

Ministry of Tourism, Culture and Sports
Confirmation Letter
July 20, 2012

Ministry of Tourism,
Culture and Sport

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July 20, 2012

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RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 Archaeological Assessment, Cedar Point Wind Farm, Various Lots and Concessions, Municipality of Lambton Shores, Town of Plympton-Wyoming, and Township of Warwick, Lambton County, Ontario" Dated 22 June 2012, Received by MTC Toronto Office on 6 July 2012, MTCS Project Information Form Numbers P084-196-2010 and P218-210-2012, MTCS RIMS Number HD00761

Dear Sirs:

This office has reviewed the above-mentioned report, which has been submitted to this Ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18. This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 Standards and Guidelines for Consultant Archaeologists set by the Ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area depicted in Figure 12, and recommends the following:

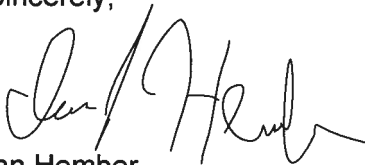
Archaeological potential for Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. For pre-contact Aboriginal sites this assessment is based on the presence of nearby potable water sources, level topography, agriculturally suitable soils, and known archaeological sites. For post-contact Aboriginal sites this assessment is based on the presence of nearby potable water sources, level

topography, and historic Euro-Canadian anecdotal evidence. The determination of historic Euro-Canadian archaeological potential is based on the documentation indicating occupation from the middle of the 19th century onwards as well as the presence of historic transportation routes. As a result, Stage 2 archaeological assessment is recommended for potential wind turbine sites and their associated infrastructure. The Stage 2 archaeological assessment should employ both pedestrian survey of agricultural fields and test pit survey methodology for bush lots and existing road ditch margins, as outlined in Sections 2.1.1, 2.1.2 and 2.1.3 of the Ministry of Tourism, Culture and Sport's Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011a). Prior to conducting the pedestrian survey portion of the field work, the area should be reploughed and allowed to weather. The test pit survey should consist of 30 centimetre test pits laid out at five metre intervals and should be excavated by hand to a depth of five centimetres within the subsoil.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment is consistent with the ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences. This report will be entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,



Ian Hember
Archaeology Review Officer

cc. Archaeology Licensing Officer

* In no way will the Ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Stage 1 Archaeological Assessment



22 June 2012

STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Cedar Point Wind Farm Various Lots and Concessions Municipality of Lambton Shores Town of Plympton-Wyoming and Township of Warwick Lambton County, Ontario

ORIGINAL REPORT

Submitted to:

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Licence Numbers: P084 and P218

PIF Numbers: P084-196-2010 and P218-210-2012

FIT Number: F-002175-WIN-130-601

Report Number: 11-1136-0074-1000-R01

Distribution:

2 Copies - Suncor Energy Services Inc.

1 Copy and 1 CD - Ministry of Tourism, Culture & Sport

2 Copies - Golder Associates Ltd.





Executive Summary

A Stage 1 archaeological background study was conducted by Golder for the proposed Cedar Point Wind Farm on behalf of Suncor Energy Services Inc. The study area is approximately 24,212 hectares in size and located in the Municipality of Lambton Shores, the Town of Plympton-Wyoming and the Township of Warwick, Lambton County, Ontario. This study area includes an approximately 1248 hectare portion of the original study area, which no longer falls within the study area layout. This assessment was undertaken in order to meet the requirements for an application for a Renewable Energy Approval, as outlined in Ontario Regulation 359/09 section 22(3) of the *Environmental Protection Act*.

The Stage 1 archaeological assessment of an earlier version of the study area commenced in 2010. No Stage 1 archaeological assessment was conducted during 2011. Due to changes in the overall size of the study area, further Stage 1 archaeological assessment was continued in 2012.

The objective of the Stage 1 archaeological assessment was to compile all available information about the known and potential cultural heritage resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources, consistent with Ministry of Tourism, Culture and Sport guidelines (Government of Ontario 2011a).

Golder applied archaeological potential criteria commonly used by the Ontario Ministry of Tourism, Culture and Sport to determine areas of archaeological potential within the study area. The archaeological potential for Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. For pre-contact Aboriginal sites this assessment is based on the presence of nearby potable water sources, level topography, agriculturally suitable soils and known archaeological sites. For post-contact Aboriginal sites this assessment is based on the presence of nearby potable water sources, level topography, and historic Euro-Canadian anecdotal evidence. The determination of historic Euro-Canadian archaeological potential is based on the documentation indicating occupation from the middle of the 19th century onwards as well as the presence of historic transportation routes.

The field review determined that the study area consists of a rural landscape, largely in agricultural use. It confirmed that the area was well drained by numerous tributaries and that there is minimal previous disturbance on the landscape. As such, the field review supports the findings of the background research that the study area properties contain moderate to high archaeological potential.

As a result, **Stage 2 archaeological assessment is recommended** for any areas to be impacted by turbine construction, access road construction, or other infrastructure construction related activities. Stage 2 archaeological assessment will take the form of both pedestrian survey and test pit survey.



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

The Ontario Ministry of Tourism, Culture and Sport is asked to review the results presented and to accept this report into the Ontario Public Register of Archaeological Reports. **Additional archaeological assessment is still required**; hence the archaeological sites recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.



Table of Contents

1.0 PROJECT CONTEXT	1
1.1 Development Context	1
2.0 ARCHAEOLOGICAL CONTEXT	3
2.1 The Natural Environment.....	3
2.2 Existing Conditions	4
2.3 Previously Known Archaeological Resources and Surveys.....	4
2.3.1 Pre-contact Aboriginal Archaeological Resources and Surveys	6
2.3.2 Post-contact Aboriginal Archaeological Resources and Surveys.....	8
2.3.3 Historic Euro-Canadian Archaeological Resources and Surveys.....	8
2.3.4 Reports Documenting Archaeological Assessment within 50 metres of the Study Area.....	9
3.0 HISTORICAL CONTEXT	10
3.1 Post-contact Aboriginal Documentation.....	10
3.2 Historic Euro-Canadian Documentation.....	11
3.2.1 Bosanquet Township.....	11
3.2.1.1 Organized Communities and Historic Structures	13
3.2.2 Plympton Township.....	16
3.2.2.1 Organized Communities and Historic Structures	18
3.2.3 Warwick Township	21
3.2.3.1 Organized Communities and Historic Structures	22
4.0 FIELD METHODS.....	24
5.0 ANALYSIS AND CONCLUSIONS.....	25
5.1 Determination of Archaeological Potential	25
5.1.1 Archaeological Integrity.....	26
5.1.2 Potential for Pre-contact Aboriginal Archaeological Sites	27
5.1.3 Potential for Post-contact Aboriginal Archaeological Sites.....	27
5.1.4 Potential for Historic Euro-Canadian Archaeological Sites.....	27
5.1.5 Summary.....	28
6.0 RECOMMENDATIONS.....	29



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

7.0 ADVICE ON COMPLIANCE WITH LEGISLATION 30

8.0 BIBLIOGRAPHY AND SOURCES 31

9.0 IMAGES 39

10.0 MAPS..... 55

11.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT 68

TABLES

Table 1: Properties within the Cedar Point Wind Farm Study Area, Lambton County..... 1

Table 2: Cultural Chronology of Lambton County 5

Table 3: Registered Pre-contact Archaeological Sites Located within the Study Area 7

Table 4: Registered Historic Euro-Canadian Sites Located within the Study Area..... 8

Table 5: Historic Properties with Potentially Significant Structures According to the Map of Bosanquet Township in the 1880 Lambton Supplement to the *Illustrated Atlas of the Dominion of Canada* 12

Table 6: Historic Properties with Potentially Significant Structures According to the Map of Plympton Township in the 1880 Lambton Supplement to the *Illustrated Atlas of the Dominion of Canada* 18

Table 7: Historic Properties with Potentially Significant Structures According to the Map of Warwick Township in the 1880 Lambton Supplement to the *Illustrated Atlas of the Dominion of Canada* 22

PLATES

Plate 1: Location of the Grand Trunk Railway Line that Appears on the 1880 Map of Bosanquet Township, Lot 16, Concession 6, Northville Road, North of Ridge Line, Facing Southwest 39

Plate 2: Streetscape of Kettle Point, West Ipperwash Road, Facing Southwest 39

Plate 3: Streetscape of Stony Point, Lakeshore Road at Army Camp Road, Facing Northwest 40

Plate 4: Location of the Buildings that Appear on the 1880 Map of Bosanquet Township, Lot 61, Lake Road East Concession, From Lakeshore Road, Facing Southeast 40

Plate 5: Original Site of Forest Railway Station, From Washington Street North at King Street West, Facing Southwest 41

Plate 6: Location of the Church that Appears on the 1880 Map of Bosanquet Township, Lot 7, Concession 4, From Jericho Line at Jura Line, Facing Northeast 41

Plate 7: Potential Location of Habitation, Not Identified on 1880 Map of Bosanquet Township, Lot 3, Concession 7, Jura, From Jericho Line, Facing East..... 42

Plate 8: Location of the School House that Appears on the 1880 Map of Bosanquet Township, Lot 6, Concession 5, From Northville Road, Facing Northeast 42

Plate 9: Location of Church, No Longer Standing, Located on Lot 12, Concession 12, Bosanquet Township, in Kinnaird, Facing Southwest..... 43

Plate 10: Former School House Located on Lot 12, Concession 12, Bosanquet Township, in Kinnaird, Facing Southwest 43



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 11: Location of Former Saw Mill, Located on Lot 13, Concession 8, Bosanquet Township, East of Kinnaird, Facing Southwest..... 44

Plate 12: Potential Location of Habitation, Not Identified on 1880 Map of Bosanquet Township, Lot 14, Concession 8, Proof Line, Facing Northwest..... 44

Plate 13: Location of the Cheese Factory that Appears on the 1880 Map of Bosanquet Township, Lot 14, Concession 6, Northville Road, North of Ridge Line, Facing West 45

Plate 14: Approximate Location of the School House that Appears on the 1880 Map of Plympton Township, Lot 16, Concession 12, Facing Southeast..... 45

Plate 15: Plympton Township Hall, 1868, in its Current Condition, Facing North 46

Plate 16: Approximate Location of the Blacksmith’s Shop that Appears on the 1880 Map of Plympton Township, Lot 19, Concession 10, Aberarder, Facing Southeast..... 46

Plate 17: Approximate Location of the Aberarder School House, Lot 18, Concession 11, Aberarder, Facing North..... 47

Plate 18: Former Railway Bed for the Grand Trunk Railway at Aberarder, Facing Northeast 47

Plate 19: McKay Cemetery, Former Site of North Plympton United Church, Lot 19, Concession 13, Facing Northeast 48

Plate 20: 1898 School House, Now a Home, Lot 15, Concession 7, Matlock, Facing North 48

Plate 21: Location of Zion Methodist Episcopal Church, Elarton Road at Hickory Creek Line, Facing Northwest 49

Plate 22: Flat Topography of the Study Area, From Hillsboro Road, South of Aberarder Road, Facing Southwest..... 49

Plate 23: Flat Topography of the Study Area and Bushlot, From Hickory Creek Line, West of Nauvoo Road, South of Townsend Line, Facing Northwest 50

Plate 24: Sloping Topography of the Study Area, From Oil Heritage Road, Facing Northeast..... 50

Plate 25: Example of Bushlot, From Camlachie Road, Facing Southwest 51

Plate 26: The Aberarder Creek, Along Oil Heritage Road, From Douglas Line Bridge, Facing South 51

Plate 27: Hickory Creek, Hickory Creek Line, East of Forest Road, Facing Southeast 52

Plate 28: Drain, Hickory Creek Line, East of First School Road, Facing North 52

Plate 29: Orchard, Proof Line, East of Army Camp Road, Lot 13, Concession 9, From Proof Line, Facing Southwest..... 53

Plate 30: Area of Disturbance, Gravel Extraction, Army Camp Road North of Proof Line, Facing West 53

Plate 31: Earth Bank Approach to Highway 402 Overpass, From Camlachie Road, Facing South 54

Plate 32: Area of Disturbance, Hydro Cut, Gordon Road South of Jura Line, Facing Northwest 54

FIGURES

Figure 1: Location of Study Area 56

Figure 2: Study Area on a Portion of the Soils of Lambton County Map 57

Figure 3: Treaty Boundaries Based on Morris 1943..... 58

Figure 4: Map Showing Peter Carroll’s Original 1831 Egremont Road Survey Through Warwick and Plympton Townships 59

Figure 5: Study Area on a Portion of the 1835 Map of Bosanquet Township 60



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Figure 6: Study Area on a Portion of the 1880 Map of Bosanquet Township	61
Figure 7: Study Area on a Portion of the 1829 Map of Plympton Township	62
Figure 8: Study Area on a Portion of the 1880 Map of Plympton Township	63
Figure 9: Study Area on a Portion of the 1832 Map of Warwick Township.....	64
Figure 10: Study Area on a Portion of the 1880 Map of Warwick Township.....	65
Figure 11: Plate Numbers and Photo Directions	66
Figure 12: Archaeological Potential of Study Area	67



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Acknowledgments

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Ministry of Tourism, Culture & Sport	Robert von Bitter, B.A., Shari Prowse, M.A.



1.0 PROJECT CONTEXT

1.1 Development Context

A Stage 1 archaeological background study was conducted by Golder for the proposed Cedar Point Wind Farm on behalf of Suncor Energy Services Inc. The study area is approximately 24,212 hectares in size and located in the Municipality of Lambton Shores, the Town of Plympton-Wyoming and the Township of Warwick, Lambton County, Ontario (Figure 1). This study area includes an approximately 1248 hectare portion of the original study area, which no longer falls within the study area layout. This assessment was undertaken in order to meet the requirements for an application for a Renewable Energy Approval, as outlined in Ontario Regulation 359/09 section 22(3) of the *Environmental Protection Act*. Table 1 lists the relevant lots located within the study area.

Table 1: Properties within the Cedar Point Wind Farm Study Area, Lambton County

Geographic Township	Concession(s)	Lot(s)	
Municipality of Lambton Shores	Southern Boundary Con	11 to 35 and 41 to 47	
	4	1 to 7	
	5	1 to 8	
	6	2 to 21	
	7	2 to 21	
	8	3 to 21	
	9	3 to 21	
	10	4 to 21	
	11	4 to 21	
	12	5 to 21	
	13	5 to 20	
	14	7 to 19	
	15	7 to 17	
	16	7 to 12	
	17	7 and 8	
		East of Lake Road Con	55 to 82
	Town of Plympton-Wyoming	6, 7 and 8	4 to 18
9 to 12		13 to 28	
13 and 14		14 to 28	
15		19 to 27	
Fuhl Con		25 to 43	
Township of Warwick	7 and 8	5 to 7	



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

The *Green Energy Act* (2009) enabled legislation governing project assessments and approvals to be altered to allow for a more streamlined Renewable Energy Approval (REA) process. Under Section 22(1) of the REA, an archaeological assessment must be conducted if the proponent concludes that engaging in the project may have an impact on archaeological resources. Currently, Ontario Regulation 359/09 of the Environmental Protection Act governs the REA process for renewable energy projects such as wind, anaerobic digestions, solar and thermal treatment facilities. This assessment was undertaken in order to meet the requirements for an application for a REA, as outlined in Ontario Regulation 359/09 section 22(3) of the *Environmental Protection Act*.

The Stage 1 archaeological assessment of an earlier layout was begun in 2010. No Stage 1 archaeological assessment was conducted during 2011. Due to changes in the layout of the study area, further Stage 1 archaeological assessment was continued in 2012.

The objective of the Stage 1 archaeological assessment was to compile all available information about the known and potential archaeological resources within the subject properties of the study area and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the provincial standards and guidelines set out in the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011a), the objectives of the Stage 1 archaeological background study are as follows:

- To provide information about the study area's geography, history, previous archaeological fieldwork and current land conditions;
- To evaluate in detail the study area's archaeological potential, which will support recommendations for Stage 2 survey for all or parts of the properties under review; and
- To recommend appropriate strategies for further archaeological assessment.

To meet these objectives Golder archaeologists employed the following research strategies:

- A review of relevant archaeological, historic and environmental literature pertaining to the study area;
- A review of the land use history, including pertinent historic maps;
- An examination of the Ontario Archaeological Sites Database (ASDB) to determine the presence of known archaeological sites in and around the study area; and
- A property inspection.

In addition to the property inspections of the study area and consultation of McGill's Canadian County Digital Atlas Project and records kept by the Ontario Ministry of Tourism, Culture and Sport, background research was conducted at the University of Western Ontario Map Library and in Golder's corporate library.

The property inspections for the Stage 1 archaeological assessment was conducted on April 9, 2010 and August 12, 2010 under archaeological consulting licence P084, issued to Adam Hossack, B.A., by the Ontario Ministry of Tourism, Culture and Sport and on April 20, 2012 under archaeological consulting licence P218, issued to Scott Martin, Ph.D., by the Ontario Ministry of Tourism, Culture and Sport. Permission to enter the study area for the inspections was given by Mr. Neil Morehouse and Mr. Christopher Scott, P.Eng. of Suncor Energy Services Inc.



2.0 ARCHAEOLOGICAL CONTEXT

2.1 The Natural Environment

The study area is situated within three physiographic regions: the Huron Fringe, the St. Clair Clay Plains and the Horseshoe Moraines (Chapman and Putnam 1984a:113). The former two of these regions mainly comprise a portion of a broader Bevelled Till Plain, while the latter mainly comprises the southern reaches of an extensive Till Moraine (Chapman and Putnam 1984b). These three physiographic regions are described below.

The Huron Fringe physiographic region:

....comprises the wave-cut terraces of glacial Lake Algonkian and Lake Nipissing with their boulders, gravel bars and sand dunes....Across the mouth of the Saugeen Valley, Lake Algonkian built a massive beach of sand and gravel. Behind it was a lagoon in which fine sand and silt were deposited to a considerable depth. Delta Sands were spread outside the beach, also, ending at a distinct bluff about half a mile from the present shore. The terrace below the bluff is ribbed with gravel bars built by Lake Nipissing and, as is the case along so much of the shoreline, the waves have washed most of the overburden off the bedrock on the lower or Nipissing terrace....

(Chapman and Putnam 1984a:161)

The St. Clair Plains physiographic region:

...is one of little relief, lying between 575 and 700 feet a.s.l., except for the moraine at Ridgetown and Blenheim which rises 50 to 500 feet higher....Glacial Lake Whittlesey, which deeply covered all of these lands, and Lake Warren which subsequently covered nearly the whole area, failed to leave deep stratified beds of sediment on the underlying clay till except around Chatham, between Blenheim and the Rondeau marshes, and in a few other smaller areas. Most of Lambton and Essex Counties, therefore, are essentially till plains smoothed by shallow deposits of lacustrine clay which settled in the depressions while the knolls were being lowered by wave action.

(Chapman & Putnam 1984a:147)

The Horseshoe Moraines physiographic region:

From the edge of the escarpment in the Town of Caledon the moraines trend somewhat west of the Niagara Escarpment forming a belt of moderately hilly relief....Associated with the moraines is a system of old spillways with broad gravel terraces and swampy floors.....Good cross-sections of this landscape may be seen along Highway 7 from Rockwood to Georgetown.

(Chapman & Putnam 1984a:128)



Natural drainage in the study area is generally considered imperfect to poor (Matthews and Richards 1957:17:Fig. 2). The study area has two major soil series present: the Perth series (Perth clay) and the Brookston series (Brookston clay) (Figure 2). The Perth soils are well suited to growing the types of crops grown in Lambton County with the exception of fruit trees and early vegetable crops (Matthews and Richards 1957:45). Perth clay is described as imperfectly drained and tends to yield fair productions even during dry seasons due to the soils reserve supply of moisture. Drainage practices are usually undertaken by farmers with this soil type in order to have greater yields of fall crops (Matthews and Richards 1957:45). Brookston clay is the most widespread soil type in Lambton County. This soil type is poorly drained and therefore systematic tile systems and other drainage improvements are required in order for the land to produce good yields (Matthews and Richards 1957:47). Four other minor concentrations of identifiable soil series include the imperfectly drained Berrien sandy loam, the sand, silt or clay Bottom Land, and the well drained Fox sandy loam and Burford loam.

The area's topography is nearly level with only some areas of gentle sloping topography which can contribute to the soils' drainage characteristics as noted above. Most of the soil classes mentioned here would have been suitable for pre-contact Aboriginal agriculture although they would not be the highest-yielding soil types due to the seasonal drainage issues.

Numerous small creeks transect the study area at various locations. For the present project, there are numerous streams within the study area, such as: Bear Creek, Hickory Creek, Bonnie Doon Creek, Aberarder Creek, Highland Creek, Shashawandah Creek and Mud Creek. All of these drain into Lake Huron in the Municipality of Lambton Shores just outside the study area to the west and northwest or in the Town of Plympton-Wyoming just outside the study area to the west. Lake Huron lies approximately one kilometre from the western boundary of the west-central portion of the study area.

2.2 Existing Conditions

The study area consists of ploughed agricultural fields and bush lots among rural communities and small towns. The proposed transmission line routes of the study area consist of municipal rights-of-way comprising roadside ditches and banks.

2.3 Previously Known Archaeological Resources and Surveys

In order that an inventory of archaeological resources could be compiled, the registered archaeological site records kept by the Ontario Ministry of Tourism, Culture and Sport were consulted. In Ontario, information concerning archaeological sites is stored in the ASDB maintained by the Ministry of Tourism, Culture and Sport. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude.



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

A Borden Block is approximately 13 kilometres east to west and approximately 18.5 kilometres north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The subject properties of the study area under review fall within Borden Blocks AhHI, AgHm, AgHI and AfHm and AgHn.

A search in the ASDB concluded that there are 25 registered archaeological sites within and within one kilometre of the boundaries of the study area (ASDB, Government of Ontario n.d.; Robert von Bitter, personal communication, March 26, 2012 and April 23, 2012). These are presented by time period/cultural affiliation below.

Information concerning specific site locations is protected by provincial policy, and is not fully subject to the Freedom of Information Act. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The Ministry of Tourism, Culture and Sport will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

Table 2 summarises the culture history of Lambton County, based on chapters in Ellis and Ferris (editors) (1990).

Table 2: Cultural Chronology of Lambton County

Period	Characteristics	Time	Comments
Early Paleo-Indian	Fluted Projectiles	9000 – 8400 B.C.	spruce parkland/caribou hunters
Late Paleo-Indian	Hi-Lo Projectiles	8400 – 8000 B.C.	smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8000 – 6000 B.C.	slow population growth
Middle Archaic	Brewerton-like points	6000 – 2500 B.C.	environment similar to present
Late Archaic	Lamoka (Narrow Points)	2500 - 1800 B.C.	increasing site size
	Broad Points	1800 - 1500 B.C.	large chipped lithic tools
	Small Points	1500 - 1100 B.C.	introduction of bow hunting
Terminal Archaic	Hind Points	1100 - 950 B.C.	emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 B.C.	introduction of pottery
Middle Woodland	Couture Corded Pottery	400 B.C. - A.D. 600	increased sedentism
	Riviere au Vase Corded Pottery	A.D. 600 - 1000	seasonal hunting and gathering
Late Woodland	Younge Phase Pottery	A.D. 1000 - 1200	incipient agriculture
	Springwells Phase Pottery	A.D. 1200 - 1400	agricultural villages
	Wolf Phase Pottery	A.D. 1400 - 1550	earthworked villages, warfare
Post-contact Aboriginal	Various Ojibwa Groups	A.D. 1550 - present	early written records and treaties
Historic	French/Euro-Canadian	A.D. 1749 - present	European settlement



2.3.1 Pre-contact Aboriginal Archaeological Resources and Surveys

In terms of raw lithic resources, glacial till chert can be found in the moraines of the area (Chapman and Putnam 1984a:Figure16) and relatively high quality Kettle Point chert occurs to the west between Kettle Point and Stony Point on Lake Huron. Currently, Kettle Point occurs as submerged outcrops extending for approximately 1350 metres into Lake Huron. Secondary deposits of Kettle Point chert have been reported in Essex County and in the Ausable Basin (Eley and von Bitter 1989; Fox 2009:362).

A number of well-known sites fall just outside the study area to the east, such as the Adder Orchard Site (AgHk-16), a Late Archaic “Broad Point” campsite, which provides the type artifact description for the Adder Orchard projectile point (Fisher 1997), and the Crawford Site (AhHk-48), a Late Woodland site along the eastern edge of the study area (Jury 1948). A number of noteworthy site clusters also occur within the study area, including the Thedford Cluster and the Arkona Cluster.

The Thedford Cluster of 10 sites is a concentration of Paleo-Indian sites located east of the modern village of Thedford (Deller 1979). These sites have been investigated in part due to their location on strandlines that were once the beaches of glacial lakes Algonquin and Nipissing at various times in the past, prior to the configuration of the Great Lakes today (Deller *et al.* 1986). Thedford II (AgHk-6) in particular has been the object of extensive study (Deller and Ellis 1992). Although the Thedford sites have been investigated and are in known locations, just outside the northeastern portion of the study area, there is still moderate to high archaeological potential to recover sites related specifically to Paleo-Indian occupation within the study area. In addition, the tendency of pre-contact Aboriginal groups to settle along strandlines such as the former Lake Nipissing strandline near Thedford or the Lake Warren strandline to the south - Wyoming Rapids (AgHk-4), a Middle Woodland site, being one such example - lends further potential to the study area for pre-contact Aboriginal archaeological resources.

The Arkona Cluster of 22 sites appears to represent a local Late Woodland population just east of Arkona. Seven sites date to the Younger Phase of the Western Basin Tradition spanning approximately A.D. 1000 to 1300 (Ferris and Wilson 2009). The other sites in the Arkona Cluster with temporally non-diagnostic artifacts probably date to the same time period. These sites have been investigated and documented by Archaeologix Inc. at various stages of archaeological assessment (Archaeologix Inc. 1998a, 1998b, 1998c, 2006a, 2007a, 2007b). One notable site is a Younger Phase village site, the Bingo Village Site (AgHk-42) (Archaeologix Inc. 2003, 2004, 2006a). Although the Arkona sites have been excavated and lie outside the northeastern portion of the study area, there is still high archaeological potential to recover sites related specifically to this occupational sequence or generally to the Western Basin Tradition cultural sequence within the study area.

According to the ASDB maintained by the MTCS there are 20 registered pre-contact Aboriginal archaeological sites within the limits or within one kilometre of the study area (ASDB, Government of Ontario n.d.; Robert von Bitter, personal communication, March 26, 2012 and April 23, 2012). Of these sites, 10 are of indeterminate age or cultural affiliation, four are Archaic in age, three are Late Woodland in age, one is multi-component Archaic and Late Woodland in age, one is multi-component Late Woodland and one is possibly Archaic in age. Table 3 summarises the pre-contact Aboriginal archaeological sites that have been located within the study area and within one kilometre of its boundaries.



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Golder is currently working on the Jericho Wind Energy Centre project partially within the Municipality of Lambton Shores for NextEra Energy Canada, ULC. This ongoing project overlaps with the Suncor Cedar Point Wind Farm study area. Pre-contact Aboriginal archaeological sites and findspots have been identified, but have not yet been registered. This work will be discussed in a forthcoming report by Golder.

Table 3: Registered Pre-contact Archaeological Sites Located within the Study Area

Borden Number	Site Name	Site Type	Time Period/ Cultural Affiliation	Recommendations
AfHm-1	ROM	indeterminate	indeterminate	further work
AgHI-1	Moons	campsite	Archaic?	n/a
AgHI-4	Geertz #1	camp	Lamoka, Late Archaic, Late Woodland	further work
AgHI-5	Geertz #2	camp	Early Archaic, multicomponent	further work
AgHI-6	Geertz #3	camp	indeterminate, multicomponent	further work
AhHI-39	Mud Creek	indeterminate	indeterminate	further work
AhHI-53	Kettle Point Industrial Park	camp	indeterminate	further work
AhHI-54	Kettle Stony Point	campsite	indeterminate	further work
AhHI-55	Kettle & Stoney Point	camp	indeterminate	further work
AhHI-56	Kettle & Stony Point	camp	indeterminate	further work
AhHI-57	Kettle & Sandy Point	campsite, processing	indeterminate	further work
AgHm-8	n/a	workshop, stone tool	Late Woodland	no further work
AgHm-7	n/a	findspot	late Archaic (Hind)	further work
AgHm-3	Lambton Shores Condominium	campsite, quarry	Early Late Woodland (Jack's Reef, Levanna)	no further work
AgHm-2	Robert Brown	no records	indeterminate	no records
AgHI-2	Braun	campsite?, hamlet?, village?	Late Woodland	further work
AgHI-3	Standpipe Location 1	findspot	Archaic	no further work
AgHm-1	n/a	indeterminate	Uren, Middleport, multicomponent	no records
AgHm-5	Asfaloth	findspot	Late Archaic (Crawford Knoll)	no further work
AgHm-6	n/a	campsite	indeterminate	further work



2.3.2 Post-contact Aboriginal Archaeological Resources and Surveys

According to the ASDB maintained by the MTCS there are no registered post-contact Aboriginal archaeological sites within the limits or within one kilometre of the study area (ASDB, Government of Ontario n.d.; Robert von Bitter, personal communication, March 26, 2012 and April 23, 2012).

2.3.3 Historic Euro-Canadian Archaeological Resources and Surveys

According to the ASDB maintained by the MTCS there are five registered historic Euro-Canadian archaeological sites within the limits or within one kilometre of the study area (ASDB, Government of Ontario n.d.; Robert von Bitter, personal communication, March 26, 2012 and April 23, 2012). Four of these sites were assessed by Archaeologix Inc. in 2006 (Archaeologix Inc. 2006b; 2006c). AhHI-60 and AhHI-61 were not recommended for further work past the Stage 2 archaeological assessment and AhHI-58 and AhHI-59 were not recommended for further work past the Stage 3 archaeological assessment. One of these sites (AhHI-62) underwent Stage 2 archaeological assessment by Scarlett Janasus Archaeological and Heritage Consulting and Education and was recommended for Stage 3 archaeological assessment. Table 4 summarises the historic Euro-Canadian archaeological sites that have been located within the study area and within one kilometre of its boundaries.

Table 4: Registered Historic Euro-Canadian Sites Located within the Study Area

Borden Number	Site Name	Site Type	Time Period/ Cultural Affiliation	Recommendations
AhHI-58	n/a	residential	Euro-Canadian	no further work
AhHI-59	n/a	residential	Euro-Canadian	no further work
AhHI-60	n/a	residential	Euro-Canadian	no further work
AhHI-61	n/a	residential	Euro-Canadian	no further work
AhHI-62	n/a	residential	Euro-Canadian	further work



2.3.4 Reports Documenting Archaeological Assessment within 50 metres of the Study Area

Four archaeological reports document archaeological assessment within 50 metres of the study area (ASDB, Government of Ontario n.d.; Robert von Bitter, personal communication, April 24, 2012). Three of these have been accepted into the Ontario Public Register of Archaeological Reports and were available for review, upon request. These are:

Fisher, Jacqueline

2006 *Final Report: Highway 402 M.T.O. W.P. 246-97-00 Project 0.8 kms East of Lambton Road 26, Easterly to 2.9 kms East of County Road 30, Stage 3: Testing of the ROM Site (AfHm-1) Final Report.* Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

Ontario Ministry of Transportation

1995 *An Archaeological Survey of the Area to be Impacted by the Partial Culvert Replacement on Highway 21, Duffus Municipal Drain, Lambton County, W.P. 100-95-00.* Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

Timmins Martelle Heritage Consultants Inc.

2006 *Stage 1-2 Archaeological Assessment. Extension of Lakeshore Water System, Booster Pumping Station, Municipality of Lambton Shores, Lambton County, Ontario.* Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

Although it was not available for review, upon request (Robert von Bitter, personal communication, April 24, 2012), the report still to be accepted into the register is:

Mayer Heritage Consultants

2011 *Archaeological Assessment (Stages 1 to 3), Reflection Cove Development, Bosanquet Twp., Lambton Shores, Lambton County, Ontario.* Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.



3.0 HISTORICAL CONTEXT

3.1 Post-contact Aboriginal Documentation

By 1703, a community of “Saulteurs and Mississauguez” were reported to be living near the north end of Lake St. Clair (see Ferris 2009:35). Ferris (2009:37) indicates that Ojibwa warriors from the Thames River joined Pontiac’s siege of Detroit in 1763. By the late 1700s, members of the Three Fires Confederacy (Chippewa, Ottawa and Potawatomi Nations) are also reported to have begun immigrating to this area from Ohio and Michigan (Feest and Feest 1978:778-779).

By 1800, an Ojibwa territorial community is reported for the Kettle Point/Ausable River area (Ferris 2009:36-37; Gulewitsch 1995), and the study area formally enters the historic record when the Ojibwa and Chippewa entered into Treaty 27½ of April 26, 1825,

...being an agreement made at Amherstburg in the Western District of the Province of Upper Canada on the 26th of April, 1825, between James Givens, Esquire, Superintendent of Indian Affairs, on behalf of His Majesty King George the Fourth and the Chiefs and Principal Men of the part of the Chippewa Nation of Indians, inhabiting and claiming the tract of land Wawanosh Township in the County of Huron was named after Way-way-nosh the principal Chief of the Band making this Treaty.

(Morris 1943:26-27)

Geographical modifications were made to Treaty 27½ in Treaty 29 (Huron Tract purchase) of July 10th, 1827 (Morris 1943:27). While it is difficult to exactly delineate treaty boundaries today, Figure 3 provides an approximate outline of the limits of Treaty Number 27½.

In accordance with the Ontario Ministry of Tourism, Culture and Sport’s Technical Bulletin on *Engaging Aboriginal Communities in Archaeology* (Government of Ontario 2011b), it is best practice to identify Aboriginal communities for the purpose of providing information on traditional use areas, sacred sites and other sites when available and relevant to the property or study area. As described above, the study area falls within Treaty Number 27½ which was land ceded by the ancestors of the modern-day Chippewas of Kettle and Stony Point First Nation. Just to the northwest of the study area lie the current reserve lands of Kettle Point #44 and Stony Point #43. Neither of these lands was ceded to the Crown and they are the residence of the Ojibwa that have been present in the area since the 1700s, according to both historic documents and community tradition (Gulewitsch 1995; Timmins Martelle Heritage Consultants Inc. n.d.). The land designated as Stony Point #43 has been the subject of dispute between the Canadian government and the Chippewas of Kettle and Stony Point in the 20th and 21st centuries (Gulewitsch 1995; Timmins Martelle Heritage Consultants Inc. n.d.).

Historical documentation from the family records of some of the earliest European settlers in the area refers to the presence of First Nations people living in the study area. The section of Egremont Road, as it passes at a sharp angle through the study area (Figure 4), is said to have followed an Aboriginal trail that was used to reach fishing grounds located at Lake Huron (Nielsen 1993:62).



It was reported, for example, that, during the early phase of European settlement, First Nations people were living in the woods on Lot 13, Concession 9 and that they had burial grounds on Lot 14, Concession 8 (Nielsen 1993:62).

Not only are the Chippewas of Kettle and Stony Point active in their communities today, there is evidence for their activity in the study area stretching back into the 1700's (Gulewitsch 1995:5-13), which means that there is potential for post-contact Aboriginal archaeological resources within the study area.

3.2 Historic Euro-Canadian Documentation

The Euro-Canadian creation and settlement of the townships within the study area was facilitated by one major event. That event was the Canada Company (itself formed in 1824) purchasing a large parcel of land known as the Huron Tract and preparing it for settlement by British settlers. The Huron Tract was mostly surveyed by Deputy Provincial Surveyor John McDonald on behalf of the Canada Company. The former Township of Bosanquet, the former Township of Plympton and the Township of Warwick, in Lambton County, were included in the Huron Tract purchase (Treaty 29) (Morris 1943:27), although the southern portion of the Township of Warwick, falling outside the study area, was surrendered in Treaty 25 (Stott 2008:19; Morris 1943:25). All three townships are discussed separately below.

3.2.1 Bosanquet Township

Bosanquet Township, now known as the Municipality of Lambton Shores, was originally surveyed in 1829 by Samuel Smith (Elford 1982:32) and was finished in 1835 by John McDonald using the 1000 acre section system, where lots were divided into 100 acres (Figure 5). Although the survey was not complete at the time, settlers came to the area anyway and, in 1832, Benjamin Brewster opened a saw mill (Elford 1982:32). Other early settlers to the township were Henry Utter as well as the Eastman and Smith families (Elford 1982:32). It was with the improvement of transportation that immigrants started arriving in Bosanquet Township. For example, in 1859 the Grand Trunk Railway, built a line going from St. Mary's to Point Edward running through Thedford and Forest, was used by many immigrants. The line was abandoned in the late 1980's (Andreae 1997). Plate 1 depicts the former location of a portion of the Grand Trunk Railway line southeast of Thedford. In 1873 the Canada Company was running out of land to sell and, because of this, they decided to drain Lake Burwell and Lake George (Elford 1982:33).

Figure 6 illustrates the study area on a portion of the 1880 map of Bosanquet Township (Belden & Co. 1880). This map provides the majority of notable structures as they were located on properties in the last half of the 19th century. However, only property owners who subscribed to the 1880 *Illustrated Atlas of the Dominion of Canada* have their names and homes illustrated on the maps. Therefore, not all domestic structures are depicted on this map. In addition to the houses of atlas subscribers, other historic structures noted in the study area include cemeteries, churches, mills, shops and schools.



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Table 5 lists those lots that hold a structure other than a house, along with the current status of that structure. Even though locations are only approximate on these maps, they do give an idea of potential for significant historic archaeological remains that could be impacted within the study area. Typically, these locations no longer exhibit any visible evidence of their former structure and, if they are to be impacted by a wind turbine placement, each location would need to be archaeologically assessed to see if there are any archaeological remains.

Table 5: Historic Properties with Potentially Significant Structures According to the Map of Bosanquet Township in the 1880 Lambton Supplement to the *Illustrated Atlas of the Dominion of Canada*

Structure	Lot	Concession	Status
Hotel	16	1	No longer standing
School House	4	2	No longer standing
School House	13 and 14	2	No longer standing
Cemetery	15 and 16	2	Still existing
School House	20	2	Still standing, now a home
Cemetery	21	2	Still existing
Gravel Pit	14	3	No longer in use
Brick Yard	23	3	No longer in use
Church	7	4	No longer standing
Brick Yard	21	4	No longer in use
Tile Yard	25	4	No longer in use
School House	6	5	No longer standing
Church	26	5	No longer standing
Cemetery	28	5	Still existing
Cheese Factory	14	6	No longer standing
School House	27	6	No longer standing
Saw Mill	28	6	No longer standing
Church	4	7	No longer standing
School House	22	7	Still standing, now a home
Church	3	8	No longer standing
School House	3	8	No longer standing
Saw Mill	13	8	No longer standing
Gravel Pit	13	9 and 10	No longer in use
Blacksmith	12	11	No longer standing
Church	12	12	No longer standing
School House	12	12	Still standing, no longer in use
School House	8	13	No longer standing
Grist Mill	3	South Boundary	No longer standing



Structure	Lot	Concession	Status
Cemetery	3 and 4	South Boundary	Still existing
Buildings	61	Lake Road East Con	No longer standing

3.2.1.1 Organized Communities and Historic Structures

Organized communities and historic structures, or features that were once located in the study area and are no longer standing are of potential archaeological concern and are therefore discussed in greater detail below. Figure 11 illustrates where each photograph was taken within the study area.

Arkona

Arkona is located on Lots 5 and 6, South Boundary Concession, Bosanquet Township and Lots 24 and 25, Concession 6, Warwick Township. The first settler of the community was Henry Utter in 1833 and in 1839 he built a grist mill. The community began to grow rapidly by 1851. A few stores, a hotel and a post office all opened in that year. When the track for the Grand Trunk Railway was laid, the railway ran north of the community which could have been a blow to development in Arkona (Elford 1967:32). Nevertheless, the community continued to thrive with the railway not far to the north and, by 1864, there were over 50 businesses and a few churches (Elford 1967:32-33). According to the 1880 map of Bosanquet Township (Belden & Co. 1880), there was a grist mill on Lot 3, South Boundary Concession, which is no longer standing today, as well as a cemetery on Lots 3 and 4, South Boundary Concession, which still exists. The village of Arkona still remains along with a small portion of the former structures. Given the abandonment and removal of former village buildings over time, significant archaeological resources could exist.

Chippewas of Kettle and Stony Point First Nation

Treaty 27½ of 1825, modified in Treaty 29 in 1827, witnessed the surrender by Chief Wawanosh and the principal men of “that part of the Chippewa Nation...” (Morris 1943:26) of a large portion of southwestern Ontario. Following this, four reserves were initially retained by the Chippewas of Sarnia (Elford 1982:8). Formally established in 1827, these reserve lands included Kettle Point #44 (Plate 2) and Stony Point #43 (Plate 3). Kettle Point consists of 2097 acres. When the reserve was established, it was uncleared land. By 1850, only 40 acres had been cleared (Elford 1982:13). As of 1885, the principal men of the Chippewas of Sarnia surrendered much saleable timber from Kettle Point. John Coultis of Forest purchased the rights to the timber and a sawmill was built on the lakeshore to process the lumber (Elford 1982:14). In 1866, Anglican Church missionary society built a church, school and house for the missionary and teacher (Elford 1982:14).



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Revenue from this enterprise was put into band funds and paid out to the community (Elford 1982:14). Stony Point, formerly known as the Aux Sables Reserve, consists of 2650 acres (Elford 1982:15). In 1850 only 80 acres had been cleared (Elford 1982:15). Anglican missions began by 1840, but in the 1860s the Wesleyan Methodists built a church to also be used as a school for the community (Elford 1982:15). In 1875, a log house for the teacher was erected. By 1885 the school had been discontinued and the community petitioned Indian Affairs for a new church, erected in 1889 (Elford 1982:15). In the 1860's, oak and pine from the reserve was sold, processed at a mill at Stony Point, which was destroyed by fire in 1868 (Elford 1982:15). Lumbering went on the reserve until 1911 (Elford 1982:16). In 1919 the Chippewas of Kettle and Stony Point, previously recognised as a single „band“ along with the more populous Chippewas of Sarnia, achieved separation and recognition as a separate „band“ (Gulewitsch 1995:17). Stony Point was expropriated by the Canadian government in 1942 to be used as a military base (Camp Ipperwash) (Elford 1982:8). The Canadian government announced its closure in 1994 (Gulewitsch 1995:25) and the base was retired for military purposes in 1995. South of Kettle Point, on Lot 61, Lake Road East Concession, two structures, shown in Belden & Co. (1880) are currently no longer standing (Plate 4).

Forest

The area near Forest was sparsely settled as early as the 1840's (Scott 1993). Forest takes its name from the densely wooded area around Hickory Creek, which became a pumping station on the Grand Trunk Railway line, which ran from Guelph to Sarnia (Archives of Ontario 2012; Scott 1993). Timothy Resseguie laid out the first lots of the village in 1858 (Archives of Ontario 2012). The railway reached this area in 1859 (McGregor 2008:143). Plate 5 depicts the location of the first and second railway stations, although this modern building is modelled more closely on the second station on this site. An Anglican church was established in Forest in 1861 (Archives of Ontario 2012). A post office was set up in 1862 in the general store on King Street across from the railway station with Robert Dier as postmaster (Elford 1982:130; McGregor 2008:143). The area grew as a centre for the local lumber industry (Elford 1982:130). In 1872, Forest was incorporated as a village (Archives of Ontario 2012; Elford 1982:33) and in 1889 as a town (Archives of Ontario 2012). Early on, Forest straddled the township boundaries for what were Plympton, Warwick and Bosanquet Townships. The post office, railway station and the earliest concentration of residences and businesses, however, were in Plympton. More recently, the Town of Forest has annexed parts of its neighbouring townships and has joined with the former Bosanquet Township to make up the present day Municipality of Lambton Shores. Given the significance of the railway stop, lumber industry and the presence of Hickory Creek, significant archaeological resources could exist in the Forest area.

Jericho

Jericho is located on Lot 14, Concession 8, Bosanquet Township. Jericho was originally expected to be a stop on the Grand Trunk Railway line but due to trouble securing the necessary land from local farmers, the station was moved to Thedford, located northwest of Jericho (Johnston 1925:35).



The Jericho post office opened in 1880, just after the publication of the historical atlas (Belden & Co. 1880), meaning that it was not recorded on the Bosanquet Township map. The first postmaster was Robert Campbell. The post office remained open until 1913 (Elford 1982:34). The community was never very large, especially after the post office closure, but significant archaeological resources could exist in the area related to the post office.

Jura

Jura is located on Lot 4, Concession 8, Bosanquet Township. In 1866 the post office opened with James McCordie as the first postmaster (Johnston 1925:35). According to the 1880 map (Belden & Co. 1880), there was a church on Lot 4, Concession 7, as well as a church and a school house on Lot 3, Concession 8, which are all no longer standing. The community has contracted in size over the last century. Plate 6 depicts the location of the church on Lot 4, Concession 7. Plate 7 depicts the location of a possible former building that does not appear on in Belden & Co (1880). Northeast of Jura, a schoolhouse on Lot 6, Concession 5 on Northville Road is no longer standing (Plate 8). Given the abandonment and removal of former village buildings over time, significant archaeological resources could exist.

Kinnaird

Kinnaird is located on Lot 12 Concession 11, Bosanquet Township. Kinnaird was a community centred on a saw mill and is also the site of one of the area's schools (Elford 1967:70). A blacksmith is indicated in Belden & Co. (1880) on the same lot as the Kinnaird post office, Lot 12 Concession 11, which is no longer standing. On the other side of the road there was a church and a school house on Lot 12 Concession 12. The church is no longer standing (Plate 9) and the school house is still standing but currently a residence (Plate 10). The community has contracted in size over the last century. Another saw mill is depicted in Belden & Co. (1880), east of Kinnaird on Proof Line. Plate 11 shows that this building is no longer standing. Gates beside Proof Line on Lot 14, Concession 8 also suggest the demolition of a former residence (Plate 12). Given the abandonment and removal of former village buildings over time, significant archaeological resources could exist around Kinnaird.

Pine Hill/Widder

Pine Hill is located on Lots 17 and 18 Concession 1 and 2, Bosanquet Township. The post office was opened in 1852 under the name Pine Hill but was later renamed Widder after Frank Widder, a Canada Company official. The first postmaster was Uriah Chester (Elford 1982:34). In 1856 the settlement had a church, three stores, a steam grist mill, two sawmills, two taverns, two blacksmith shops, three shoe shops, a tannery and a wagon making establishment (Elford 1982:34).



It was supposed to become a railway station, but the Grand Trunk decided to route the rail line two kilometres north, where Widder Station opened in 1862. As a result, people left the community for Widder Station (later Thedford). Since that time, the community has contracted in size. Given the abandonment and removal of former village buildings over time, significant archaeological resources could exist.

Ravenswood

Ravenswood is located on Lots 54 and 55, Lake Road East Concession, Bosanquet Township. The second post office to open in Bosanquet Township was at Ravenswood in 1855. John Rawlings was the first postmaster (Elford 1982:34). The post office was originally located on Lot 61, Lake Road East Concession but was later moved to the community's current location (Johnston 1925:45). The community was never very large, especially after the post office closure, but significant archaeological resources could exist in the area related to the post office.

Widder Station/Thedford

When the Grand Trunk Railway ran its rail line through Bosanquet Township, Widder Station was established in 1862. The stop was originally supposed to be at Widder, two kilometres to the south, explaining the similar names for the two communities. When the community was incorporated as a village in 1877, it was renamed Thedford, which can be seen on Lots 20 and 21 of Concessions 3 and 4 (Andreae 2000:8). There is still evidence of mid-19th century structures as well as homes in Thedford. A cheese factory southwest of Widder Station/Thedford, south of the Grand Trunk Railway Line, illustrated in Belden & Co. (1880) is no longer standing (Plate 13). Significant archaeological resources related to the development of the community could still exist on the outskirts of Thedford.

3.2.2 Plympton Township

Plympton Township, now known as the Town of Plympton-Wyoming, was surveyed from 1829 to 1832 by Charles Rankin and Peter Carroll using the "2400 acre section" system. In this township the survey system created rectangular 200 acre lots, with the fronts of the lots fronting on to road allowances. Concession road allowance therefore occurred on every second concession line and side road allowances were accounted for after every third lot. Clergy reserves were indicated for approximately ten percent of the township. Figure 7 shows the plan of Plympton Township as laid out by Rankin in 1829. This map is incomplete at the northern end of the township. The smudges on the map indicate crown and clergy reserves. This early survey map does not reveal any evidence of squatters living on lands located within the study area or any notable First Nations activity in the general vicinity.



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Peter Carroll was engaged by Peter Robinson, Commissioner of Crown Lands and Surveyor General of Woods, to survey a road extending from the northeast corner of Caradoc Township to the shores of Lake Huron. In 1831 Peter Carroll completed a survey through Adelaide Township (Middlesex County) and Warwick and Plympton Townships (Lambton County). This survey laid in the route for the Egremont Road (Nielsen 1993:6). Carroll's survey through Plympton Township moved along at a faster rate than the other townships due to the fact that Charles Rankin had already surveyed the central concessions in 1829 (Nielsen 1993:7). Carroll completed the remainder of the survey for Plympton Township in 1832. Figure 4 illustrates the path for Peter Carroll's 1831 survey of the Egremont Road as it cuts through Plympton Township.

The first substantial influx of settlers into the area came in 1833 with British Immigrants, under the patronage of Lord Egremont, settling primarily along the Egremont Road (Lauriston 1949:70). The earliest family names that are referenced as settling in the area include: Littleworth, Trusler, Phillips, Elliott, Georges, Longley, Helps and Randall (Nielsen 1993:23). Many of these first settlers obtained acreage just outside the current study area towards the historic settlement of Errol, along Lake Huron and also in the vicinity of where the Town of Camlachie stands today (Nielsen 1993:23). None of these earliest settlers are referenced to have had property within the study area limits. Shortly following this initial influx, in 1834, the Fisher family, who were immigrants from Scotland settled on Lot 13 and the west half of Lot 14, Concession 8, which is located within the study area. James Fisher Sr., the eldest member of this family died in 1837 and was said to have been buried on the family farm (Nielsen 1993:24). At about the same time the Wright family settled on the east half of Lot 14, Concession 8 and Lot 14, Concession 7, also located within the study area (Nielsen 1993:24).

Figure 8 illustrates the study area on a portion of the 1880 map of Plympton Township (Belden & Co. 1880). Due to the fact that this atlas was subscriber based, only families who agreed to purchase an atlas had their names and the locations of their homesteads appear on the map. In addition to the houses of atlas subscribers, other historic structures noted in the study area include cemeteries, churches, mills, shops and schools. Table 6 lists those lots that hold a structure other than a house, along with the current status of these structures. Even though locations are only approximate on historic maps, they do give an idea of the potential for significant archaeological historic remains that could be impacted within the study area. Typically, these locations no longer exhibit any visible evidence of their former structure, but if they are to be impacted by a wind turbine placement the location would need to be archaeologically assessed to see if there are any archaeological remains.

A school house is indicated on the 1880 map of Plympton Township as standing on Lot 16, Concession 12 (Belden & Co. 1880). This school is no longer standing, but in the general area the landscape reveals a setting that just into an agricultural field with a grove of older trees which most certainly represents where the school once stood (Plate 14). A saw mill is illustrated as existing close to the road, on Lot 8, Concession 6 (Belden & Co. 1880). There is no evidence on the current landscape of this mill. Given that all of these mentioned historic structures are no longer standing the general areas where they are indicated to have been located could be archaeologically significant if they are to be impacted by a wind turbine or turbine infrastructure.



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Table 6: Historic Properties with Potentially Significant Structures According to the Map of Plympton Township in the 1880 Lambton Supplement to the *Illustrated Atlas of the Dominion of Canada*

Structure	Lot	Concession	Status
School House	16	12	No longer standing
Wagon Shop (Aberarder)	18	10	No longer standing
School House (Aberarder)	18	11	No longer standing
Plympton Town Hall	15	8	Still standing
School House (Fisher School)	14	8	No longer standing
School House	7	7	No longer standing
Saw Mill	8	6	No longer standing
S.S. No. 10 Plympton	15	7	Still standing, now a residence
Cheese Factory	15	9	No longer standing
Blacksmith's Shop	19	10	No longer standing
School House	26	13	Still standing, now a residence
School House	25	14	Still standing, now a residence
Church	19	13	No longer standing
Church	19	12	No longer standing
Church	16	7	No longer standing
School House	7	7	No longer standing
School House (Uttoxeter)	26	9	No longer standing
Church (Uttoxeter)	24	9	Still standing
Saw and Grist Mill (Uttoxeter)	25	9	No longer standing
Store (Uttoxeter)	25	9	No longer standing, 1909 residence
Blacksmith's Shop (Uttoxeter)	25	9	No longer standing, barn on foundations
Cheese Factory	28	9	No longer standing
Church	28	10	No longer standing, residence in place
School House	26	10	No longer standing
Cemetery	28	12	No longer existing, gravestones moved one lot to east

3.2.2.1 Organized Communities and Historic Structures

Organized communities and historic structures, or features that were once located in the study area and are no longer standing are of potential archaeological concern and are therefore discussed in greater detail below. Figure 11 illustrates where each photograph was taken within the study area.



The Fisher Settlement

The Fisher Settlement was located east of Camlachie, along the Egremont Road in the approximate area of Lots 13 to 15, Concessions 8 and 9 (Figure 8). The families living in the area included the Patons (Lot 13, Concession 9), the Fishers (Lot 13 and the west half of Lot 14, Concession 8), the Wrights (Lot 14, Concession 7 and 8) the Kennedys (Lot 14, Concession 9) and the Bridges (Lot 15, Concession 9). Most of the families settled in the area during the 1830s and, according to family records at that time, First Nations people were still living in the woods of the Paton farm (Lot 13, Concession 9) and there were reported Aboriginal burial grounds on the Wright farm, near the road (Lot 14, Concession 7) (Nielsen 1993:62).

A school house, named the Fisher School was located on the Fisher farm located on the west half of Lot 14, Concession 8 and was one of the earliest schools in the area (Nielsen 1993:64). It was in use from 1856 until 1872 and was a frame building (Nielsen 1993:64). In 1873 a brick school was constructed on the same site as the original frame building (Nielsen 1993:64). This school was torn down at an unknown date and is no longer standing.

A cheese factory is also indicated on the 1880 historic map as being located within the Fisher Settlement area, on Lot 15, Concession 9. This lot was owned by the Bridges family and no evidence of the factory remains on the landscape today.

The Plympton Township Hall still stands in the general area of the Fisher Settlement. This hall was built in 1868 and stands along the Egremont Road, on Lot 15, Concession 8. The hall was in use from 1868 until 1949. It was originally a brick structure which has been covered with board and baton siding (Plate 15).

Due to the fact that the Fisher Settlement was located along the Egremont Road, which was the first area to be settled by Europeans, many of the structures that would have existed in the area would have predated the 1880 historic map. The number of people living in the immediate area can be attested to the fact that in 1865 there were a recorded 107 students attending the Fisher School (Nielsen 1993:64). Archaeological concerns undoubtedly exist for this insufficiently recorded pioneer settlement. High potential exists in the immediate area for pre-contact Aboriginal, post-contact Aboriginal and historic European archaeological sites.

Aberarder

The Settlement at Aberarder was located on Lots 18 and 19, Concessions 10 and 11. The community was laid out by Alexander Hamilton in 1863 and was largely a Scottish settlement (Johnston 1925:21). A directory dating to 1869 indicates that there were 50 people living in the community at that time (Elford 1982:77). At its height the community had a post office, a wagon shop, a blacksmith shop (Plate 16), a store, a school and a Presbyterian Church (Elford 1982:77).

According to the 1880 atlas, the wagon shop and school house would have been located within the limits of the study area. The school house is no longer standing and was obviously replaced with two newer schools that are located further west along the same road.



Plate 17 shows the approximate area of where the school house indicated in the 1880 atlas would have been located, on Lot 18, Concession 11. One of the newer schools was built in 1930 (S.S. No. 15) and is now a residential home and the second is the Aberarder Central School (circa 1960's) which is still maintained as a school today. The wagon shop that is indicated in the 1880 atlas on the corner of Lot 18, Concession 10 is also no longer standing and an early twentieth century home stands in the same approximate location.

The Presbyterian Church (St. John's) that was located in Aberarder was built in 1885 and therefore is not indicated on the 1880 map (Elford 1982:77). This church was torn down in the 1970's and was located on the corner of Lot 19, Concession 10 and therefore falls outside the limits of the study area.

The Grand Trunk Railway passed through Aberarder in 1859 as the railway was extended from Stratford to Sarnia. In 1923, it became part of the Canadian National Railway (Andreae 1986). A train station was located at Aberarder from 1859 up until the 1930's. The train ran through Aberarder until 1982, at which time the original Grand Trunk Railway was abandoned from Forest to Sarnia (Andreae 1986). Plate 18 shows where the former railway bed that cuts through the corner of Lot 18, Concession 11 at Aberarder. Due to the fact that very little remains of the community of Aberarder the potential for Euro-Canadian archaeological sites is high in this area.

North of Aberarder, on Lot 19, Concession 13, McKay Cemetery (Plate 19) marks the location of the former North Plympton United Church. This church is depicted in Belden & Co. (1880), but is no longer standing.

Matlock

Matlock was a small community located at the intersection of Lots 15 and 16, Concession 6 and 7 (Belden & Co. 1880). This small community had a church, a school house and a post office. The school house is still standing and is maintained as a residential home (Plate 20). Of special interest is that this school house, now a home, has a family cairn located in the yard, directly west of the house. The presence of this small European burial plot is important archaeologically if any turbine related activity were to occur west of the former school house at this location.

Uttoxeter

Uttoxeter is located on the southern portions of Lots 24, 25 and 26, Concession 9, in the former township of Plympton (Belden & Co. 1880). The post office at Uttoxeter was established in 1866 (Carter 1984). The first postmaster was Simpson Shepherd (Carter 1984). As of 1875, the population of the community was 100, although this had dropped to 50 by 1926 (Carter 1984). Significant archaeological resources related to the development and partial abandonment of the community likely exist in the immediate area.



3.2.3 Warwick Township

The southern part of what would become Warwick Township was officially surrendered by the Chippewa Nation to the Crown with Treaty 25 (modified from Treaty 21) in 1822 (Morris 1943:24-25; Stott 2008a:17). The northern part of the township was surrendered later ultimately in Treaty 29 (modified from Treaty 27½). In the early years of settlement, seasonally mobile Anishnabeg and sedentary Euro-Canadian settlers coexisted in the township and aided each other (Stott 2008a:17). As forests were turned to farmlands, Anishnabeg people relocated to the reserve lands. With the perceived need for better communication and roads, surveyor Peter Carroll was hired in 1831 to build what would come to be known as the Egremont Road from Caradoc at the western edge of the former London District (Middlesex County) to Errol on Lake Huron through the Townships of Adelaide, Warwick and Plympton (Stott 2008b:20). Peter Rankin had previously surveyed the central sections of these townships around what would become the Egremont Road (Nielsen 1993:7). Upon completion of cutting the road through the bush, Carroll was hired in 1832 to complete the survey of the townships which had been started by Rankin (Nielsen 1993:8).

As with Plympton Township, Warwick Township was laid out with the Egremont Road at its centre, as opposed to its baseline. During initial survey, two or three concessions were laid out south and north of the Egremont Road (Stott 2008b:20). By the end of 1832, the initial survey was complete, and the survey of the rest of the township began with Peter Carroll using the single front layout of concessions with lots of 200 acres (Stott 2008b:21).

One-seventh of the Township was laid out as Crown or Clergy Reserves, which were often left unmaintained (Stott 2008b:21-22). Figure 9 shows the study area on Carroll's 1832 map. Smudges indicate those properties set aside as Crown or Clergy Reserves. Many men among the earliest settlers served in the militia with border protection at Port Sarnia their main assignment (Stott 2008b:21). The first Euro-Canadian settlers were James and Robert Hume and their families, settling on Lots 25 and 23, Con. 2 SER, respectively, in 1832 (Stott 2008b:21). With as many as 4000 immigrants poised to settle the Township, Roswell Mount, Crown Land Agent for the region, had one 16 foot x 16 foot log cabin built on each of the 250 lots (Stott 2008b:21). By the 1840's, game was reportedly already in decline in the Township (Stott 2008b:24).

Utter Farm, established by Henry Utter is located in northern Warwick Township near Arkona (Pierce 2008:36). The wood cabin Utter built in 1843 was replaced by a brick homestead in the 1850's, documenting an example in the progression of homestead building in the township. In 1850, an official municipal government was established for Warwick Township (Stott 2008b:32). The Northwestern portion of Warwick Township was known as the „English Settlement“, where many of the first settlers were from Great Britain, some of whom brought to Warwick Township through charity (Pierce 2008:36; Stott 2008b:25). The 1851 census map shows many lots in the extreme northwest of the Township adjacent the current Town of Forest are recorded as being owned by non-residents (Stott 2008b:30-31).

Within the study area, the Zion Methodist Episcopal Church was established in the Forest area in 1873 on the southeastern portion of Lot 6, Con. 7 NER. One-fifth of an acre was granted to the church by Frederick and Clarissa Weaver for a sum of \$25 as long as it would continue as a church. The church closed in 1882 and many of the congregation moved to Forest Methodist Church (Koolen 2008:84).



The church is shown on the 1880 Map of Warwick Township (Belden & Co. 1880; Koolen 2008:95) and appears to remain standing as a modern residence, albeit in modified form (Plate 21). A cheese factory („CHEESE FAC“) is shown on the 1880 Map of Warwick Township at the northwestern corner of Lot 6, Con. 7 NER (Belden & Co. 1880; Koolen 2008:95), just outside the study area.

Figure 10 illustrates the study area on a portion of the 1880 map of Warwick Township (Belden & Co. 1880). Due to the fact that this atlas was subscriber based, only families who agreed to purchase an atlas had their names and the locations of their homesteads appear on the map. In addition to the houses of atlas subscribers, other historic structures noted in the study area include cemeteries, churches, mills, shops and schools. Table 7 lists those lots that hold a structure other than a house, along with the current status of these structures. Even though locations are only approximate on historic maps, they do give an idea of the potential for significant archaeological historic remains that could be impacted within the study area. Typically, these locations no longer exhibit any visible evidence of their former structure, but if they are to be impacted by a wind turbine placement the location would need to be archaeologically assessed to see if there are any archaeological remains.

Table 7: Historic Properties with Potentially Significant Structures According to the Map of Warwick Township in the 1880 Lambton Supplement to the *Illustrated Atlas of the Dominion of Canada*

Structure	Lot	Concession	Status
Zion Methodist Episcopal Church	6	7 NER	Likely still standing, with modifications, now a residence

3.2.3.1 Organized Communities and Historic Structures

Organized communities and historic structures, or features that were once located in the study area and are no longer standing are of potential archaeological concern and are therefore discussed in greater detail below. Figure 11 illustrates where each photograph was taken within the study area.

Warwick Village

Warwick Village grew up on the southern side of the Egremont Road. It was formally surveyed by Peter Carroll in 1836, after petition by the people of the township to establish a new district and district town more convenient to conducting public business (Nielsen 1993:32-33). Lot 10, Con. 1 SER, a 200-acre plot, became the „town plot“ for the future village (Stott 2008b:29, 30-31, 32). This was the area around which the Egremont Road crossed Bear Creek, the north branch of the Sydenham River (Stott 2008b:32).



STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Given its location along the creek, Warwick Village was well-suited to water-powered mills (Nielsen 1993:43). In 1832, William Burwell had already been living on Lot 10, Con. 1 NER and established a tavern and stopping place along the Egremont Road (Nielsen 1993:34). Also in 1832, Arthur Freear received as a military grant Lot 5, Con. 1 NER, as well as other land in the Township of Plympton (Nielsen 1993:34). Freear had built a house by 1836. Previous to this, Freear had also purchased Lot 11, Con. 1 NER with the requirement to establish a saw mill, which he had done by 1834, and a grist mill shortly followed, although it is unsure how much grain it milled (Nielsen 1993:34; cf. Stott 2008b:32). In 1833, Arthur Kingstone purchased 1600 acres near the Town Plot site, with a log home built shortly after (Nielsen 1993:34). In about 1836, a blacksmith shop was opened by Thomas Hay at Warwick (Stott 2008b:32). In 1843, Hay also constructed a stone flour mill at Warwick Village (Pierce 2008:38). Although outside the study area, Warwick Village, on a main historic transportation route, and areas surrounding it, have high potential for archaeological resources, particularly post-contact Aboriginal and historic Euro-Canadian sites.



4.0 FIELD METHODS

In compliance with Section 1.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011a), the Stage 1 Archaeological Overview/Background Study included optional property inspections comprising visits to the study area to gain firsthand knowledge of geography, topography and current conditions and to evaluate and map archaeological potential. Previously identified features of archaeological potential, depicted in Belden & Co. (1880) and any additional features of archaeological potential not visible on mapping were evaluated and any features that would affect assessment strategies were identified and documented. Natural watercourses were present where mapped. Artificial irrigation drains were also present in many agricultural fields. Natural versus artificial land formations were identified. Examples of flat and sloping topography as well as bush lots or woodlots throughout the study area were documented. Structures and built features, such as heritage structures, plaques and cemeteries, which could affect assessment strategies, were identified and documented. Properties and their peripheries were systematically inspected when weather conditions permitted good visibility of land features. Documentation comprised photographs and survey field notes.

The property inspections for the Stage 1 archaeological assessment was conducted on April 9, 2010 and August 12, 2010, under archaeological consulting licence P084, issued to Adam Hossack, B.A., by the Ontario Ministry of Tourism, Culture and Sport and on April 20, 2012 under archaeological consulting licence P218, issued to Scott Martin, Ph.D., by the Ontario Ministry of Tourism, Culture and Sport. Visibility was excellent and the lighting conditions ranged from sunny and bright to partially overcast to moderately cloudy when the photographs were taken.

Figure 11 illustrates where each photo was taken within the study area. Photographs additional to streetscapes, standing heritage structures and those structures no longer standing or potentially implied by landscape features, additional photographs illustrate further moderate to high archaeological potential: the relatively flat topography of the area (Plates 22 and 23), although there is occasional sloping topography (Plate 24), albeit rarely steeply-sloped; the bush lots that stand in some of the fields (Plate 25); the nature of the creeks that cross the study area (Plates 26 and 27); artificial irrigation drains also cross-cut the study area (Plate 28). East of Kinnaird, on Proof Line, east of Army Camp Road in Bosanquet Township, a large orchard has been planted (Plate 29) and orchards such as this represent modifications of typical ploughing or test-pitting, possibly entailing strip ploughing.

Results of the property inspections in determining archaeological potential for the study area are discussed in Section 5.0.



5.0 ANALYSIS AND CONCLUSIONS

5.1 Determination of Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. In accordance with the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011a) the following are features or characteristics that indicate archaeological potential:

- Previously identified archaeological sites;
- Water sources:
 - Primary water sources (lakes, rivers, streams, creeks);
 - Secondary water sources (intermittent streams and creeks; springs; marshes; swamps);
 - Features indicating past water sources (e.g. glacial lake shorelines indicated by the presence of raised gravel, sand, or beach ridges; relic river or stream channels indicated by clear dip or swale in the topography; shorelines of drained lakes or marshes; and cobble beaches);
 - Accessible or inaccessible shoreline (e.g. high bluffs, swamps or marsh fields by the edge of a lake; sandbars stretching into marsh);
- Elevated topography (eskers, drumlins, large knolls, plateaux);
- Pockets of well drained sandy soil, especially near areas of heavy soil or rocky ground;
- Distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases (there may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings);
- Resource areas including:
 - Food or medicinal plants;
 - Scarce raw minerals (e.g. quartz, copper, ochre or outcrops of chert);
 - Early Euro-Canadian industry (fur trade, mining, logging);
- Areas of Euro-Canadian settlement; and
- Early historical transportation routes.



Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. Finally, extensive land disturbance can eradicate archaeological potential (Wilson and Horne 1995).

In archaeological potential modeling, a distance to water criterion of 300 metres is generally employed for primary water courses, such as lakes, rivers, streams and creeks as well as secondary watercourses, such as intermittent streams and creeks, springs, marshes and swamps. For the present project, there are numerous streams within the study area, such as Bear Creek, Hickory Creek, Bonnie Doon Creek, Aberarder Creek, Highland Creek, Shashawandah Creek and Mud Creek. Lake Huron lies approximately one kilometre from the western boundary of the west-central portion of the study area.

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. The Ontario Ministry of Tourism, Culture and Sport also views the presence of previously registered archaeological resources as a prime indicator of archaeological potential.

5.1.1 Archaeological Integrity

A negative indicator of archaeological potential is extensive land disturbance. This includes widespread earth movement activities that would have eradicated or relocated any cultural material to such a degree that the information potential and cultural heritage value or interest has been lost.

Section 1.3.2 of the MTCS's 2011 Standards and Guidelines for Consultant Archaeologists states that:

Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources.

(Government of Ontario 2011a:18)

The types of disturbance referred to above includes, but is not restricted to, quarrying, sewage and infrastructure development, building footprints and major landscaping involving grading below topsoil.

Within the study area, modern gravel pits were observed north of Proof Line and east of Army Camp Road in the Municipality of Lambton Shores on Lots 13 and 14, Concession 10 (Plate 30). This pit is just northwest of the „Gravel Pit“ marked by Belden & Co. (1880) on Lot 13, Concession 10 (Figure 6). Although these gravel pits are not large, archaeological potential will have been impacted and is considered low (Figure 12). Flanking Highway 402, which runs through Warwick Township and the Town of Plympton-Wyoming, and which demarcates the southern boundary of the study area, disturbance due to highway construction and grading related to earth mound approaches to overpasses are evident (Plate 31). Archaeological potential for these approaches to overpasses is considered low (Figure 12). Otherwise, no major areas of disturbance are evident within the study area and archaeological integrity is considered sound.



5.1.2 Potential for Pre-contact Aboriginal Archaeological Sites

Due to the presence of creeks and streams within the study area as possible waterways and potable water sources, the proximity of the study area to marshlands, forest resources and lithic raw materials, the relatively level topography as well as the presence of registered pre-contact Aboriginal archaeological sites, the potential for pre-contact Aboriginal archaeological resources is judged to be moderate to high for the study area with the exception of the previously disturbed areas (Figure 12).

With respect to soil texture, Aboriginal groups preferred well drained lighter (sandy) soils to heavier soils. The soils of the study area are imperfectly drained soils that are mostly clay (Figure 2). Although some areas might have been swampy in the past due to the imperfect drainage and relatively level topography, portions of the study area would have been suitable for pre-contact Aboriginal agriculture, although not ideal. Pre-contact Aboriginal sites that were likely occupied by agriculturalists have, however, been located outside the study area and others may have existed within its boundaries.

5.1.3 Potential for Post-contact Aboriginal Archaeological Sites

Due to the presence of creeks and streams within the study area as possible waterways and potable water sources, the proximity to marshlands and forest resources, the relatively level topography and the documented presence of First Nations families and communities in the study area during the historic period, the potential for post-contact Aboriginal archaeological resources is judged to be moderate to high for the study area with the exception of the previously disturbed areas (Figure 12).

5.1.4 Potential for Historic Euro-Canadian Archaeological Sites

Due to the presence of creeks and streams within the study area as possible waterways and potable water sources as well as sources of power for mills and sources of water for steam engines, the proximity to timber and occasionally productive cropland and grazing land, the presence of historic transportation routes, particularly rail lines, the documented historic surveys and settlement of the study area, especially starting about 1830, and finally known inhabitations and villages, the potential for historic Euro-Canadian archaeological resources is judged to be moderate to high for the study area with the exception of the previously disturbed areas (Figure 12).



5.1.5 Summary

Archaeological potential modelling has shown that the study area has a moderate to high potential to contain archaeological sites. Overall, this assessment is due to the proximity of the study area to creeks and waterways, as possible waterways and potable water sources; the level topography; the presence of historic transportation routes; known archaeological sites; the presence of known pre-contact Aboriginal sites; documented use of the area by post-contact Aboriginal people in the historic period; the presence of historic Euro-Canadian inhabitations and industry from the early 1800's, as well as the suitability of the soils and topography for agricultural practices. When the above noted archaeological potential criteria are applied to the study area, the archaeological potential for pre-contact Aboriginal sites, historic Aboriginal and Euro-Canadian sites is deemed to be moderate to high with the exception of the previously disturbed areas, as discussed in Section 5.1.1 (Figure 12).



6.0 RECOMMENDATIONS

A Stage 1 archaeological background study was conducted by Golder for the proposed Cedar Point Wind Farm on behalf of Suncor Energy Services Inc. The study area is approximately 24,212 hectares in size and located in the Municipality of Lambton Shores, the Town of Plympton-Wyoming and the Township of Warwick, Lambton County, Ontario (Figure 1). This study area includes an approximately 1248 hectare portion of the original study area, which no longer falls within the study area layout. This assessment was undertaken in order to meet the requirements for an application for a Renewable Energy Approval, as outlined in Ontario Regulation 359/09 section 22(3) of the *Environmental Protection Act*.

The Stage 1 archaeological assessment of an earlier version of the study area commenced in 2010. No Stage 1 archaeological assessment was conducted during 2011. Due to changes in the overall size of the study area, further Stage 1 archaeological assessment was continued in 2012.

The property inspections of the study area determined that the study area consists of a rural landscape, largely in agricultural use. It confirmed that the area was well drained by numerous tributaries and that there is minimal previous disturbance on the landscape. As such, the field review supports the findings of the background research that the majority of the study area retains moderate to high archaeological potential.

Archaeological potential for Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. For pre-contact Aboriginal sites this assessment is based on the presence of nearby potable water sources, level topography, agriculturally suitable soils, and known archaeological sites. For post-contact Aboriginal sites this assessment is based on the presence of nearby potable water sources, level topography, and historic Euro-Canadian anecdotal evidence. The determination of historic Euro-Canadian archaeological potential is based on the documentation indicating occupation from the middle of the 19th century onwards as well as the presence of historic transportation routes. As a result, **Stage 2 archaeological assessment is recommended for potential wind turbine sites and their associated infrastructure.** The Stage 2 archaeological assessment should employ both pedestrian survey of agricultural fields and test pit survey methodology for bush lots and existing road ditch margins, as outlined in Sections 2.1.1, 2.1.2 and 2.1.3 of the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011a). Prior to conducting the pedestrian survey portion of the field work, the area should be re-ploughed and allowed to weather. The test pit survey should consist of 30 centimetre test pits laid out at five metre intervals and should be excavated by hand to a depth of five centimetres within the subsoil.

Further Stage 2 archaeological assessment is recommended for any areas to be impacted by turbine construction, access road construction, or other infrastructure construction related activities. The Ontario Ministry of Tourism, Culture and Sport, is asked to review the results presented and to accept this report into the Ontario Public Register of Archaeological Reports. **Additional archaeological assessment is still required;** hence the archaeological sites recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.



7.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the archaeological heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed fieldwork on the site, submitted a report to the Minister stating that the site has no further archaeological heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

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STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

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9.0 IMAGES

Plate 1: Location of the Grand Trunk Railway Line that Appears on the 1880 Map of Bosanquet Township, Lot 16, Concession 6, Northville Road, North of Ridge Line, Facing Southwest



Plate 2: Streetscape of Kettle Point, West Ipperwash Road, Facing Southwest





STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Plate 3: Streetscape of Stony Point, Lakeshore Road at Army Camp Road, Facing Northwest



Plate 4: Location of the Buildings that Appear on the 1880 Map of Bosanquet Township, Lot 61, Lake Road East Concession, From Lakeshore Road, Facing Southeast





STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Plate 5: Original Site of Forest Railway Station, From Washington Street North at King Street West, Facing Southwest



Plate 6: Location of the Church that Appears on the 1880 Map of Bosanquet Township, Lot 7, Concession 4, From Jericho Line at Jura Line, Facing Northeast





STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Plate 7: Potential Location of Habitation, Not Identified on 1880 Map of Bosanquet Township, Lot 3, Concession 7, Jura, From Jericho Line, Facing East



Plate 8: Location of the School House that Appears on the 1880 Map of Bosanquet Township, Lot 6, Concession 5, From Northville Road, Facing Northeast





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 9: Location of Church, No Longer Standing, Located on Lot 12, Concession 12, Bosanquet Township, in Kinnaird, Facing Southwest



Plate 10: Former School House Located on Lot 12, Concession 12, Bosanquet Township, in Kinnaird, Facing Southwest





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 11: Location of Former Saw Mill, Located on Lot 13, Concession 8, Bosanquet Township, East of Kinnaird, Facing Southwest



Plate 12: Potential Location of Habitation, Not Identified on 1880 Map of Bosanquet Township, Lot 14, Concession 8, Proof Line, Facing Northwest





STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Plate 13: Location of the Cheese Factory that Appears on the 1880 Map of Bosanquet Township, Lot 14, Concession 6, Northville Road, North of Ridge Line, Facing West



Plate 14: Approximate Location of the School House that Appears on the 1880 Map of Plympton Township, Lot 16, Concession 12, Facing Southeast





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 15: Plympton Township Hall, 1868, in its Current Condition, Facing North



Plate 16: Approximate Location of the Blacksmith's Shop that Appears on the 1880 Map of Plympton Township, Lot 19, Concession 10, Aberarder, Facing Southeast





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 17: Approximate Location of the Aberarder School House, Lot 18, Concession 11, Aberarder, Facing North



Plate 18: Former Railway Bed for the Grand Trunk Railway at Aberarder, Facing Northeast





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 19: McKay Cemetery, Former Site of North Plympton United Church, Lot 19, Concession 13, Facing Northeast



Plate 20: 1898 School House, Now a Home, Lot 15, Concession 7, Matlock, Facing North





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 21: Location of Zion Methodist Episcopal Church, Elarton Road at Hickory Creek Line, Facing Northwest



Plate 22: Flat Topography of the Study Area, From Hillsboro Road, South of Aberarder Road, Facing Southwest





STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM - LAMBTON COUNTY

Plate 23: Flat Topography of the Study Area and Bushlot, From Hickory Creek Line, West of Nauvoo Road, South of Townsend Line, Facing Northwest



Plate 24: Sloping Topography of the Study Area, From Oil Heritage Road, Facing Northeast





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 25: Example of Bushlot, From Camlachie Road, Facing Southwest



Plate 26: The Aberarder Creek, Along Oil Heritage Road, From Douglas Line Bridge, Facing South





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 27: Hickory Creek, Hickory Creek Line, East of Forest Road, Facing Southeast



Plate 28: Drain, Hickory Creek Line, East of First School Road, Facing North





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 29: Orchard, Proof Line, East of Army Camp Road, Lot 13, Concession 9, From Proof Line, Facing Southwest



Plate 30: Area of Disturbance, Gravel Extraction, Army Camp Road North of Proof Line, Facing West





**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM - LAMBTON COUNTY**

Plate 31: Earth Bank Approach to Highway 402 Overpass, From Camlachie Road, Facing South



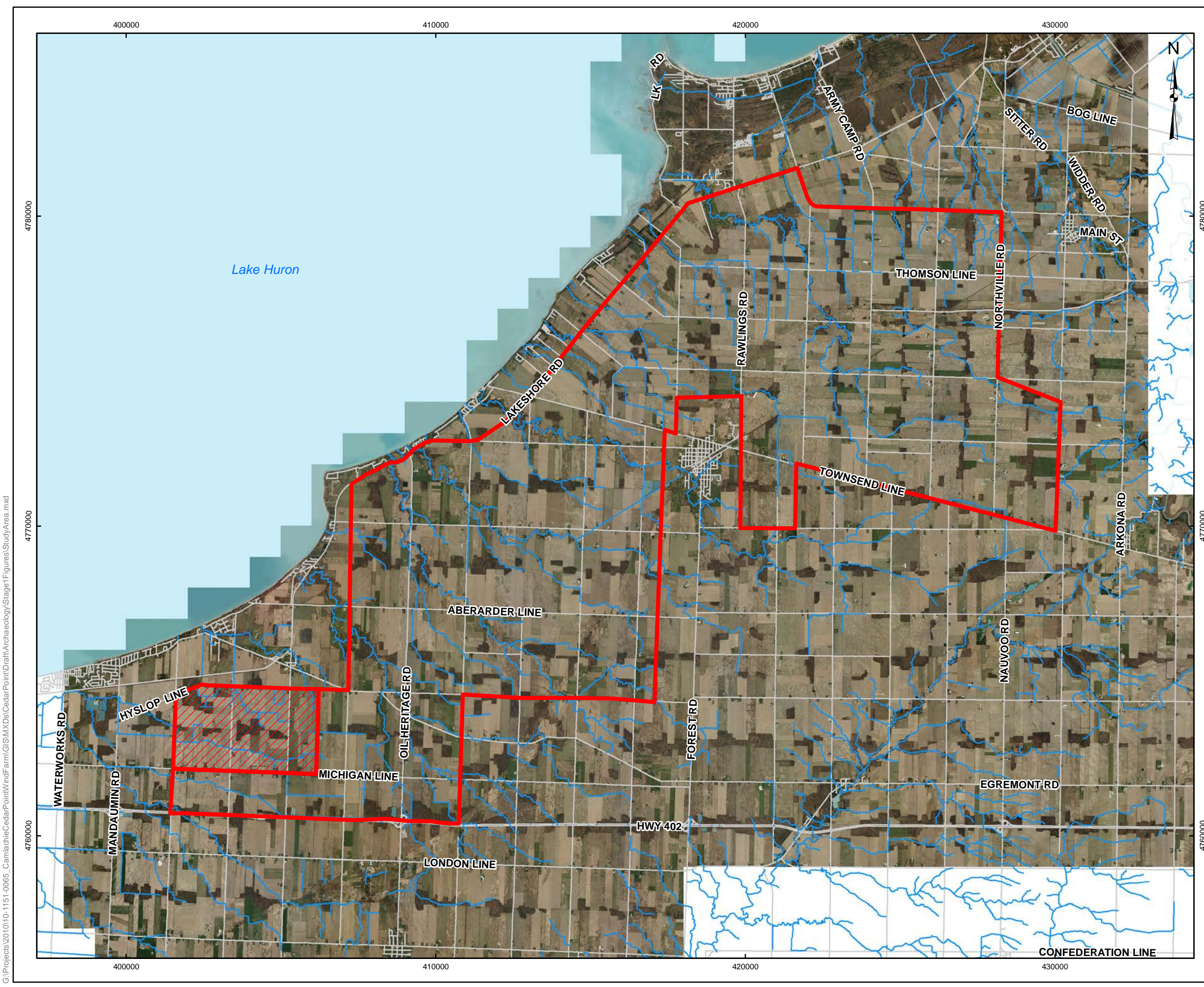
Plate 32: Hydro Transmission Corridor, Gordon Road South of Jura Line, Facing Northwest





10.0 MAPS

Figures 1-12 follow on the succeeding pages.



LEGEND

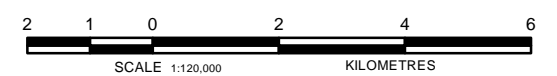
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- Roads
- Waterbody
- Study Area
- Portion of Original Study Area

NOTES:

This drawing is schematic only and is to be read in conjunction with accompanying text. All locations are approximate.

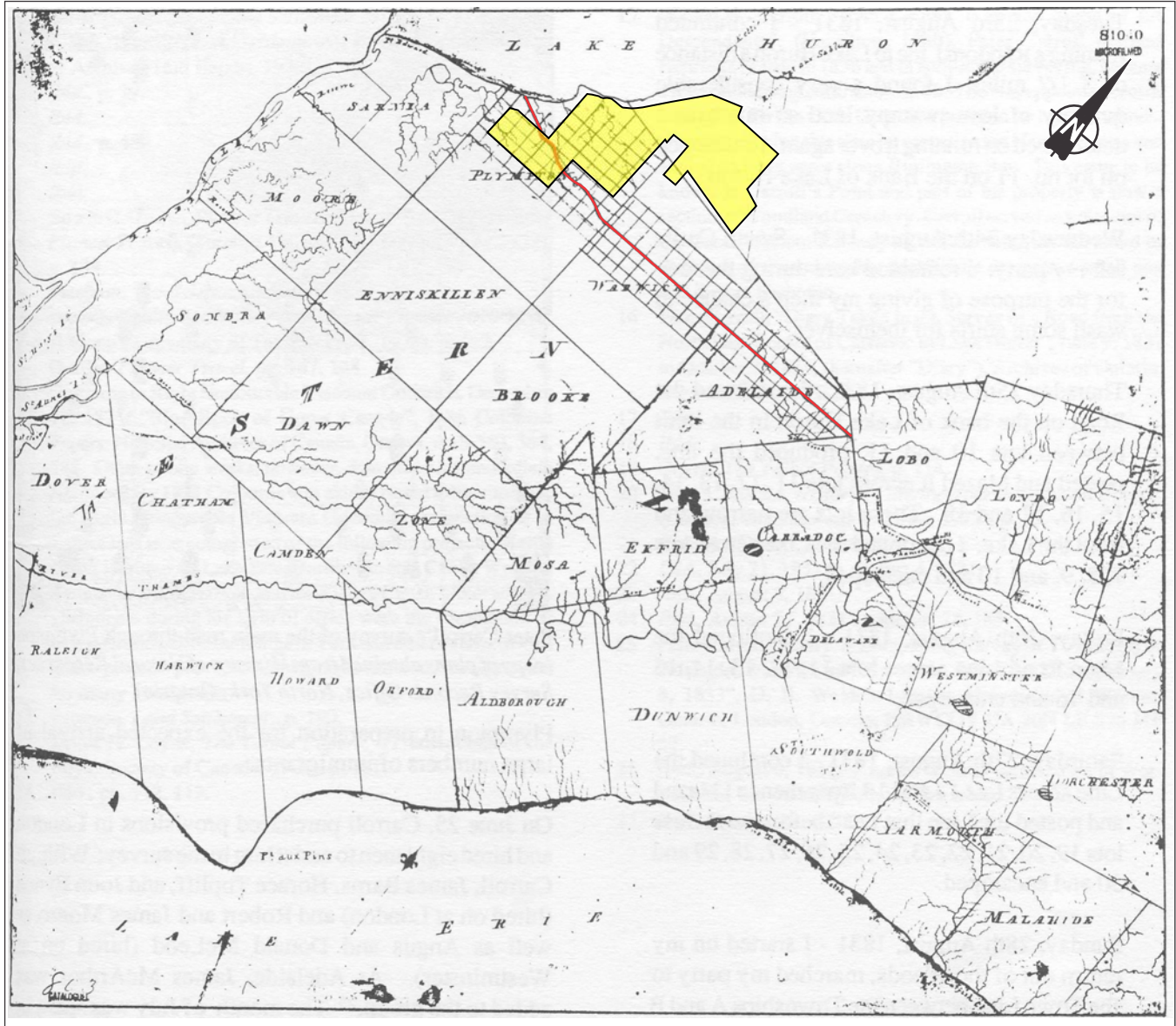
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PROJECT	STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM LAMBTON COUNTY, ONTARIO		
TITLE	LOCATION OF STUDY AREA		
 Golder Associates Mississauga, Ontario	PROJECT NO. 11-1136-0074	SCALE AS SHOWN	REV. 0.0
	DESIGN	ME	19 Apr. 2012
	GIS	BC	18 Jun. 2012
	CHECK	SM	19 Apr. 2012
	REVIEW		
FIGURE: 1			

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LEGEND

 APPROXIMATE LOCATION OF CEDAR POINT WIND FARM STUDY AREA

 EGREMONT ROAD

REFERENCE

DRAWING BASED ON
 Nielsen, Eleanor
 1993 *The Egremont Road: Historic Route from Lobo to Lake Huron*. Lambton Historical Society, Sarnia. p. 7.

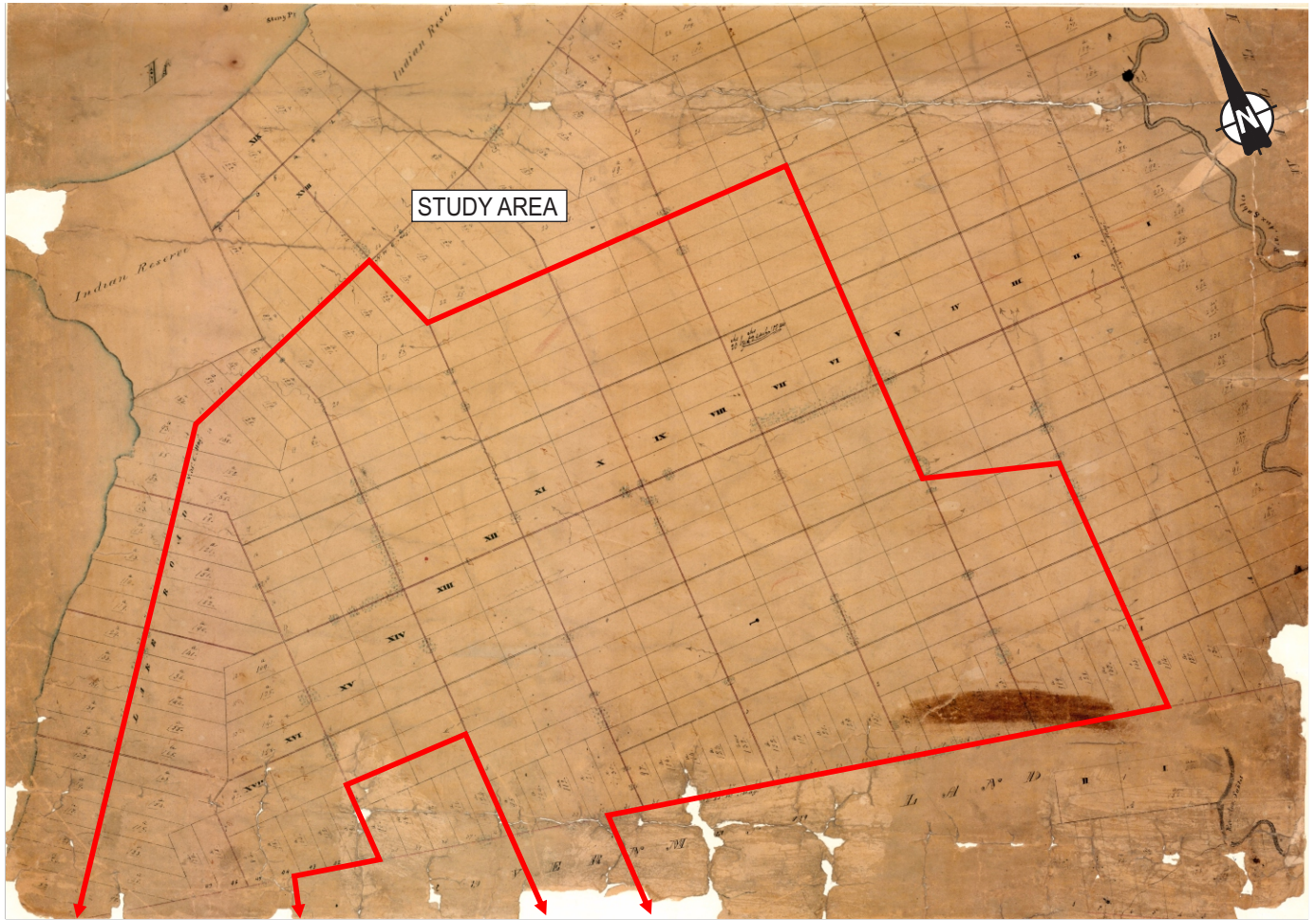
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ALL LOCATIONS ARE APPROXIMATE.

PROJECT				STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM LAMBTON COUNTY, ONTARIO			
TITLE				MAP SHOWING PETER CARROLL'S ORIGINAL 1831 EGREMONT ROAD SURVEY THROUGH WARWICK AND PLYMPTON TOWNSHIPS			
PROJECT No.		11-1136-0074		FILE No.		1111360074-1000-R01004	
CADD		SWJM		SCALE		NOT TO SCALE REV.	
CHECK		APR. 24/12		FIGURE 4			





LEGEND

 A PORTION OF CEDAR POINT WIND FARM STUDY AREA


REFERENCE

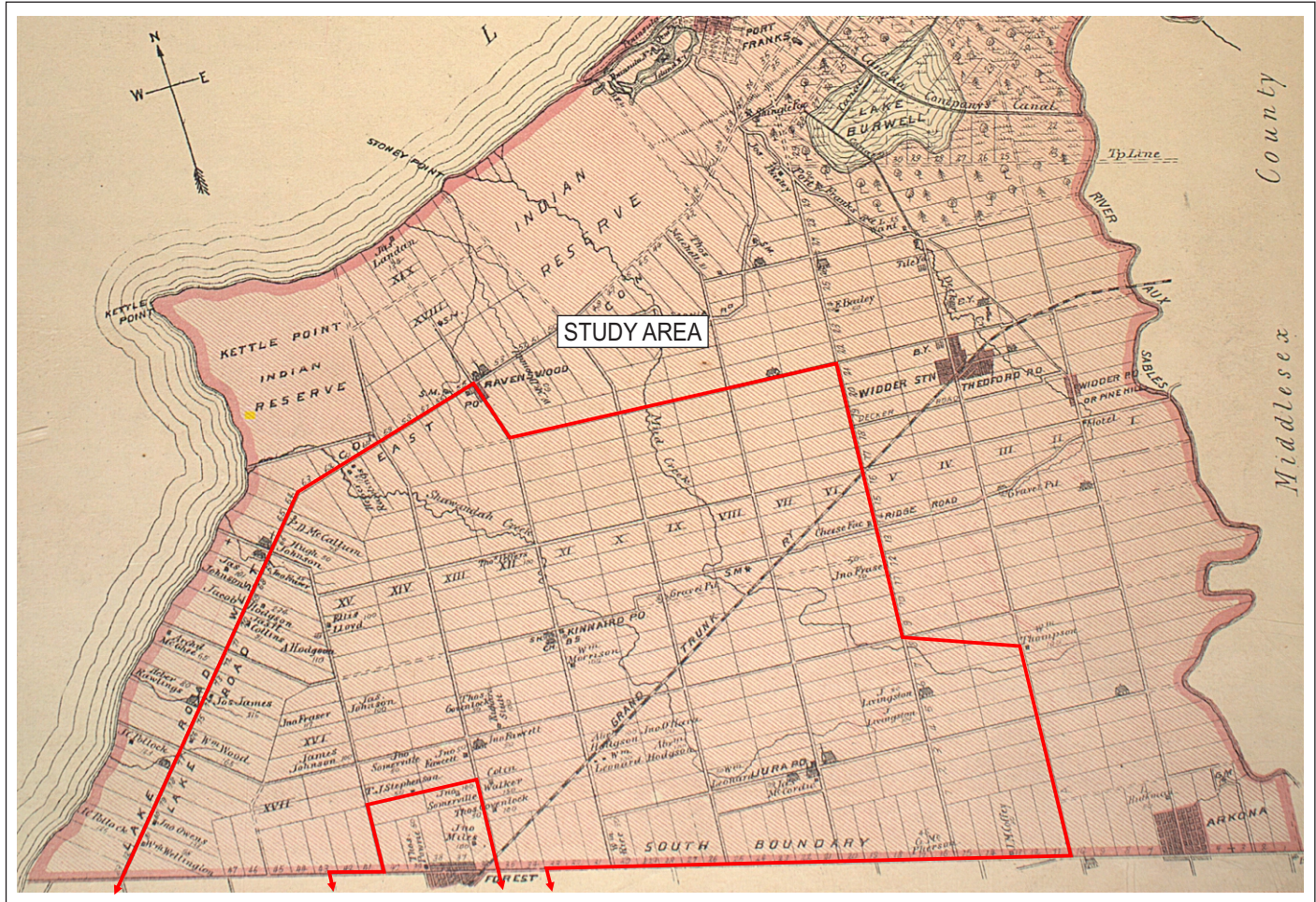
DRAWING BASED ON
 McDONALD, JOHN
 1835 MAP OF THE TOWNSHIP OF BOSANQUET. (DRAWN BY G. BURGESS). MAP ON FILE WITH THE MINISTRY OF NATURAL RESOURCES CROWN LAND SURVEY RECORDS OFFICE, PETERBOROUGH, ONTARIO.

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TITLE		STUDY AREA ON A PORTION OF THE 1835 MAP OF BOSANQUET TOWNSHIP			
		PROJECT No.	11-1136-0074	SCALE	NOT TO SCALE REV.
		CADD	SWJM	APR. 24/12	FIGURE 5
		CHECK			



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- A PORTION OF CEDAR POINT WIND FARM STUDY AREA

REFERENCE

DRAWING BASED ON

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1880 LAMBTON SUPPLEMENT. IN *ILLUSTRATED ATLAS OF THE DOMINION OF CANADA*. BELDEN, H. & CO., TORONTO.

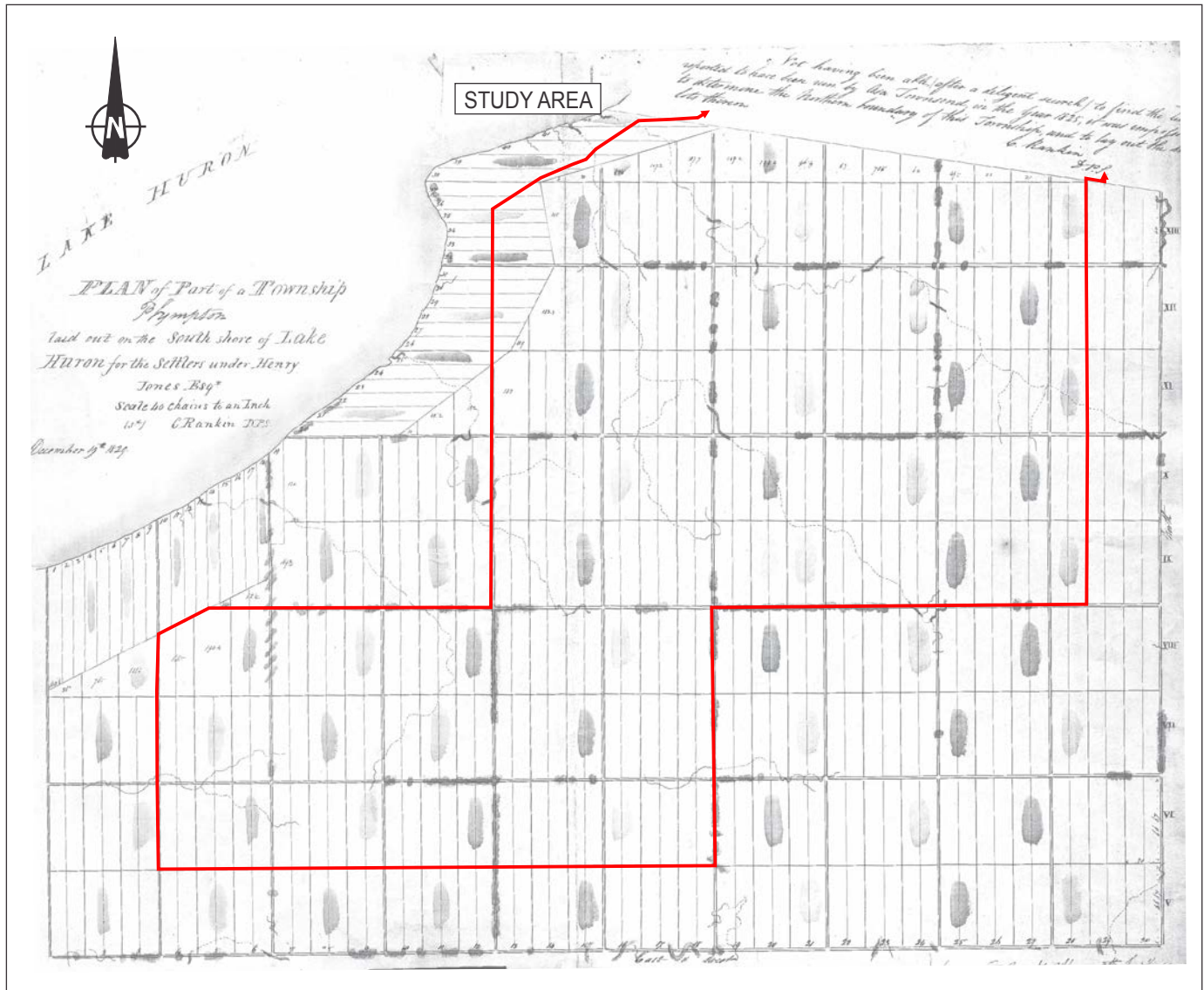
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PROJECT	STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM LAMBTON COUNTY, ONTARIO		
TITLE	STUDY AREA ON A PORTION OF THE 1880 MAP OF BOSANQUET TOWNSHIP		
PROJECT No.	11-1136-0074	FILE No.	1111360074-1000-RO1006
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LEGEND

- A PORTION OF CEDAR POINT WIND FARM STUDY AREA

REFERENCE

DRAWING BASED ON

RANKIN, CHARLES
1829 *PLAN OF PART OF A TOWNSHIP: PLYMPTON*. MAP ON
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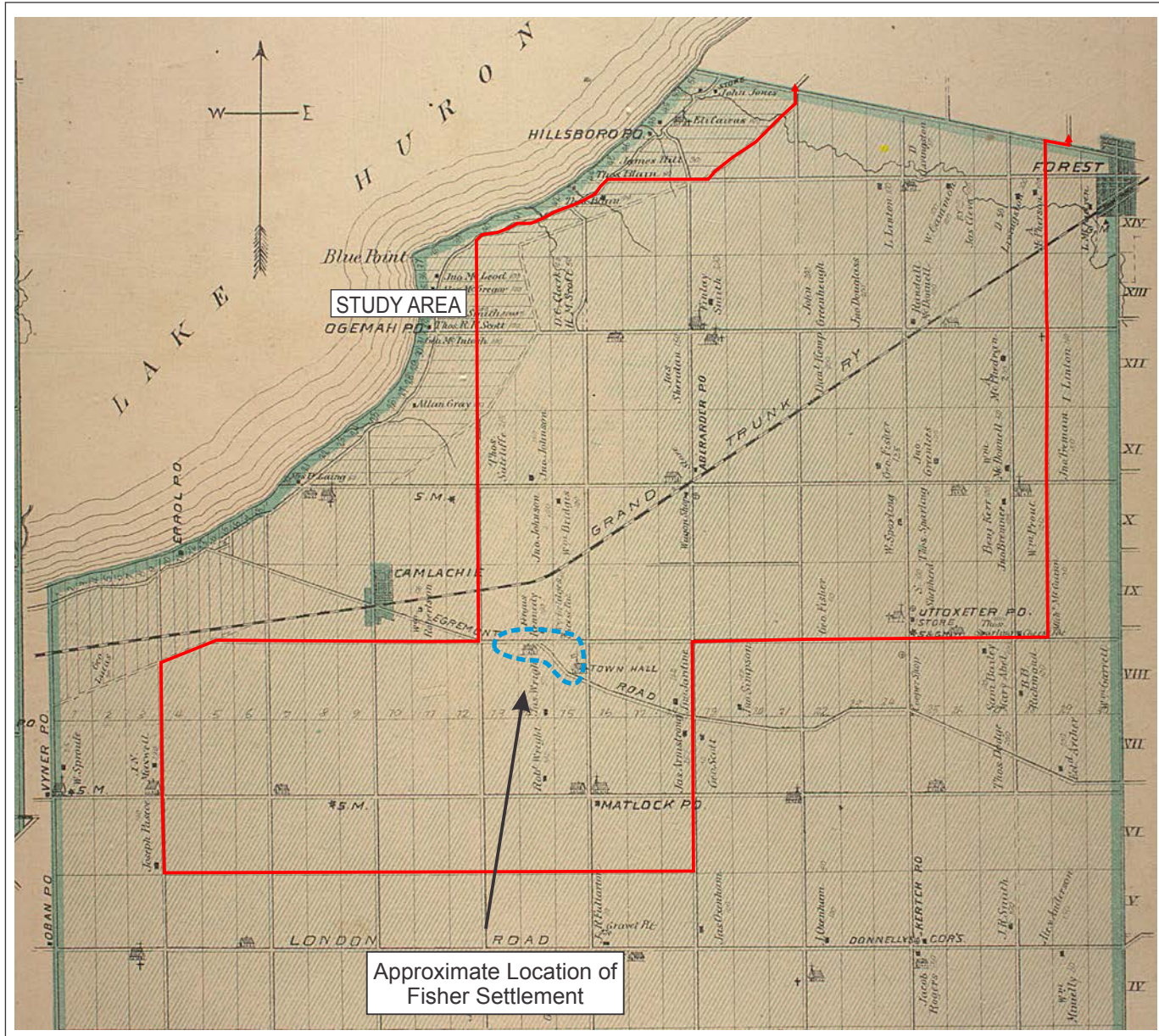
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CHECK			FIGURE 7





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 A PORTION OF CEDAR POINT WIND FARM STUDY AREA

 APPROXIMATE LOCATION OF FISHER SETTLEMENT

REFERENCE

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1880 LAMBTON SUPPLEMENT. IN *ILLUSTRATED ATLAS OF THE DOMINION OF CANADA*. BELDEN, H. & CO., TORONTO.

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PROJECT **STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CEDAR POINT WIND FARM
LAMBTON COUNTY, ONTARIO**

TITLE **STUDY AREA ON A PORTION OF THE
1880 MAP OF PLYMPTON TOWNSHIP**



PROJECT No.	11-1136-0074	FILE No.	1111360074-1000-R01008
CADD	SWJM	APR. 24/12	SCALE NOT TO SCALE REV.
CHECK			FIGURE 8



LEGEND

- CEDAR POINT WIND FARM STUDY AREA
- 3 PLATE NUMBER AND PHOTO DIRECTION

REFERENCE

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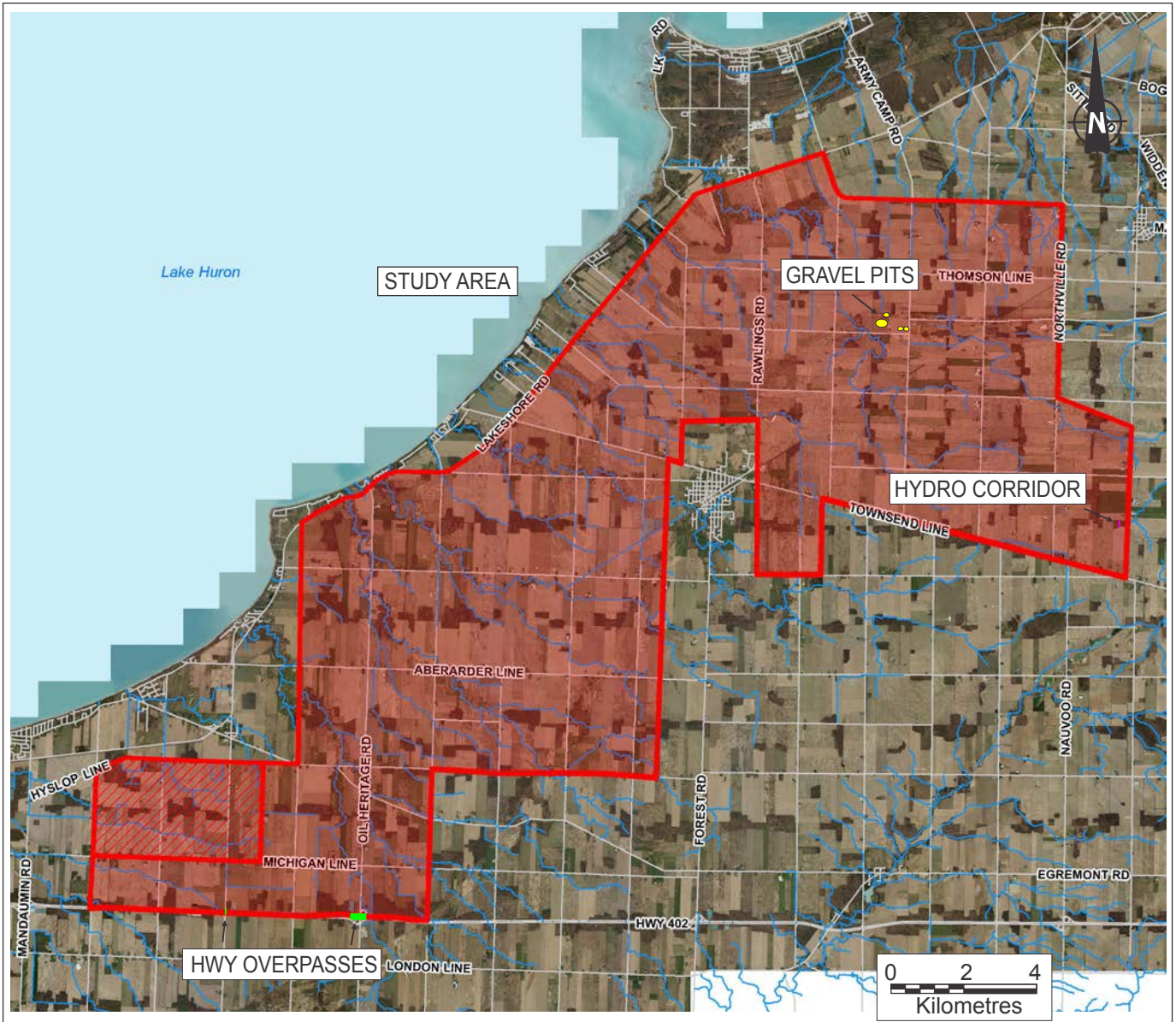
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PROJECT	STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM LAMBTON COUNTY, ONTARIO		
TITLE	PLATE NUMBERS AND PHOTO DIRECTIONS		
PROJECT No.	11-1136-0074	FILE No.	1111360074-1000-R01011
CADD	SWJM	APR. 24/12	SCALE AS SHOWN REV.
CHECK			FIGURE 11





LEGEND

- CEDAR POINT WIND FARM STUDY AREA
- AREA OF MODERATE TO HIGH ARCHAEOLOGICAL POTENTIAL
- HWY OVERPASS OR PARTIAL CLOVERLEAF (LOW ARCHAEOLOGICAL POTENTIAL)
- GRAVEL PIT (LOW ARCHAEOLOGICAL POTENTIAL)
- HYDRO TRANSMISSION CORRIDOR (AREA OF DISTURBANCE)

REFERENCE

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PROJECT			
STAGE 1 ARCHAEOLOGICAL ASSESSMENT CEDAR POINT WIND FARM LAMBTON COUNTY, ONTARIO			
TITLE			
ARCHAEOLOGICAL POTENTIAL OF STUDY AREA			
PROJECT No.	11-1136-0074	FILE No.	1111360074-1000-R01012
CADD	SWJM	SCALE	AS SHOWN REV.
CHECK	APR. 24/12	FIGURE 12	





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Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study comply with those identified in the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011a)*.

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