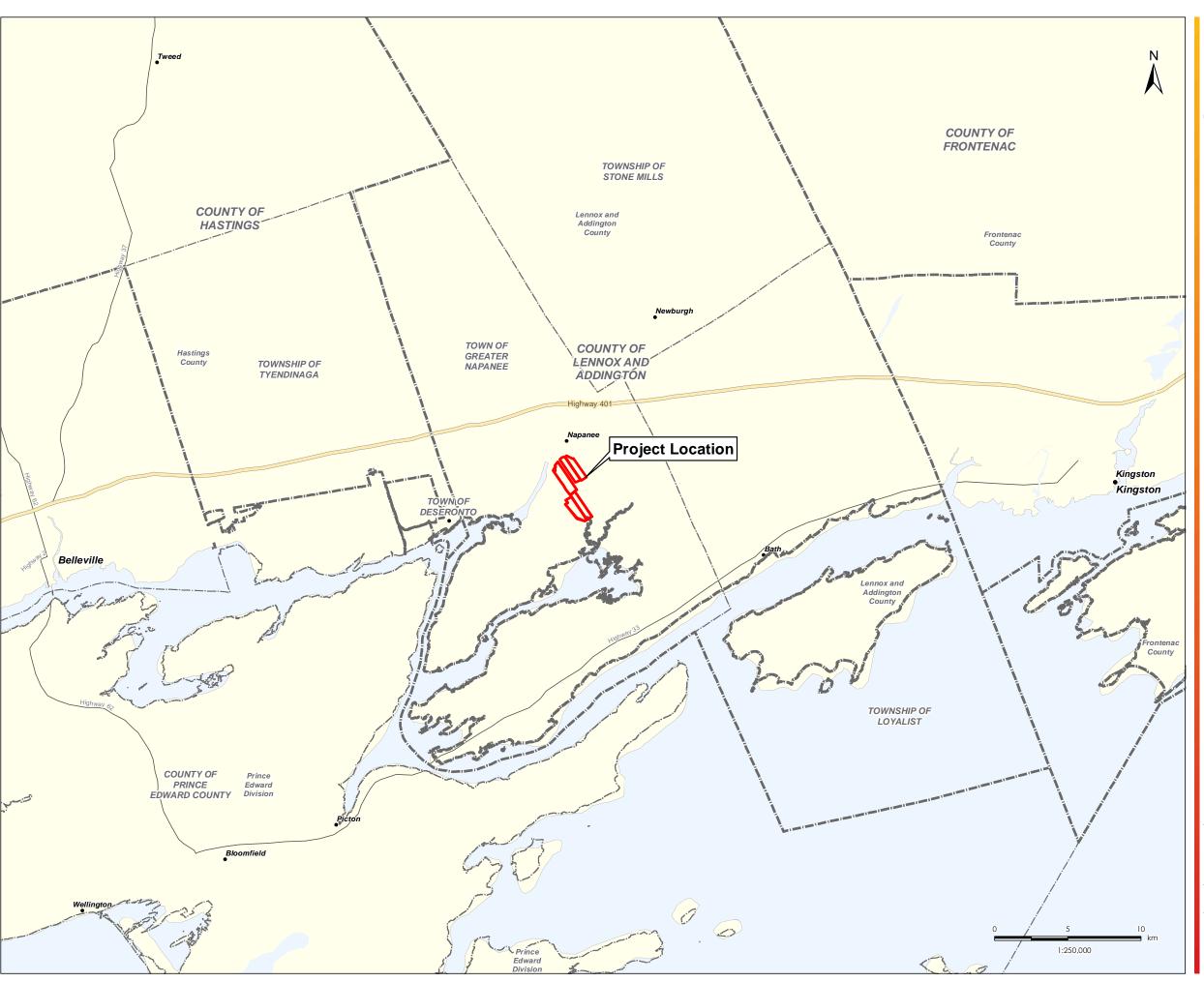
Lake Simcoe Watershed

- 1. Coordinate System: NAD 1983 UTM Zone 18N
- 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015.

Qualified Applicant
EDF EN Canada Development Inc.

Napanee Energy Centre Limited Partnership
Project Name
Napanee Solar Energy Centre

Site Considerations: **Approved Plan Areas**





Legend

Project Location

Expressway

— Primary Highway Lower Tier Municipality

Upper Tier Municipality

- 1. Coordinate System: NAD 1983 UTM Zone 18N
- 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015, © ESRI, 2015

Qualified Applicant

EDF EN Canada Development Inc.

Napanee Energy Centre Limited Partnership
roject Name
Napanee Solar Energy Centre

Site Considerations: **Project Location**

APPENDIX B: SITE CONSIDERATIONS CONCORDANCE TABLE



Appendix B Site Considerations Information – Concordance Table July 6, 2015

Appendix B SITE CONSIDERATIONS INFORMATION – CONCORDANCE TABLE

Site Consideration	Section Reference	Requirement	Information Source	Date Obtained	Findings
MTCS Archaeological Sites Confirmation	3.2.6 (a) (i) and (ii)	The Registered Proponent must have provided evidence that they have received the MTCS Archaeological Sites Confirmation. The requirements of Subsection 3.2.6 (a) shall be satisfied by the registered Proponent's inclusion of a copy of the MTCS Archaeological Sites Confirmation in the proposal. The MTCS Archaeological Sites Confirmation may be in the form of an email or other written correspondence from MTCS.	MTCS (2015)	June 2015	On June 2, 2015, the MTCS was contacted regarding registered Archaeological Sites within 250m of the proposed Site (Appendix D1). On June 23, 2015, confirmation was received from the MTCS in the form of an email that reported there were a few Archaeological sites on or within 250m of the proposed Site (Appendix D1).
Detailed scale maps of the Site	3.2.6 (b) (i) (1)	Suitable and clearly labelled scale used. Identifies: the Site, and if the Site is constituted by more than one (1) non-contiguous Properties, a scale map showing the outer boundary of the entire Site must be included.	EDF	April 2015	The proposed Site (as per the definition in the LRP I RFP) is shown on Figure 1 & 2 (Appendix A). The Proposed Connection Point and Connection Line are located within the transmission line corridor owned by Hydro One Networks Inc. abutting the Proposed Site, as shown on Figures 1 & 2 (Appendix A).
Detailed scale maps of the Connection Line and Connection Point	3.2.6 (b) (i) (2)	The proposed Connection Line and Connection Point, showing the length of the proposed Connection Line, the GPS coordinates for the Site and the Connection Point, and any other TS (or associated feeder) or the Circuit connected to the IESO-Controlled Grid that is closer in geographic proximity to the Site than the proposed Connection Point.	EDF	May 2015	The proposed Connection Line and Connection Point are shown on Figures 1 & 2 (Appendix A) and referenced in Table 3.1. The proposed Connection point is located on the third or fourth closest circuit from the proposed Site, pending ongoing interconnection studies. Note: the first and second closest circuits are 500 kV and therefore ineligible as per the LRP I RFP.
Key Features of the Project	3.2.6 (b) (i) (3)	To the extent available, the proposed location of key features of the Project such as access roads, internal driveways, Generating Equipment, structures, transformers, inverters and communications towers.	EDF	May 2015	The proposed Area for Solar Infrastructure is shown on Figures 1 & 2 (Appendix A). This area represents the area within which Project infrastructure (panels, structures, transformers, inverters, etc.) will be located. The Proposed Connection Point and Connection Line are located within the transmission line corridor owned by Hydro One Networks Inc. abutting the Proposed Site, as shown on Figures 1 & 2 (Appendix A).
Boundaries of any Municipality and Unorganized Territory	3.2.6 (b) (i) (4)	The boundaries of any Municipality and Unorganized Territory in which the Site or the proposed Connection Line is to be located, in whole or in part, including the identity of each such Municipality and, if applicable, Unorganized Territory.	LIO (2015)	April 2015	The proposed Site and Connection Line are located in the Town of Greater Napanee within the County of Lennox and Addington, as shown on Figures 1 & 4 (Appendix A).
Boundaries of First Nations Lands	3.2.6 (b) (i) (5)	The boundaries of any First Nation Lands on which the Site or the proposed Connection Line is to be located, in whole or in part, including the identity of the First Nation Lands and the corresponding First Nation Community.	LIO (2015)	April 2015	The proposed Site and Connection Line are not located on or abutting any First Nations Land (Reserve), as shown on Figure 1 (Appendix A).
Boundaries of any Geographic Township	3.2.6 (b) (i) (6)	The boundaries of any geographic township (identified pursuant to the <i>Territorial Division Act</i> , 2002, SO 2002, c 17, Schedule E) in which the Project or the proposed Connection Line is to be located, in whole or in part, including the identity of each such geographic township.	LIO (2015)	April 2015	The proposed Site and Connection Line are located in the Town of Greater Napanee within the County of Lennox and Addington, as shown on Figure 1 (Appendix A).
Highways	3.2.6 (b) (i) (7)	Any "highway" (as defined in the <i>Highway Traffic Act</i> , RSO 1990, c H.8) crossing or located within five (5) kilometres of the Site or the proposed Connection Line, including the location, name and number of each such highway.	LIO (2015)	April 2015	All 'highways' located within 5 km of the proposed Site and Connection Line are identified on Figure 1 (Appendix A).
Railways	3.2.6 (b) (i) (8)	Any "railway" (as defined in the <i>Canada Transportation Act</i> , SC 1996, c 10) crossing or located within five (5) kilometres of the Site or the proposed Connection Line, including the location and name of each such railway.	LIO (2015)	April 2015	The Canadian Pacific Railway is located within 5 km of the proposed Site or proposed Connection Line, as shown on Figure 1 (Appendix A).



 $cm \cd1215-f01\work_group \o1609 \active \considerations \cryt\considerations \cryt\conside$

Appendix B Site Considerations Information – Concordance Table July 6, 2015

Site Consideration	Section Reference	Requirement	Information Source	Date Obtained	Findings
National Parks, Provincial Parks, and Conservation Reserves	3.2.6 (b) (i) (9)	Any national park (identified in Schedule 1 of the Canada National Parks Act, SC 2000, c 32), provincial park or conservation reserve (identified pursuant to the Provincial Parks and Conservation Reserves Act, 2006, SO 2006, c 12) located within one hundred and twenty (120) metres of the Site or the proposed Connection Line, including the location and name of each such park or conservation reserve.	LIO (2015)	April 2015	There are no National Parks, Provincial Parks or Conservation Reserves within 120 m of the proposed Site or Connection Line (Appendix A) & (Appendix D2).
Airports, Aerodromes, and Weather Radars	3.2.6 (b) (i) (10)	Any airports, aerodromes and weather radars located within five (5) kilometres of the Site or the proposed Connection Line, including the location and name of each such airport, aerodrome and weather radar.	Airports and aerodromes: LIO (2015) and Canada Flight Source Supplement (2015) Weather radars: LIO (Monitoring Stations) (2015)	April 2015	There is no airport, aerodrome nor weather radar within 5 km of the proposed Site or proposed Connection Line. However, there are two climate stations located within 5 km of the proposed Site and Connection Line, as shown on Figure 1 (Appendix A).
Property Boundaries	3.2.6 (b) (i) (11)	The Property boundaries for each Property on which the Site is located, each Property that Abuts Property on which the Site is located, each Property where the proposed Connection Line will be situated, and each Property that Abuts a Property where the proposed Connection Line will be situated.	First Base Solutions	May 2015	The Property boundaries for each Property on which the proposed Site is located, and each Property that Abuts Property on which the proposed Site and the Property on which the proposed Connection Line are located are shown on Figures 1 and 2 (Appendix A).
Permanent Known Waterbodies	3.2.6 (b) (i) (12)	Any Permanent Known Water Body located within one hundred and twenty (120) metres of the Site or the proposed Connection Line, including the location and, if applicable, the common name associated with each such Permanent Known Water Body.	LIO (2015)	April 2015	All permanent known water bodies within 120 m of the proposed Site and proposed Connection Line are shown on Figure 1 (Appendix A).
Location of Other On- Shore Wind Facilities	3.2.6 (b) (i) (13)	If the Project is to utilize On-Shore Wind as its Renewable Fuel: i. the location of any other Renewable Generating Facilities that utilize On-Shore Wind as a Renewable Fuel that have been constructed and are located within five (5) kilometres of the Site clearly identifying the location of each turbine; and , ii. the location of the Project site boundary for any proposed but unconstructed Renewable Generating Facilities that utilize On-Shore Wind as a Renewable Fuel that are located within five (5) kilometres of the Site and which have received a Renewable Energy Approval as indicated at www.ontario.ca/environment-and-energy/renewable-energyprojects- listing.	Ministry of the Environment and Climate Change (MOECC 2015)	N/A	The proposed Site will not utilize On-Shore Wind as its Renewable Fuel. This section is therefore non applicable.
Crown Lands	3.2.6 (b) (i) (14)	If the Project is to be located on provincial Crown lands (in whole or in part): i. the boundaries of each Property on which the Site is located, and that Abuts the Property on which the Site is located; and, ii. every Provincial Crown Land Lease located on a Property on which the Site is located, and that Abuts the Property on which the Site is located.	MNRF (2014)	April 2015	The proposed Project is not located on Crown Land, as shown on Figure 1 (Appendix A).
Endangered and Threatened Species	3.2.6 (b) (i) (15) (i)	Within a Natural Heritage Information Centre (NHIC) one (1) kilometre grid square which contains an "Endangered" or "Threatened" species observation record (protected pursuant to the Endangered Species Act, 2007, SO 2007, c 6).	NHIC (2014)	April 2015	NHIC grid squares containing records of Threatened or Endangered Species were found overlapping the proposed Site. They are shown on Figure 1 (Appendix A) and detailed in Appendix D3 (NHIC table documenting what species were reported).
Provincially Significant ANSIs	3.2.6 (b) (i) (15) (ii)	Within one hundred and twenty (120) metres of a provincially significant area of natural and scientific interest.	LIO (2015)	April 2015	There are Provincially Significant ANSIs within 120 m of the proposed Site or proposed Connection Line (Appendix D2).



cm \cd1215-f01\work_group\01609\active\160950781\reports\site considerations rpt\napanee\rpt_50781_napanee_site considerations_20150706_fnl.docx

Appendix B Site Considerations Information – Concordance Table July 6, 2015

Site Consideration	Section Reference	Requirement	Information Source	Date Obtained	Findings
Provincially Significant Wetlands	3.2.6 (b) (i) (15) (iii)	Within one hundred and twenty (120) metres of a known provincially significant wetland.	LIO (2015)	April 2015	There are Provincially Significant Wetlands within 120 m of the proposed Site or proposed Connection Line, as shown on Figure 1 (Appendix A).
Approved Plans	3.2.6 (b) (i) (15) (iv)	Within or Abutting an area designated in the plan approved under the Niagara Escarpment Planning and Development Act, the plan approved under the Oak Ridges Moraine Conservation Act, 2011 and O. Reg. 142/02, the plan approved under the Greenbelt Act, 2005, and the Lake Simcoe watershed (as defined in the Lake Simcoe Protection Act, 2008).	LIO (2015)	April 2015	There are no areas designated by these approved Plans within or abutting the proposed Site or proposed Connection Line, as shown in Figure 3 (Appendix A), (Appendix D2).
Recognized Heritage Resources	3.2.6 (b) (i) (15) (v)	Within or Abutting a recognized heritage resource (including Properties protected under the Ontario Heritage Act, RSO 1990, c O.18, Properties included on a list or register of heritage resources maintained by the Municipality, Properties that are the subject of a local or provincial plaque, or Properties that are set aside as a national historic site of Canada under Section 42 of the Canada National Parks Act, SC 2000, c 32).	Ontario Heritage Trust (2015); Parks Canada (2015); MTCS (2015); National Historic Sites and Monuments Board of Canada (2015; Municipality of Chatham-Kent (2015).	May 2015	No Properties were identified by the Municipality as Registered and/or Designated within the Proposed Site, as shown in Figure 1 (Appendix A). The proposed Site or proposed Connection Line are not located on or abutting a Property on which a provincial plaque is located, set aside as a national historic site of Canada, within a heritage zone of a municipality or official plan (Appendix D4).



 $cm \cd1215-f01\work_group \cd0950781\reports\site\ considerations\ rpt\napanee\site\ considerations\ 20150706_fnl.docx$

APPENDIX C: TEAM QUALIFICATIONS



Andrea Terella B.A. (Hons)

Junior Environmental Planner



Andrea began working at Stantec in 2010 as a member of the Transportation group, in 2012 she transferred to the Environmental Services Assessment, Permitting and Compliance team. As a Junior Environmental Planner, Andrea has working knowledge of Ontario's Environmental Assessment Act, and the Renewable Energy Act. Andrea has worked on several projects assisting, including linear facilities, with permitting, planning and consultation. More recently, Andrea has undertaken the coordination and management of the StakeTracker program on a variety of projects across Canada. She has experience in managing StakeTracker entries in order to organize stakeholder consultation records of communication, as well as identify concerns and the linkage to mitigations proposed.

Andrea's project experience also includes working on Class EA's for transportation projects, including coordination of stakeholder consultation; managing agency and public correspondence; participating public consultation events; providing support in the review and evaluation of design alternatives; and working with the project team to produce final project documentation (Transportation Environmental Screening Reports, Environmental Screening Documents, and Design & Construction Reports).

Andrea is currently working towards obtaining a Certificate of Environmental Practice, specializing in Environmental Restoration, Mitigation and Remediation, through Royal Roads University.

EDUCATION

Certificate, Mohawk College of Applied Arts, Hamilton, Ontario, 2009

B.A. (Hons), McMaster University, Hamilton, Ontario, 2009

PROJECT EXPERIENCE

Oil & Gas

Energy East Pipelines, Ontario (Junior Environmental Planner)

Andrea is responsible for managing StakeTracker entries which assisted in the organization of records of correspondence for the Ministry of Natural Resources (MNR) and First Nations communities within Ontario, in order to ensure consistency with TransCanada protocols and meet regulatory requirements from the National Energy Board (NEB).

Prince Rupert Gas Transmission Project, British Columbia (Junior Environmental Planner)

Andrea is responsible for managing StakeTracker entries for First Nations communities' correspondence within Ontario, in order to ensure consistency with TransCanada protocols and meet regulatory requirements from the National Energy Board (NEB). Andrea completed detailed desktop research on past First Nation assertions and work on drafting Community Profiles and Summaries.

Enbridge Integrity Dig Program, Ontario (Junior Environmental Planner)

Andrea performed analysis of aerial imagery, site mapping, water well records, species at risk records and soils data to complete Environmental Clearance Memos for various mile posts along the pipeline. Andrea helped with the permitting process for watercourse crossings in consultation with the local conservation authority. She also helped with prescreening for environmental clearances, Permit to Take Water and Conservation Authority Permitting.

Power

David Brown Solar Park, Ontario (Junior Environmental Planner)

Andrea helped with drafting the Renewable Energy Approval (REA) reports, including incorporating edits from the project manager and client. She assisted in drafting letters to Aboriginal communities and other stakeholders, and drafting the Consultation Report. She assisted with editing, formatting, printing and distributing of the final REA reports to the Ministry of Environment. Andrea also worked with the Raisin Region Conservation Authority and the Ministry of Transportation (MTO), to assist with the permitting process for construction work.

Andrea Terella B.A. (Hons)

Junior Environmental Planner

St.Columban Wind Project, Ontario (Junior Environmental Planner)

Andrea help to organize mail outs for project notifications and advertising in local newspapers for various project milestones.

Whittington Wind Project, Ontario (Junior Environmental Planner)

Andrea helped to organize mail outs for project notifications and advertising in local newspapers for project milestones.

Napier Wind Project, Ontario (Junior Environmental Planner)

Andrea helped to organize contact lists for mail outs of the project notifications. She assisted in drafting letters to Aboriginal communities and other stakeholders, and drafting the Consultation Report. She participated in public meetings by helping the project team set up and organize the events. She assisted with editing, formatting, printing and distributing of the final REA reports to the Ministry of Environment.

Amherst Island Wind Project, Ontario (Junior Environmental Planner)

Andrea helped to organize contact lists for mail outs of the project notifications. She assisted with pulling together the consultation materials for the public meeting and made edits to the materials as directed by project managers and the client. After the public meeting, she summarized the correspondence received from the meeting and worked with project managers on responses. She assisted in drafting letters to Aboriginal communities and other stakeholders, and drafting the Consultation Report. She assisted with editing, formatting, printing and submission of the final Renewable Energy Approvals (REA) to the Ministry of Environment (MOE)

Grand Valley Phase III Wind Project, Ontario (Junior Environmental Planner)

Andrea helped to organize contact lists for mail outs of the project notifications. She assisted with pulling together the consultation materials for the public meeting and made edits to the materials as directed by project managers and the client. She assisted in drafting letters to Aboriginal communities and other stakeholders, and drafting the Consultation Report. She assisted with editing, formatting, printing and submission of the final Renewable Energy Approvals (REA) to the Ministry of Environment (MOE).

Cedar Point Wind Project, Ontario (Junior Environmental Planner)

Andrea helped to develop consultation materials, including display boards, contact lists, questionnaires for the public, as well as drafting letters for notification of public meetings to project stakeholders. Andrea assisted with liaison with client in order to fulfill client requests.

White Pines Wind Project, Ontario (Junior Environmental Planner)

Andrea participated in the public meeting by helping the project team set up and organize the event. She also assisted with editing, formatting, printing, quality control and distributing of the final Renewable Energy Approval (REA) reports to the Ministry of Environment (MOE).

Bridges

Rehabilitation/Replacement of Six Structures, Highway 7 & Highway 35, East Region, Ontario (Assistant Environmental Planner)

Andrea helped to develop and organize contact lists for mail outs for project notification to the public and stakeholders. She drafted the consultation materials for the public information center and made edits to the materials as directed by project managers and MTO. After the Public Information Centre (PIC), she summarized the correspondence received from the meeting, drafted a PIC Report and worked with project managers on responses. She provided assistance to complete the ESD required by the MTO for a Class EA- Group C project.

Replace Westminster Drive Underpass, Highway 401, West Region (Assistant Environmental Planner)

Andrea helped with the notification to the public and stakeholders. She drafted the consultation materials for the public information centers and made edits to the materials as directed by project managers and MTO. After the Public Information Centre (PIC), she summarized the correspondence received from the meeting and worked with project managers on responses. She provided assistance to complete the Transportation Environmental Screening Report required by the MTO for a Class EA- Group B project.

^{*} denotes projects completed with other firms

Andrea Terella B.A. (Hons)

Junior Environmental Planner

Mining

Premier Gold Mines, Ontario (Junior Environmental Planner)

Andrea was responsible for the coordination and tracking of water sampling data and field programs. She also worked with project managers to revise and update the project schedule as needed.

Highway and Transportation

Route Planning Study, Highway 11/17, Northwestern Region, Ontario (Assistant Environmental Planner)

Andrea helped with the notification of the public and stakeholders. She participated in completing a survey at Kakabeka Falls Provincial Park to aid in the determination of route alternatives. She drafted the consultation materials for three series of the public information centers and made edits to the materials as directed by project managers and MTO. Andrea participated in the public meeting by helping the project team set up and organize the event. After the Public Information Centres (PICs), she summarized the correspondence received from the meetings, drafted a PIC Report and worked with project managers on responses. She provided assistance to complete the Transportation Environmental Screening Report (TESR) required by the MTO for a Class EA- Group A project.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager



Chris Powell is an Environmental Planner and Project Manager with the Assessment, Permitting and Compliance team of the Environmental Services division in Guelph. Chris has over 14 years of experience in environmental planning and management and has successfully managed or participated in more than 100 projects at Stantec. He is responsible for planning and coordinating Environmental Impact Studies (EIS), Natural Heritage Assessments (NHA), and biological inventories in support of development, renewable energy, transportation and watershed restoration projects. He is also responsible for planning and coordinating Renewable Energy Approvals (REA) and EIS/NHA confirmations through the Ministry of the Environment and Climate Change (MOECC) and Ministry of Natural Resources and Forestry (MNRF). His thorough understanding of the complex and evolving policy framework in the Province of Ontario combined with an understanding of the interconnections between the physical, biological and hydrological environments provides strategic direction as an effective member of many study teams.

EDUCATION

B.A., University of Western Ontario, London, Ontario, 1999

M.A., University of Western Ontario, London, Ontario, 2003

PROJECT EXPERIENCE

Renewable Energy

Niagara Region Wind Project, Niagara Region & Haldimand County, Ontario (Project Coordinator) Stantec was retained to complete a REA submission to the MOECC for a proposed 230 MW wind farm project on behalf of Niagara Region Wind Corporation. As Project Coordinator, Chris was responsible for assembling and coordinating a multidisciplinary team of planners, ecologist, engineers, and consultation experts to facilitate the completion of relevant technical studies, consultation with agencies, public and first nations, and coordination with agency staff and other consulting firms to ensure all regulatory requirements are satisfied. He was also responsible for coordinating the development of the project layout by incorporating the results of the various technical disciplines to ensure compliance with REA regulations.

Grand Renewable Energy Park, Haldimand County, Ontario (Natural Heritage Lead)

Stantec was retained to complete a REA submission to the MOECC for a proposed 250 MW solar and wind farm project on behalf of Samsung Renewable Energy Inc. As a member of the multi-disciplinary project team, Chris was responsible for completing the NHA EIS in accordance with the Ministry of Natural Resources and Forestry (MNRF) standards and procedures and to secure a letter of confirmation from the MNRF as part of the REA application. This involved coordinating the evaluation of significant features, working with the project team and client to refine the project layout, assessing environmental impacts and mitigation measures, writing the NHA/EIS reports and working closely with MNRF staff at a Provincial and District level to clarify expectations, resolve conflicts and implement emerging MNRF guidelines to ultimately obtain final MNRF sign-off. Other duties included coordinating the Environmental Effects Monitoring Plan (EEMP) and Species at Risk (SAR) documents, assisting with completion of other REA reports, and communicating with the client to effectively plan and coordinate report delivery. Chris also successfully testified as an expert on natural heritage planning before the Environmental Review Tribunal (ERT) in support of this Project.

David Brown Solar Farm, Township of Stormont, Ontario (REA / NHA Advisor)

Stantec was retained to complete a REA submission to the MOECC for a proposed 10 MW sol.ar farm project on behalf of Saturn Power. Chris advised on the preparation of various REA reports, including the Project Description Report (PDR) and NHA. He also assisted with the environmental permitting aspects of the project as an advisor addressing Conservation Authority requirements.

Environmental Planner / Project Manager

Hybridyne Solar Farm, Municipality of Clarington, Ontario (NHA Advisor)

Stantec was retained to complete a REA submission to the MOECC for a proposed 2 MW sol.ar farm project on behalf of EDF. Chris advised the Natural Heritage Lead during the preparation of the NHA/EIS, coordinated the initial consultation with MNRF in regards to the background data collection and assisted with scoping of the natural heritage surveys. He also provided guidance to the Natural Heritage Lead on matters pertaining to the NHA/EIS.

Confidential Client, Ontario (REA Advisor)

Stantec was retained to undertake an issues identification report as input to the preliminary design of a proposed wind farm in Ontario in support of project due diligence. Chris advised on the natural heritage constraints occurring within the general study area as input to the siting of project components and identification of potential permit requirements.

Confidential Client, Ontario (Natural Heritage Lead / Project Manager)

Stantec was retained to complete the preliminary natural heritage assessment and constraints analysis for a proposed 10 MW solar farm in Ontario in support of project due diligence. As the Natural Heritage Lead and Project Manager, Chris coordinated the completion of background data collection, site investigations and an assessment of compliance with known regulatory constraints, including identification of natural heritage, waterbody and noise receptor constraints.

Environmental Assessments

Victoria Park Lake Improvements Class Environmental Assessment and Detailed Design, Kitchener, Ontario (Natural Environment Lead)

A Class Environmental Assessment (Class EA) was completed to identify improvement alternatives to address water quality concerns in, and upstream of, Victoria Park Lake in Kitchener, Ontario. As part of the study team and member of the steering committee, Chris coordinated the Natural Environment Report to identify, characterize and assess the natural environment conditions that contribute to the water quality and sedimentation problems in the lake, which is an on-line lake in the Strasburg Creek with historic and cultural significance. This information was used to identify, evaluate and select a preferred alternate and preliminary design. He also advised on the detailed design of the proposed improvements ensuring impacts to wildlife and vegetation were minimized and appropriate permits and approvals obtained prior to construction.

Rosedale Channel Stabilization Class Environmental Assessment, Brantford, Ontario (Natural Environment Lead)

A Municipal Class Environmental Assessment (Class EA) was completed to recommend opportunities to restore and enhance an eroding watercourse channel within the City of Brantford, Ontario. In cooperation with Stantec's Water Resources Team, the morphology, capacity and habitat characteristics on two watercourse channels were assessed and appropriate restoration measures recommended, designed and constructed to stabilize the channels while maintaining the natural character and functions they provide. Chris was responsible for completing the Natural Environment Report to describe and assess aquatic, terrestrial and fluvial geomorphological characteristics within the study area, providing input to the evaluation of alternatives, participating at public information centre and consultation with municipal and Grand River Conservation Authority (GRCA) staff.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager

Fox Hollow Sanitary and Stormwater Management Class Environmental Assessment Addendum, London, Ontario (Natural Environment Lead)

An addendum to an approved Class EA was completed to consider the environmental implications of realigning a portion of the Heard Drain channel for stormwater management (SWM). This enlarged stormwater channel and associated off-line SWM Ponds were approved to provide water quality, quantity and erosion control to protect the downstream environment from the potential impacts of development. On behalf of the City of London, Chris coordinated the completion of aquatic and terrestrial habitat assessments and reviewed relevant findings with MNRF, Upper Thames Region Conservation Authority (UTRCA) and City of London staff to assess potential impacts on the natural heritage system and to recommend mitigation, restoration and enhancement measures for incorporation into the design, construction and monitoring of the proposed facility to provide a net environmental benefit to the Snake Creek subwatershed and associated ecosystem.

Dorchester South Stormwater Drainage Area Class Environmental Assessment, Dorchester, Ontario (Natural Environment Lead)

Stantec was retained to complete a Class EA for the identification and assessment of stormwater management (SWM) approaches to service the future development of the southern portion of Dorchester, Ontario. As part of this study, Chris was responsible for coordinating the completion of the fieldwork monitoring program to identify natural heritage constraints for consideration during the future evaluation of SWM alternatives. Consideration for the protection of Dorchester Creek (coldwater), adjacent Provincially Significant Wetland (PSW), significant woodlands and source water protection area was identified through a review of background reports, completion of field investigations and agency consultation with UTRCA, MNRF and the local municipality.

Franklin Boulevard Class Environmental Assessment, Cambridge, Ontario (Natural Environment Lead)

Stantec was retained to complete a Class EA for the identification of traffic improvement alternatives along Franklin Boulevard from the 401 to Myers Road in Cambridge, Ontario. Potential environmental impacts and an assessment of various roadway improvement alternatives were completed based on the Natural Environment Report (NER), which Chris coordinated to identify and assess the existing woodlands, wetlands and watercourse crossings, including Mill Creek and Moffat Creek.

Mayfield Road Improvements Class Environmental Assessment, Peel Region, Ontario (Natural Environment Lead)

Stantec was retained to complete a Class EA for the identification of traffic improvement alternatives along Mayfield Road from Airport Road to Coleraine Road in the Region of Peel, Ontario. As part of this study, Chris was responsible for coordinating the completion of the NER to identify natural heritage and hazardland constraints for consideration during the evaluation of roadway improvement alternatives. Through consultation with Toronto Region Conservation Authority (TRCA) and MNRF staff, the results of aquatic habitat assessments and vegetation surveys were reviewed to confirm constraints, mitigation and permitting requirements. Specific surveys for Redside Dace (Endangered) were approved through Permit from the MNRF and in consultation with the Royal Ontario Museum.

South Strasburg Sanitary Sewer Class Environmental Assessment, Kitchener, Ontario (Natural Environment Lead)

As input to the Class EA for the selection of a preferred route for the construction of a trunk sanitary sewer to service southwest Kitchener, Ontario, Chris was responsible for the completion of an NER. Through coordination of the field work program and assessment of environmental constraints based on vegetation, wildlife and aquatic habitat assessments, environmental opportunities and constraints were identified and implications of potential imp[acts evaluated for each of the route alternatives. Chris was also responsible for agency and public consultation and presentation to the Environmental Advisory Committee.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager

Thorndale Wastewater Treatment Plant Design and Permitting, Thorndale, Ontario (Environmental Coordinator)

To implement the recommendations of a Class EA, Stantec was retained to undertake the design and construction of a new wastewater treatment plant for the community of Thorndale, Ontario. Chris managed the environmental impact assessment and approvals component of the project through consultation with UTRCA and MNRF staff, coordination of the field work program, and input to the design and impact mitigation plan. Due to the presence of aquatic species at risk in the Thames River, an assessment of habitat characteristics and species surveys were completed with due regard for species protection. Engagement of the First Nations community allowed for the incorporation of Traditional Environmental Knowledge into the impact assessment.

Huron Street Watermain Emergency Repairs, London, Ontario (Environmental Coordinator)

In response to a perched watermain within the water column of the Thames River, Stantec was retained to design and obtain approvals for emergency works to protect against possible failure of a large watermain in London. Chris was responsible for coordinating and undertaking agency consultation for this project, including UTRCA, MNRF, Department of Fisheries & Oceans (DFO) and Navigable Waters, to ensure compliance with relevant legislation while recognizing the emergency situation. By proactively consulting with these agencies and providing the necessary field observations and background information necessary to facilitate agency review, protection of the watermain was implemented in a timely fashion with due regard for the protection of several aquatic species at risk, shoreline stability, and impact mitigation during construction.

Lake Huron Water Transmission Pipeline Twinning Class Environmental Assessment, Middlesex County, Ontario (Natural Environment Advisor)

Stantec was retained to complete a Class EA to identify alternative measures and alignments for maintaining the integrity of the existing watermain that conveys surface water from Lake Huron to the City of London and surrounding areas. Chris acted as an environmental advisor for junior staff to strategically identify constraints, future field work and permit requirements and methods to avoid direct environmental impacts.

Bridge Street and Bridgeport Bridge EA Natural Environment Report, Kitchener, Ontario (Environmental Planner)

Chris acted as an Environmental Planner responsible for the completion of an NER to characterize the natural environment, identify potential impacts, evaluate alternatives and identify mitigation measures for the roadway and bridge improvements over the Grand River in Kitchener, Ontario. Responsibilities included agency consultation, coordination of field staff, impact identification and review of the final report to be included as part of the Environmental Study Report (ESR) for the Class EA.

Environmental Impact Assessments

Sunningdale Meadows Environmental Impact Study, London, Ontario (Environmental Planner)

Chris was responsible for the completion of an EIS in support of a residential subdivision adjacent to the Medway Creek Valley in London, Ontario. This involved scoping the field program through consultation with municipal and UTRCA staff, coordinating a multi-season terrestrial and aquatic field program, identifying and assessing significant natural features, assessing potential impacts and recommending appropriate mitigation measures to protect the natural features and functions of the area, in accordance with the Sunningdale Community Plan and Medway Creek Subwatershed Study.

Bridgeport Business Park Environmental Impact Study, Kitchener, Ontario (Environmental Planner)

Chris was responsible for the completion of an EIS in support of a commercial development adjacent to the Grand River in Kitchener, Ontario. His primary responsibility included coordinating the completion of the EIS through consultation with GRCA and municipal staff, consolidating background information, preparing the terms of reference, coordinating field investigations, assessing the significance of local natural features and recommending appropriate mitigation measures to protect the Grand River, steep valley slopes, wetlands and fish habitat in the area. Chris provided guidance and senior level review of the EIS prepared by other members of the studu team.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager

Edgewater Residential Development Environmental Impact Study, Kilworth, Ontario (Environmental Planner)

As an Environmental Planner, Chris was responsible for the completion of an EIS in support of a residential subdivision within a gravel pit along Thames River in Kilworth, Ontario. His role included a review of background information, consultation with UTRCA, MNRF and municipal staff, preparation of a terms of reference, coordination of field investigations, assessing the significance of local natural features and ecological functions and recommending appropriate mitigation measures for incorporation into the proposed draft plan of subdivision. Recommendations included protection of the adjacent significant valleyland, Area of Natural and Scientific Interest (ANSI), Provincially Significant Wetland (PSW), adjacent Provincial Park and downstream habitat of aquatic species at risk. As follow-up to the submission of the EIS, Chris was responsible for addressing agency comments and presentation of findings during a public information center.

Meadows in the Glen Environmental Implementation Report, Glen Williams, Ontario (Natural Environment Lead)

In support of a proposed draft plan of subdivision, Chris acted as an Environmental Planner to complete an Environmental Implementation Report (EIR) that demonstrated how subwatershed study recommendations and Low Impact Development (LID) measures would be implemented to protect and maintain the natural features associated with the Credit River. This project was a Pilot Study for LID in conjunction with the Credit Valley Conservation (CVC). Chris's role included preparation of EIR, coordination of technical staff, input to the study team and negotiations with CVC staff.

Kiwanis Park New North and South Branch Pathway System, London, Ontario (Natural Environment Lead)

Stantec was retained by the City of London to complete an evaluation of alternate pathway alignments connecting Kiwanis Park to the Thames Valley Corridor north and south of the CN railway adjacent to Pottersburg Creek, as well as to prepare a conceptual pathway layout, detailed design, tendering and contract administration services. Chris acted as the natural heritage lead and coordinated the completion of the natural heritage review and site investigations, assisted with the evaluation of alternatives, recommended mitigation measures and worked with agencies to address permit requirements.

Penetanguishene Mental Health Centre Natural Heritage Study, Penetanguishene, Ontario (Natural Environment Lead)

As input to an Optimal Use Study, Chris coordinated the completion of a Natural Heritage Study (NHS) through a review of existing natural environment features and functions on the subject property. The NHS identified environmental constraints and opportunities for the future re-development of the property, including natural heritage and hazardland constraints associated with the woodlands, wetlands, slopes and adjacent Severn Sound. This information was obtained through agency consultation, a review and assessment of background studies and completion of site specific field investigations.

Heritage Lake Environmental Implementation Report, Puslinch, Ontario (Natural Environment Lead)

In support of proposed residential plan of condominium south of Guelph, Ontario, Chris acted as an Environmental Planner responsible for the completion of an EIR to document how the proposed mitigation, restoration and enhancement measures would be implemented. Adjacent natural features included two coldwater streams, Provincially Significant Wetland (PSW) and a lake created as a result of former aggregate extraction. His role included the coordinating the establishment of a groundwater and surface water monitoring program, input to landscape restoration plans, preparation of an environmental stewardship guide for future home owners and consultation with Puslinch Township, MNR and GRCA staff to obtain draft plan approval and clearance of draft plan conditions.

Wonderland Pumping Station, London, Ontario (Natural Environment Lead)

To implement the recommendations of a Class EA, Stantec was retained to complete the design of the proposed Wonderland Pumping Station. As part of the project team, Chris was responsible for the completion of an EIS for the construction and operation of a new pumping station in southwest London, Ontario, adjacent to Medway Creek. Based on site specific aquatic and terrestrial habitat assessments, appropriate mitigation measures and site restoration recommendations were incorporated into the design and location of the proposed station to protect adjacent aquatic habitat and secure approvals from the UTRCA.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager

West Elgin Water Treatment Plant and Constructed Wetland, Elgin County, Ontario (Natural Environment Lead)

Chris coordinated the completion of an EIS as input to the background studies influencing the location and design of a proposed water treatment plant. Using available background information and site specific field data, Chris identified and assessed significant natural heritage features within the study area, identified potential impacts and recommended appropriate mitigation measures (buffers, setbacks) to prevent hydrologic, hydrogeologic and ecologic impacts to the adjacent PSW, significant woodland and habitat of a Threatened plant species. A constructed wetland feature was recommended as a means of managing wastewater from the plant and enhancing the functions of the adjacent wetland and woodland through re-vegetation and habitat structures.

Craigholme Estates Environmental Impact Study, Belmont, Ontario (Natural Environment Lead)

Chris acted as the Environmental Planner responsible for completing an EIS in support of a residential development adjacent to a natural valleyland associated with Kettle Creek. His role included coordinating terrestrial field investigations, identifying and mitigating potential impacts, identifying restoration opportunities and negotiating with agency staff to address environmental concerns and obtain support for the development.

Nash Neighbourhood Environmental Impact Study, Hamilton, Ontario (Natural Environment Lead)

As an Environmental Planner, Chris was responsible for the completion of a Scoped EIS in support of a mixed use subdivision adjacent to the Niagara Escarpment in Hamilton, Ontario. This involved scoping the field program through consultation with municipal, Niagara Peninsula Conservation Authority (NPCA) and Niagara Escarpment Commission (NEC) staff, coordinating aquatic and terrestrial field investigations, assessing potential impacts and recommending appropriate mitigation measures in accordance with the Nash Neighbourhood Secondary Plan.

Franklin Pond Meadows Phase 2 Environmental Review Addendum, Cambridge, Ontario (Natural Environment Lead)

Chris acted as an Environmental Planner responsible for the completion of an Addendum to the EIS prepared in support of the draft plan of subdivision to address agency concerns with the hydrologic impact of the proposed development and road extension on an adjacent PSW in Cambridge, Ontario. The EIS Addendum specifically identified how the hydrologic conditions supporting the wetland and hydrologic functions provided by the wetland would be maintained through the proposed development in order to obtain draft plan approval and to clear draft plan conditions.

Woodstock North Lands Environmental Impact Study, Woodstock, Ontario (Natural Environment Lead)

As an Environmental Planner, Chris was responsible for the completion of an EIS to recommend measures for the protection of aquatic habitat, significant woodlands and Butternut (Endangered) in the area in accordance with the recommendations of the Oxford Natural Heritage Study. This EIS was the first attempt at implementing the ONHS and involved coordination with UTRCA, MNRF and City of Woodstock staff, discussions with study team members, public consultation and coordination of technical staff to describe the environment, assess potential impacts and recommend appropriate protection and mitigation measures. Chris also assisted in the preparation of a Permit under the Endangered Species Act to relocate several Butternut trees to avoid potential impacts.

Environmental Planning

South West Area Plan, London, Ontario (Environmental Planner)

On behalf of an area landowners group, Chris completed a review and assessment of the Natural Heritage Study and corresponding recommendations for the South West London Area Plan. Chris provided environmental planning advice regarding the findings and study methodology undertaken by others based on his local experience, study area conditions and current provincial and municipal natural heritage system policies. As part of the Ontario Municipal Board (OMB) Hearing, Chris provided expert testimony as an environmental planner.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager

Bostwick West Community Plan Natural Environment Report, London, Ontario (Natural Environment Lead)

As an Environmental Planner, Chris was responsible for the completion of a NER in support of a proposed community plan for the Bostwick West planning area in London, Ontario. Chris's responsibilities included preparation of the NER terms of reference, consultation with municipal and UTRCA staff, coordinating the aquatic and terrestrial field investigations, and identifying environmental constraints and opportunities for future consideration during the preparation of the land use concepts, impact mitigation and environmental management strategy for future development.

London Psychiatric Hospital Lands Area Plan, London, Ontario (Natural Environment Lead)

As part of a multi-disciplinary team working for the Ontario Realty Corporation (ORC), Chris coordinated the completion of the Natural Heritage Study (NHS) as input to the Area Plan to identify and evaluate land use scenarios for the redevelopment of an institutional property in London, Ontario. Through site specific field investigations, including monitoring of Chimneys Swift (Threatened species) activity within the structures on the property, natural heritage constraints and opportunities were identified for protection and consideration during future development plans. Chris participated in public information centers, consulted with agency staff and provided input to the Area Plan policies relating to natural heritage, as well as the SWM Class EA process being completed in conjunction with this project.

Policy Planning

Ausable Bayfield Conservation Authority Stormwater Management Policy Update, Bayfield, Ontario (Policy Advisor)

On behalf of the Ausable Bayfield Conservation Authority (ABCA), Stantec was retained to undertake an update to their existing stormwater management (SWM) policy and guideline document. As a Policy Advisor, Chris was responsible for summarizing the evolution and current practice of SWM in terms of the approach, guidelines, policies and implementation in Ontario. This included assisting engineering staff through a review of available background studies, agency policies, SWM technologies and academic journals, consultation with various conservation authorities, municipalities and practitioners and coordination with ABCA staff to review existing policies, recommend improvements and prepare a consolidated update to their SWM policies, quidelines and targets for implementation.

Watershed Planning

Nichol Drain No.1 Subwatershed Study*, Fergus, Ontario (Technical Advisor, GRCA)

Chris acted as a Technical Advisor and Steering Committee member representing the GRCA in support of a developer driven subwatershed study for a coldwater tributary of Irvine Creek, which was initiated in support of expanding the Town of Fergus boundaries for future residential development. His responsibilities included providing input to the terms of reference, coordinating the collection of aquatic habitat information (in-kind contribution), and reviewing draft versions of the report in regard to natural heritage and hazard land implications.

Blair Creek Watershed Monitoring Program*, Cambridge / Kitchener, Ontario (Subwatershed Planning Coordinator, GRCA)

In support of GRCA's on-going monitoring responsibilities recommended as part of the Blair, Bechtel, Bauman Subwatershed Study, and as input to the Upper Blair Creek Functional Drainage Study, Chris was responsible for coordinating the aquatic habitat, water quality and fluvial geomorphological monitoring program. His duties included coordinating field staff, allocating resources, preparing an annual monitoring report, participation at public liaison meetings and general project administration for the GRCA.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager

East Side Subwatersheds Studies*, Region of Waterloo, Ontario (Project Manager, GRCA)

In response to future development pressures, the Regional Municipality of Waterloo in conjunction with the GRCA and area municipalities initiated the East Side Subwatersheds Study in 2005. On behalf of the GRCA, Chris acted as the Project Manager and Chair of the Steering Committee (2006-2007) and was responsible for coordinating the watershed characterization of the Hopewell, Chilligo, and Freeport Creeks and the Randall and Breslau Drains subwatersheds. His primary duty included developing and coordinating the completion of the subwatershed monitoring program, which included aquatic habitat assessments, benthic invertebrate sampling, flow monitoring, fluvial geomorphological assessments, and water quality sampling. This also included public liaison (access, agreements), consultation with RMOW, MNRF and GRCA (internal) staff, coordination of field personnel and general project administration (budgets, contract administration). This project provided firsthand knowledge of the natural heritage system in the area and direct experience with the implementation of subwatershed planning and coordination as acting Subwatershed Planning Coordinator for the GRCA.

Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update*, Kitchener, Ontario (Project Manager, GRCA)

As an update to the Strasburg Creek Master Watershed Plan Study, and in response to growing development pressure along the west side of Kitchener, the GRCA, Regional Municipality of Waterloo and City of Kitchener initiated a subwatershed study (SWS) to manage future growth and balance competing resource interests. This study was initiated to alleviate flooding in Strasburg Creek and to protect sensitive environmental features, groundwater recharge and municipal water supply in anticipation of future urban development.

On behalf of the GRCA, Chris acted as the Project Manager and Chair of the Steering Committee (2006-2007) responsible for the completion of the subwatershed study to characterize existing natural heritage, groundwater and hydrologic conditions within the two watersheds, identify constraints and opportunities for future development, and establish watershed policies and implementation strategy. His primary responsibility included coordinating the completion and review of the SWS report for the GRCA, including liaison with project consultants, assisting with report writing and consulting with agency staff, stakeholders, and the general public prior to formal circulation for public review. Other duties included preparation and presentation at public information centres, presentation of findings to the GRCA Board, and coordination of public and stakeholder comments based on a review of the final draft report.

Upper Strasburg Creek Class Environmental Assessment*, Kitchener, Ontario (Project Manager, GRCA)

In coordination with the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update, a Class EA was completed to explore opportunities to alleviate existing flood hazards for Strasburg Creek at Fischer-Hallman Road in Kitchener, Ontario. On behalf of the GRCA, Chris acted as the Project Manager to coordinate the completion and review of the Class EA through liaison with project consultants, agency staff and internal technical advisors. The results of this study were circulated for public review and presented at public information centres, the outcome of which were recorded and incorporated into the final report.

Ecological Monitoring

UWO Gibbons Environmental Monitoring, London, Ontario (Project Manager)

As a condition of draft plan approval, annual monitoring for potential impacts or development was required based on an environmental monitoring program established through an EIS. Chris was responsible for coordinating the field monitoring program for aquatic habitat, benthic invertebrates, terrestrial vegetation plots, fluvial geomorphological changes, water quality and general site conditions. He was also responsible for consolidating study findings into a standing report that compared current findings to previous observations, assessed potential impacts and attributed causal factors, where feasible.

^{*} denotes projects completed with other firms

Environmental Planner / Project Manager

PUBLICATIONS

Wetland management: An analysis of past practice and recent policy changes in Ontario. Journal of Environmental Management v. 82:1 (83-94), 2007.

Heritage Consultant



Meaghan Rivard, joined Stantec's Environmental Services Business Centre in the spring of 2013 as a Heritage Consultant specializing in Environmental Assessments. She is a member of the Canadian Association of Heritage Professionals and brought to Stantec experience working with municipal and provincial authorities on behalf of clients from both the private and public realms completing projects according to municipal, provincial, and federal guidelines. She has assessed more than 900 properties as part of Renewable Energy Approvals and worked under various classed environmental assessments. In addition to EA related work, Meaghan continues to be actively involved in the assessment of individual properties. Here she utilizes knowledge in the identification, evaluation, and documentation of heritage resources alongside expertise in the assessment of proposed change and preparation of options to mitigate negative impacts on heritage resources. Meaghan works across disciplines in a variety of settings from mining to municipal conservation planning; from pipelines to residential development; and from 19th century farmsteads to highly contaminated industrial sites. She remains focused on regulatory satisfaction balanced with an admiration for the heritage of our province spanning remote northern Ontario communities through to southern Ontario.

EDUCATION

M.A. Public History, University of Western Ontario, London, Ontario, 2009

B.A. History - Honours with Distinction, Brock University, St. Catharines, ON, 2008

MEMBERSHIPS

Member, Canadian Association of Heritage Professionals

PROJECT EXPERIENCE

Industrial Development

Deloro Mine Site*, Deloro, Ontario (Cultural Heritage Specialist)

Assessment of 19th century mining and smelting technology at Deloro gold mine. Report and inventory prepared for the Ontario Ministry of the Environment. Undertook field work, inventory preparation and assisted with report production and coordination.

Highway and Transportation

Ottawa OLRT*, Ottawa, Ontario (Cultural Heritage Specialist)

Development and collection of an inventory of built heritage features as part of the installation of light rail transit in the downtown core. Assisted with field work, inventory development, and prepared historical background material.

Woodbine Residence*, Toronto, Ontario (Cultural Heritage Specialist)

Documentation and salvage report of a 19th century farmstead and three timber frame barns. The report was prepared according to the Ontario Ministry of Transportation guidelines in order to mitigate negative impacts associated with demolition of the residence prior to planned highway expansions. Assisted with site assessment, inventory, and drawing coordination.

Queensville Residence*, Queensville, Ontario (Cultural Heritage Specialist)

Documentation and salvage report of a 19th century railway station converted into a residence in the 20th century. The report was prepared according to the Ontario Ministry of Transportation guidelines in order to mitigate negative impacts associated with demolition of the residence prior to road widening. Assisted with site assessment, inventory, and drawing coordination.

Bridge Master Plan*, Bruce County, Ontario (Cultural Heritage Specialist)

Heritage evaluation of eight bridges selected for inclusion in county-wide planning exercise. Undertook field work, site assessment, and report writing.

Intersection Rehabilitation*, MTO Central Region, Ontario (Cultural Heritage Specialist)

Heritage Impact Assessment of three intersections in Simcoe and Peel Counties where road improvements are proposed. Undertook field work, site assessment, background research and oversaw report production.

Heritage Consultant

Smith Creek Bridge*, Perth County, Ontario (Project Manager and Cultural Heritage Specialist)

Heritage Impact Assessment of proposed railing reconstruction to determine heritage significance and impacts of proposed undertaking. Undertook site assessment, background research and oversaw report production.

Highbury Avenue CN Overpass, London, Ontario (Task Manager and Heritage Consultant)

Cultural Heritage Evaluation Report for 1960s bridge crossing historic railway to determine level of Environmental Assessment required prior to road improvements. Site assessment and background research determined that the bridge used what was considered sophisticated technology at the time of construction resulting in what was once the longest bridge of its kind. Recommendations were made for construction monitoring where the once innovated construction techniques may be exposed. Undertook field assessment and oversaw background research as well as report production.

Heritage Building Condition Assessments, North Pickering, Ontario (Heritage Reviewer)

Three properties owned by Transport Canada were identified for Building Condition Assessments (BCA). Each of the properties was protected through federal designation and under the purview of the Federal Heritage Building Review Office. As such, as part of each BCA, a review of the recommendations on identified heritage attributes was undertaken. The review was incorporated into each report in order to satisfy Parks Canada Standards and Guidelines for the Conservation of Historic Places in Canada.

Markham GO Station*, Markham, Ontario (Project Manager and Culturual Heritage Specialist)

Heritage Impact Assessment of proposed track realignment and station platform construction. Undertook field work, site assessment, background research andreport production.

Wawanosh Drain Bridge*, Sarnia, Ontario (Project Manager and Cultural Heritage Specialist)

Heritage Impact Assessment of proposed road maintenance prior to the Wawanosh Drain Bridge. Undertook field work, site assessment, background research and report production.

Schomberg Bridge*, York County, Ontario (Cultural Heritage Specialist)

Cultural heritage Evaluation undertaken to determine potential significance of the Schomberg Bridge. Undertook field work, site assessment, background research and report production.

Londesboro Bridge*, Huron County, Ontario (Cultural Heritage Specialist)

Heritage Impact Assessment of proposed reconstruction of the Londesboro Bridge. Undertook site assessment, background research and report production.

Highway 23 Bridges*, Perth County, Ontario (Cultural Heritage Specialist)

Cultural Heritage Evaluation reports for two bridges in Perth County for the Ministry of Transportation where bridge improvements were proposed. Undertook field work, site assessment and report production.

Municipal Development Plans

Fox House*, Milton, Ontario (Project Manager and Cultural Heritage Specialist)

Heritage Impact Assessment of early- mid 19th century yellow brick residence and timber frame barn to determine the cultural heritage value or interest of the property prior to site development. Although in poor visual condition, the residence exhibited signs of elaborate design details throughout the interior. Mitigation recommendations included detailed photographic documentation prior to demolition. Field assessment undertaken and oversaw background research as well as report production.

Alberton Road House, Hamilton, Ontario (Heritage Consultant, Project Manager)

Document and Salvage Report prepared as requested by the City of Hamilton prior to demolition. Residence was determined to have minimal cultural heritage value or interest but fall under the purview of the heritage planning staff. Prepared report that summarized the history of the property and provided a detailed description and high resolution photographic documentation of the buildings proposed to be demolished.

^{*} denotes projects completed with other firms

Heritage Consultant

Horst House, Town of Elmira, Waterloo, Ontario (Task Manager and Heritage Consultant)

Heritage Impact Assessment in advance of site development. Prior to development, the Township and Region request the 85 acre property be assessed for potential cultural heritage value or interest. The property contained a residence with various additions and two barns. Mitigation options to address the loss of the limited CHVI identified included professional salvage prior to demolition as the HIA represented appropriate documentation given the CHVI identified. Supervised site visit and report production, prepared evaluation of CHVI and mitigation options.

Filsinger Park Improvement Project, Kitchener, Ontario (Task Manager and Heritage Consultant)

Heritage Impact Assessment of timber frame railway bridges crossing the Henry Strum Greenway. An HIA was undertaken to determine the value or interest of the structure as well as the potential impacts of its removal. Mitigation options were prepared, including photographic documentation during its removal and a commemorative program undertook development of mitigation options and recommendations and oversaw report production.

CPR Station Heritage Conservation Plan, City of Owen Sound, Ontario (Project Manager, Heritage Consultant)

The CPR Station in Owen Sound was purchased by the City in 2010. Previously designated a heritage railway station under federal legislation, it was later designated under the Ontario Heritage Act and an OHT easement was placed on the property. Given the various levels of protection, the City retained Stantec to produce a Heritage Conservation Plan which established guidelines for the future use and preservation of heritage attributes associated with the CPR Station. The report was completed according to provincial and federal guidelines for conservation.

Featherstone House*, Milton, Ontario (Project Manager and Cultural Heritage Specialist)

Heritage Impact Assessment of early — mid 19th century stone residence to determine the cultural heritage value or interest of the property prior to site development. Residence was associated with prominent local resident and architecturally interesting; both indicating value. Given poor structural condition of residence, measures were recommended to mitigate the removal of the structure, including but not limited to detailed photographic documentation. Background research, field assessment, and portions of report production undertaken.

Patterson House*, Milton, Ontario (Project Manager and Cultural Heritage Specialist)

Heritage Impact Assessment of a 19th century farmstead including prominent red brick residence and outbuildings to determine the cultural heritage value or interest of the property prior to site development. The site was determined to have limited value and site development approved. Mitigation included salvage of interior portions of the residence prior to demolition. Background research, field assessment and report production undertaken.

Bowes House*, Milton, Ontario (Project Manager and Cultural Heritage Specialist)

Review and revision of previously completed Heritage Impact Assessment. Review determined extensive revisions required to satisfy municipal requirements. Original 19th century farmstead exhibited salvageable materials although highly modified. Agricultural buildings included both 19th century timber frame barns and early 20th century concrete block structures. Background research, field assessment and report production undertaken.

Beaty House*, Milton, Ontario (Project Manager and Cultural Heritage Specialist)

Review and revision of previously completed Heritage Impact Assessment. Review determined extensive revisions required to satisfy municipal requirements. Assessment included original 19th century residence and timber frame barn. Background research, field assessment and report production undertaken.

^{*} denotes projects completed with other firms

Heritage Consultant

London Psychiatric Hospital*, London, Ontario (Cultural Heritage Specialist)

Adaptive Reuse Study of five 19th century structures associated with the former London Asylum. Assisted with field work, report production and project coordination.

Wind Power

Summerhaven Wind Energy Centre, Haldimand County, Ontario (Cultural Heritage Specialist)

Heritage Assessment Report completed as required by O. Reg. 359/09 for an estimated 60 turbine project. A background history of the Project Study Area was prepared in consultation with local historical societies and other knowledgeable individuals. This facilitated the collection of an inventory of potential heritage resources evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts on the identified heritage resources.

Cedar Point Wind Power Project*, Lambton County, Ontario (Task Manager and Cultural Heritage Specialist)

Heritage Assessment Report for a project containing up to 46 turbines. Report completed as required by O. Reg. 359/09 included detailed background history of the Project Study Area, consultation with local historical societies and other knowledgeable individuals, collection an inventory of potential heritage resources evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts, if any, on the identified heritage resources.

Clarington Wind Farm*, Regional Municipality of Durham, Ontario (Task Manager and Cultural Heritage Specialist)

Heritage Assessment Report for a project containing five turbines. Following extensive consultation with MTCS, Leader Resources Services Corp. sought assistance in obtaining MTCST satisfaction. A revised report was completed according to O. Reg. 359/09 which included a modified inventory, evaluation of significance, and assessment of impacts. Following resubmission, MTCS issued a letter of satisfaction with the report and the client proceeded to obtain REA completeness.

Sol-luce Kingston Solar PV Energy Project, Kingston, Ontario (Task Manager and Heritage Consultant)

Review of a previously completed Heritage Assessment Report in response to Project changes. Following review, a letter was prepared summarizing the changes, the heritage resources identified, and the potential impact. Work involved site analysis, preparation of detailed mapping showing modifications, and liaison with the MTCS. Ultimately, it was concluded that the proposed changes would not alter the findings of the original report. Therefore, no further work was recommended.

Fairview Wind Project, Clearview Township, Simcoe County, Ontario (Heritage Consultant)

Completion of the Revised Heritage Assessment Report for the Fairview Wind Project as required by O. Reg. 359/09.

Activities included updating background history, field assessment, preparation of detailed inventory of heritage resource including evaluation according to O. Reg. 9/06.

Minimal impacts were anticipated as a result of construction activities. Options were prepared to mitigate these impacts and recommendations made regarding future activities.

Majestic/Meyer Wind Farm*, Municipality of Kincardine, Ontario (Task Manager and Heritage Consultant)

Heritage Assessment Report for a project containing three turbines. Following extensive consultation with MTCS, Leader Resources Services Corp. sought assistance in obtaining MTCST satisfaction. A revised report was completed according to O. Reg. 359/09 which included a modified inventory, evaluation of significance, and assessment of impacts. Following resubmission, MTCS issued a letter of satisfaction with the report.

Armow Wind Project*, Kincardine, Ontario (Cultural Heritage Specialist)

Heritage Assessment Report completed as required by O. Reg. 359/09 for a roughly 60 turbine project. Detailed reporting included preparation of a background history of the Project Study Area, consultation with local historical societies and other knowledgeable individuals, collection an inventory of potential heritage resources evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts, if any, on the identified heritage resources.

^{*} denotes projects completed with other firms

Heritage Consultant

Bluewater Wind Energy Centre*, Huron County, Ontario (Cultural Heritage Specialist)

Heritage Assessment Report completed as required by O. Reg. 359/09 for a 35 – 41 turbine project. A detailed background history of the Project Study Area was prepared in consultation with local historical societies and other knowledgeable individuals. Following this, an inventory of potential heritage resources was collected evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts, if any, on the identified heritage resources.

Goshen Wind Energy Centre*, Huron County, Ontario (Cultural Heritage Specialist)

Heritage Assessment Report completed as required by O. Reg. 359/09 for a 60 – 70 turbine project. Reporting requirements included detailed background history of the Project Study Area, consultation with local historical societies and other knowledgeable individuals, collection an inventory of potential heritage resources evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts, if any, on the identified heritage resources.

Jericho Wind Energy Centre*, Lambton County, Ontario (Cultural Heritage Specialist)

Heritage Assessment Report for a project planning between 90 and 100 turbines. Expansive report included detailed background history of the Project Study Area, consultation with local historical societies and other knowledgeable individuals, collection an inventory of potential heritage resources evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts, if any, on the identified heritage resources. Report required by O. Reg. 359/09.

Twenty Two Degrees Wind Farm*, Huron County, Ontario (Cultural Heritage Specialist)

Heritage Assessment Report completed as required by O. Reg. 359/09 for a 20 – 30 turbine project. Report included background history of the Project Study Area, collection an inventory of potential heritage resources evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts, if any, on the identified heritage resources.

Adelaide Wind Power Project*, Middlesex County, Ontario (Cultural Heritage Specialist)

Heritage Assessment Report completed as required by O. Reg. 359/09 for a 30 – 40 turbine project. Expansive report included detailed background history of the Project Study Area, consultation with local historical societies and other knowledgeable individuals, collection an inventory of potential heritage resources evaluation of cultural heritage value or interest of each potential resource, and development of strategies to address negative impacts, if any, on the identified heritage resources.

Pipeline Survey

Lakeshore Panhandle Replacement Project, Town of Lakeshore, Essex County, Ontario (Task Manager and Heritage Consultant)

A Built and Cultural Heritage Overview was prepared to meet Ontario Energy Board Guidelines which require evaluation of potential heritage resources in advance of pipeline project construction. The Heritage Overview was composed of a program of agency consultation, review of historic mapping, and a visual assessment of the Study Area. During the site visit, potential heritage resources, including components of potential cultural heritage landscapes, were photographed and their locations recorded. Undertook field assessment, background history, and report production.

Power Transmission & Distribution

Kirkland Lake Operations Centre*, Kirkland Lake, Ontario (Project Manager and Cultural Heritage Specialist)

Heritage Impact Assessment, including detailed background history and site evaluation, prior to proposed removal of the operations centre onsite. Undertook field work, site analysis, and report production.

Strathroy Transformer Station Area Office*, Strathroy, Ontario (Project Manager and Cultural Heritage Specialist)

Heritage Impact Assessment, including detailed background history and site evaluation, prior to proposed removal of the station area office. Undertook field work, site analysis, and oversaw report production.

^{*} denotes projects completed with other firms

Meaghan Rivard MA, CAHP

Heritage Consultant

Toronto Transformer Station*, Niagara Falls, Ontario (Cultural Heritage Specialist)

Heritage Impact Assessment of the Toronto Power Transformer Station. Assisted with field work, site inventory and photographic documentation.

Goderich Transformer Station*, Goderich, Ontario (Cultural Heritage Specialist)

Heritage Impact Assessment, including detailed background history and site evaluation, prior to proposed removal of the control building onsite. Undertook field work, historical background, site analysis and report production.

Environmental Assessment

Old Orchard Sewage Storage Facility*, Grimsby, Ontario (Cultural Heritage Specialist, Project Manager)

Cultural Heritage Assessment as part of a Class EA of a former sewage storage facility adjacent to historic War of 1812 battle site. Undertook field work, historical background research, site analysis and report production.

Weber Street Widening, Waterloo, Ontario (Heritage Consultant)

As part of a multidisciplinary team managing a Schedule "C" Class Environmental Assessment for the Weber Street widening, Stantec undertook the identification, assessment, and documentation prior to demolition. Documentation of 36 properties took place as properties were acquired between 2011 and 2013. The results were compiled into a comprehensive document including photographic record, detailed research and site drawings, submitted in August 2013. Led the team who undertook the Final Documentation Report.

Little Long Lac Mining District, Municipality of Greenstone, Ontario (Task Manager and Heritage Consultant)

Cultural Heritage Evaluation Report (CHER) completed as part of Environmental Baseline Work Program prior to the initiation of an Environmental Assessment. The CHER screened for resources of potential cultural heritage value or interest (CHVI) where project impacts were anticipated. A preliminary property inspection and review of available resources determined the presence of potential heritage resources within the study area. Each potential resource was evaluated to determine the presence of CHVI. Recommendations for future work included completion of a Heritage Impact Assessment and predictive modeling.

Simpson Lake Quarry, Township of Addington Highlands, County of Lennox and Addington, Ontario (Heritage Consultant)

The proposed Simpson Lake Quarry followed the process outlined for a Category C Project under the Ministry of Natural Resources (MNR) Class Environmental Assessment for Resource Stewardship and Facility Development Projects (MNR Class EA - RSFD). As part of this process, the Checklist for Determining High/Low Potential for Cultural Heritage Resources as well as the Municipal Class EA Checklist was completed as requested by the MTCS. This involved consultation with various provincial, regional, and local agencies and interested parties as well as background research and a review of historical mapping. Throughout the course of completing this checklist, there were no potential built heritage resources or cultural heritage landscapes identified within the subject properties.

Archival Research and Interpretive Plans for Heritage/Archaeological Sites

Saskatchewan Military Heritage Project*, Saskatchewan, Ontario (Cultural Heritage Specialist)

Preparation of overview of interpretation and virtual museums best practices and part of a larger study assessing the needs of military museums in Saskatchewan.

^{*} denotes projects completed with other firms

Meaghan Rivard MA, CAHP

Heritage Consultant

The Oil Springs Social History Project*, Lambton County, Ontario (Fairbank Fellow)

Development of a social history of the oil producing village of Oil Springs, Ontario, focused on social conditions, including religious activities, educational initiatives, and family development. Field work was undertaken with Christopher Andrea, Senior Built Heritage Specialist with Golder Associates Ltd., included inventory of histoic resources in Canada's oldest oil fields, community outreach and county departmental liaison was undertaken to facilitate active involvement from various levels of community and government.

19th Hop Industry in Middlesex County Research Project*, London, Ontario

Research focused on providing material used for restoration and interpretation purposes at Fanshawe Pioneer Village. Use of primary and secondary source material with emphasis on pictorial and lyrical evidence. Final product was utilized to enhance staff understanding of the topic and provide a guide to interpretative exercises.

The William Harvey Project*, London, Ontario

Integration of multi-media technology and exhibit development. Production of introductory SmartBoard display that provided exhibit narrative. Public exhibition in the Weldon Library, University of Western Ontario.

Museum London, Former Archival and Teaching Museum, Regional Mental Health & Western University*, London, Ontario

Physical and online exhibit regarding the history and development of psychiatry and treatments at the former London Asylum for the Insane. Research focused on legislative history and the social history of Ontario mental health treatments; primarily within the 19th and early 20th centuries. Website design and exhibit construction combined with curatorial responsibilities.

Canadian Baseball Hall of Fame and Museum, Friends of Labatt Park*, London, Ontario

Development of a baseball tourism package and brochure distributed to public and private organizations throughout Ontario and the United States to encourage heritage tourism. Liaised with numerous community members, developed package targeted towards both private and community members, photography of large sites and historical artifacts, collections, and exhibits.

^{*} denotes projects completed with other firms

GIS Specialist



Sarah Allen has been with the GIS Team since June 2006. Since joining she has gained experience with many types of data modeling and analysis related to projects in a variety of disciplines such as Air Quality, Noise Assessment, and Hydrology. She is responsible for all aspects related to GIS project work from budgeting and proposal work to data management and analysis to final report stages. Sarah has contributed to the development and implementation of cartographic standards and GIS operation and practices within Stantec. She has been involved in the development of group standards for Southern Ontario as well as Eastern Canada for GIS. Sarah is the Office Representative for GIS in the Markham office in Ontario.

EDUCATION

B.GIS, Geographic Information Systems, Cartography, Data Management, Southern Alberta Institute of Technology (SAIT), Alberta, 2006

B.A., University of Toronto, Toronto, Ontario, 2000

Stantec Project Management, Markham, Ontario, 2014

Project Management Course, Southern Alberta Institute of Technology (SAIT), Calgary, Alberta, 2006

PROJECT EXPERIENCE

Air Quality

Health Canada Air Quality Modelling Studies for Pulp and Paper Sector (Cartographer, GIS Analyst, GIS Project Lead)

CALMET/CALPUFF figure creation, contaminant modeling, data acquisition, analysis and management.

Sunoco Mariner West Pipeline, Michigan, Ohio, Pennsylvania - USA (GIS Specialist, GIS Project Lead)

Figure creation, data acquisition, analysis and management.

Air Quality Assessment, Quebec, British Columbia, Newfoundland Labrador (Cartographer, GIS Analyst, GIS Project Lead)

Figure creation, contaminant modeling, data analysis and management.

Archaeology

Samsung Grand Renewable Solar LP, Haldiman County, Ontario (Cartographer, GIS Project Lead) Figure creation, data creation, analysis and management.

Emergency Planning / Response

Enbridge Pipeline Emergency Spill Response
Development, Quebec and Ontario
(Cartographer, GIS Project Lead)
Creation of emergency response figures and data acquisition.

Facility Planning (EM)

Energy Centre Planning, Cambridge, Ontario (Cartographer, GIS Analyst)

Figure and data creation.

Hydrologic Modeling

Various projects in Canada and US (Cartographer, GIS Specialist, GIS Project Lead)

Use of GIS software to model watershed/drainage basins, figure creation, data analysis and management

Noise Assessments

Acoustic Assessment, Ontario, NE, USA (Cartographer, GIS Specialist, GIS Project Lead) Figure creation, data analysis and management

Oil and Gas Downstream

Rover Pipeline Project, Ontario, Ontario (GIS Project Lead, GIS Specialist)

Lead GIS Specialist for development of map templates, figure development, data acquisition and management and data analysis.

Enbridge Abandoned Pipeline Removal, Canada Wide (Cartographer, GIS Specialist, GIS Project Lead)

Lead GIS Specialist for development of map templates, figure development, data acquisition and data analysis to determine land use along pipeline.

Sarah Allen B.GIS. B.A.

GIS Specialist

Proposed Pipeline to serve the York Energy Centre, Ontario (GIS Specialist, GIS Project Lead)

Lead GIS specialist for development of map templates, figure development and data acquisition.

Integrity Dig Program, Ontario (Cartographer, GIS Specialist)

Lead GIS analyst for development of figures and data acquisition.

Control Point Manual Update, Ontario, Quebec (Cartographer, GIS Project Lead)

GIS Project Lead for development of map templates, figure development, data acquisition.

Railroads

Track Improvements, Ontario, Quebec (Cartographer, GIS Analyst, GIS Project Lead)

GIS Project Lead for figure development and data acquisition.

Renewable Energy

Niagara Region Wind Corporation Wind Farm, Ontario (Cartographer, GIS Specialist)

GIS Specialist providing support to GIS project lead for figure creation, data analysis and data management.

Solar Projects, Various locations in Ontario (Cartographer, GIS Project Lead)

Figure development, data acquisition and creation, constraints analysis and modeling.

Byran Wind Power, Prince Edward County, Ontario (Cartographer, GIS Project Lead)

Lead GIS analyst for figure development, client communication related to GIS, data acquisition.

Surveys / Geomatics

LiDAR Project Planning, Southern Ontario (Cartographer, GIS Analyst)

Selection of gps units and communication with clients relating to mapping and interpreting LiDAR results.

Geodatabase Design (GIS Specialist)

Design of geodatabase for projects. Involves organizing data by category and creation of common fields throughout the layers.

Template Design (GIS Specialist)

New project template design and implementation.

Data Collection (GIS Specialist)

Research and purchase of data relevant to various projects. Data includes DEM, City data, tabular data, shapefiles, etc.

Cartography (GIS Specialist)

Creation and editing of numerous project related maps. This includes data analysis, data management and data delivery.

Data Management (GIS Specialist)

Management of project data including organization and review for use in figures. Review of existing data to ensure validity and up to date content.

Technical Analysis

Tourism Internet Website, SAIT Project*, Banff (GIS Analyst)

Development of a tourism based internet website for the Town of Banff using Open Source GIS technology and ESRI products (Network Analyst and geodatabases).

Social Development* (GIS Analyst)

Levels of living study for Kwa-Zulu Natal, South Africa. Statistical analysis and ArcMap used to determine the levels of living in geographical location of regions in KZN. Research to select pertinent variables conducted to ensure validity.

Statistics Database Development, African Countries* (GIS Analyst)

Relational database developed for various statistics relating to African countries. Relationship development between database entities executed to ensure a fully functional database upon completion.

Cartography, ArcMap* (GIS Analyst)

ArcMap used to create and design maps for various purposes (education, land development, habitat suitability, least cost studies, 3-D campus maps, 3-D fly-through videos, etc). Maps designed based on mapping principles and colour theory.

^{*} denotes projects completed with other firms

Sarah Allen B.GIS, B.A.

GIS Specialist

Technical Program - Development and Training

SAIT Educational Development*

Redesign of BGIS GPS course. Work included development of exercises and assignments, development of content and research on other GPS courses related to GIS.

^{*} denotes projects completed with other firms

Walter McCall

Project Archaeologist



Walter McCall is a project archaeologist with 17 years of international field experiences, including time spent in Greece, England, Italy, Jordan, and Canada. Walter obtained his Ph.D. from the University of North Carolina in 2007, after studying at Queens University and Wilfred Laurier. Walter has conducted, overseen and directed archaeological assessments of all stages, mentored field staff, established field protocols and written reports of all phases of post excavation.

EDUCATION

PhD, Classical Archaeology, University of North Carolina - Classical Archaeology, Chapel Hill, North Carolina, 2007

MA - Classics Archaeology, Queen's University -Classics Archaeology, Queen's University, Kingston, 1999

BA - Classical Archaeology, Wilfrid Laurier University - Classical Archaeology, Waterloo, Ontario, 1997

Minor, Wilfrid Laurier University - Near Eastern Archaeology, Waterloo, Ontario, 1997

REGISTRATIONS

Registered Professional Archaeologist, Ontario Ministry of Tourism, Culture and Sport

MEMBERSHIPS

Member, Institute of Field Archaeologists

PROJECT EXPERIENCE

Academic Instructional Laboratories

Department of Modern Languages and Classics* (University Instructor)

Taught courses in Greek and Roman history, ancient culture and archaeology, and Latin.

Archival Research and Interpretive Plans for Heritage/Archaeological Sites

Various Site Projects in Italy*, Italy (Field Supervisor - Archaeologist)

Supervised undergraduate students & volunteers and managed camp logistics. Completed site archives and post-excavation reports and

completed manual stone by stone architectural drawings: Torre Project, Italy (fortified tower site, Etruscan – medieval, 6 weeks); Azoria Project, Crete (hilltop settlement, Aegean Bronze Age, 4 weeks); Etruscan Landscapes, Italy (farmhouse with cistern, Etruscan – early Roman, 12 weeks).

Murney Tower*, Kingston, Ontario (Archaeologist)

Excavated test pits around local historical site (Murney Tower) (4 weeks), recorded stratigraphy and documented finds, and assessed potential damage to foundations of the Martello tower during its proposed restoration.

Archival, Historical and Aboriginal Claims Research

Tel Jawa Project*, Jordan (Excavator)

Worked as a student at Laurier as a supervisor/object registrar at a large iron age settlement (1995)

Khirbet Al-Mudyna Thamad, Jordan*, Jordan (Supervisor)

Worked as a student at Laurier as a supervisor/object registrar at a large iron age settlement (1996 and 1997)

Heritage/Archaeological Resource Impact Assessments

Suncor Energy Wind Project*, Middlesex County, Ontario (Archaeologist)

Field Program Director for the multi-year archaeological assessment under the Ontario Heritage Resources Act required prior to the construction and operation of an wind energy generation facility in Middlesex County, Ontario. This project involves frequent engagement with First Nations and has resulted in the discovery and documentation of over one thousand archaeological sites.

Anthropology Department - Archaeology Field School*, Italy (Project Director)

Established and instructed an archaeology field school, liaison with agencies, executed fundraising activities and managed budgets.

^{*} denotes projects completed with other firms

Walter McCall

Project Archaeologist

Archaeological Assessments* (Project Archaeologist)

Stages 1-4 archaeological assessments conducted at multiple sites globally and in Canada. Wrote and reviewed various reports of all phases in archaeological studies, managed field programs, mentored field staff and created field protocols. Other tasks included liaison with agencies, land agents, First Nations, and members of public.

Heritage/Archaeological Resource Mitigation and Monitoring

Parks & Recreation Canada* (Archaeologist)

Excavated test pits around a local historic site, documented finds, recorded stratigraphy, and assessed potential foundation damages during proposed renovation activities.

Heritage/Archaeological Resource Sections for Environmental Impact Assessments

NextEra- Summerhaven Wind Energy Project*,
Haldimand County, Ontario (Archaeologist)
Field Program Director for the multi-year archaeological
assessment under the Ontario Heritage Resources Act
required prior to the construction and operation of an 80
turbine wind energy generation facility in Haldimand County,
Ontario. This project involves frequent engagement with First
Nations and has resulted in the discovery and documentation
of over one thousand archaeological sites.

Renewable Energy

Grand Renewable Energy Park*, Haldimand County, Ontario (Field Director - Archaeology)

A Stage 1 archaeological background study was previously conducted for a project area located in the Geographic Townships of Dunn, Rainham, South Cayuga, North Cayuga and Walpole in Haldimand County, Ontario. This area is proposed to be the site of approximately 67 wind turbines, at least three areas of solar panels and project-related infrastructure comprising the Grand Renewable Energy Park. As a result of the Stage 1 assessment, Stage 2 archaeological assessment was recommended. The 2010 - 2011 winter field assessment resulted in the identification of 55 locations, comprising 54 pre-contact Aboriginal sites and one historic Euro-Canadian site. In summary, 25 of the 55 archaeological locations identified within the study area in were recommended for Stage 3 assessment. Further field assessment was conducted in the Spring/Summer of 2011, which resulted in the identification of a further 128 locations, all of which are pre-contact Aboriginal sites. In order to further evaluate their cultural heritage value or interest, 48 of the 128 archaeological locations identified within the study area in the spring and summer of 2011 have been recommended for Stage 3 assessment. Stage 3 assessment is ongoing.

Screening and Clearance Applications for Heritage/Archaeological Resources

Classics Department* (Field Supervisor)

Completed site archives and post excavation reports, supervised undergraduate students and volunteers, and organized camp logistics on site.

^{*} denotes projects completed with other firms

Walter McCall

Project Archaeologist

PUBLICATIONS

PHD Dissertation. Falerii Novi and the Urbanisation of Roman Italy during the Mid-Republic, 2007.

Review of B. Verstraete. The Age of Marriage in Ancient Rome, 2006.

The Case of Podere Cosciano. Settlement Patterns and Rural Habitation in the Middle Cecina Valley between the Hellenistic and Roman Age, 2003.

APPENDIX D: SUPPORTING INFORMATION AND RESOURCES



APPENDIX D1: SUPPORTING DOCUMENTATION FOR 3.2.6(B)(I)(1) – MTCS ARCHAEOLOGICAL SITE CONFIRMATION



Subject: FW: Request for information on archaeological resources within 250m of the proposed

Napanee Solar Project under LRP RFP

Attachments: bbgf-22.tif

From: von Bitter, Robert (MTCS) [mailto:Robert.vonBitter@ontario.ca]

Sent: Tuesday, June 23, 2015 11:05 AM

To: McCall, Walter

Subject: RE: Request for information on archaeological resources within 250m of the proposed Napanee Solar Project

under LRP RFP

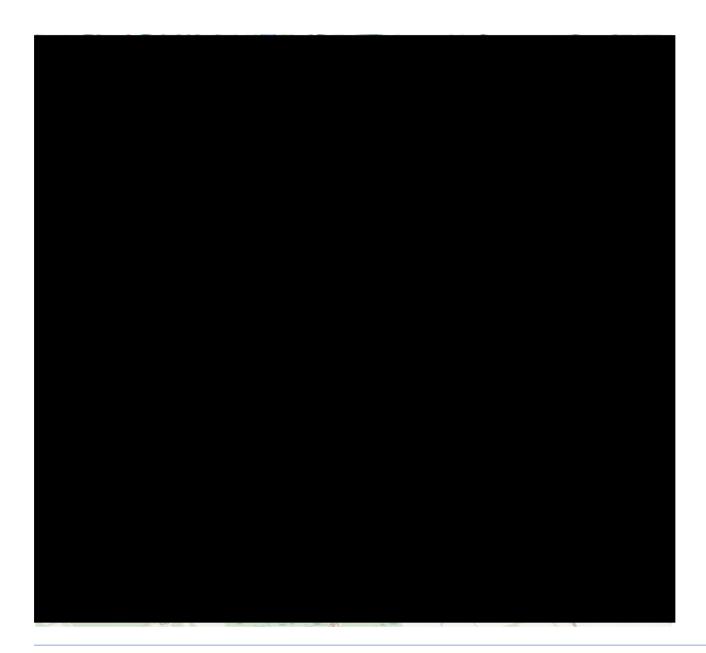
Walter,

Could you ensure all future requests go to ArchaeologicalSites@Ontario.ca please?

It appears as though there are a few sites on or within 250 m of these lands.

Regards,

Rob



IFrom: McCall, Walter [mailto:Walt.McCall@stantec.com]

Sent: June-22-15 5:14 PM **To:** von Bitter, Robert (MTCS)

Subject: FW: Request for information on archaeological resources within 250m of the proposed Napanee Solar Project

under LRP RFP

Good afternoon Rob,

The client is asking for an update on the data request (see below) for their LRP | RFP submission for the Napanee Solar Project. I have included here the original request made on June 2 since it contains the proposed site map.

Thank you again for your assistance.

Regards,

Walter McCall

From: McCall, Walter

Sent: Tuesday, June 02, 2015 12:44 PM

To: robert.vonbitter@ontario.ca

Subject: Request for information on archaeological resources within 250m of the proposed Napanee Solar Project

under LRP RFP

Hello again Rob,

Pursuant to the requirements of the current LRP | RFP submission process, please see the attached figure for the proposed Napanee Solar Project in the province of Ontario which is being proposed under the LRP 1 RFP by EDF EN Canada Inc. Could you please provide preliminary information regarding any registered archaeological resources within 250 metres of the project site (delineated as Study Area on the attached map)? I hope the scale of this map will be more helpful for you.

Thanks again for all your help.

Walter McCall, Ph.D.

Director of Archaeological Field Operations

Phone: (905) 385-3234

Cell: (226) 927-7024 Fax: (905) 385-3534

Walt.McCall@stantec.com

The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

Please consider the environment before printing this email.

ARCHAEOLOGICAL SITE RECORD FORM



This form is intended for the field recording of archaeological site information for sites which have not previously been documented with the Ministry of Culture and Recreation. Use the Archaeological Site Update Sheet to record additional or corrected information concerning sites known to be in the Ministry's files. Refer to the instructions when completing the form and contact the Ministry of Culture and Recreation for further assistance.

		Bord	len number	· · · · · · · · · · · · · · · · · · ·
TE IDENTIFICATION				
4) Preferred name		-	umber	
TE LOCATION			•••	
O) NTS map	Lot(s) Lot(s) 12) Sketch map o Feet metres Grid zone 100,000 metre square Easting Northing		Portion of Lot	
E INVESTIGATION				
6) Researcher 7) Licence number 9) Informant(s), Address(c)	es), Nature of Information	18) Site observed - Ye	•	onth

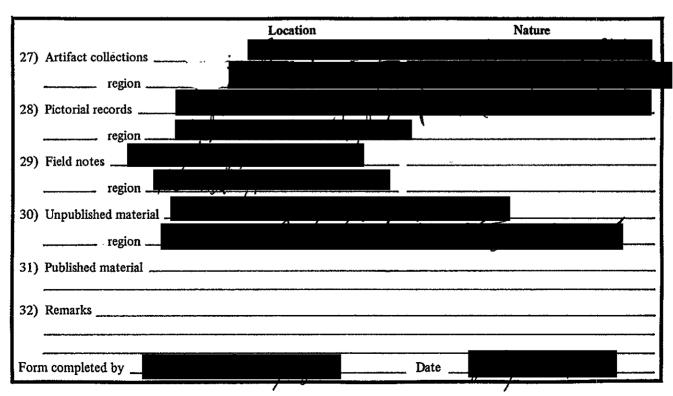
continued

20)	Activities conducted at site
213	Description of anxiety
21 <i>)</i>	Description of environment
22)	Nature, density and extent of observed cultural remains —

INFERENCES

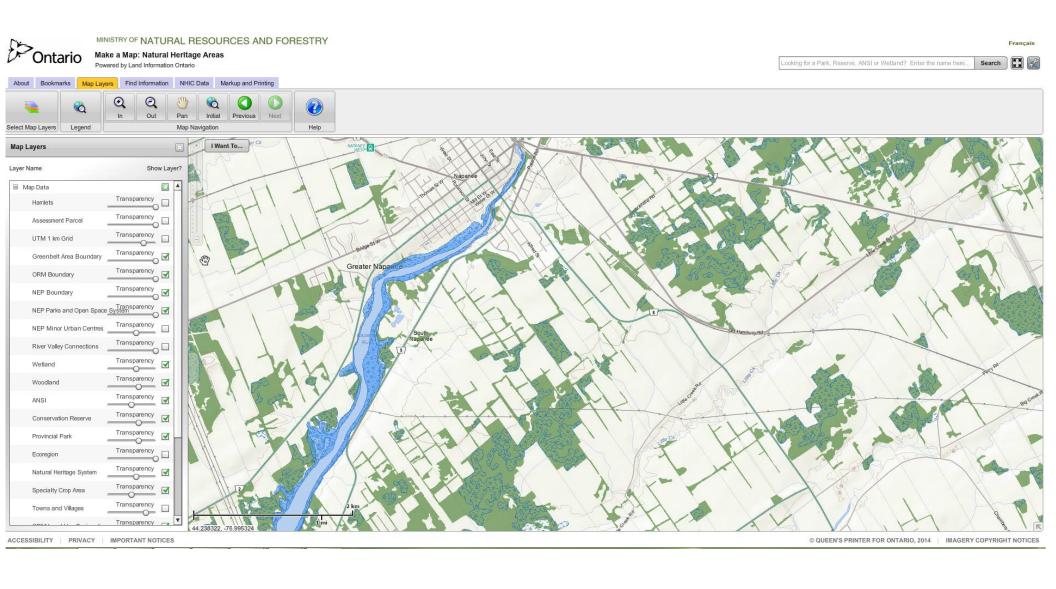
23)	Dates
	Basis
24)	Site function/type
	Basis
25)	Site structure
	Basis
26)	Affinities
	Basis

DOCUMENTATION



APPENDIX D2: SUPPORTING DOCUMENTATION FOR 3.2.6(B)(I)(9) - NATIONAL PARKS, PROVINCIAL PARKS, AND CONSERVATION RESERVES (15)(III) - WETLANDS, (15) (II) -ANSIS, AND (15) (IV) - APPROVED PLANS



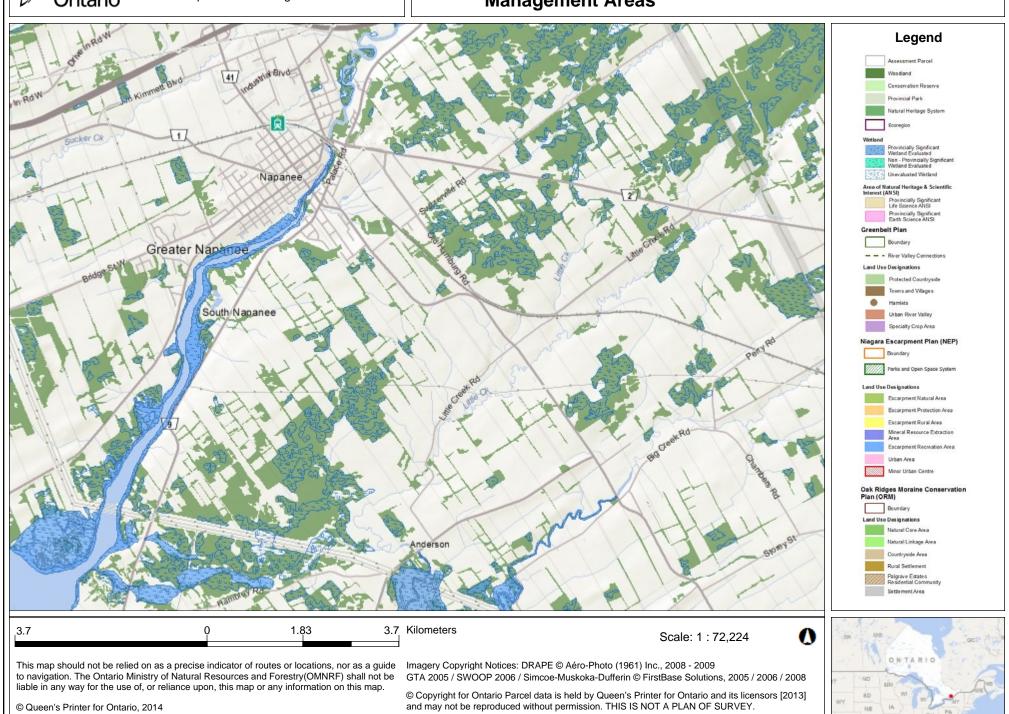


Ontario

Ministry of Natural Resources and Forestry Make-a-Map: Natural Heritage Areas

ANSIs, Reserves, Wetlands, Management Areas

Notes:



APPENDIX D3: SUPPORTING DOCUMENTATION FOR 3.2.6(B)(I)(15) (I) -ENDANGERED OR THREATENED SPECIES



SQUARE1KM	COMMNAME	S_RANK	COSEWIC	MNR_STATUS
101104007				
18UP4297	Northern Man Turtle	S3	SC	SC
	Northern Map Turtle	S3	SC	SC
	Snapping Turtle Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
	Lake Sturgeon (Great Lakes - Opper St. Lawrence River population)	52	IHR	IHR
18UP4298				
	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
18UP4299				
	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
18UP4399				
1001 4000	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
18UP4494				
1001 4494	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Bobolink	S4B	THR	THR
18UP4495				
10014493	Northern Map Turtle	S3	SC	SC
	Milksnake	S3	SC	SC
	Bobolink	S4B	THR	THR
	Bobolink	S4B	THR	THR
	Eastern Meadowlark	S4B	THR	THR
18UP4594				
10074034	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Bobolink	S4B	THR	THR
	Eastern Meadowlark	S4B	THR	THR

SQUARE1KM	COMMNAME	S_RANK	COSEWIC	MNR_STATUS
18UP4595				_
	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Bobolink	S4B	THR	THR
	Eastern Meadowlark	S4B	THR	THR
	Eastern Meadowlark	S4B	THR	THR
18UP4694				
	Least Bittern	S4B	THR	THR
	Northern Map Turtle	S3	SC	SC
	Butternut	S3?	END	END
	Snapping Turtle	S3	SC	SC
18UP4695				
	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Bobolink	S4B	THR	THR
18UP4699				
	Eastern Meadowlark	S4B	THR	THR
18UQ4200				
	Snapping Turtle	S3	SC	SC
	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
18UQ4300				
	Milksnake	S3	SC	SC
	Northern Map Turtle	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
18UQ4400				
	Milksnake	S3	SC	SC
	Northern Map Turtle	S3	SC	SC
	Eastern Musk Turtle	S3	SC	THR
	Snapping Turtle	S3	SC	SC
	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
18UQ4401				

SQUARE1KM	COMMNAME	S_RANK	COSEWIC	MNR_STATUS
	Milksnake	S3	SC	SC
	Snapping Turtle	S3	SC	SC
	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	S2	THR	THR
	Eastern Meadowlark	S4B	THR	THR
18UQ4501				
	Deep-throat Vertigo	SH		
	Classification Uncertain	S2S3		
	Tapered Vertigo	S2S3		
	Milksnake	S3	SC	SC
	Eastern Meadowlark	S4B	THR	THR

APPENDIX D4: SUPPORTING DOCUMENTATION FOR 3.2.6(B)(I)(15) (IV) – HERITAGE RESOURCES







EDF EN CANADA DEVELOPMENT INC NAPANEE SOLAR PROJECT (160950781)

HERITAGE CONSULTATION TO SATISFY SECTION 3.2.6 (B) (I) (15) (V) OF THE IESO'S LRP I RFP RULES

DIRECT CONSULTATION

MINISTRY OF TOURISM, CULTURE, AND SPORT

Contacted Deborah Hossack (6/10/2015) email; none identified (6/30/2015)

ONTARIO HERITAGE TRUST

Contacted Jeremy Collins (6/10/2015) email; none identified (6/17/2015)

MUNICIPALITY/TOWNSHIP

Contacted Susan Beckel, Clerk at the Town of Greater Napanee (6/10/2015 email); follow-up (6/12/2015 email), (6/16/2015 phone); none identified (6/18/2015)

INDIRECT CONSULTATION

PLAQUES

Federal

Parks Canada: http://www.pc.gc.ca/apps/dfhd/default-eng.aspx. Searched "Napanee." None found within study area.

Provincial

Ontario Heritage Trust: http://www.heritagetrust.on.ca/Resources-and-Learning/Online-Plaque-Guide.aspx 10 found within the Town of Greater Napanee; none within study area.

Municipal

Various:

https://www.google.com/fusiontables/embedviz?q=select+col0+from+1BNxqn3YzZazJk3b69UE01z91mQLAbD2Y7-AarxU&viz=MAP&h=false&lat=46.78556906411953&lng=-81.76451792374803&t=1&z=6&l=col0&y=2&tmplt=4&hml=GEOCODABLE None found within study area.

PARKS CANADA

http://www.pc.gc.ca/apps/dfhd/default eng.aspx

National Historic Sites and Monuments Board of Canada: Two found in Napanee (Napanee Town Hall NHS & Old Hay Bay Church HNS); none found within study area. Historic Places: None found within study area.

Other: None found within study area.

 From:
 House, Meghan (MTCS)

 To:
 Sebele, James

 Cc:
 Rivard, Meaghan

Subject: RE: MTCS Information Request - Napanee Solar Project (160950781)

Date: Tuesday, June 30, 2015 10:59:18 AM

Hello James,

Thank you for contacting MTCS, Culture Division and your due diligence with regards to Ontario's cultural heritage resources.

With respect to the study/project areas identified in your email, please be advised that we currently do not have any provincial heritage properties identified on or adjacent to these areas. However, the subject lands or parts of the subject lands may be owned or controlled by an Ontario Ministry or Prescribed Public Body (PPB) on behalf of the Crown – the list of PPBs is available as O. Reg. 157/10 (http://www.ontario.ca/laws/regulation/100157). A Ministry or PPB may have responsibilities under the Standards and Guidelines for Conservation of Provincial Heritage Properties (e.g. to undertake a cultural heritage evaluation and/or heritage impact assessment).

Note that I am only responding with respect to provincial heritage properties. Please contact the appropriate authorities regarding other heritage resources.

Best Regards,

Meghan House MCIP RPP

Heritage Advisor

Ministry of Tourism, Culture and Sport Culture Division | Programs and Services Branch | Culture Services Unit 401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7 416.314.7133

From: Sebele, James [mailto:James.Sebele@stantec.com]

Sent: June-10-15 1:55 PM
To: Registrar (MTCS)
Cc: Rivard, Meaghan

Subject: MTCS Information Request - Napanee Solar Project (160950781)

Hello Deborah,

I am contacting you today regarding heritage resources in Lennox and Addington County, Ontario, Canada.

Stantec Consulting Ltd. (Stantec) was retained by EDF EN Canada Development Inc. to complete a Cultural Heritage Overview of the proposed installation of a solar project in the Town of Greater Napanee, Lennox and Addington County, Ontario. This Overview will be completed in order to satisfy the requirements of the LRP | RFP Infosheet: Known Archaeological Resources and Recognized Heritage Resources checklist for identifying recognized heritage resources for new solar projects.

The proposed solar project is roughly bounded by Palace Road to the north, Hamburgh Road/County Road 8 to the east, Country Road 9 to the south and Township Road 9 to the

west.

The project spans across the following Lots and Concessions of the former township of Fredericksburgh, now the of Town of Greater Napanee, Lennox and Addington County, Ontario:

- Lots 11-16 of Concession 7 S
- Lots 12-14 of Concession 4 S

As part of the cultural heritage component, I am interested in protected or listed heritage resources (properties, landscapes, or districts) within or adjacent to the proposed project.

Are you aware of any MTCS heritage interests within or adjacent to this area?

For the ease of review, mapping has been prepared depicting the proposed project location (see attached). These maps appear in draft form and may contain confidential information not yet released to the public. We ask that you maintain confidentiality while responding to this inquiry.

Please let me know if I can provide any additional information or assist in the identification of resources in any way.

Thank you in advance for the time.

Thanks,

James Sebele, B.A.

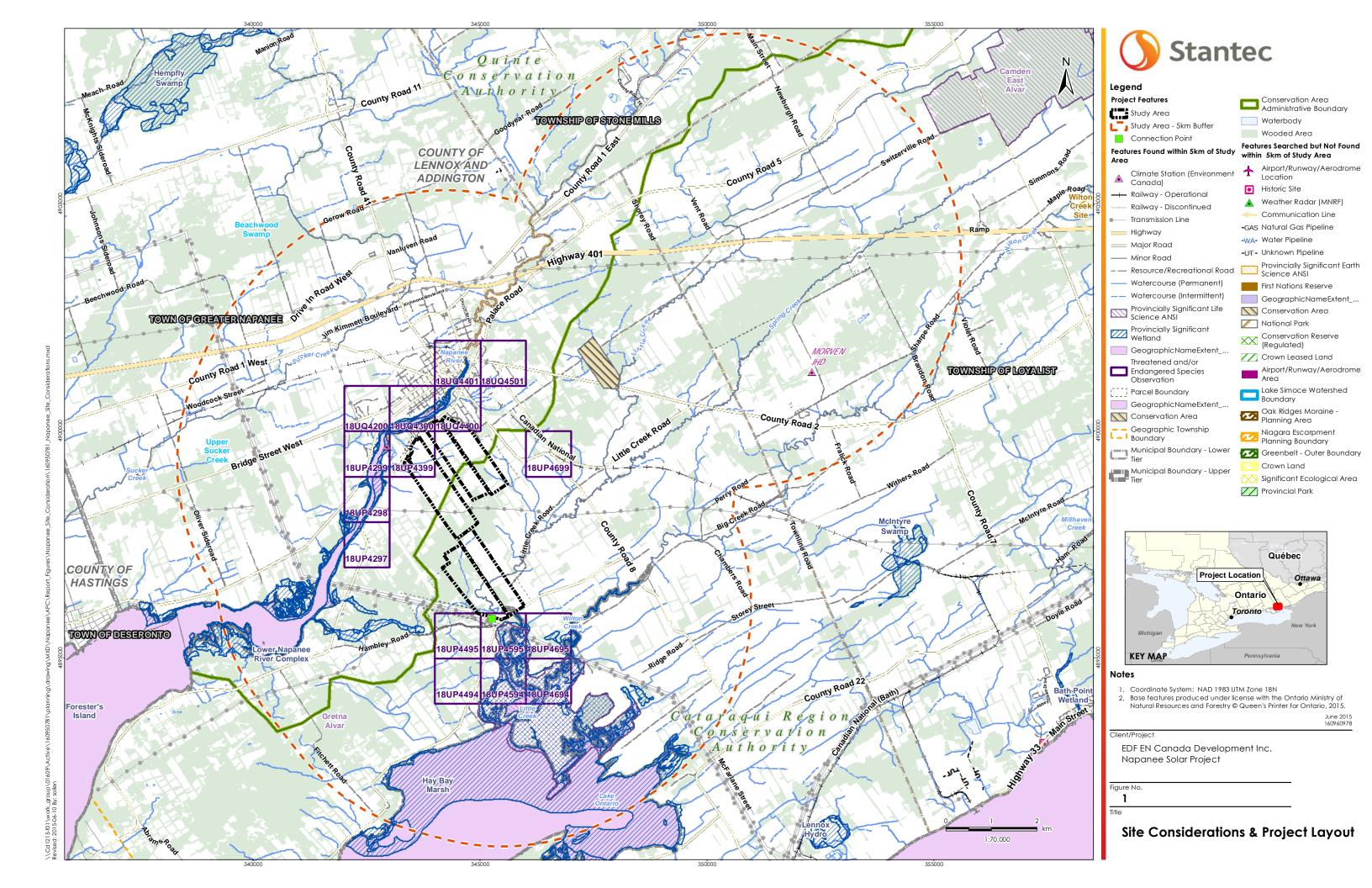
Cultural Heritage Specialist Assistant Stantec 49 Frederick Street Kitchener ON N2H 6M7

Phone: (519) 575-4224 Cell: (519) 532-8540

James.Sebele@stantec.com

The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

Please consider the environment before printing this email.



Telephone: 416-325-5000 Fax : 416-325-5071

www.heritagetrust.on.ca



An agency of the Government of Ontario

VIA MAIL AND EMAIL

June 15, 2015

James Sebele Cultural Heritage Specialist Assistant Stantec Consulting Ltd. 49 Frederick Street Kitchener, ON N2H 6M7

Dear Mr. Sebele:

Re: LRP | RFP Information Requests - Napanee Solar Project

We are in receipt of your letters and accompanying mapping to Jeremy Collins at the Ontario Heritage Trust with respect to your LRP | RFP Information Requests concerning the above-noted renewable energy project.

As the Province's lead heritage agency, the Trust is mandated to preserve, protect and promote the conservation of the Province's rich natural and cultural heritage. In carrying out the above mandate, the Trust protects many significant cultural heritage and natural heritage sites across Ontario through ownership and conservation easements. The Trust also promotes appropriate measures to protect heritage resources which may be affected by large-scale undertakings.

Further to your request for information, we have reviewed the map and textual description of the study area which you provided against our database of Trust easement properties. We can confirm that the Trust does not have any conservation easement sites within or adjacent to the study area described in your letter.

We strongly encourage you to contact the Ministry of Tourism, Culture and Sport, if you have not already done so, in order to determine if there are any other cultural heritage interests which may be affected by this project. In this regard, we recommend that you liaise with Laura Hatcher, Heritage Planner / Acting Team Lead, Land Use Planning, Cultural Services Unit at the Ministry. She can be reached at 416-314-3108 by phone or Laura.E.Hatcher@ontario.ca by email.

Should you have any questions, please contact me at 416-325-5019.

Yours truly,

Michael Sawchuck

Manager, Acquisitions and Conservation Services

Copy: Paula Kulpa, Acting Manager, Culture Services Unit, MTCS (by email only)

Laura Hatcher, Heritage Planner/Acting Team Lead, Cultural Services Unit, MTCS (by email only)

From: Susan Beckel
To: Sebele, James

Subject: RE: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Date: Thursday, June 18, 2015 11:09:09 AM

Attachments: image001.png

image002.png

We don't have any listed properties or Heritage Conservation Districts.

__

Susan Beckel

Clerk

Town of Greater Napanee Tel: 613-354-3351 ext. 2014

This e-mail contains CONFIDENTIAL INFORMATION. If you are not the intended recipient of this e-mail do not disseminate, copy or use this e-mail

If you have received this e-mail in error, please notify the sender immediately and delete the e-mail from your system. Thank you.

From: Sebele, James [mailto:James.Sebele@stantec.com]

Sent: Wednesday, June 17, 2015 5:05 PM

To: Susan Beckel

Subject: RE: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Thanks Susan, this is great!

I see this list only has designated properties under Part IV of the Ontario Heritage Act. Would you happen to know if there are any listed properties, or properties in a Heritage Conservation district (Part V) in the Town of Greater Napanee?

I just want to make sure that I am covering all my bases.

Thanks again!

-James

From: Susan Beckel [mailto:Sbeckel@greaternapanee.com]

Sent: Wednesday, June 17, 2015 2:23 PM

To: Sebele, James

Subject: RE: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Hi James,

Attached is the list of designated properties for the Town.

Take care,

Susan

--

Susan Beckel Clerk

Town of Greater Napanee Tel: 613-354-3351 ext. 2014 This e-mail contains CONFIDENTIAL INFORMATION. If you are not the intended recipient of this e-mail do not disseminate, copy or use this e-mail.

If you have received this e-mail in error, please notify the sender immediately and delete the e-mail from your system. Thank you.

From: Sebele, James [mailto:James.Sebele@stantec.com]

Sent: Friday, June 12, 2015 2:28 PM

To: Susan Beckel

Subject: RE: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Thanks for your reply Susan,

I understand that this is short notice and I do apologize. Is there a way I can assist in the review? Would it be possible to send me a list of designated and listed properties to me, and I could cross reference them with the study area?

Thanks, and I again I do apologize for being urgent.

-James

From: Susan Beckel [mailto:Sbeckel@greaternapanee.com]

Sent: Friday, June 12, 2015 2:17 PM

To: Sebele, James

Subject: RE: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Hi James,

I'm just back in the office yesterday after being away the first of the week so I won't be able to get back to you with this information until probably the middle to end of next week.

Susan

--

Susan Beckel Clerk Town of Greater Napanee Tel: 613-354-3351 ext. 2014

This e-mail contains CONFIDENTIAL INFORMATION. If you are not the intended recipient of this e-mail do not disseminate, copy or use

If you have received this e-mail in error, please notify the sender immediately and delete the e-mail from your system. Thank you.

From: Sebele, James [mailto:James.Sebele@stantec.com]

Sent: Thursday, June 11, 2015 12:42 PM

To: Susan Beckel

Subject: RE: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Thanks Susan for getting back to me.

Ideally, I'd like to get the information at your earliest convenience.

Thanks,
-James

From: Susan Beckel [mailto:Sbeckel@greaternapanee.com]

Sent: Thursday, June 11, 2015 11:24 AM

To: Sebele, James

Subject: RE: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Hi James,

I've received your email. What is your time frame for needing a response?

Susan

--

Susan Beckel Clerk Town of Greater Napanee Tel: 613-354-3351 ext. 2014

This e-mail contains CONFIDENTIAL INFORMATION. If you are not the intended recipient of this e-mail do not disseminate, copy or use

If you have received this e-mail in error, please notify the sender immediately and delete the e-mail from your system. Thank you.

From: Sebele, James [mailto:James.Sebele@stantec.com]

Sent: Wednesday, June 10, 2015 2:04 PM

To: sbeckel@greaternapanee.com

Cc: Rivard, Meaghan

Subject: Information Request - Town of Greater Napanee - Napanee Solar Project (160950781)

Hello Susan,

I am contacting you today regarding heritage resources in the Town of Greater Napanee, Ontario.

Stantec Consulting Ltd. (Stantec) was retained by EDF EN Canada Development Inc. to complete a Cultural Heritage Overview of the proposed installation of a solar project in the Town of Greater Napanee, Lennox and Addington County, Ontario. This Overview will be completed in order to satisfy the requirements of the LRP | RFP Infosheet: Known Archaeological Resources and Recognized Heritage Resources checklist for identifying recognized heritage resources for new solar projects.

The proposed solar project is roughly bounded by Palace Road to the north, Hamburgh Road/County Road 8 to the east, Country Road 9 to the south and Township Road 9 to the west.

The project spans across the following Lots and Concessions of the former township of Fredericksburgh, now the of Town of Greater Napanee, Lennox and Addington County, Ontario:

- Lots 11-16 of Concession 7 S
- Lots 12-14 of Concession 4 S

As part of the cultural heritage component, I am interested in protected or listed heritage resources (properties, landscapes, or districts) within or adjacent to the proposed project.

Are you aware of any municipal heritage interests within or adjacent to this area?

For the ease of review, mapping has been prepared depicting the proposed project location (see attached). These maps appear in draft form and may contain confidential information not yet released to the public. We ask that you maintain confidentiality while responding to this

inquiry.

Please let me know if I can provide any additional information or assist in the identification of resources in any way.

Thank you in advance for the time.

Thanks,

-James

James Sebele, B.A.

Cultural Heritage Specialist Assistant Stantec 49 Frederick Street Kitchener ON N2H 6M7 Phone: (519) 575-4224 Cell: (519) 532-8540

James.Sebele@stantec.com

The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

Please consider the environment before printing this email.

#	Known As	Address	Roll No.	Former Municipality	Legal Description	Name of Owner	Address of Owner	Designating By-law	Date	Statement of Heritage Value Historical Information	Comments	Registered in LRO as
1	Former Post Office	36 Bridge St. E. 139 John St.??	1121-040-010-07000	Napanee	Paln 82 Lot 5 W of John B48	Hubert & Kathleen Hogle	245 John St. Napanee, ON.1R8	1975-94		Building of Historical significance Built 1888 (actual) Thomas Fuller, architect	Ontario Heritage Act designation - Part IV Ontario Heritage Foundation easement	#LA194152
2	Town Hall	124 John St.	1121-040-010-05200	Napanee	Plan 82 Lot 2 to 3PT E/S Centre Lot 2 To 3PT W/S John; B58	Greater Napanee	124 John St. Napanee, ON. K7R 3L4	1975-94	1-Dec-75	Building of Historical significance Built 1856 (actual)	Ontario Heritage Act designation - Part IV National Historic Site	
3	Court House & County Bldgs.	87 Thomas St. E. 89 Thomas St. E. 95 Thomas St. E. 97 Thomas St. E.	1121-050-010-11700	Napanee	Conc 2 Pt Lot 23 N of Thomas; RP29R2942 Part 2 Part 5; RP29R6379 Pt	County of Lennox & Addington	97 Thomas St. E. Postal Bag 1000 Napanee, ON. K7R 3S9	1975-94 1992-986	1-Dec-75 4-Aug-92	Buildings of Historical significance	Ontario Heritage Act designation - Part IV See additional by-law too	#LA194152
4	Allan MacPherson House	e 180 Elizabeth St.	1121-050-020-05600	Napanee	Lot 2 Plan 40, east side of Camden Road and Plan 43 Part of Lot 7; S/S First Street (now Elizabeth Street)	L & A Historical Society	c/o MacPherson House Committee 180 Elizabeth St. Napanee, ON.	1977-169	1-May-77	Building of Historical significance Built 1828 (estimated)	Ontario Heritage Act designation - Part IV Ontario Heritage Foundation easement provincial plaque	
5	Old Hay Bay Church	2365 South Shore Road	1121-160-030-27600	Adolphustown	Con 3 Pt Lot 18 & 19 Hay Bay; Church	United Church of Canada	2371 South Shore Rd	1979-773	2-Oct-79	Architectural & Historical significance Built 1792 (actual) Oldest United Church in existence today. Built by United Emire Loyalist settlers of British, German, French, Dutch and Western European extraction in 1792 under the direction of Rev. William Losee, it has been preserved by a miracle and stands today as a witness to the devout labours of our fathers and a symbol of their faith and ours. Hay Bay Church is recommended for these historical reasons since the pioneers of Hay Bay were the makers of Canada. Architecturally, the Hay Bay Church is an example of rural public design.	Ontario Heritage Act designation - Part IV provincial plaque National Historic Site	
6	The Crowle Barn	9190 Hwy #33	1121-180-010-02401	South Fredericksburgh	TIAGOIDNIIS REACHI	Veronica Murphy	9190 Hwy 33	1983-30	3-Oct-83	Building of Agricultural & Historical significance	Ontario Heritage Act designation - Part IV	#LA130246
7	Former Public Utilities	116-118 John St.	1121-040-010-05500	Napanee	Plan 82 Lot 1 W of Centre RP29R5105 Part 1 B58; B58	Hogle Developments	245 John St.	1984-517	9-Jan-84	Building of Historical significance	Ontario Heritage Act designation - Part IV	
8	New York Café	52 Dundas St. E	1121-040-010-11200	Napanee	Plan 82 Lot 2 S of Dundas; B36	Dick Hum	52 Dundas St. E. Napane, ON.	1984-517, 2015-0018	9-Jan-84	Building of Historical signficance Former Oddfellows Hall	Ontario Heritage Act designation - Part IV	LX60798
9	Richeilieu Hotel	42 Dundas St. E.	1121-040-010-10800	Napanee	Plan 82 Lot 4 S of Dundas; B36 to 4PT N/S Mill	6848958 Canada Inc.	Mr. Cristano Vilela 967 Woodbine Rd. Kingston, ON. K7P 2X5	1984-517	9-Jan-84	Building of Historical significance	Ontario Heritage Act designation - Part IV	
10	Stone Dwelling & Attached Factory (Madden Tannery Property)	22 Mill St E. 14 Mill St. ??	1121-040-010-17700	Napanee	Plan 82 Lots 7,8 RP29R2878 Part 6 & 7	George & Ann Normile	22 Mill St. E.	1985-586	17-Jun-85	Building of Historical significanceThe stone dwelling and attached factory were built between 1850 and 1875. This stone, a common fabric and it conveys a style and ornamental detail representing preferences in the second half of the nineteenth century.	Ontario Heritage Act designation - Part IV	

#	Known As	Address	Roll No.	Former Municipality	Legal Description	Name of Owner	Address of Owner	Designating By-law	Date	Statement of Heritage Value Historical Information	Comments	Registered in LRO as
11	Stevenson House	138 Robinson St.	1121-020-010-14800	Napanee	Conc 1 Pt Lot 21, Unnumbered Lot RP29R7154; Part 1	John & Margaret Hall	138 Robinson St. Napanee, ON. K7R 2S2	1986-627	20-Jan-86	Building of Historical significance Built by the Honourable John Stevenson, first Warden of the County and first speaker of the House for the Province. Features Georgian Architectural style, elaborate cornice on the roof punctuated with panel moulds and decorated with prominent brackets.	Ontario Heritage Act designation - Part IV	#LA147916
12	Masonic Temple	83 Bridge St. W.	1121-020-010-11800	Napanee	Plan 82 Lot 24 Lot 23 PT Lot; 22	Napanee Masonic Temple Corp.	83 Bridge St. W.	1986-640, 2015-0019	5-May-86	Building of Historical significance originally constructed in 1865	Ontario Heritage Act designation - Part IV	LX60614
13	John Gibbard's House	170 Centre St. N.	1121-030-010-01300	Napanee	Plan 82, Lot 10 S PtW of Centre E Pt Lot 10 E/S; Robert St, RP29R2608	Chelsea Doreen & Donald Consack	170 Centre St. N. Napanee, ON. K7R 1N6	1988-770	2-Aug-88	Building of Historical significance Purchased by John Gibbard in 1849; built house in 1850s	Ontario Heritage Act designation - Part IV	
14	Edmond Hooper House	232 Dundas St. W.	1121-010-020-05900	Napanee	Plan 82 Lots 8 & 9 RP29R6830 Part 1	Ken & Kim Morrison	232 Dundas St. W. Napanee, ON. K7R 2A8	1990-873	19-Mar-90	Building of Historical significance Willed to the Allan MacPherson family as part of a 200 acre parcel by an employee Frederick Hessford, this building is a large red brick house with several wings and is situated on one of the few remaining large lots in Napanee. Augustus Hooper, a mill owner at Camden East and a Member of Parliament, bought the house for his sone Edmund Hooper, first representative of Addington in the Ontario Legislative Assembly. Built in Gothic Revival style, the high arched windows, reminiscent of Gothic cathedral windows, are distinguished by segmental brick voussoirs and stone sills. Fretwork trim ornaments the house, particularly at gable bargeboards.	Ontario Heritage Act designation - Part IV	
15	Thomas Casey House	220 Dundas St. W.	1121-010-020-05800	Napanee	Plan 82 Lot 6 Pt Lot 7 S of; Dundas B RP29R3084 Part 2	Alan & Judy Huyck	220 Dundas St. W. Napanee, ON. K7R 2A8	1990-872	19-Mar-90	Building of Historical significance Willed to the Allan MacPherson family as part of a 200 acre parcel by an employee Frederick Hessford, this building was once owned by Thomas Casey, proprietor of the Post Express, and also the home of W.S. Herrington, lawyer, and author of the History of Lennox and Addington County. The red brick Italianate villa style has a two storey square tower favoured in the Italianate vogue. A two and a half storey rectangular section extends to the west. Arched windows are ornamented by brick voussoirs. Generous verandahs and a closed- in porch at the main entrance suggest a late Victorian date.	Ontario Heritage Act designation - Part IV	

#	Known As	Address	Roll No.	Former Municipality	Legal Description	Name of Owner	Address of Owner	Designating By-law	Date	Statement of Heritage Value Historical Information	Comments	Registered in LRO as
16	Law Office of Herrington, Warner & Grange	138 John St.	1121-040-010-04100	Napanee	LD PT CW of John B58	John Grange	138 John St. P O Box 26 Napanee, ON. K7R 3L4	1996-1113	25-Mar-96	Building of Historical significance Was constructed around 1896; is representative of office buildings built in this era; has decorative brickwork around the roofline, corners and windows; has transom sash windows with voussoir arches and stone lugsills facing John and Bridge Street; has a two panel door framed in wood and set in an arched umbrage and wood porch facing John Street	Ontario Heritage Act designation - Part IV	
	Martin & Empey Hill Cemetery	Beechwood Rd.	1121-070-040-22199	Richmond	Part Lot 5, Conc 4, Parts 3 & 5 on 29R7197	Town of Greater Napanee	124 John St. Napanee, ON. K7R 3L4	2001-56	24-Sep-01	Property of historic value or interest	Ontario Heritage Act designation - Part IV	
18	Adolphustown Hall	10469 Loyalist Pkwy	1121-140-010-06100	Adolphustown	Reg. Plan 60, Lot 9, Being Part 1 on Plan 29R-7723			2015-0017			Ontario Heritage Act Designation - Part IV	LX60613
19	Springside Park	14 Kingston Road	1121-050-010-00100	Napanee	Part of Lot 22, Block B. Reg. Plan 337, S/S Dundas	Town of Greater Napanee	124 John St. Napanee, ON K7R 3L4	2014-0039	24-Jun-14	Springside Park has significant cultural heritage value for the citizens of the town. It was	Ontario Heritage Act Designation - Part IV	
										on this site in 1786 that an early mill site, known subsequently as the "Napanee Mills"		
										was established. The settlement of Clarkville grew around the mills and represents the		
										founding of the community as we know it today.		
										In 1784, the Loyalists arrived at Adolphustown along the Lake Ontario waterfront in the		
										southern part of the Town of Greater Napanee. A suitable mill site to support the new		
										community was established at the 20 foot drop of the "Appanea Falls" and served the needs of the settlers of the region. Once		
										completed by millwright Robert Clark, it		
										became the only mill situated between Niagara and Kingston. In subsequent years the		
										site has been linked to early Napanee citizens Richard Cartwright, Archibald McNeil,		
										William Grange and Allan Macpherson. A well-documented visit to the site by		
										Lieutenant Governor John Graves Simcoe and his wife Elizabeth occurred in 1795.		
										By 1911, the original mills and several other industrial buildings were demolished to		

# K	(nown As	Address	Roll No.	Former Municipality	Legal Description	Name of Owner	Address of Owner	Designating By-law	Date	Statement of Heritage Value Historical Information	Comments	Registered in LRO as
										begin the process of redevelopment of the		
										property as a municipal park and it continues		
										today as a popular recreation destination for		
										both citizens and tourists.		





