



June 27, 2012

STAGE 2 ARCHAEOLOGICAL ASSESSMENT

NextEra Bornish Wind Energy Centre Additional Field Work Various Lots and Concessions Municipality of North Middlesex Middlesex County, Ontario

Submitted to:

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Executive Summary

This Stage 2 archaeological 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. It was conducted on behalf of NextEra Energy Canada, ULC (NEEC) by Golder Associates Ltd. (Golder) for an approximately 11.96 hectare study area located in the Municipality of North Middlesex, Middlesex County, Ontario.

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.

A Stage 1 archaeological assessment was previously conducted by Archaeological Services Inc. (ASI) (2009a, 2009b, 2011) for the study area. The assessment determined the potential for the recovery of pre-contact Aboriginal and historic Euro-Canadian archaeological resources within the study area. As a result, Stage 2 archaeological assessment was recommended for any areas to be impacted by turbine construction, access road construction or other infrastructure related activities. ASI (2009b, 2011) conducted the initial Stage 2 field assessments for the NextEra Bornish Wind Energy Centre in 2009 and 2010.

Subsequently, the Stage 2 archaeological assessment of a revised NextEra Bornish Wind Energy Centre was undertaken by and reported on by Golder (2012b). The first part of Golder's Stage 2 archaeological assessment was conducted between June 20, 2011 and March 28, 2012 and resulted in the identification of 36 sites: 17 pre-contact Aboriginal, 18 historic Euro-Canadian, and one multi-component. Stage 3 archaeological assessments were recommended to further evaluate the cultural heritage value or interest of 23 sites.

The second part of Golder's Stage 2 archaeological assessment of the proposed project was conducted between April 17 and June 18, 2012 and is the subject of this report. This assessment was conducted according to the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consultant Archaeologists*, resulting in the identification of one location, Location 37. The Stage 2 assessment of Location 37 revealed a spatially discrete cluster of predominantly 20th century historic Euro-Canadian cultural material. Given the collected diagnostic material is mostly from the 20th century, the cultural heritage value or interest of the site has been sufficiently documented, and **no further archaeological assessment is recommended for Location 37**. It was also determined that all previous recommendations made by Golder (2012b) are still valid and do not require modification.



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The Ontario Ministry of Tourism, Culture and Sport is asked to review the results and recommendations presented herein, to accept this report into the Ontario Public Register of Archaeological Reports and to inform the proponent that the provincial concerns for archaeological resources for this study area have been met.

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.



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1.0 PROJECT CONTEXT

1.1 Development Context

This Stage 2 archaeological 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. It was conducted on behalf of NextEra Energy Canada, ULC (NEEC) by Golder Associates Ltd. (Golder) for an approximately 11.96 hectare study area located in the Municipality of North Middlesex, Middlesex County, Ontario (Figure 1). The study area is located on various lots and concessions in the Geographic Townships of West Williams and East Williams, Ontario (Figure 1). This report focuses upon additional Stage 2 archaeological assessment work that supplements the existing Stage 2 archaeological report (Golder 2012b). The additional areas studied for this report are presented in Table 1.

Table 1: Additional Parcels Studied by Golder Within the NextEra Bornish Wind Energy Centre , April to June 2012

Parcel Description	QP Number	Geographic Township	Lot	Concession	Map
MET tower and infrastructure west of Turbine 28	BOR1020	West Williams	Part 14	12 West of Centre Road (W.C.R.)	Figure 5-11; Supplement A Figure 11
Collector cable between Turbines 16 and 17	BOR1028	West Williams	Part 9	14 W.C.R.	Figure 5-06; Supplement A Figure 6
Collector cable to substation	BOR1201	West Williams	Part 10	15 W.C.R.	Figure 5-01; Supplement A Figure 1
Collector cable between Turbines 20 and 21	BOR1208	West Williams	Part 4	14 W.C.R.	Figure 5-08; Supplement A Figure 8
Collector cable between Turbines 16 and 17	BOR1277	West Williams	Part 9	13 W.C.R.	Figure 5-06; Supplement A Figure 6
Collector cable between Turbines 23 and 24	BOR1523	East Williams	Part 4	13 East of Centre Road (E.C.R.)	Figure 5-09; Supplement A Figure 9
Collector cable for Turbine 4	BOR1852	West Williams	Part 7	16 W.C.R.	Figure 5-02; Supplement A Figure 2
Turbine 24	BOR1979	East Williams	Part 4	14 E.C.R.	Figure 5-09; Supplement A Figure 9

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.

The NextEra Bornish Wind Energy Centre is planned to include 48 turbines with a 73.5 megawatt capacity as well as associated infrastructure (Golder 2012b). This includes collector cable routes, access roads, construction roads, transmission lines, staging areas, and substations. Permission to enter the optioned lots within the study area and to remove archaeological resources was given by Mr. Thomas Bird of NEEC. For the purposes of this Stage 2 assessment, the Ministry of Tourism, Culture and Sport's (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011) were followed. The objectives of the Stage 2 assessment were to document archaeological resources present within the study area, to determine whether any of the resources might be artifacts or archaeological sites with cultural heritage value or interest requiring further assessment, and to provide specific Stage 3 direction for the protection, management and/or recovery of the identified archaeological resources (Government of Ontario 2011).

The NextEra Bornish Wind Energy Centre is also associated with the Parkhill Point of Interconnect (POI) which is reported upon separately (Golder 2012a). This approximately 18.5 hectare property, located on part of Lot 18, Concession 17 East of Centre Road, in the Geographic Township of East Williams, now Municipality of North Middlesex, Middlesex County, connects the hydro lines on its east side to the proposed Bornish Wind Energy Centre properties. The associated proposed transmission line route is a parcel of approximately 40.5 hectares, located on part of Lots 3 to 18 and part of Lot 19 East Side of Centre Road, Concession 17 East of Centre Road, part of Lots 3 to 13 and part of Lot 18 East Side of Centre Road, Concession 16 East of Centre Road, and part of Lot 15, Concession 6 East of Centre Road, in the Geographic Township of East Williams and part of Lots 3 to 10 and part of Lot 19 West Side of Centre Road, Concession 17 West of Centre Road and part of Lots 3 to 9 and part of Lot 18 West Side of Centre Road, Concession 16 West of Centre Road, in the Geographic Township of West Williams, now Municipality of North Middlesex, Middlesex County.

A Stage 1 archaeological assessment was previously conducted by Archaeological Services Inc. (ASI) (2009a, 2009b, 2011) for the study area. The assessment determined the potential for the recovery of pre-contact Aboriginal and historic Euro-Canadian archaeological resources within the study area. As a result, Stage 2 archaeological assessment was recommended for any areas to be impacted by turbine construction, access road construction or other infrastructure related activities. ASI (2009b, 2011) conducted the initial Stage 2 field assessments for the NextEra Bornish Wind Energy Centre in 2009 and 2010.

Subsequently, the Stage 2 archaeological assessment of a revised NextEra Bornish Wind Energy Centre was undertaken by and reported on by Golder (2012b). The first part of Golder's Stage 2 archaeological assessment was conducted between June 20, 2011 and March 28, 2012 and resulted in the identification of 36 sites: 17 pre-contact Aboriginal, 18 historic Euro-Canadian, and one multi-component. Stage 3 archaeological assessments were recommended to further evaluate the cultural heritage value or interest of 23 sites.

The second part of Golder's Stage 2 archaeological assessment of the proposed project was conducted between April 17 and May 11, 2012. This report presents the results of the additional Stage 2 archaeological assessment for the NEEC Bornish Wind Energy Centre, conducted according to the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consultant Archaeologists*. Permission to enter the optioned lots within the study area and to remove archaeological resources was provided by Mr. Thomas Bird, of NEEC.



1.2 Archaeological Context

1.2.1 The Natural Environment

The study area is located primarily within the Huron Slope physiographic region, which borders the Horseshoe Moraines to the east and the Huron Fringe to the west (Chapman and Putnam 1984). The Huron Slope is a clay plain located along the eastern side of Lake Huron. It is modified by a narrow strip of sand and by the twin beaches of glacial Lake Warren which flank the Wyoming Moraine. The land within this region slopes gently upward from 600 feet to 850 or 900 feet above sea level. Soil types vary from clays to loams (Chapman and Putnam 1984:160-161).

The western part of the NextEra Bornish Wind Energy Centre falls within the Huron Fringe, which is characterized by a number of beaches, sand dunes, boulder, and gravel bars left behind by glacial Lake Algonquin and Lake Nipissing (Chapman and Putnam 1984:161). The eastern part of the project area falls within the southern-most portion of the Horseshoe Moraines. This region is characterized by the well-drained Huron clay loam and varies in elevation from 800 to 1700 feet above sea level (Chapman and Putnam 1984:127).

The extensive Ausable River system, including Parkhill Creek, traverses the project area and provides potable water for the area. The soils surrounding this river drainage range from mucky clays to silty loams and sands. Depending on the soil types within a given lot, the land has traditionally been used for pasture or for the production of a variety of crops including corn, hay, barley, oats, wheat, beans, sunflowers, celery, onions, sugar beets, and tender fruit (Chapman and Putnam 1984:127-129, 160-162).

1.2.2 Previously Known Archaeological Sites and Surveys

Archaeological Services Inc. (ASI) conducted the Stage 1 background study and property inspection of the proposed project area in 2008 on behalf of GENIVAR, Markham, who authorized this work on behalf of Canadian Greenpower, as part of a larger previously proposed Canadian Greenpower Wind Project for Huron, Middlesex, and Lambton counties (ASI 2009a). Consultation with the Ontario Archaeological Sites Database (ASDB) for this large proposed project area identified 212 registered archaeological sites dating back to the Middle Archaic period (*circa* 6000 to 2500 B.C.), suggesting high archaeological potential (ASI 2009a, 2009b, 2011). Specifically, a single site, AgHk-17 (85-2-1), was previously registered within two kilometres of the proposed Bornish Wind Energy Centre area (Table 2; ASI 2009b, 2011). Further, given that the Ausable River, several small creeks, and minor and seasonal tributaries were identified within the study area, ASI (2009a) identified the potential for documenting pre-contact Aboriginal occupation. Consultation of the illustrated historic atlas also pinpointed several features on the historic landscape within the study area, and when considered in conjunction with the development of transportation routes over the past two centuries, ASI (2009a) again identified potential for the recovery of Euro-Canadian cultural material.

Specifically, ASI (2009a:6; 2009b:4; 2011:3) noted the occupation of lands on either side of Bornish Drive, beginning in 1849, by several Scottish families who had established St. Columba Roman Catholic Church on the northwest corner of Centre Road and Bornish Drive by 1860. The associated church cemetery and a schoolhouse on Lot 9, Concession 12 on the southwest corner of Bornish Drive and Kerwood Road, were the only other documented historic features of note (2009a:6; 2009b:4; 2011:3).



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Golder conducted a Stage 2 assessment of the NextEra Bornish Wind Energy Centre based on the 2011 layout changes (Golder 2012b). Given the change of layout for the project and the high archaeological potential of the study area, Golder requested another inquiry of the ASDB in order to check if any other previously registered sites would be impacted by turbine construction and maintenance. Three additional pre-contact Aboriginal sites were identified within one kilometre of the revised study area (personal communication, Robert von Bitter, January 27, 2012; Government of Ontario n.d.). Table 2 summarizes these finds.

Table 2: Registered Archaeological Sites Within One Kilometre of the Study Area

Borden #	Name	Type	Period
AgHk-4	Wyoming Rapids	village	pre-contact Aboriginal, Middle Woodland Saugeen
AgHk-7	Wyoming Reach	-	pre-contact Aboriginal
AgHk-12	June 21-1	camp site	pre-contact Aboriginal
AgHk-17	85-2-1	lithic scatter	pre-contact Aboriginal

ASI (2009b, 2011) conducted the initial Stage 2 field assessments for the NextEra Bornish Wind Energy Centre in 2009 and 2010. A total of 30 archaeological sites, 27 pre-contact Aboriginal and three historic Euro-Canadian, were identified during these two field seasons (ASI 2009b, 2011), and are summarized in Table 3. In the 2011 report, it was noted that many of these sites were no longer of cultural heritage value or interest or were avoided by layout revisions. Four sites, however, including P16 (AgHk-82), P17 (AgHk-83), P26 (AgHk-90), and P31 (AgHk-94), could not be avoided, and ASI (2011) recommended Stage 3 archaeological investigation to further assess their cultural heritage value or interest. It should also be noted, that six of ASI's sites, P1 (AgHk-62), H1 (AgHk-63), H2 (AgHk-64), H3 (AgHk-65), P2 (AgHk-74), and P3 (AgHk-75), fall within one kilometre of the 2012 NextEra Bornish Wind Energy Centre layout. In addition, P19 (AgHk-85) falls within an area resurveyed by Golder in 2011 (Golder 2012b).

Table 3: Archaeological Sites Identified by ASI in 2009 to 2010

Borden #	Name	Type	Period
AgHk-62	P1	isolated findspot	pre-contact Aboriginal
AgHk-74	P2	isolated findspot	pre-contact Aboriginal, Middle Archaic Brewerton
AgHk-75	P3	isolated findspot	pre-contact Aboriginal, Middle Archaic Otter Creek
AgHk-76	P4	isolated findspot	pre-contact Aboriginal, Middle Archaic Brewerton
AgHk-77	P5	lithic scatter	pre-contact Aboriginal
-	P6	isolated findspot	pre-contact Aboriginal
AgHk-79	P8	lithic scatter	pre-contact Aboriginal
AgHk-80	P9	lithic scatter	pre-contact Aboriginal, Middle Archaic Brewerton
AgHk-81	P10	isolated findspot	pre-contact Aboriginal, Late Woodland
-	P11	isolated findspot	pre-contact Aboriginal



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Borden #	Name	Type	Period
-	P12	isolated findspot	pre-contact Aboriginal
-	P14	isolated findspot	pre-contact Aboriginal
-	P15	isolated findspot	pre-contact Aboriginal
AgHk-82	P16	lithic scatter	pre-contact Aboriginal, Early Archaic Nettling
AgHk-83	P17	lithic scatter	pre-contact Aboriginal, Middle Archaic Otter Creek
AgHk-85	P19	isolated findspot	pre-contact Aboriginal, Middle Archaic Brewerton
AgHk-86	P20	isolated findspot	pre-contact Aboriginal
AgHk-87	P21	isolated findspot	pre-contact Aboriginal
-	P22	isolated findspot	pre-contact Aboriginal
-	P23	isolated findspot	pre-contact Aboriginal
AgHk-88	P24	lithic scatter	pre-contact Aboriginal
AgHk-89	P25	isolated findspot	pre-contact Aboriginal, Middle Archaic Brewerton
AgHk-90	P26	lithic scatter	pre-contact Aboriginal
AgHk-91	P27	lithic scatter	pre-contact Aboriginal
AgHk-92	P29	lithic scatter	pre-contact Aboriginal
AgHk-93	P30	isolated findspot	pre-contact Aboriginal, Middle Archaic Brewerton
AgHk-94	P31	lithic scatter	pre-contact Aboriginal
AgHk-63	H1	homestead	historic Euro-Canadian
AgHk-64	H2	homestead	historic Euro-Canadian
AgHk-65	H3 – Hugh McPhee	homestead	historic Euro-Canadian

The first portion of the Stage 2 archaeological assessment for this project undertaken by Golder was conducted from March 2011 to April 2012 (Golder 2012b). In so doing, 36 archaeological sites were identified including 17 pre-contact Aboriginal sites, 18 historic Euro-Canadian sites, and one multi-component site (Table 4). Six of the pre-contact sites, 16 of the historic Euro-Canadian sites, and the one multi component site have been recommended for Stage 3 archaeological assessment based on the Ontario Ministry of Tourism, Culture and Sport's (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). However, as none of them fall within the proposed turbine and infrastructure layout impact area, Stage 3 field work does not need to be conducted in relation to the current project.

Table 4: Archaeological Resources Identified by the first portion of Stage 2 Archaeological Assessment by Golder, March 2011 – April 2012, (Golder 2012b).

Borden #	Name	Type	Period
-	Location 1	lithic scatter	pre-contact Aboriginal
AgHk-95	Location 2	campsite	pre-contact Aboriginal
-	Location 3	isolated findspot	pre-contact Aboriginal
AgHk-96	Location 4	homestead	historic Euro-Canadian



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Borden #	Name	Type	Period
AgHk-97	Location 5	homestead	historic Euro-Canadian
AgHk-98	Location 6	isolated findspot	pre-contact Aboriginal, Middle Woodland
AgHk-118	Location 7	isolated findspot	pre-contact Aboriginal, Middle-to-Late Archaic
-	Location 8	isolated findspot	pre-contact Aboriginal
AgHk-99	Location 9	isolated findspot	pre-contact Aboriginal, Middle Woodland
AgHj-6	Location 10	campsite	pre-contact Aboriginal
AgHj-7	Location 11	campsite	pre-contact Aboriginal
AgHj-8	Location 12	homestead	historic Euro-Canadian
AgHk-100	Location 13	homestead	historic Euro-Canadian
AgHk-101	Location 14	homestead	historic Euro-Canadian
AgHk-102	Location 15	homestead	historic Euro-Canadian
AgHk-103	Location 16	homestead	historic Euro-Canadian
AgHk-104	Location 17	homestead	historic Euro-Canadian
AgHk-105	Location 18	homestead	historic Euro-Canadian
AgHk-119	Location 19	lithic scatter	Middle-to-Late Archaic
AgHk-106	Location 20	homestead	historic Euro-Canadian
AgHk-107	Location 21	homestead	multi-component
AgHk-108	Location 22	homestead	historic Euro-Canadian
AgHk-109	Location 23	homestead	historic Euro-Canadian
AgHk-110	Location 24	campsite	pre-contact Aboriginal
AgHk-111	Location 25	homestead	historic Euro-Canadian
AgHk-117	Location 26	isolated findspot	pre-contact Aboriginal, Paleo-Indian
AgHk-112	Location 27	homestead	historic Euro-Canadian
-	Location 28	isolated findspot	pre-contact Aboriginal
-	Location 29	isolated findspot	historic Euro-Canadian
AgHk-113	Location 30	campsite	pre-contact Aboriginal
AgHk-116	Location 31	homestead	historic Euro-Canadian
-	Location 32	isolated findspot	pre-contact Aboriginal
-	Location 33	isolated findspot	pre-contact Aboriginal
AgHk-114	Location 34	homestead	historic Euro-Canadian
AgHk-115	Location 35	homestead	historic Euro-Canadian
-	Location 36	isolated findspot	pre-contact Aboriginal

Additionally, Golder (2012a) recently conducted a Stage 1 and 2 archaeological assessment of the Parkhill POI, which is located northeast of the study area. One pre-contact Aboriginal archaeological site (AgHj-2) was previously registered within 1 kilometre of the POI study area. During the Stage 2 assessment of the Parkhill POI lands, a mid-to-late 19th century historic Euro-Canadian site (Location 1, AgHj-9) was documented. Golder (2012a) recommended that this site undergo Stage 3 archaeological assessment to further evaluate its cultural heritage value or interest in advance of any ground disturbance activities.



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.

1.2.3 Pre-contact Aboriginal Resources and Archaeological Potential

Table 5 provides a general outline of the culture history of the Middlesex County area, based on Ellis and Ferris (1990). Previous archaeological assessments and research surveys have demonstrated that Middlesex County was utilized by pre-contact Aboriginal peoples.

Table 5: Cultural Chronology for Middlesex County

Period	Characteristics	Time Period	Comments
Early Palaeo-Indian	Fluted Projectiles	9000 - 8400 B.C.	spruce parkland/caribou hunters
Late Palaeo-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)	2000 - 1800 B.C.	increasing site size
	Broadpoints	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	Dentate/Pseudo-Scallop Pottery	400 B.C. - A.D.500	increased sedentism
	Princess Point	A.D. 550 - 900	introduction of corn
Late Woodland	Early Ontario Iroquoian	A.D. 900 - 1300	emergence of agricultural villages
	Middle Ontario Iroquoian	A.D. 1300 - 1400	long longhouses (100m +)
	Late Ontario Iroquoian	A.D. 1400 - 1650	tribal warfare and displacement
Contact Aboriginal	Various Algonkian Groups	A.D. 1700 - 1875	early written records and treaties
Late Historic	Euro-Canadian	A.D. 1796 - present	European settlement

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Golder applied archaeological potential criteria commonly used by the Ontario Ministry of Tourism, Culture and Sport (Government of Ontario 2011) to determine areas of archaeological potential within the region under study. These variables include proximity to previously identified archaeological



sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography and the general topographic variability of the area.

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. The closest potable water sources in the study area are the Ausable River and its numerous tributaries. These run throughout the study area from west to east, draining from Lake Huron (Figure 1). Lake Huron is also only a few kilometres away from the study area, and was likely frequently visited by pre-contact Aboriginal peoples.

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. The area surrounding the region of interest is mainly glacial till with predominantly clay soils (Chapman and Putnam 1984). These areas of glacial till have been called Horseshoe Moraines (Hagerty and Kingston 1992:11). The soils of the study area consist of Huron Brookston silt loam characterised by moderately well to imperfect drainage (Hagerty and Kingston 1992: Sheet 1). Spring drainage is relatively slow, delaying warming of the soil and restricting root growth (Hagerty and Kingston 1992:52). As such, these soils benefit from tile drainage “to reach their capability for common field crops (Hagerty and Kingston 1992:52; cf. Brock 1972:586). These soils, therefore, can be considered relatively unsuitable for pre-contact Aboriginal agriculture and do not contribute to the archaeological potential for pre-contact Aboriginal sites.

The study area falls within a climatic region which is slightly cooler, slightly wetter, and providing slightly fewer frost-free days than the surrounding areas of Middlesex County, nearer the shores of Lake Huron and Lake Erie (Hagerty and Kingston 1992:16). This may have presented risks for pre-contact Aboriginal gathering, gardening or agriculture.

The Ontario Ministry of Tourism, Culture and Sport views the presence of previously registered archaeological resources as a prime indicator of archaeological potential. There were seven previously registered pre-contact Aboriginal sites within a one kilometre radius of the study area (Table 2, Table 3). In addition, 10 pre-contact archaeological sites, and one multi-component site, were registered as a result of the previous Golder Stage 2 assessment. Somewhat further from the study area, but within the Ausable River catchment, however, 24 additional pre-contact Aboriginal sites have been documented by ASI (Table 3). They span from the Early Archaic to the Late Woodland periods, indicating that this area was favoured by pre-contact Aboriginal peoples for over 10,000 years.

Glacial till chert can be found in the moraines of the area (Chapman and Putnam 1984: Figure 16) and relatively high quality Kettle Point chert occurs to the west between Kettle Point and Ipperwash, on Lake Huron. Currently, Kettle Point chert 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). Natural resources, such as game, fish, and wild berries, have also been considered plentiful in the pre-contact period (Brock 1972:586; North Middlesex Historical Society 2010a).



Due to the proximity of the study area to the Ausable River, and its tributaries, which functioned as a potable water source, as well as a transportation route, and due to the presence of plentiful natural resources, the potential for pre-contact Aboriginal archaeological resources within the study area was judged to be moderate to high.

1.2.4 Existing Conditions

The additional Stage 2 field assessment for the revised NextEra Bornish Wind Energy Centre was conducted from April 17 to June 18, 2012 under the PIF P218-276-2012 issued to Scott Martin, Ph.D., by the MTCS. During the Stage 2 field work, the weather was generally cool with some warm days and ranged from sunny to overcast and sprinkling with rain. At no time were the field or weather conditions detrimental to the recovery of archaeological material and visibility was excellent. The study area encompasses approximately 11.96 hectares and consists of ploughed, well-weathered agricultural fields (Plates 1 to 9).

1.3 Historical Context

1.3.1 Post-contact Aboriginal Resources and Archaeological Potential

The post-contact Aboriginal occupation of Southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking communities by the New York State Iroquois and the subsequent arrival of Algonkian-speaking groups from northern Ontario at the end of the 17th century and the beginning of the 18th century (Konrad 1981; Schmalz 1991). By 1690, Algonkian speakers from the north appear to have begun to repopulate Bruce County (Rogers 1978:761). This is the period in which the Mississaugas are known to have moved into southern Ontario and the lower Great Lakes watersheds (Konrad 1981). In southwestern Ontario, however, members of the Three Fires Confederacy (Chippewa, Ottawa and Potawatomi) were immigrating from Ohio and Michigan in the late 1700s (Feest and Feest 1978:778-779).

The southeastern-most portion of the Township of East Williams was ceded to the Crown in 1819 with Treaty 21 (Dunlop *et al.* 2010a; Morris 1943:24-25). The entire study area falls slightly northwest of this treaty boundary, but first enters the Euro-Canadian historic record as part of Treaty No. 27 1/2 with the Ojibway and Chippewa (Figure 2):

...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)

Treaty No. 27 1/2 was subsequently confirmed on July 10, 1827 as Treaty Number 29 with only a minor change in the legal description of the boundaries of the land surrender (Morris 1943:27). While it is difficult to exactly delineate treaty boundaries today, Figure 2 provides an approximate outline of the limits of Treaty No. 27 1/2.



As of 1836, a small Aboriginal community of about 50 warriors and their families, including Chief Big Bow, are said to have 'squatted' for the winter, hunting game, near what is now the town of Ailsa Craig (North Middlesex District Historical Society 2012). A few Aboriginal residents continued to live in the Township of East Middlesex in 1889 on or near the John Doyle property in the Wylie neighbourhood (Brock 1972:586).

Game was considered plentiful in the area around the study area in the early- to mid-1800s (Brock 1972:586; North Middlesex District Historical Society 2012). In the late 1800s, the odd bear or wolf was still seen in the area.

1.3.2 Historic Euro-Canadian Resources and Archaeological Potential

The criteria used by the Ontario Ministry of Tourism, Culture and Sport to determine potential for historic Euro-Canadian archaeological sites includes the presence of: previously identified archaeological sites; particular, resource-specific features that would have attracted past subsistence or extractive uses; areas of initial, non-Aboriginal settlement; early historic transportation routes; elevated topography; and properties designated under the *Ontario Heritage Act*.

The lands of the present Townships of East Williams and West Williams were patented in 1830 by the Canada Company, formed in London, England in 1824 to survey, develop and sell land (ASI 2009b:4; Dunlop *et al.* 2010a). Originally united as Williams Township, named after a Canada Company employee, William Williams, the township began to be surveyed in 1831 by John McDonald, with the first six concessions surveyed between the boundary of Lobo Township to the east and the village of Nairn, to the east of the Bornish Wind Energy Centre study area (North Middlesex District Historical Society 2012). Concessions 7 to 20 followed, on a different orientation (North Middlesex District Historical Society 2012). Donald McIntosh, an agent of the Canada Company, established the first grist mill and saw mill in Nairn in 1831 (Brock 1972:586). As of 1835, a small number of Euro-Canadians were settling in the Ailsa Craig area (North Middlesex District Historical Society 2012). In 1842, the first meeting that would appoint council members for the Township of Williams, and become North Middlesex's first local government, was held at Nairn (Dunlop *et al.* 2010a). The Township of West Williams was settled in 1850 by Henry Saul, who began farming on Concession 21, and others took up residence along the Ausable River (Brock 1972:598). Williams Township was subsumed within Middlesex County around 1850 (Dunlop *et al.* 2010b), before being divided into two at Centre Road in 1860, when Nairn was seen to be too distant for those travelling from the western part of the township (Brock 1972:598; Dunlop *et al.* 2010b; Grainger 2002:62). Scottish place names can be attributed to the Scottish descent of many of the original settlers in the study area (Archaeological Services Inc. 2009:4; Grainger 2002:62). Specifically, Brock (1972:586) noted that the area was said to have been settled by "Highland Scotch" in 1833.

Other communities of note within the study area are the hamlet of Bornish, active from 1849 to the mid-20th century, but originally named Dalgetta, prior to the Bornish post office opening in 1874 (Grainger 2002:62-65); and the post office of Sable, active from 1860 to 1911 (Grainger 2002:272-274) within the study area. The village of Parkhill is located just north of the study area. It has previously been pointed out (Archaeological Services Inc. 2009:4) that homesteads are frequently found in the area of interest, particularly along settlement roads. Homesteads are visible along roads in the historical atlas from H.R. Page & Co.'s 1878 *Illustrated Historical Atlas of the County of Middlesex*. Figure 3 illustrates a portion of the NextEra Bornish Wind Energy Centre study area on part of H.R. Page & Co.'s (1878) map of the Township of East Williams, while Figure 4



illustrates the remainder of the Bornish Wind Energy Centre study area on part of H.R. Page & Co.'s (1878) map of the Township of West Williams. Individual properties will be highlighted in Section 4.0 below.

The Ontario Ministry of Tourism, Culture and Sport views the presence of previously registered archaeological resources as a prime indicator of archaeological potential. There were three Euro-Canadian sites within a one kilometre radius of the study area (Table 3) that were identified by ASI during the 2009 Stage 2 survey (ASI 2009b, 2011). In addition, 17 historic Euro-Canadian sites, and one multi-component site, were registered as a result of the first part of the Golder Stage 2 assessment (Golder 2012b).

Due to the proximity of the study area to the Ausable River watershed, which functioned as a potable water source and a transportation route, a historic reference to a homestead within the study area, the proximity of the study area to the historic communities of Bornish, Nairn, and Parkhill and to historic transportation routes, the potential for historic Euro-Canadian resources was judged to be high.

1.3.3 Recent Reports

A summary of reports pertaining to the properties under consideration for the Bornish Wind Energy Centre is provided below.

The Stage 1 archaeological assessment was conducted by Archaeological Services Inc. (ASI) and was entitled *Stage 1 Archaeological Assessment: Canadian Greenpower Wind Project, Counties of Huron, Middlesex and Lambton, Ontario* (ASI 2009a) produced by ASI in May 2009 under PIF P057-456-2008. The first part of the Stage 2 archaeological assessment was also conducted by ASI and was entitled *Stage 2 Property Assessment (June 2009 Field Season): Bornish Wind Farm Project Environmental Assessment, East Williams, West Williams, and Adelaide Townships, Middlesex County, Ontario* (ASI 2009b) produced by ASI in October 2009 under PIF P057-534-2009. The second part of the Stage 2 archaeological assessment was again conducted by ASI and was entitled *Stage 2 Archaeological Assessment (Property Assessment): Bornish Wind Farm Project, East Williams, West Williams, and Adelaide Townships, Middlesex County, Ontario* (ASI 2011) produced by ASI in March 2011 under PIF P057-534-2009.

Golder (2012) recently conducted a Stage 1 and 2 Archaeological Assessment of the Parkhill Point of Interconnect lands to the northeast of the study area. This report was entitled *Stages 1 and 2 Archaeological Assessment, Parkhill Point of Interconnect, Various Lots and Concessions, Geographic Townships of East Williams and West Williams now Municipality of North Middlesex, Middlesex County, Ontario*, and was produced on February 7, 2012 under PIF P319-018-2012. Additional work was also conducted on the Parkhill Point of Interconnect lands and has been reported upon in a report currently under review by MTCS entitled *Stages 1 and 2 Archaeological Assessment, Parkhill Point of Interconnect – Additional Lands, Part of Lot 18, Concession 17 E.C.R., Geographic Township of East Williams, now Municipality of North Middlesex, Middlesex County, Ontario*. The report was produced on June 12, 2012 under PIF P319-020-2012.

The first part of the Stage 2 archaeological assessment of the revised Bornish Wind Energy Centre undertaken by Golder was entitled *Stage 2 Archaeological Assessment, NextEra Bornish Wind Energy Centre, Municipality of North Middlesex, Middlesex County, Ontario*. The report was produced on April 18, 2012 under PIFs P218-097-2011 and P319-013-2012.



2.0 FIELD METHODS

The study area encompasses additional portions of previously surveyed parcels to be impacted by the NextEra Bornish Wind Energy Centre, in addition to those already assessed in the previous Stage 2 archaeological assessment report (Golder 2012b). These parcels accommodate changes to the design and layout of the development plan.

The additional Stage 2 field assessment for the revised NextEra Bornish Wind Energy Centre was conducted from April 17 to June 18, 2012 under the PIF P218-276-2012 issued to Scott Martin, Ph.D., by the MTCS. During the additional Stage 2 field work, the weather was generally cool with some warm days and ranged from sunny to overcast and sprinkling with rain. At no time were the field or weather conditions detrimental to the recovery of archaeological material and visibility was excellent. The study area encompasses approximately 11.96 hectares and consists of ploughed, well-weathered agricultural fields.

As the study area is characterized by ploughed and well-weathered agricultural fields, the Stage 2 assessment was conducted using pedestrian survey at five metre intervals (Plates 1 to 9). Numerous areas existed within the study area where pedestrian survey was possible, despite conditions visible on aerial photography. These included seasonal watercourses of widths less than one metre and treed windbreaks of widths less than five metres (in ploughed agricultural fields). Their presence did not impact pedestrian survey transects since they were accommodated within the five metre transects.

When archaeological resources were identified, the survey transect was decreased to a one metre interval and spanned a minimal 20 metre radius around the identified artifact. This approach established if the artifact was an isolated find or if it was part of a larger artifact scatter. If the artifact was part of a larger scatter, the one metre interval was continued until the full extent of the scatter was defined (Government of Ontario 2011).

In order to address concerns about the impact of the wind turbine infrastructure, standalone collector cable corridors or transmission line corridors on private lands were surveyed as 20 metre wide corridors; transmission line corridors, limited to municipal right-of-ways, were surveyed from the road edge to the edge of the right-of-way; and all roads or roads with collector cables alongside were surveyed as 60 metre wide corridors. All turbine pads with associated vehicle and crane turnarounds and equipment laydown areas were assessed as a 70 metre radius centred on the turbine. The meteorological (MET) tower location was surveyed as a 60 metre radius centred on the MET tower with a 20 metre wide corridor for the road and collector cable leading to the MET tower. Finally, all substation and laydown areas were assessed with 20 metre buffers.

All formal and diagnostic artifact types were collected and a UTM reading was taken using either a Trimble Recon handheld GPS unit with a Holux GR-271 CF GPS Receiver, using the North American Datum (NAD) 83, with a minimal accuracy of two metres, or a Garmin eTrex Legend handheld GPS unit using the North American Datum (NAD) 83, with a minimal accuracy of five metres. UTM coordinates were recorded for one archaeological site, presented in the supplementary documentation (Supplement B). Supplement A illustrates the Stage 2 field assessment methods and results across the study area on the parcels studied in this report while Figure 5 illustrates the field assessment methods alone.

Two First Nations monitors participated in the additional Stage 2 archaeological assessment; their roles are summarized in Supplement C.



3.0 RECORD OF FINDS

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 6 below and the Stage 2 archaeological assessment results are discussed here. Golder's additional Stage 2 survey of the proposed NextEra Bornish Wind Energy Centre properties identified one archaeological location, a historic Euro-Canadian site. A summary of the artifacts collected from this site, the spatial extent, and a description of the artifacts left in the field are provided below. Supplement A, which illustrates the Stage 2 survey methods and results, and Supplement B, which lists the UTM coordinates for each of these locations, are included as supplementary documents to this report.

Table 6: Inventory of Documentary Record

Document Type	Current Location of Document Type	Additional Comments
Field Notes	Golder offices in London and Mississauga	In original field book and photocopied in project file
Hand Drawn Maps	Golder offices in London and Mississauga	In original field book and photocopied in project file
Maps Provided by Client	Golder offices in London and Mississauga	Hard and digital copies in project file
Digital Photographs	Golder office in Mississauga	Stored digitally in project file

All of the material culture collected during the NextEra Bornish Wind Energy Centre Stage 2 survey is contained in one banker's box with the previously collected Stage 2 material (Golder 2012b). It will be temporarily housed at Golder's Mississauga office until formal arrangements can be made for their transfer to an Ontario MTCS collections facility.

3.1 Location 37

The additional Stage 2 pedestrian survey of the proposed wind energy components on property BOR1201, north of Coldstream Road and west of Kerwood Road, resulted in the identification of one archaeological location. Location 37 is a historic Euro-Canadian site that was identified on May 11, 2012, during pedestrian survey, consisting of an approximately 77 metre (north-south axis) by 40 metre (east-west axis) surface scatter of more than 200 historic Euro-Canadian artifacts. In total, 81 artifacts were collected during the Stage 2 assessment. The 81 collected artifacts include 74 domestic, four structural and three personal. A complete artifact catalogue for Location 37 is presented in Section 3.1.4.

3.1.1 Domestic Artifacts

A total of 74 domestic artifacts were collected during the pedestrian survey of the Stage 2 assessment of Location 1 including 45 ceramic, 23 glass, and six household artifacts.



3.1.1.1 Ceramic Artifacts

In total, 45 fragments of ceramic hollowware and flatwares were collected during the Stage 2 assessment of Location 37. Included in this total are 16 whiteware, 10 ironstone, nine semi-porcelain, seven porcelain, and three utilitarian earthenware. Table 7 provides a breakdown of the ceramic assemblage by ware type, while Table 8 provides a more detailed breakdown of the ceramic assemblage by decorative style.

Table 7: Summary of Ceramic Collection According to Ware Type

Artifact	Frequency	%
whiteware	16	35.56
ironstone	10	22.22
semi-porcelain	9	20.00
porcelain	7	15.56
utilitarian earthenwares	3	6.67
Total	45	100.00

Table 8: Summary of Ceramic Collection According to Decorative Style

Artifact	Frequency	%
whiteware, transfer print	10	22.22
semi-porcelain, transfer print	9	20.00
ironstone, moulded	5	11.11
ironstone, banded, industrial slip	3	6.67
porcelain, painted	3	6.67
porcelain, decal	3	6.67
ironstone, transfer print	2	4.44
whiteware, flow transfer print	1	2.22
whiteware, sponged	1	2.22
whiteware, stamped	1	2.22
whiteware, edged	1	2.22
whiteware, painted	1	2.22
whiteware, plain	1	2.22
porcelain, plain	1	2.22
yellowware, glazed	1	2.22
stoneware, Albany Slip	1	2.22
stoneware, glazed, transfer printed	1	2.22
Total	45	100.00



Whiteware

The most prominent ceramic type collected at Location 37 was whiteware. Whiteware is a variety of earthenware with a near colourless glaze that replaced earlier near white ceramics such as pearlware and creamware by the early 1830s. There are 10 transfer printed pieces consisting of four with various blue patterns (Plate 10:1), three Willow patterned pieces, two with teal coloured transfer, and one with a grey floral transfer print. One flow blue transfer print fragment was collected; flow blue was first introduced to North America in 1845 (Miller, 2000:13). One fragment with brown sponge decoration was collected (Plate 10:3); as was one with a stamped blue line. Both sponged and stamped wares have a broad date range from the mid-19th through to the mid-20th centuries (Miller 2000:13). There was one curved, faintly incised blue edged fragment (Plate 10:2) which dates from 1850 to 1897 (Miller, 1987). There was one fragment with a late palette blue and pink painted band, dating somewhere from the 1830s to the 1920s (Miller 1991:8). Finally, one plain piece was collected.

Ironstone

There were 10 fragments of ironstone collected from Location 37. Ironstone or graniteware is a variety of refined white earthenware introduced in the 1840's that became extremely popular in Upper Canada by the 1860's. Ironstone or white granite generally has a more vitreous and thicker body than the ordinary white earthenwares. The glaze is often slightly blue, owing to the addition of cobalt, but smooth unlike the earlier pearlwares. Undecorated Stone China is most common after 1850, and during the 1870s to 1880s it was the most popular type of tableware ceramic in Ontario (Adams 1994). Ironstone pieces in this assemblage include: five moulded pieces consisting of four flatware rims with floral designs (Plate 10:5) and one handle base from a large vessel with wheat pattern which was patented in 1848 (Sussman 1985:7). Three different fragments with industrial slip blue, yellow and brown banding (Plate 10:4) were collected which generally dates to the second half of the 19th century and into the 20th century (Miller 1991:6). Finally, two pieces were collected that bear maker's marks demonstrating manufacture in England dating to after 1891 due to the McKinley Tariff Act (Godden 1988:11).

Semi-Porcelain

There were nine fragments of semi-porcelain collected during the Stage 2 investigation of Location 37. During the first half of the 19th century, the English improved pottery techniques resulting in the production of durable and decorative wares with trade names such as semi-porcelain. This hard earthenware sought to emulate imported porcelains but lacked true translucency. In 1850, semi-porcelains were reintroduced and this vitreous, hard-glazed white earthenware resembling bone china soon dominated the marketplace (Hughes 1961). Semi-porcelain fragments in this collection include: seven fragments with "blue willow" pattern transfer print (Plate 10:6) and two pieces with olive green transfer printing.

Porcelain

There were seven pieces of porcelain collected during the Stage 2 survey of Location 37. Porcelain is a type of earthenware fired at such a high temperature that the clay has begun to vitrify; consequently the ceramic is translucent when held up to a light. Because of its high cost, porcelain is extremely rare on 19th century sites in Ontario. However, by the turn of the century it becomes relatively common as production techniques were



developed in Europe which greatly reduced costs. There are three porcelain pieces painted with dark blue paint, one of which is a handle for a lid of some type of small serving dish (Plate 10:7). There are three decal pieces, a decoration style that is first produced in 1890 (Miller 2000:13), including one with a makers mark indicating it was manufactured in Japan and dates later than 1921 (Miller 2000:9) and one with a scene reminiscent of a Willow pattern design (Plate 10:8). Finally, there is one plain fragment.

Utilitarian Earthenware

Two fragments of stoneware and one fragment of yellow earthenware were collected from Location 37. Yellow earthenware vessels were manufactured throughout the late 18th and 19th centuries and were the most common utilitarian ware in the first half of the 19th century, eventually being replaced by more durable stoneware vessels (Miller 1987). Stoneware vessels were produced throughout the 19th century, becoming more durable and refined over time. The collected utilitarian pieces from this assemblage include: one fragment of yellowware with a clear glaze interior and a clear and blue glaze exterior; one fragment of stoneware with an Albany slip interior and exterior (Plate 10:10), Albany slip having a broad date range from 1805 to 1920 (Miller 2000:10); and one brown stoneware with a clear glaze interior and a white and blue scene glazed on the exterior (Plate 10:9).

3.1.1.2 Glass Artifacts

There were a total of 23 pieces of domestic glass collected from the Stage 2 pedestrian survey of Location 37. These pieces include: one complete small clear vial bottle with threaded finish (Plate 11:1), the threaded finish having been developed in 1919 (Miller 2000:2); one clear bottle finish from a pharmaceutical bottle; two clear bottle or jar bases where one is ribbed and one has a Consumer's Glass makers mark (Plate 11:2), use of this mark began in 1920 (Miller and Jorgenson 1986:3); three light aqua bottle fragments with embossed lettering, two of which are from sides of panel bottles (Plate 11:3); three fragments of light aqua large bottle or jars including one base and two threaded finishes; two small fragments from a panel bottle; two fragments of amber bottle glass, where one is a large pharmaceutical finish and the other a small flask base with embossed letters (Plate 11:4); two cobalt blue bottle fragments, where one is a threaded finish and the other a flat body fragment; two light purple (amethyst) bottle fragments, one finish and one body fragment; one olive green bottle base; an amethyst glass decorative serving dish base (Plate 11:6); one moulded clear decorative serving dish rim (Plate 11:5); one clear glass threaded finish of a salt shaker; and one white glass fragment with black painted enamel writing, a technique which was first used commercially in the United States in 1938 (Lindsey 2012), presumably from a health/hygiene product (Plate 11:7).

3.1.1.3 Household Artifacts

There were six household artifacts collected from Location 37 consisting of: three utensils including a matching fork and spoon of the Sincerity "Magic Lily" pattern (Plate 12:4) dating to the 1950's and a teaspoon (Plate 12:3); a small pulley; an indeterminate copper alloy piece; and a small sample of coal.



3.1.2 Structural Artifacts

There were four structural artifacts collected during the Stage 2 survey of Location 37. These pieces consist of: a fragment of window pane glass with a thickness greater than 1.6 millimetres dating to after the 1840s (Kenyon 1980); one cut nail; an iron object, possibly a door latch (Plate 12:5); and a screw-in plug fuse.

3.1.3 Personal Artifacts

There were three personal artifacts collected during the Stage 2 investigation. Two white four-hole agate buttons (Plate 12:1) were collected. Agate buttons are made from pressed ceramic powder manufactured by the "Prosser" process patented in 1840. They became common from the late 1840s onwards. Agate buttons, which are often confused with white glass buttons, are distinguishable due to the dimpled appearance of the back of the button which is a result of the moulding process (Adams 1994:96). An aluminum heart-shaped pendant inscribed "Joanne" was also collected (Plate 12:2).

3.1.4 Artifact Catalogue for Location 37

Table 9: Stage 2 Artifact Catalogue for Location 37 (contained in one banker's box with previously reported upon Stage 2 Bornish Wind Energy Centre material)

Cat. #	Context	Depth	Artifact	Freq.	Comments
1	surface collection	0 cm	ironstone, moulded	4	floral pattern, rims
2	surface collection	0 cm	ironstone, moulded	1	wheat pattern, handle base, large vessel
3	surface collection	0 cm	ironstone, transfer print	2	both have makers marks and "England"; one has a possible Royal Arms mark
4	surface collection	0 cm	whiteware	1	plain
5	surface collection	0 cm	whiteware, transfer print	1	grey transfer, holloware base
6	surface collection	0 cm	whiteware, transfer print	2	teal transfer, plate rims
7	surface collection	0 cm	semi-porcelain	7	blue transfer, willow pattern
8	surface collection	0 cm	porcelain	1	plain
9	surface collection	0 cm	porcelain, painted	1	handle of lid, blue, green, brown paint
10	surface collection	0 cm	button, agate	2	white four hole
11	surface collection	0 cm	glass, window	1	pane
12	surface collection	0 cm	bottle glass	1	olive, base



STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ENERGY CANADA, ULC, BORNISH ADDITIONAL

Cat. #	Context	Depth	Artifact	Freq.	Comments
13	surface collection	0 cm	glass tableware	1	amethyst, base of serving dish
14	surface collection	0 cm	bottle glass	1	amethyst, finish
15	surface collection	0 cm	bottle glass	1	clear, finish, panel bottle?, machine-made
16	surface collection	0 cm	bottle glass	2	aqua, panel bottle sides, embossed letters
17	surface collection	0 cm	bottle glass	2	clear, panel bottle, small fragments
18	surface collection	0 cm	glass, white	1	body of jar, black enamel paint
19	surface collection	0 cm	whiteware, transfer print	3	blue transfer, willow pattern
20	surface collection	0 cm	whiteware, transfer print	4	blue transfer, various designs
21	surface collection	0 cm	whiteware, flow transfer print	1	flow blue
22	surface collection	0 cm	ironstone, banded	3	blue, brown and yellow industrial slip
23	surface collection	0 cm	semi-porcelain	2	olive green transfer print
24	surface collection	0 cm	whiteware, sponged	1	brown
25	surface collection	0 cm	whiteware, banded	1	painted blue and pink, late palette
26	surface collection	0 cm	whiteware, edged	1	blue, curved, faintly incised
27	surface collection	0 cm	porcelain	1	decal, willow pattern
28	surface collection	0 cm	whiteware, stamped	1	blue line, foot ring
29	surface collection	0 cm	porcelain	1	hollowware base, makers mark "Japan"
30	surface collection	0 cm	porcelain	1	blue decal
31	surface collection	0 cm	porcelain, painted	2	blue and gold paint
32	surface collection	0 cm	earthenware, yellow	1	clear and blue exterior glaze
33	surface collection	0 cm	stoneware	1	brown material, clear interior glaze, white and flow blue exterior glaze
34	surface collection	0 cm	stoneware	1	Albany Slip interior and exterior



STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ENERGY CANADA, ULC, BORNISH ADDITIONAL

Cat. #	Context	Depth	Artifact	Freq.	Comments
35	surface collection	0 cm	glass bottle, complete	1	clear small vial, threaded finish
36	surface collection	0 cm	bottle glass	2	cobalt blue, panel bottle body, threaded finish
37	surface collection	0 cm	bottle glass	1	amethyst square bottle, body
38	surface collection	0 cm	glass tableware	1	clear, finish, salt shaker
39	surface collection	0 cm	bottle glass	1	amber, base with embossed letters
40	surface collection	0 cm	bottle glass	1	amber, finish
41	surface collection	0 cm	bottle glass	1	aqua, large jar/ bottle, embossed letters
42	surface collection	0 cm	bottle glass	1	aqua, threaded jar finish
43	surface collection	0 cm	bottle glass	1	aqua, threaded finish, large jar
44	surface collection	0 cm	bottle glass	1	aqua, base, large bottle/ jar
45	surface collection	0 cm	glass tableware	1	clear, moulded serving dish
46	surface collection	0 cm	bottle glass	2	clear; one ribbed base; one base with Consumer's Glass mark
47	surface collection	0 cm	pendant	1	aluminum, heart, inscription "Joanne"
48	surface collection	0 cm	utensil	1	tea spoon, perfect condition
49	surface collection	0 cm	utensil	2	spoon and fork, matching floral design
50	surface collection	0 cm	recent material	1	fuse
51	surface collection	0 cm	latch	1	iron door latch
52	surface collection	0 cm	miscellaneous copper artifact	1	copper alloy collar
53	surface collection	0 cm	miscellaneous metal	1	pulley
54	surface collection	0 cm	nail, cut	1	cut nail
55	surface collection	0 cm	coal	1	coal sample



4.0 ANALYSIS AND CONCLUSIONS

The additional Stage 2 archaeological assessment of the NextEra Bornish Wind Energy Centre study area resulted in the identification of one archaeological site, Location 37. Analysis of this location is provided below, determining whether further assessment is recommended. Additionally, all previous locations documented by ASI (ASI 2009, 2011) and Golder (2012b) were re-examined to see if they are impacted differently by any layout changes. It was determined that no site was impacted differently than what was discussed by Golder previously (Golder 2012b). At the end of this section, a preliminary indication is provided as to whether this site may require Stage 4 archaeological assessment.

4.1 Location 37

The artifacts collected during the Stage 2 assessment of Location 37 represent a scatter of 81 predominantly early 20th century Euro-Canadian artifacts. The most predominant ceramic type collected was whiteware along with some fragments of ironstone, semi-porcelain, porcelain, and utilitarian earthenwares.

Many of the artifacts collected generally date to the end of the 19th century and into the 20th century such as porcelain with decal decoration which begins in the 1890s (Miller 2000:13); glass bottles and jars with threaded finishes which developed after 1919 (Miller 2000:2); and the presence of an electrical plug fuse. Additionally, a number of the artifacts in this assemblage can be specifically dated based on a particular characteristic, such as the Consumer's Glass makers mark which began in 1920 (Miller and Jorgenson 1986:3); "England" in the ironstone makers mark dating to after 1891 (Godden 1988:11); the "Magic Lily" flatware design dating to 1955 (Sterling Flatware 2012); and the painted enamel writing which was first used in 1938 (Lindsey 2012).

The artifacts collected from this location generally represent a late 19th and early 20th century date of manufacture. Within this collection there are not 20 artifacts that can be specifically dated to a period of use prior to 1900 which would represent cultural heritage value or interest. Based on these considerations, the artifacts identified do not fulfill the criteria for a Stage 3 archaeological investigation as per Section 2.2 Standard 1c of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.2 Preliminary Indication of Sites Possibly Requiring Stage 4 Archaeological Assessment

This preliminary indication of whether any site could be eventually recommended for Stage 4 archaeological assessment is required under the *Standards and Guidelines for Consultant Archaeologists* Section 7.8.3 Standard 2c (Government of Ontario 2011). Since Location 37 has not been recommended for a Stage 3 archaeological assessment, no Stage 4 archaeological assessments are anticipated.



5.0 RECOMMENDATIONS

This Stage 2 archaeological assessment was conducted on behalf of NextEra Energy Canada, ULC by Golder Associates Ltd. for an approximately 11.96 hectare study area located in the Municipality of North Middlesex, Middlesex County, Ontario. The study area is located on various lots and concessions in the Geographic Townships of West Williams and East Williams, Ontario.

The Stage 2 archaeological 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* (Government of Ontario 2009b).

This additional Stage 2 assessment of the revised NextEra Bornish Wind Energy Centre layout resulted in the identification of one location, Location 37. The Stage 2 assessment of Location 37 revealed a spatially discrete cluster of predominantly 20th century historic Euro-Canadian cultural material. Given the collected diagnostic material is mostly from the 20th century, the cultural heritage value or interest of the site has been sufficiently documented and **no further archaeological assessment is recommended for Location 37**. It was also determined that all previous recommendations made by Golder (2012b) are still valid and do not require modification.

The Ontario Ministry of Tourism, Culture and Sport is asked to review the results and recommendations presented herein, to accept this report into the Ontario Public Register of Archaeological Reports and to inform the proponent that the provincial concerns for archaeological resources for this study area have been met.



6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Ontario Minister of Tourism, Culture and Sport 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 cultural 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 cultural 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 Ontario Ministry of Consumer Services.



7.0 BIBLIOGRAPHY AND SOURCES

Adams, Nick

1994 *Field Manual for Avocational Archaeologists in Ontario*. Ontario Archaeological Society Inc., Archaeological Stewardship Project.

Archaeological Services Inc.

2009a *Stage 1 Archaeological Assessment: Canadian Greenpower Wind Project, Counties of Huron, Middlesex and Lambton, Ontario*. Report submitted to the Ontario Ministry of Tourism, Culture and Sport, Toronto.

2009b *Stage 2 Property Assessment (June 2009 Field Season): Bornish Wind Farm Project Environmental Assessment, East Williams, West Williams, and Adelaide Townships, Middlesex County, Ontario*. Report submitted to the Ontario Ministry of Tourism, Culture and Sport, Toronto.

2011 *Stage 2 Archaeological Assessment (Property Assessment): Bornish Wind Farm Project, East Williams, West Williams, and Adelaide Townships, Middlesex County, Ontario*. Report submitted to the Ontario Ministry of Tourism, Culture and Sport, Toronto.

Brock, Daniel (ed.)

1972 *The History of the County of Middlesex*. New Edition. Mika Studio, Belleville.

Chapman, Lyman John and Donald F. Putnam

1984 *The Physiography of Southern Ontario*. 3rd ed. Ontario Geological Survey Special Volume 2. Ontario Ministry of Natural Resources, Toronto.

Dunlop, Robert, Arne Larsen and Edward Bodfish

2010a *The Impact of World and Canadian History on North Middlesex from 1800 to 1849*. Electronic document: <http://150years.ca/histmenu.aspx>. Last accessed June 19, 2012.

2010b *The Impact of World and Canadian History on North Middlesex from 1850 to 1899*. Electronic document: <http://150years.ca/histmenu.aspx>. Last accessed June 19, 2012.

Eley, Betty and Peter von Bitter

1989 *Cherts of Southern Ontario*. Royal Ontario Museum, Toronto.



Ellis, Chris and Neal Ferris (eds.)

1990 *The Archaeology of Southern Ontario to A.D. 1650*. Occasional Publication Number 5. London Chapter, Ontario Archaeological Society, London, ON.

Feest, Johanna and Christian Feest

1978 Ottawa. In *Handbook of North American Indians. Volume 15, Northeast*, edited by Bruce Trigger, pp. 772-786. Smithsonian Institution Press, Washington.

Fox, William

2009 Ontario Cherts Revisited. In *Painting the Past With a Broad Brush: Papers in Honour of James Valliere Wright*, edited by David Keenlyside and Jean-Luc Pilon, pp. 353-370. Mercury Series, Archaeology Paper 170. Canadian Museum of Civilization, Gatineau.

Golder Associates Ltd.

2012a *Stages 1 and 2 Archaeological Assessment, Parkhill Point of Interconnect, Various Lots and Concessions, Geographic Townships of East Williams and West Williams now Municipality of North Middlesex, Middlesex County, Ontario*. Report submitted to the Ontario Ministry of Tourism, Culture and Sport, Toronto.

2012b *Stage 2 Archaeological Assessment, NextEra Bornish Wind Energy Centre, Municipality of North Middlesex, Middlesex County, Ontario*. Report submitted to the Ontario Ministry of Tourism, Culture and Sport, Toronto.

Government of Canada

2000 *Topographic Map Sheet 40 P/04: Parkhill, Ontario (Edition 8)*. Centre for Topographic Information, Natural Resources Canada, Ottawa.

Government of Ontario

1990 *The Ontario Heritage Act*. Electronic document: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90o18_e.htm. Last accessed June 19, 2012.

2011 *Standards and Guidelines for Consultant Archaeologists*. Ministry of Tourism, Culture and Sport, Toronto.



n.d. Archaeological Sites Database. Ministry of Tourism, Culture and Sport, Toronto.

Grainger, Jennifer

2002 *Vanished Villages of Middlesex*. Natural Heritage/Natural History, Inc., Toronto.

Hagerty, T.P. and M.S. Kingston

1992 *The Soils of Middlesex County*. Volume 1. Report No. 56 of the Ontario Centre for Soil Resource Evaluation. Resources Management Branch, Ontario Ministry of Agriculture and Food. Guelph, Ontario.

Hughes, G. Bernard

1961 *English and Scottish Earthenware 1660-1860*. Abbey Fine Arts, London.

Kenyon, Ian

1980 Window Glass Thickness. *KEWA* 80-2.

Konrad, Victor

1981 An Iroquois Frontier: The North Shore of Lake Ontario during the Late Seventeenth Century. *Journal of Historical Geography* 7(2):129-144.

Lindsey, Bill

2012 *Historic Glass Bottle Identification and Information Website*. Electronic document: <http://www.sha.org/bottle/index.htm>. Last accessed on May 30, 2012.

Miller, George L.

1987 *An Introduction to English Ceramics for Archaeologists*. Midwestern Archaeological Research Centre. Illinois State University, Illinois.

1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(1):1-25.

2000 Telling Time for Archaeologists. *Northeast Historical Archaeology* 29:1-17.



Miller, George L. and Elizabeth, A. Jorgenson

1986 *Some Notes on Bottle Mould Numbers from the Dominion Glass Company and its Predecessors*. Parks Canada, Ottawa.

Morris, J.L.

1943 *Indians of Ontario*. 1964 reprint. Ontario Department of Lands and Forests, Toronto.

North Middlesex District Historical Society

2012 *A Bit of N. Middlesex*. Electronic document: http://www.ailsacraigmuseum.ca/copy_news.html. Last accessed June 19, 2012.

Page, H.R. & Co.

1878 *Illustrated Historical Atlas of the County of Middlesex, Ontario*. H.R. Page & Co., Toronto.

Rogers. E.S.

1978 Southeast Ojibwa. In *Handbook of North American Indians. Volume 15, Northeast*, edited by Bruce Trigger, pp. 760-771. Smithsonian Institution Press, Washington, D.C.

Schmalz, Peter S.

1991 *The Ojibwa of Southern Ontario*. University of Toronto Press, Toronto.

Sterling Flatware

2012 Sterling Flatware, Fashions and Facts. Electronic document: <http://www.sterlingflatwarefashions.com/SPPatterns/Embassy.html>. Last accessed June 1, 2012.

Sussman, Lynne

1985 The Wheat Pattern, An Illustrated Survey. *Studies in Archaeology, Architecture and History*. Parks Canada, Environment Canada, Ottawa.



**STAGE 2 ARCHAEOLOGICAL ASSESSMENT
NEXTERA ENERGY CANADA, ULC, BORNISH ADDITIONAL**

Wilson, J.A. and M. Horne

1995 *City of London Archaeological Master Plan*. City of London, Department of Planning and Development, London.



8.0 IMAGES

Plate 1: Pedestrian survey at 5 metre intervals, parcel BOR1028, facing north.



Plate 2: Pedestrian survey at 5 metre intervals, parcel BOR1201, facing south.



Plate 3: Pedestrian survey at 5 metre intervals, parcel BOR1208, facing northeast.



Plate 4: Pedestrian survey at 5 metre intervals, parcel BOR1277, facing east.





**STAGE 2 ARCHAEOLOGICAL ASSESSMENT
NEXTERA ENERGY CANADA, ULC, BORNISH ADDITIONAL**

Plate 5: Pedestrian survey at 5 metre intervals, parcel BOR1277, facing south.



Plate 6: Pedestrian survey at 5 metre intervals, parcel BOR1523, facing east.



Plate 7: Pedestrian survey at 5 metre intervals, parcel BOR1852, facing north.



Plate 8: Pedestrian survey at 5 metre intervals, parcel BOR1979, facing east.





Plate 9: Pedestrian survey at 5 metre intervals, parcel BOR1020, facing west.





STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ENERGY CANADA, ULC, BORNISH ADDITIONAL

Plate 10: Selection of Ceramic Artifacts from Location 37, actual size



1: Whiteware, Transfer print
Cat # 20



2: Whiteware, edged
Cat # 26



3: Whiteware, sponged
Cat # 24



4: Ironstone, Industrial slip
Cat # 22



5: Ironstone, moulded
Cat # 1



6: Semi-Porcelain, Transfer print
Cat # 7



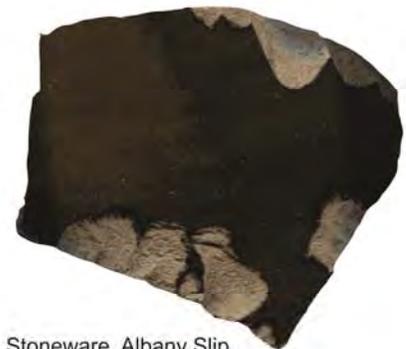
7: Porcelain, painted
Cat # 9



8: Porcelain, decal
Cat # 27



9: Stoneware, transfer print
Cat # 33



10: Stoneware, Albany Slip
Cat # 34



Plate 11: Selection of Glass Artifacts from Location 37, actual size



1: Complete clear bottle
Cat # 35



2: Clear bottle base
Consumer's Glass mark
Cat # 46



3: Aqua panel bottle
embossed letters
Cat # 16



4: Amber flask bottle base
Cat # 39



5: Clear, moulded
glass serving dish
Cat # 45



6: Amethyst glass
serving dish base
Cat # 13



7: White glass
painted enamel
Cat # 18



Plate 12: Selection of Personal and Structural Artifacts from Location 37, actual size



1: Agate Button
Cat # 10



2: Aluminum heart pendant
"Joanne" inscription
Cat # 47



3: Teaspoon
Cat # 48



4: Fork with "Magic Lily" design
Cat # 49

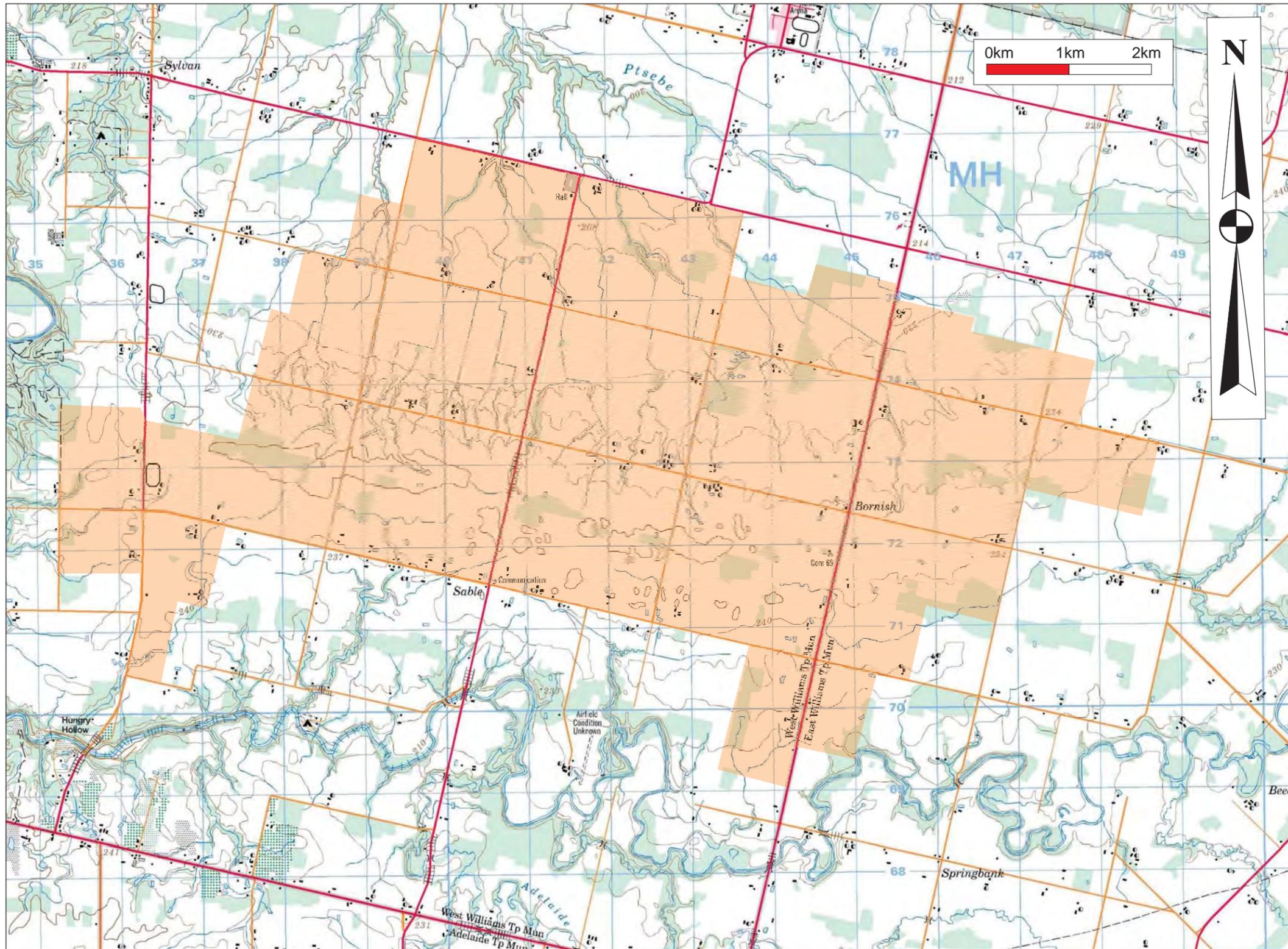


5: Iron door latch
Cat # 51



9.0 MAPS

All maps will follow on the succeeding pages.



LEGEND

 STUDY AREA

REFERENCE

DRAWING BASED ON
 Government of Canada
 2000 Topographic Map Sheet 40 P/04: Parkhill, Ontario.
 (Edition 8). Scale 1:50,000. Centre for Topographic
 Information, Natural Resources Canada, Ottawa.

NOTES

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ
 IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

PROJECT
**STAGE 2 ARCHAEOLOGICAL ASSESSMENT
 ADDITIONAL FIELD WORK
 BORNISH WIND ENERGY CENTRE
 MIDDLESEX COUNTY, ONTARIO**

TITLE
LOCATION OF STUDY AREA



PROJECT No.	11-1154-0030	FILE No.	1111540030-2000-R02001
CADD	JM	SCALE	AS SHOWN REV.
CHECK		FEB 6/12	

FIGURE 1