

Ministry of Tourism, Culture and Sport
Confirmation Letter
March 25, 2013

Ministry of Tourism,
Culture and Sport

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March 25, 2013

Jim Wilson
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Ottawa, Ontario
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RE: *Stage 2 Archaeological Assessment, Suncor Energy Cedar Point Wind Power Project, Various Lots and Concessions, Municipality of Lambton Shores, Town of Plympton-Wyoming and Township of Warwick, Lambton County, Ontario*, MTCS Project Information Form Number P001-680-2012, Fit Number F-002175-WIN-130-601, MTCS File Number HD00761

Dear Proponent:

This letter constitutes the Ministry of Tourism and Culture's written comments as required by s. 22(3)(a) of O. Reg. 359/09 under the *Environmental Protection Act* regarding archaeological assessments undertaken for the above project.

Based on the information contained in the report you have submitted for this project, the Ministry believes there are no outstanding concerns to the archaeological resources, and therefore the report has been 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 the report(s).*

The report recommends the following:

The additional Stage 2 assessment resulted in the identification of five pre-contact Aboriginal archaeological sites (Locations 1, 2, 3, 4 and 6) as well as one post contact Aboriginal site (Location 5) and one Euro-Canadian site (Location 7 (AgHI-48)).

5.1 LOCATION 1 (AgHI-47)

*The Stage 2 assessment of Location 1 (AgHI-47) identified a projectile point resembling a Late Archaic Narrow point. Given the isolated nature of the find the cultural heritage value or interest of the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.***

5.2 LOCATION 2

*The Stage 2 assessment of Location 2 identified a tertiary flake. Given the isolated nature of the find it was determined to have been sufficiently documented and **no further archaeological assessment is recommended.***

5.3 LOCATION 3

*The Stage 2 assessment of Location 3 identified a scraper. Given the isolated nature of the find the cultural heritage value or interest of the sites is considered to be sufficiently documented and **no further archaeological assessment is recommended.***

5.4 LOCATION 4

*The Stage 2 assessment of Location 4 identified an incomplete projectile point. Given the isolated nature of the find the cultural heritage value or interest of the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.***

5.5 LOCATION 5

*The Stage 2 assessment of Location 5 identified a scraper manufactured from worked glass, dating to pre 1880. Given the isolated nature of the find the cultural heritage value or interest of the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.***

5.6 LOCATION 6

*The Stage 2 assessment of Location 6 identified a non-diagnostic utilized flake. Given the isolated nature of the find the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.***

5.7 LOCATION 7 (AgHI-48)

*The Stage 2 assessment of Location 7 (AgHI-48) identified a Euro-Canadian site containing predominantly whiteware, ironstone and yellowware dating mid to late 19th century. Given the mid to late 19th century date of the artifacts collected and observed **further Stage 3 work is recommended for Location 7 (AgHI-48).***

The Ministry is satisfied with these recommendations.

This letter does not waive any requirements which you may have under the Ontario Heritage Act. A separate letter addressing archaeological licensing obligations under the Act has been sent to the archaeologist who completed the assessment.

This letter does not constitute approval of the renewable energy project. Approvals of the project may be required under other statutes and regulations. It is your responsibility to obtain any necessary approvals or licences.

Please feel free to contact me if you have questions or require additional information.

Sincerely,

A handwritten signature in blue ink that reads "Sarah Roe". The signature is written in a cursive style with a long horizontal stroke at the end of the name.

Sarah Roe
Archaeology Review Officer

c. Jim Wilson

* 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 2 Archaeological Assessment

Stage 2 Archaeological Assessment

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



Stantec

Submitted to:
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License Number: P001
PIF Number: P001-680-2012
FIT NUMBER: F-002175-WIN-130-601

ORIGINAL REPORT

January 25, 2013

Executive Summary

A Stage 2 archaeological assessment was conducted by Stantec Consulting Ltd. (Stantec) for additional properties for the Suncor Energy Cedar Point Wind Power Project on behalf of Suncor Energy Products Inc. (Suncor). Golder Associates previously conducted a Stage 1 assessment as well as a Stage 2 assessment (2012a, 2012b) for the Suncor Energy Cedar Point Wind Power Project.

The Stage 2 assessment conducted by Stantec was undertaken in order to meet the requirements for an application for a Renewable Energy Approval, as outlined in Ontario Regulation 359/09 sections 21 and 22 under Part V.0.1 of the *Environmental Protection Act* (Government of Ontario 1990a). Two hundred and forty-nine hectares were assessed during the Stage 2 assessment conducted on behalf of Suncor by Stantec for the study area located in the Municipality of Lambton Shores, Town of Plympton-Wyoming and Township of Warwick, Lambton County, Ontario.

The additional Stage 2 assessment resulted in the identification of five pre-contact Aboriginal archaeological sites (Locations 1, 2, 3, 4 and 6) as well as one post-contact Aboriginal site (Location 5) and one Euro-Canadian site (Location 7).

Given the isolated nature of the finds for Locations 1, 2, 3, 4,5 and 6, the cultural heritage value or interest of the sites is considered to be sufficiently documented and **no further archaeological assessment is recommended.**

The Stage 2 assessment of Location 7 identified a Euro-Canadian site containing predominantly whiteware, ironstone and yellowware dating mid to late 19th century. Given the mid to late 19th century date of the artifacts collected and observed **further Stage 3 work is recommended for Location 7.**

The Ministry of Tourism, Culture and Sport is asked to accept this report into the Ontario Public Register of Archaeological Reports. Additional archaeological assessment is still required; hence the archaeological site recommended for further archaeological field work remains 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 license.

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

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Project Personnel

Licensed Archaeologist:	Jim Wilson, MA (P001)
Project Manager	Tracie Carmichael, BA, B.Ed. (R140)
Project Coordinator	Amanda Laprise, BA
Licensed Field Directors:	Darren Kipping, MA (R422) Dennis Wilson, MA (R366) Krista Lane, BA (R382) Adria Grant, BA (R131) Adam Hossack, BA (P084)
Field Technicians:	Andy Chillman, Lauren Zapishny, BA, Phil Rees, B.Sc., Amanda Laprise, B.A, Laura Riffel, Carly Hoey, Ian McCann, Sam Bratina, Jane McLaughlin, BA, Sergei Vassiliev, Adam Coquim, Victor Smith, Steve Van Damme, Layten Harder, Amanda MacKinnon, Gemma Calgie, BA, Tom Irvin, MA (P379), Brandy Bendig, Richard Johnson,
First Nations Monitors:	Brandy George, MA, Luis Machinho
Report Writer:	Amanda Laprise, BA
Office Assistants:	Jeffrey Muir, BA (R304)
Senior Review:	Jim Wilson, MA (P001) Tracie Carmichael, BA, B.Ed (R140)
Proponent Contact:	Chris Scott, P.Eng., Suncor Energy Products Inc.
Ministry of Tourism, Culture and Sport:	Robert von Bitter Shari Prowse, MA

1.0 Project Context

1.1 DEVELOPMENT CONTEXT

A Stage 2 archaeological assessment was conducted by Stantec Consulting Ltd. (Stantec) for additional properties for the Suncor Energy Cedar Point Wind Power Project on behalf of Suncor Energy Services Inc. (Suncor). The Stage 2 assessment was undertaken in order to meet the requirements for an application for a Renewable Energy Approval, as outlined in Ontario Regulation 359/09 sections 21 and 22 under Part V.0.1 of the *Environmental Protection Act* (Government of Ontario 1990a). Two hundred and forty-nine hectares were assessed during the Stage 2 assessment conducted on behalf of Suncor by Stantec for the study area located in the Municipality of Lambton Shores, Town of Plympton-Wyoming and Township of Warwick, Lambton County, Ontario (Figure 1).

Previous archaeological work was conducted by Golder Associates Ltd. (Golder) in 2012 (2012a, 2012b). A more detailed discussion of past investigations is presented in Section 1.3.

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 21(2) of the REA, an archaeological assessment must be conducted by a consultant archaeologist. Golder previously determined that archaeological potential for the recovery of pre-contact Aboriginal and Euro-Canadian historic archaeological resources exists within the study area (Golder 2012a). 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 Suncor Energy Cedar Point Wind Energy Project will include 55 wind turbines as well as associated infrastructure including collector cable routes, access roads, construction roads, transmission lines and substations.

Permission to enter the optioned lot within the study area and remove archaeological resources was provided by Chris Scott of Suncor. 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).

1.2 HISTORICAL CONTEXT

The study area comprises of agricultural fields, homesteads, farms, businesses, small communities, woodlots and several waterways all located in the Municipality of Lambton Shores, Town of Plympton-Wyoming and Township of Warwick, Lambton County, Ontario (Figure 1). This portion of southwestern Ontario has been occupied by First Nations peoples since the retreat of the glaciers approximately 11,000 years ago. For the majority of this time people followed a hunter gatherer lifestyle, moving seasonally between areas of localized resource abundance. Approximately 1300 years ago, with the arrival in Ontario of corn beans and squash there was a gradual move towards farming and the reliance on domesticated food stuff, resulting in the eventually emergence of permanent villages by the 10th century. The majority of the study area has been subject to European style agricultural practices for much of the past two centuries, with all of the land available for settlement taken up by Euro-Canadian farmers by the mid-19th century.

1.2.1 Pre-contact Aboriginal Resources

It has been demonstrated that pre-contact Aboriginal people began occupying southwestern Ontario as the glaciers receded from the land, as early as 9,000 B.C. Table 1 provides a general outline of the cultural chronology of Lambton County, based on Ellis and Ferris (1990).

Table 1: Cultural Chronology for Lambton County

Period	Characteristics	Time Period	Comments
Early Paleo-Indian	Fluted Projectiles	9000 - 8400 B.C.	spruce parkland/caribou hunters
Late Paleo-Indian	Hi-Lo Projectiles	8400 - 8000B.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
	Broad Points	1800 - 1500 B.C.	large chipped lithic tools
	Small Points	1500 - 1100B.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

Period	Characteristics	Time Period	Comments
	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

1.2.2 Post-contact Aboriginal Resources

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 study area first enters the Euro-Canadian historic record when the Ojibwa and Chippewa First Nations entered into Treaty Number 27 ½ (Figure 2) 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)

While it is difficult to exactly delineate treaty boundaries today, Figure 2 provides an approximate outline of the limits of Treaty Number 27 ½.

1.2.3 Historic Euro-Canadian Archaeological Resources and Surveys

The Canada Company purchased a large parcel of land, which they called the Huron Tract, for European settlement. Deputy Provincial Surveyor John McDonald surveyed the majority of the land in the early 1800s. The study area falls in the former Townships of Bosanquet and Plympton as well as the Township of Warwick all located in Lambton County. The 1880 H. Belden & Company's Historical Atlas map (Belden, H. & Co. 1880) (Figure 3 to Figure 5) shows the increase in settlement by illustrating structures and landowner names through the townships. Additional historic background research can be found in the *Stage 1 Archaeological Assessment, Suncor Cedar Point Wind Farm, Municipality of Lambton Shores Town of Plympton-Wyoming and Township of Warwick, Lambton County, Ontario* (Golder 2012a) under PIF P084-196-2010 and P218-210-2012.

1.2.4 Recent Reports

Other than the existing historic documentation, the additional study area has been documented in recent archaeological assessments. The Stage 1 archaeological assessment was conducted by Golder and was entitled *Stage 1 Archaeological Assessment, Suncor Cedar Point Wind Farm, Municipality of Lambton Shores Town of Plympton-Wyoming and Township of Warwick, Lambton County, Ontario* (Golder 2012a) under PIF P084-196-2010 and P218-210-2012. The Stage 2 archaeological assessment conducted by Golder in the report entitled *Stage 2 Archaeological Assessment, Suncor Cedar Point Wind Power Project, Various Lots and Concessions Municipality of Lambton Shores, Town of Plympton-Wyoming and Township of Warwick, Lambton County, Ontario* (Golder 2012b) under PIF P084-225-2010 and P218-184-2011.

1.3 ARCHAEOLOGICAL CONTEXT

The additional Stage 2 field assessment was conducted between October 9, 2012 and January 15, 2013 under the PIF P001-680-2012 issued to Jim Wilson, MA, by the MTCS. The areas assessed during the stage 2 archaeological assessment encompasses approximately 249 hectares and consists of a ploughed, well-weathered, agricultural fields, woodlots, areas of previous disturbance, areas of steep slope and creeks.

1.3.1 The Natural Environment

The study area is located within the Horseshoe Moraines, the Huron Fringe, and the St. Clair Plains (Chapman and Putnam 1984:113). The Horseshoe Moraines is moderately hilly with gravel terraces and swampy floors (Chapman and Putnam 1984:128). The Huron Fringe consists of mostly sandy soil with pockets of gravel bars (Chapman and Putnam 1984:161) and the St. Clair Plains physiographic region is an area generally of till plains with shallow deposits of clay (Chapman and Putnam 1984:147). The soils of the study area include the Perth series and the Brookston series both of which are imperfectly drained, however both yield high crops, and farmers are often required to implement drainage systems (Matthews and Richards 1957:45-47). A number of small streams transect of study area including Bear Creek, Hickory

Creek, Aberarder Creek, Highland Creek, Bonnie Doon Creek, Shashawandah Creek and Mud Creek. All seven creeks listed drain into Lake Huron which is located to the west of the study area (Figure 1).

1.3.2 Previously Known Archaeological Sites and Surveys

A Stage 1 archaeological assessment was previously conducted by Golder (2012a) and resulted in the determination that the potential for pre-contact Aboriginal and Euro-Canadian sites was deemed to be moderate to high and therefore a Stage 2 assessment was recommended for any areas to be impacted by construction.

A Stage 2 archaeological assessment was previously conducted by Golder (2012b, Figure 6). The Stage 2 assessment focused upon the proposed wind turbine layout, including turbine sites, collector cable routes, access roads, construction roads, transmission lines, laydown areas and substations. A total of approximately 953.7 hectares was subject to Stage 2 archaeological assessment, the majority of which was assessed using the pedestrian survey method at an interval of five metres. Small areas of ditches and tree lines that could not be assessed using the pedestrian survey method were assessed using the test pit method at an interval of five metres (Golder 2012b). Seventy-two locations were found during the Stage 2 archaeological assessment. Fifteen of those locations were recommended for Stage 3 assessment [Location 9 (AgHm-9), Location 10 (AgHm-10), Location 18 (AgHm-12), Location 19 (AhHI-75), Location 30 (AgHm-13), Location 31 (AgHm-14), Location 35 (AgHm-15), Location 36 (AgHm-16), Location 38 (AgHm-17), Location 44 (AgHI-7), Location 47 (AgHI-8), Location 50 (AgHI-10), Location 56 (AgHI-10), Location 62 (AgHI-11) and Location 65 (AgHI-12)], and the remaining 57 sites were not recommended for further work (Golder 2012b). Table 2 summarizes the sites found by Golder within the Suncor Energy Cedar Point Wind Energy Project (Golder 2012b). Table 3 summarizes the sites found within the study area as well as sites found just outside the study area based on the Archaeological Sites Database (ASDB) (Government of Ontario, n.d.).

Table 2: Archaeological Sites Found in the Initial Stage 2 Assessment by Golder

Site	Borden #	Cultural Affiliation	Stage 3 Recommended
1	n/a	Pre-contact Aboriginal	no
2	n/a	Pre-contact Aboriginal	no
3	n/a	Pre-contact Aboriginal	no
4	n/a	Pre-contact Aboriginal	no
5	n/a	Pre-contact Aboriginal	no
6	n/a	Pre-contact Aboriginal	no
7	n/a	Pre-contact Aboriginal	no
8	n/a	Pre-contact Aboriginal	no
9	AgHm-9	Historic Euro-Canadian	yes
10	AgHm-10	Historic Euro-Canadian	yes
11	n/a	Pre-contact Aboriginal	no
12	n/a	Pre-contact Aboriginal	no

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Site	Borden #	Cultural Affiliation	Stage 3 Recommended
13	n/a	Pre-contact Aboriginal	no
14	n/a	Pre-contact Aboriginal	no
15	AgHm-11	Historic Euro-Canadian	no
16	n/a	Pre-contact Aboriginal	no
17	n/a	Pre-contact Aboriginal	no
18	AgHm-12	Pre-contact Aboriginal	yes
19	AhHI-75	Pre-contact Aboriginal	yes
20	n/a	Pre-contact Aboriginal	no
21	n/a	Pre-contact Aboriginal	no
22	n/a	Pre-contact Aboriginal	no
23	n/a	Pre-contact Aboriginal	no
24	n/a	Pre-contact Aboriginal	no
25	n/a	Pre-contact Aboriginal	no
26	n/a	Pre-contact Aboriginal	no
27	n/a	Pre-contact Aboriginal	no
28	n/a	Pre-contact Aboriginal	no
29	n/a	Pre-contact Aboriginal	no
30	AgHm-13	Pre-contact Aboriginal	yes
31	AgHm-14	Pre-contact Aboriginal	yes
32	n/a	Pre-contact Aboriginal	no
33	n/a	Pre-contact Aboriginal	no
34	n/a	Pre-contact Aboriginal	no
35	AgHm-15	Pre-contact Aboriginal	yes
36	AgHm-16	Historic Euro-Canadian	yes
37	n/a	Pre-contact Aboriginal	no
38	AgHm-17	Historic Euro-Canadian	yes
39	n/a	Pre-contact Aboriginal	no
40	n/a	Pre-contact Aboriginal	no
41	n/a	Pre-contact Aboriginal	no
42	n/a	Pre-contact Aboriginal	no
43	n/a	Pre-contact Aboriginal	no
44	AgHI-7	Pre-contact Aboriginal	yes
45	n/a	Pre-contact Aboriginal	no
46	n/a	Pre-contact Aboriginal	no
47	AgHI-9	Pre-contact Aboriginal	yes
48	n/a	Pre-contact Aboriginal	no
49	n/a	Pre-contact Aboriginal	no
50	AghI-9	Pre-contact Aboriginal	yes
51	n/a	Historic Euro-Canadian	no
52	n/a	Pre-contact Aboriginal	no

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Site	Borden #	Cultural Affiliation	Stage 3 Recommended
53	n/a	Pre-contact Aboriginal	no
54	n/a	Pre-contact Aboriginal	no
55	n/a	Pre-contact Aboriginal	no
56	AgHI-10	Historic Euro-Canadian	yes
57	n/a	Pre-contact Aboriginal	no
58	n/a	Pre-contact Aboriginal	no
59	n/a	Pre-contact Aboriginal	no
60	n/a	Pre-contact Aboriginal	no
61	n/a	Pre-contact Aboriginal	no
62	AgHI-11	Historic Euro-Canadian	yes
63	n/a	Pre-contact Aboriginal	no
64	n/a	Pre-contact Aboriginal	no
65	AgHI-12	Pre-contact Aboriginal	yes
66	n/a	Pre-contact Aboriginal	no
67	n/a	Pre-contact Aboriginal	no
68	n/a	Pre-contact Aboriginal	no
69	n/a	Pre-contact Aboriginal	no
70	n/a	Pre-contact Aboriginal	no
71	n/a	Pre-contact Aboriginal	no
72	n/a	Pre-contact Aboriginal	no

Table 3: Archaeological Sites Registered Within and Just Outside the Study Area

Site	Borden Number	Site Type	Site Extents	Cultural Affiliation
ROM	AfHm-1	undetermined	-	Pre-contact
Robert Norton	AfHn-5	midden	10 metre diameter	Euro-Canadian
-	AgHm-6	campsite	20 by 25 metres	Pre-contact
-	AgHm-7	findspot	2 artifacts 2 metres apart	Late Archaic
-	AgHm-8	stone tool workshop	-	Late Woodland
85-2-2	AhHI-28	undetermined	-	Pre-contact
Mud Creek	AgHI-39	undetermined	-	Pre-contact
Kettle Point Industrial Park	AhHI-53	campsite	20 by 50 metres	Pre-contact
Kettle Stony Point	AhHI-54	campsite	20 by 20 metres	Pre-contact
Kwrrlw& Stony Point	AhHI-55	campsite	10 by 10 metres	Pre-contact
Kettle & Stony Point	AhHI-56	campsite	10 by 10 metres	Pre-contact

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Site	Borden Number	Site Type	Site Extents	Cultural Affiliation
Kettle & Sandy Point	AhHI-57	campsite	40 by 75 metres	Pre-contact
-	AhHI-58	residential	60 by 50 metres	Euro-Canadian
-	AhHI-59	residential	-	Euro-Canadian
-	AhHI-60	residential	40 by 50 metres	Euro-Canadian
-	AhHI-61	residential	60 by 40 metres	Euro-Canadian
-	AhHI-62	farmstead	-	Euro-Canadian
Holmes	AgHk-1	chipping station	-	Late Woodland/Early Iroquoian
Moons	AgHI-1	campsite	-	Archaic
Braun	AgHI-2	campsite/hamlet/village	30 by 12 metres	Late Woodland
Standpipe Location 1	AgHI-3	findspot	-	Archaic
Geertz #1	AgHI-4	camp	-	Late Archaic
Geertz#2	AgHI-5	camp	125 by 80 metre	Early Archaic
Geertz#3	AgHI-6	camp	North locus 45 by 35 metres, South locus 30 by 25 metres	Multi-component
-	AgHm-1	undetermined	-	Middleport/ Uren
Robert Brown	AgHm-2	undetermined	-	Unknown
Lambton Shores Condominium	AgHm-3	campsite/quarry	-	Early-Late Woodland
Arkenstone	AgHm-4	campsite	20 by 30 metres	Pre-contact
Asfaloth	AgHm-5	findspot	-	Pre-contact

Four archaeological reports are currently registered with the MTCS of work conducted within 50 metres of the study area. They are as follows:

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.

Mayer Archaeological Consultants Ltd. 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.

To the best of our knowledge there was no additional archaeological work conducted within 50 metres of the study area.

1.3.3 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Stantec applied archaeological potential criteria commonly used by the MTCS (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 to the study area are a number of small streams which transect the study area including Bear Creek, Hickory Creek, Aberarder Creek, Highland Creek, Bonnie Doon Creek, Shashawandah Creek and Mud Creek. All seven creeks listed drain into Lake Huron to the west of the study area (Figure 1).

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. Aboriginal groups preferred well drained lighter (sandy) soil to heavier soils. The soils of the study area are imperfectly drained soils, which despite this yield high crop and can possibly be suitable for pre-contact Aboriginal agriculture.

The MTCS also views the presence of previously registered archaeological resources as a prime indicator of archaeological potential. There are 85 registered Aboriginal sites and one multi-component site within and just outside of the study area.

Due to the proximity to water sources and possibly suitable soil for agriculture, the potential for pre-contact Aboriginal archaeological resources within the study area was judged to be moderate to high.

Given the early settlement of the area and the close proximity of the study area to the town of Forest as well as the 14 registered Euro-Canadian sites and one multi-component site, the potential for historic Euro-Canadian archaeological resources within the study area was judged to be moderate to high.

2.0 Field Methods

The study area encompasses the areas within the Suncor Energy Cedar Point Wind Power Project that will be affected by the construction of the wind energy project. The areas include 55 wind turbine locations, substations, underground or overhead collector cables, access roads, transmissions lines and the existing road grid. A 140 by 140 metre area was surveyed for all proposed turbine pads. Access routes were assessed at 40 metres wide, transmission line routes at 30 metres wide and cable routes at 20 metres wide. An approximate 249 hectares were assessed as part of the Stage 2 assessment.

Approximately 80% of the study area to be impacted by the proposed turbines and related infrastructure was subject to pedestrian survey and 10% was assessed by test pit survey. As per the *Standards and Guidelines for Consultant Archaeologists* (Section 7.8.6, Standard 1a; Government of Ontario 2011), Plate 1 to Photo 10 illustrate portions of the study area that confirm conditions met the requirements for Stage 2 archaeological assessment. Plate locations and photograph directions are provided in Figure 7. The remaining 10% of the study area to be impacted by the proposed turbines and related infrastructure was determined to have low archaeological potential and was not assessed due to one of the following: being previously disturbed, being a steep slope or being a creek, as illustrated in Photo 11 to Photo 18. During the Stage 2 archaeological assessment, the weather varied from warm and sunny to cold and windy. At no time were the field or weather conditions detrimental to the recovery of archaeological material. Field visibility and lighting conditions were excellent.

The areas subject to pedestrian survey were assessed at five metre intervals (Photo 1 to Photo 5). During pedestrian survey, 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 was to establish whether or not the artifact was an isolated find or if it was part of a larger artifact scatter (Government of Ontario 2011).

Woodlots, treed areas and manicured lawns (Photo 6 to Photo 10) were assessed by the test pit survey method at 5 metre intervals. Each test pit was approximately 30 centimetres in diameter and excavated five centimetres into sterile subsoil, examining the pit for stratigraphy, cultural features, or evidence of fill. All soil matrix was screened through six millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. No Artifacts were recovered and no further test pitting procedures were employed. Areas of previous disturbance consist of municipal right-of-ways (Photo 11 to Photo 14) which have been disturbed due to previous road construction. Areas of steep slope (Photo 15 and Photo 16) are located throughout the study area mostly associated with creeks (Photo 17 and Photo 18). These areas were determined to have low archaeological potential and therefore were not subject to Stage 2 assessment.

All formal and diagnostic artifact types were collected and a UTM reading was taken using a Trimble Geo XH GeoExplorer 2008 Series handheld GPS unit and a Garmin etrex, using the

North American Datum (NAD) 83, with a minimal accuracy of three metres. UTM coordinates were recorded and are presented in the supplementary documentation (Supplement B). Figure 8 illustrates the field assessment methods across the study area and Tile 1 in Supplement A illustrates the field methods and results.

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 4 below. Stantec's additional Stage 2 survey identified five Aboriginal locations, one post contact location and one, Euro-Canadian location all identified in ploughed well weathered agricultural fields. A summary of the artifacts collected for the site and its spatial extent are provided below. Supplement B lists the UTM coordinates for these locations and Supplement A illustrates the site locations. They are included in the supplementary documentation for this report.

Table 4: Inventory of Documentary Record

Document Type	Current Location of Document Type	Additional Comments
(76) Pages of Field Notes	Stantec office in London	In original field book and photocopied in project file
(58) of Field Maps	Stantec office in London	In original field book and photocopied in project file
Maps Provided by Client	Stantec office in London	Hard and digital copies in project file
(440) of Digital Photographs	Stantec office in London	Store digitally in project file

All of the material culture collected during the Stage 2 survey is contained in one bag that will be stored in one bankers box. It will be temporarily housed at Stantec's London office until formal arrangements can be made for its transfer to an MTCS collections facility.

3.1 LOCATION 1

The Stage 2 assessment of Location 1 resulted in the identification one projectile point (Table 5, Plate 1). The recovered projectile point is complete and was manufactured on Kettle Point Chert. The projectile point measures a maximum length of 53.6 millimetres, is 23.7 millimetres at its widest point and has a maximum thickness of 8.1 millimetres. This point most resembles a Late Archaic Narrow Point dating 4000/3800B.P. Kettle Point formation chert is of late Devonian age and overlies the Ipperwash formation as a sharp disconformity, a boundary that is marked by a 2-20cm bed of chert (Eley and von Bitter 1989). Kettle Point chert occurs in one locality, on the south shore of Lake Huron near Port Franks and the modern Kettle and Stoney Point First Nations reserve. The Kettle Point material is variable in colour ranging from brown to bluish, grey or black, sometimes mottled, at times showing brassy and greenish colours and it may have a buff, yellow brown or rusty patina and may feature banding (Eley and von Bitter 1989).

This is a dense nonporous material that was of excellent quality for pre-contact Aboriginal lithic technologies. Despite the intensification of survey intervals to transects spaced one metre apart around the recovered artifact, no additional artifacts were recovered.

Table 5: Location 1 Artifact Catalogue

Cat. #	Context	Depth	Artifact	Quantity	Comments
1	surface find 1	surface	projectile point	1	complete; Kettle Point chert; Length: 53.2mm, Width: 23.7mm, Thickness: 8.1mm

3.2 LOCATION 2

The Stage 2 assessment of Location 2 resulted in the identification of piece of chipping detritus (Table 6, Plate 2). This piece of chipping detritus was determined to be a tertiary flake. The chert type is unidentifiable because this piece of chipping detritus is burnt. Despite the intensification of survey intervals to transects spaced one metre apart around the recovered artifact, no additional artifacts were recovered.

Table 6: Location 2 Artifact Catalogue

Cat. #	Context	Artifact	Quantity	Morphology	Comments
1	surface find 1	chipping detritus	1	tertiary	burnt

3.3 LOCATION 3

The Stage 2 assessment of Location 3 resulted in the identification of one scraper (Table 7, Plate 3). The recovered scraper is incomplete and is worked on both lateral edges as well as the proximal end on the dorsal side. The fragment measures a maximum length of 32.9 millimetres, is 37.6 millimetres at its widest point, has a maximum thickness of 14.4 millimetres and is manufactured on Kettle Point formation chert is of late Devonian age and overlies the Ipperwash formation as a sharp disconformity, a boundary that is marked by a 2-20cm bed of chert (Eley and Von bitter 1989). Kettle Point chert occurs in one locality, on the south shore of Lake Huron near Port Franks and the modern Kettle and Stoney Point First Nations reserve. The Kettle Point material is variable in colour ranging from brown to blueish, grey or black, sometimes mottled, at times showing brassy and greenish colours and it may have a buff, yellow brown or rusty patina and may feature banding (Eley and Von Bitter 1989). This is a dense nonporous material that was of excellent quality for pre-contact Aboriginal lithic technologies.

Scrapers are understood to be tools used for the processing of hides and are often found associated with other hunting tools and debitage. Despite the intensification of survey intervals to transects spaced one metre apart around the recovered artifact, no additional artifacts were recovered.

Table 7: Location 3 Artifact Catalogue

Cat. #	Context	Artifact	Quantity	Comments
1	surface find 1	scraper	1	Kettle Point chert; Informal; Scraper edges along both lateral edges and proximal end on dorsal side; incomplete; Length: 32.9mm, Width: 37.6mm, Thickness: 14.4mm

3.4 LOCATION 4

The Stage 2 assessment of Location 4 resulted in the identification of one projectile point (Table 8, Plate 4). The recovered projectile point is incomplete and was manufactured on an unknown chert type. The projectile point measures a maximum length of 61.3 millimetres, is 41.7 millimetres at its widest point and has a maximum thickness of 11.3 millimetres. The projectile point is incomplete with a missing tip and partial base. Despite the intensification of survey intervals to transects spaced one metre apart around the recovered artifact, no additional artifacts were recovered.

Table 8: Location 4 Artifact Catalogue

Cat. #	Context	Depth	Artifact	Quantity	Comments
1	surface find 1	surface	projectile point	1	Unknown chert; Incomplete (missing tip and part of base); Length: 61.3mm, Width: 41.7mm, Thickness: 11.3mm

3.5 LOCATION 5

The Stage 2 assessment of Location 5 resulted in the identification of one piece of worked glass (Table 9, Plate 5). The recovered piece of worked glass is manufacture on a piece of aqua bottle glass which dates before 1880 (Kendrick 1974). The piece of worked glass was determined to be a scraper due to the steep worked edges on three sides. Glass scrapers have been interpreted as being used in gutting or scaling fish (Warrick 2009). Despite the intensification of survey intervals to transects spaced one metre apart around the recovered artifact, no additional artifacts were recovered.

Table 9: Location 5 Artifact Catalogue

Cat. #	Context	Depth	Artifact	Quantity	Comments
1	surface find 1	surface	glass, worked	1	Glass-Worked; Aqua bottle glass; signs of retouch (flaking) along three sides

3.6 LOCATION 6

The Stage 2 assessment of Location 6 resulted in the identification of one utilized flake (Table 10, Plate 6). Utilized flakes are defined as flakes that were picked up and used once then discarded (Fisher 1997). The utilized flake is determined to be on Kettle Point chert. Kettle Point formation chert is of late Devonian age and overlies the Ipperwash formation as a sharp disconformity, a boundary that is marked by a 2-20cm bed of chert (Eley and von Bitter 1989). Kettle Point chert occurs in one locality, on the south shore of Lake Huron near Port Franks and the modern Kettle and Stoney Point First Nations reserve. The Kettle Point material is variable in colour ranging from brown to bluish, grey or black, sometimes mottled, at times showing brassy and greenish colours and it may have a buff, yellow brown or rusty patina and may feature banding (Eley and von Bitter 1989). This is a dense nonporous material that was of excellent quality for pre-contact Aboriginal lithic technologies. Despite the intensification of survey intervals to transects spaced one metre apart around the recovered artifact, no additional artifacts were recovered.

Table 10: Location 6 Artifact Catalogue

Cat. #	Context	Depth	Artifact	Quantity	Comments
1	surface find	surface	utilized flake	1	Kettle Point chert; use wear on lateral edge of dorsal side of tertiary flake

3.7 LOCATION 7

The Stage 2 assessment of Location 7 resulted in the identification of a Euro-Canadian site measuring approximately 20 metres by 10 metres. A representative sample of 18 Euro-Canadian artifacts, including 15 ceramics, two pipe stems and a button, were returned to the lab for processing (Table 11, Plate 7). Approximately 20 artifacts were left in the field consisting of ceramic pieces.

Table 11: Location 7 Artifact Catalogue

Cat. #	Context	Depth	Artifact	Quantity	Comments
1	surface find	surface	whiteware	3	
2	surface find	surface	white clay pipe, stem	2	
3	surface find	surface	whiteware, transfer printed	5	blue
4	surface find	surface	whiteware, edged	1	blue, straight rim, chicken foot pattern
5	surface find	surface	whiteware, banded	1	blue

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Cat. #	Context	Depth	Artifact	Quantity	Comments
6	surface find	surface	button	1	agate
7	surface find	surface	whiteware, painted	1	red band with green design
8	surface find	surface	yellowware	1	glazed
9	surface find	surface	stoneware, salt glazed	1	
10	surface find	surface	ironstone	2	

Ceramic Artifacts

The majority of recovered ceramics consisted of the 11 pieces of whiteware. Also recovered from Location 7 were two pieces of ironstone, one piece of stoneware and one piece of yellowware.

Whiteware

A total of 11 pieces of whiteware were recovered from Location 7. Of those 11 pieces five are transfer printed, three are undecorated, one is banded, one is edged and one is painted.

Whiteware is a variety of refined earthenware with a near-colourless glaze. By the 1830s it had replaced earlier, near-white ceramics such as pearlware and creamware. Early whiteware paste tends to be porous, but becomes more vitrified later in the 19th century (Adams 1994). Three pieces of undecorated whiteware were recovered from Location 7.

Early transfer printed whiteware often has thicker lines because of the paper used during the transfer of pattern from paper to ceramic. Later transfer printed whiteware was manufactured either using tissue paper which allowed for shading and finer line details or using oil and a sheet of glue to create a design with little dots (Stelle 2001). Transfer printing was popular throughout the 19th century. Before the 1830s blue was the most common colour used; during the 1830s and 40s other colours like brown, black, red, green and purple became popular and between 1850 and 1890 only blue, black and brown were popular with a variety of colours becoming popular again in the late 19th century (Adams 1994). Five pieces of blue transfer printed whiteware were recovered from Location 7 (Plate 7).

Banding or Dipt ceramics are done using a slip colour that is laid over the ceramic making it a slightly raised pattern, which allows banded wares to be easily distinguished from painted wares (Adams 1994). Banded whiteware were made throughout the 19th century with the earlier pieces being more decorative, using mocha design or cat's eye design and the later pieces tending to be simpler with only bands (Adams 1994). One piece of blue banded whiteware was recovered from Location 7 (Plate 7).

One piece of straight rim with impressed chicken foot pattern edged whiteware was recovered from Location 7 (Plate 7). Edged wares are created by moulding the rim then applying colour

over top (Adams 1994). According to Miller (1987) this piece was produced between 1825 and 1891 and was at its peak from 1841 to 1857.

Painted whiteware pieces are typically painted covering the majority of the vessel with very little white showing through, with blue and black being the dominant colours during the first quarter of the 19th century (Stelle 2001). It is suggested that polychrome patterns were popular from 1830 to 1860 (Stelle 2001).

One piece of polychrome whiteware – pink and green – was recovered from Location 7 (Plate 7).

Ironstone

Ironstone, also known as white granite and stone china, was manufactured from *circa* 1815 onward. It was used for tablewares, kitchenwares as well as toiletwares and was manufactured in large quantities in the late 19th century. Undecorated ironstone was at its peak after 1850 (Saint. Mary's University n.d.). Ironstone is a ceramic classified between earthenware and porcelain with thick vitrified white paste, a background colour of white to bluish gray tint and has a thick clear glasslike glaze (FLMNH n.d.). One piece of undecorated ironstone was recovered from Location 7 (Plate 7).

Stoneware

Stoneware has vitrified stone-like paste due to the high temperatures used to fire the pottery. The paste colours vary between white, gray and tan and are generally quite thick and durable. A common glaze on stoneware is salt-glazed, which is achieved by introducing salt to the kiln during the firing process (Maryland Archaeological Conservation Lab 2012). Stoneware was made in Ontario from 1849 onwards (Adams 1994). One piece of salt-glazed stoneware was recovered from Location 7.

Yellowware

Yellowware is partially vitrified earthenware used mostly for food preparation, storage and toiletwares. It is made from naturally buff coloured clay and generally has a clear glaze (Sussman 1997). Yellowware was manufactured *circa* 1840 to present and was at its peak from 1870 to 1900 (Saint. Mary's University n.d.). One piece of yellowware was recovered from Location 7.

Non-Ceramic Artifacts

In addition to the ceramics recovered from Location 7 there was also two white clay pipe stems and one button recovered.

White clay pipes were quite popular in the 19th century with a decline in the last 20 years of the century due to the popularity of cigarettes (Adams 1994). Two white clay pipe stems were

recovered from Location 7 (Plate 7); neither of them was stamped indicating the origin of the manufacturer or who the manufacturer was.

The button recovered from Location 7 (Plate 7) is a round white agate button with four holes. Agate buttons are often mistaken for white glass however can be distinguished because of the dimpling on the reverse side. Agate buttons were widely distributed in Canada by the late 1840s and were used, instead of shell or pearl, as a cheaper substitute for shirt buttons (Adams 1994).

4.0 Analysis and Conclusions

The additional Stage 2 assessment resulted in the identification of five pre-contact Aboriginal archaeological sites (Locations 1, 2, 3, 4 and 6) as well as one post-contact Aboriginal site (Location 5) and one Euro-Canadian site (Location 7). Analyses of each location are provided below, determining whether further assessment is recommended.

4.1 LOCATION 1

The artifact collected from the isolated findspot; during the Stage 2 assessment of Location 1 is a projectile point most resembling Late Archaic Narrow Point. This location was determined to be a spatially discrete pre-contact Aboriginal location that adds to the body of knowledge concerning land use by Aboriginal peoples in Ontario. Given the isolated nature of the finds, the cultural heritage value or interest of the sites is considered to be sufficiently documented. The recovered artifacts do not fulfill any of the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.2 LOCATION 2

The artifact collected from the isolated findspot; during the Stage 2 assessment of Location 2 is a tertiary flake. This suggests that lithic tool maintenance activities happened at this location and that initial tool reduction was happening elsewhere. Location 2 was determined to be a spatially discrete pre-contact Aboriginal location that adds to the body of knowledge concerning land use by Aboriginal peoples in Ontario. Given the isolated nature of the finds, the cultural heritage value or interest of the sites is considered to be sufficiently documented. The recovered artifacts do not fulfill any of the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.3 LOCATION 3

The artifact collected from the isolated findspot; during the Stage 2 assessment of Location 3 is a scraper. This suggests that some processing of hides could have taken place at this location. Location 3 was determined to be a spatially discrete pre-contact Aboriginal location that adds to the body of knowledge concerning land use by Aboriginal peoples in Ontario. Given the isolated nature of the finds, the cultural heritage value or interest of the sites is considered to be sufficiently documented. The recovered artifacts do not fulfill any of the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.4 LOCATION 4

The artifact collected from the isolated findspot; during the Stage 2 assessment of Location 4 is an incomplete projectile point. This location was determined to be a spatially discrete pre-contact Aboriginal location that adds to the body of knowledge concerning land use by Aboriginal peoples in Ontario. Given the isolated nature of the finds, the cultural heritage value or interest of the sites is considered to be sufficiently documented. The recovered artifacts do not fulfill any of the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.5 LOCATION 5

The artifact collected from the isolated findspot; during the Stage 2 assessment of Location 5 is a piece of worked glass. This location was determined to pre date 1880 due to the aqua colour of the bottle glass used to create a scraper. Given the isolated nature of the finds, the cultural heritage value or interest of the sites is considered to be sufficiently documented. The recovered artifacts do not fulfill any of the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.6 LOCATION 6

The artifact collected from the isolated findspot; during the Stage 2 assessment of Location 6 is a utilized flake. Utilized flakes are not determined to be diagnostic and therefore this location was determined to be a spatially discrete pre-contact Aboriginal location that adds to the body of knowledge concerning land use by Aboriginal peoples in Ontario. Given the isolated nature of the finds, the cultural heritage value or interest of the sites is considered to be sufficiently documented. The recovered artifacts do not fulfill any of the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.7 LOCATION 7

Location 7 is a Euro-Canadian site measuring approximately 20 metres by 10 metres. Recovered from Location 7 were pieces of whiteware, ironstone, yellowware as well as white clay pipe stem fragments and an agate button. Given the mid to late 19th century date of the artifacts collected and observed further Stage 3 work is recommended for Location 7.

5.0 Recommendations

The additional Stage 2 assessment resulted in the identification of five pre-contact Aboriginal archaeological sites (Locations 1, 2, 3, 4 and 6) as well as one post contact Aboriginal site (Location 5) and one Euro-Canadian site (Location 7).

5.1 LOCATION 1

The Stage 2 assessment of Location 1 identified a projectile point resembling a Late Archaic Narrow point. Given the isolated nature of the find the cultural heritage value or interest of the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.**

5.2 LOCATION 2

The Stage 2 assessment of Location 2 identified a tertiary flake. Given the isolated nature of the find it was determined to have been sufficiently documented and **no further archaeological assessment is recommended.**

5.3 LOCATION 3

The Stage 2 assessment of Location 3 identified a scraper. Given the isolated nature of the find the cultural heritage value or interest of the sites is considered to be sufficiently documented and **no further archaeological assessment is recommended.**

5.4 LOCATION 4

The Stage 2 assessment of Location 4 identified an incomplete projectile point. Given the isolated nature of the find the cultural heritage value or interest of the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.**

5.5 LOCATION 5

The Stage 2 assessment of Location 5 identified a scraper manufactured from worked glass, dating to pre 1880. Given the isolated nature of the find the cultural heritage value or interest of the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.**

5.6 LOCATION 6

The Stage 2 assessment of Location 6 identified a non-diagnostic utilized flake. Given the isolated nature of the find the site is considered to be sufficiently documented and **no further archaeological assessment is recommended.**

5.7 LOCATION 7

The Stage 2 assessment of Location 7 identified a Euro-Canadian site containing predominantly whiteware, ironstone and yellowware dating mid to late 19th century. Given the mid to late 19th century date of the artifacts collected and observed **further Stage 3 work is recommended for Location 7.**

5.8 SUMMARY

The above recommendations determine that one of the seven sites identified by Stantec requires further Stage 3 assessment, Location 7. As such, six sites identified by Stantec are not recommended for further archaeological work for this project, Locations 1, 2, 3, 4, 5 and 6.

The Ministry of Tourism, Culture and Sport is asked to accept this report into the Ontario Public Register of Archaeological Reports. Additional archaeological assessment is still required; hence the archaeological site recommended for further archaeological field work remains 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 license.

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.

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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8.0 Images

8.1 PHOTOS

<p>Photo 1: Pedestrian Survey, Facing North, Assessed at Five Metre Intervals</p>	<p>Photo 2: Pedestrian Survey, Facing North, Assessed at Five Metre Intervals</p>
 A wide-angle photograph of a large, flat, brown field under an overcast sky. Two people wearing orange safety vests are visible in the distance, walking across the field.	 A photograph of a brown field with a slight rise in the background. Two people in orange safety vests are walking on the slope. The sky is cloudy.
<p>Photo 3: Pedestrian Survey, Facing East, Assessed at Five Metre Intervals</p>	<p>Photo 4: Pedestrian Survey, Facing West, Assessed at Five Metre Intervals</p>
 A photograph of a brown field with several people in orange safety vests scattered across it. The background shows a line of trees under a grey sky.	 A photograph of a brown field with several people in orange safety vests. In the background, a red car and a dark SUV are parked near some buildings and trees.

Photo 5: Pedestrian Survey, Facing South, Assessed at Five Metre Intervals



Photo 6: Test Pit Survey, Facing East, Assessed at Five Metre Intervals



Photo 7: Test Pit Survey, Facing South, Assessed at Five Metre Intervals



Photo 8: Test Pit Survey, Facing North, Assessed at Five Metre Intervals



Photo 9: Test Pit Survey, Facing South, Assessed at Five Metre Intervals



Photo 10: Test Pit Survey, Facing East, Assessed at Five Metre Intervals



Photo 11: Previously Disturbed ROW on Thomson Line West of Army Camp Road, Facing West, Not Assessed





Photo 12: Previously Disturbed ROW on Rawlings Road South of Proof Line, Facing South, Not Assessed



STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Images

January 25, 2013

<p>Photo 13: Previously Disturbed ROW on Thomson Line West of Jericho Road, Facing West, Not Assessed</p>	<p>Photo 14: Previously Disturbed ROW on Rawlings Road North of Proof Line, Facing North, Not Assessed</p>
	
<p>Photo 15: Area of Steep Slope, Facing South, Not Assessed</p>	<p>Photo 16: Area of Steep Slope, Facing Southwest, Not Assessed</p>
	

**Photo 17: Aberarder Creek, Facing North,
Not Assessed**



**Photo 18: Hickory Creek, Facing East, Not
Assessed**



8.2 PLATES

Plate 1: Location 1 Projectile Point



Cat. 1

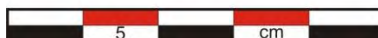


Plate 2: Location 2, Chipping Detritus



Cat. 1

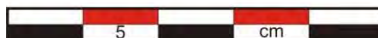


Plate 3: Location 3, Scraper



Cat. 1



Plate 4: Location 4, Projectile Point



Cat. 1

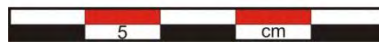


Plate 5: Location 5, Worked Glass



Cat. 1



Plate 6: Location 6, Utilized Flake



Cat. 1

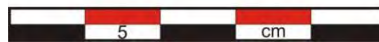
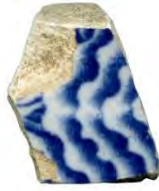


Plate 7: Location 7, Euro-Canadian Artifacts



White Clay Pipe Stem
Cat. 2



Whiteware, Transfer
Printed Cat. 3



Whiteware, Edged
Cat. 4



Whiteware, Banded
Cat. 5



Button, Cat. 6



Whiteware, Painted
Cat. 7

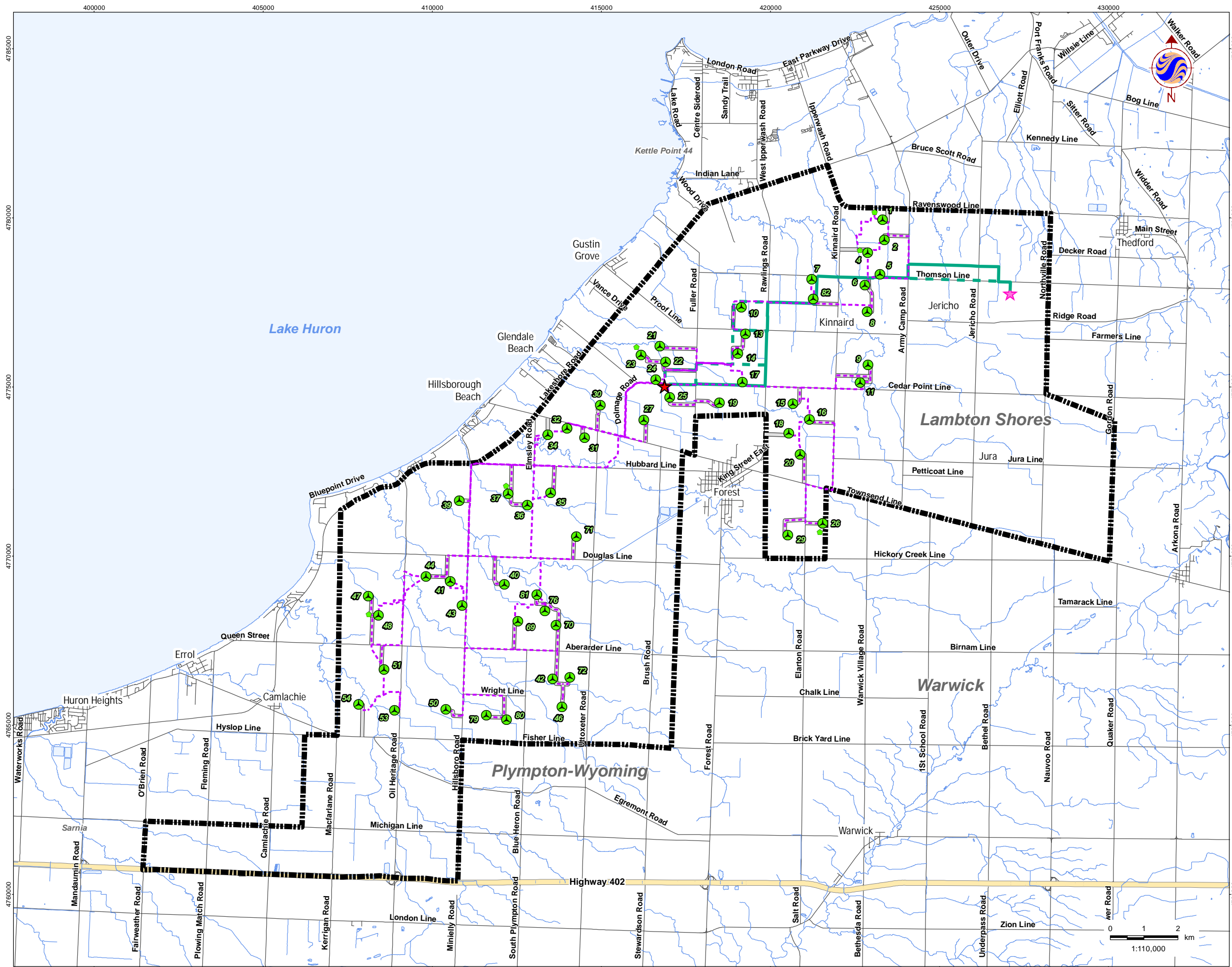


Ironstone, Cat. 10



9.0 Maps

All maps will follow on succeeding pages. Maps identifying exact site locations do not form part of this public report; they may be found in the supplementary documentation.



Legend

- Project Boundary
- Proposed Project Components**
 - Turbine
 - MET Tower
 - Substation
 - Access Road
 - Collector Line
 - Transmission Line
 - Transmission Line Alternate Route
- Other Infrastructure**
 - Substation- NextEra Jericho
- Existing Features**
 - Expressway / Highway
 - Road
 - Watercourse
 - Waterbody



- ### Notes
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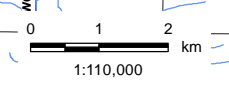


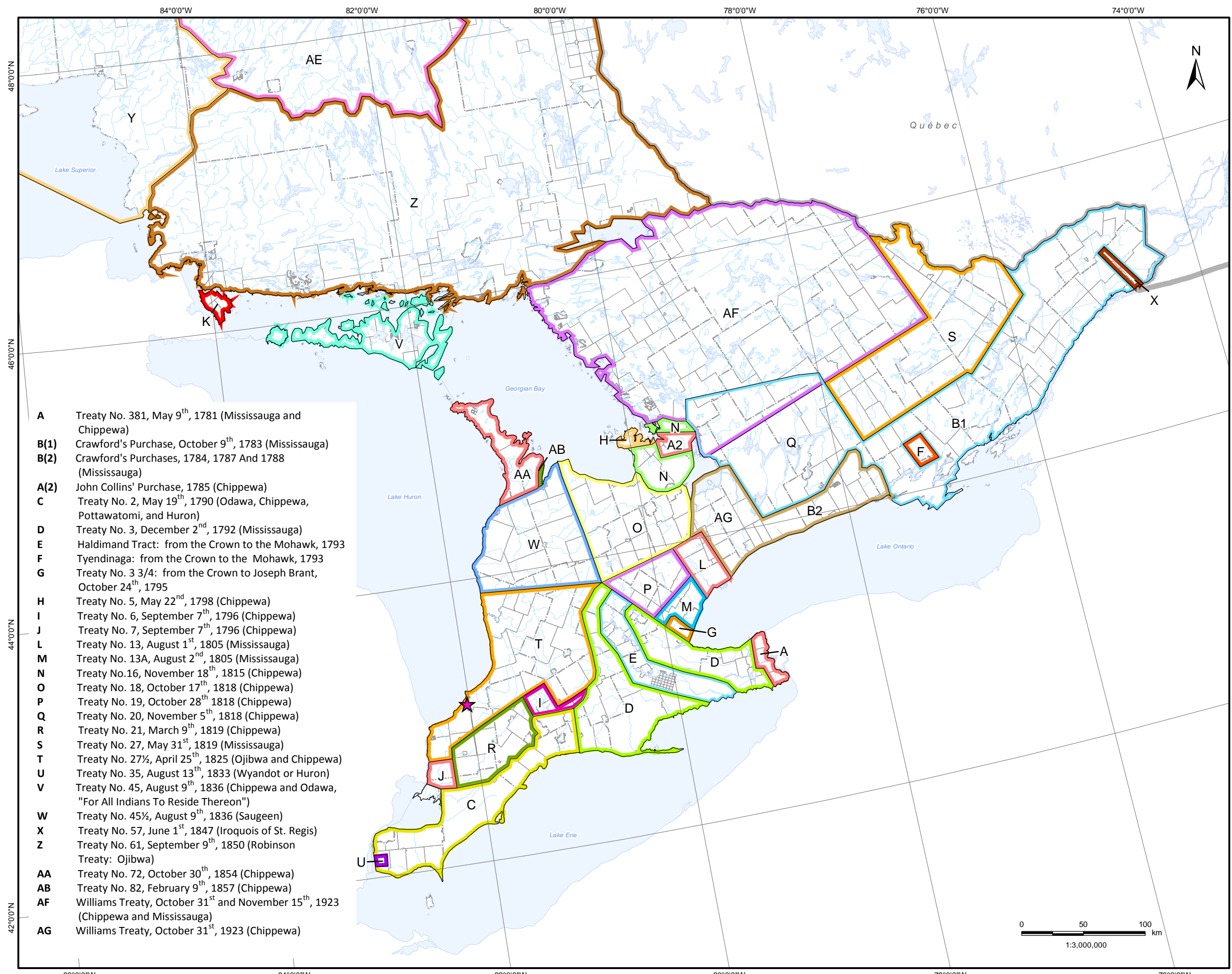
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160960709

Client/Project
Suncor Energy
Cedar Point Wind Power Project

Figure No.
1.0

Title
Project Location and Study Area





Legend

- ★ Project Location
- Municipal Boundary - Upper
- Municipal Boundary - Lower
- Watercourse
- Waterbody

- A** Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
- B(1)** Crawford's Purchase, October 9th, 1783 (Mississauga)
- B(2)** Crawford's Purchases, 1784, 1787 And 1788 (Mississauga)
- A(2)** John Collins' Purchase, 1785 (Chippewa)
- C** Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
- D** Treaty No. 3, December 2nd, 1792 (Mississauga)
- E** Haldimand Tract: from the Crown to the Mohawk, 1793
- F** Tyendinaga: from the Crown to the Mohawk, 1793
- G** Treaty No. 3 3/4: from the Crown to Joseph Brant, October 24th, 1795
- H** Treaty No. 5, May 22nd, 1798 (Chippewa)
- I** Treaty No. 6, September 7th, 1796 (Chippewa)
- J** Treaty No. 7, September 7th, 1796 (Chippewa)
- L** Treaty No. 13, August 1st, 1805 (Mississauga)
- M** Treaty No. 13A, August 2nd, 1805 (Mississauga)
- N** Treaty No.16, November 18th, 1815 (Chippewa)
- O** Treaty No. 18, October 17th, 1818 (Chippewa)
- P** Treaty No. 19, October 28th 1818 (Chippewa)
- Q** Treaty No. 20, November 5th, 1818 (Chippewa)
- R** Treaty No. 21, March 9th, 1819 (Chippewa)
- S** Treaty No. 27, May 31st, 1819 (Mississauga)
- T** Treaty No. 27½, April 25th, 1825 (Ojibwa and Chippewa)
- U** Treaty No. 35, August 13th, 1833 (Wyandot or Huron)
- V** Treaty No. 45, August 9th, 1836 (Chippewa and Odawa, "For All Indians To Reside Thereon")
- W** Treaty No. 45½, August 9th, 1836 (Saugeen)
- X** Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis)
- Z** Treaty No. 61, September 9th, 1850 (Robinson Treaty: Ojibwa)
- AA** Treaty No. 72, October 30th, 1854 (Chippewa)
- AB** Treaty No. 82, February 9th, 1857 (Chippewa)
- AF** Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
- AG** Williams Treaty, October 31st, 1923 (Chippewa)

- ### Notes
1. Coordinate System: NAD 1983 Statistics Canada Lambert
 2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
 3. Treaty boundaries adapted from MNR July 1980, based on map compiled by J.L. Morris 2 March 1931. For cartographic representation only.

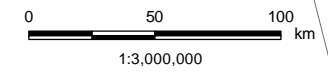


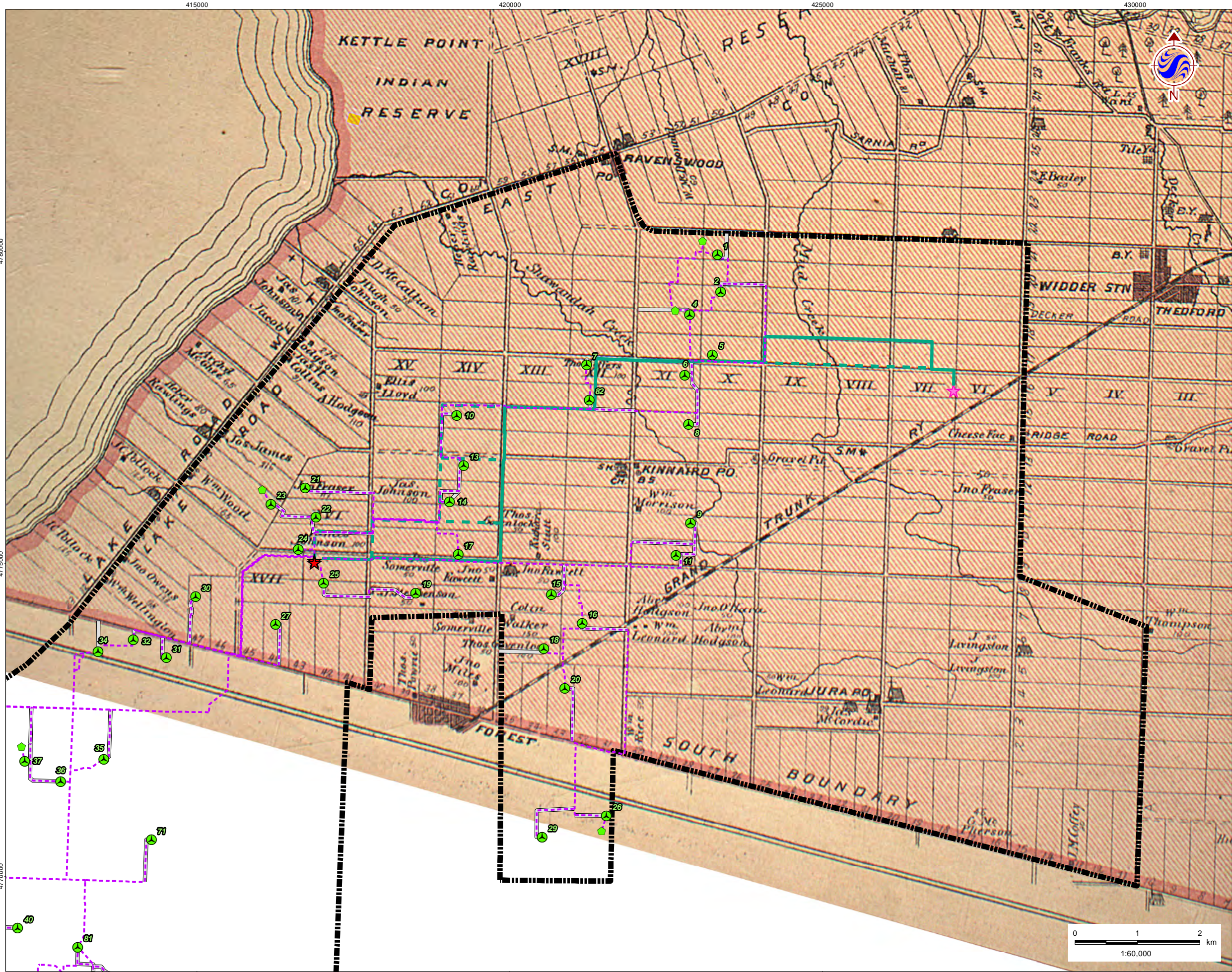
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Project No.

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Cedar Point Wind Power Project

Figure No.
2

Title
**Treaties and Purchases
(Adapted from Morris 1931)**





Legend

- Study Area
- Proposed Project Components**
 - Turbine
 - MET Tower
 - Substation
 - Access Road
 - Collector Line
 - Transmission Line
 - Transmission Line Alternate Route
- Other Infrastructure**
 - Substation- NextEra Jericho



- ### Notes
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 3. Historic Map Source: Belden, H. and Company. 1880. *Illustrated Historical Atlas of the County of Lambton*. 1973 reprint. Sarnia: Edward Phelps.

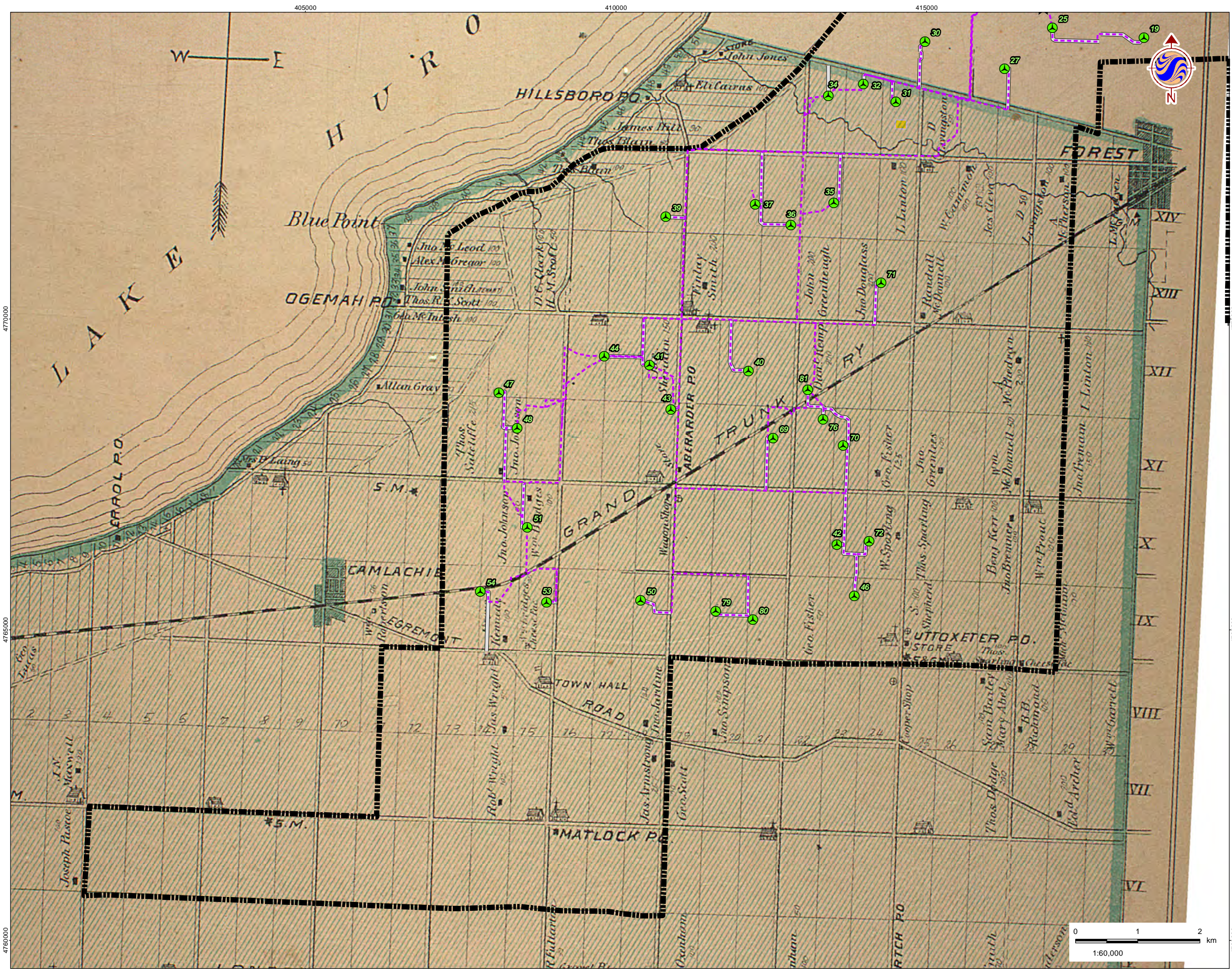


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Figure No.
3.0

Title
A Portion of the 1880 Map of Bosanquet Township



Legend

Study Area

Proposed Project Components

- Turbine
- Substation
- Access Road
- Collector Line
- Transmission Line
- Transmission Line Alternate Route

Other Infrastructure

- Substation- NextEra Jericho



- ### Notes
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 - Historic Map Source: Belden, H. and Company. 1880. *Illustrated Historical Atlas of the County of Lambton*. 1973 reprint. Sarnia: Edward Phelps.

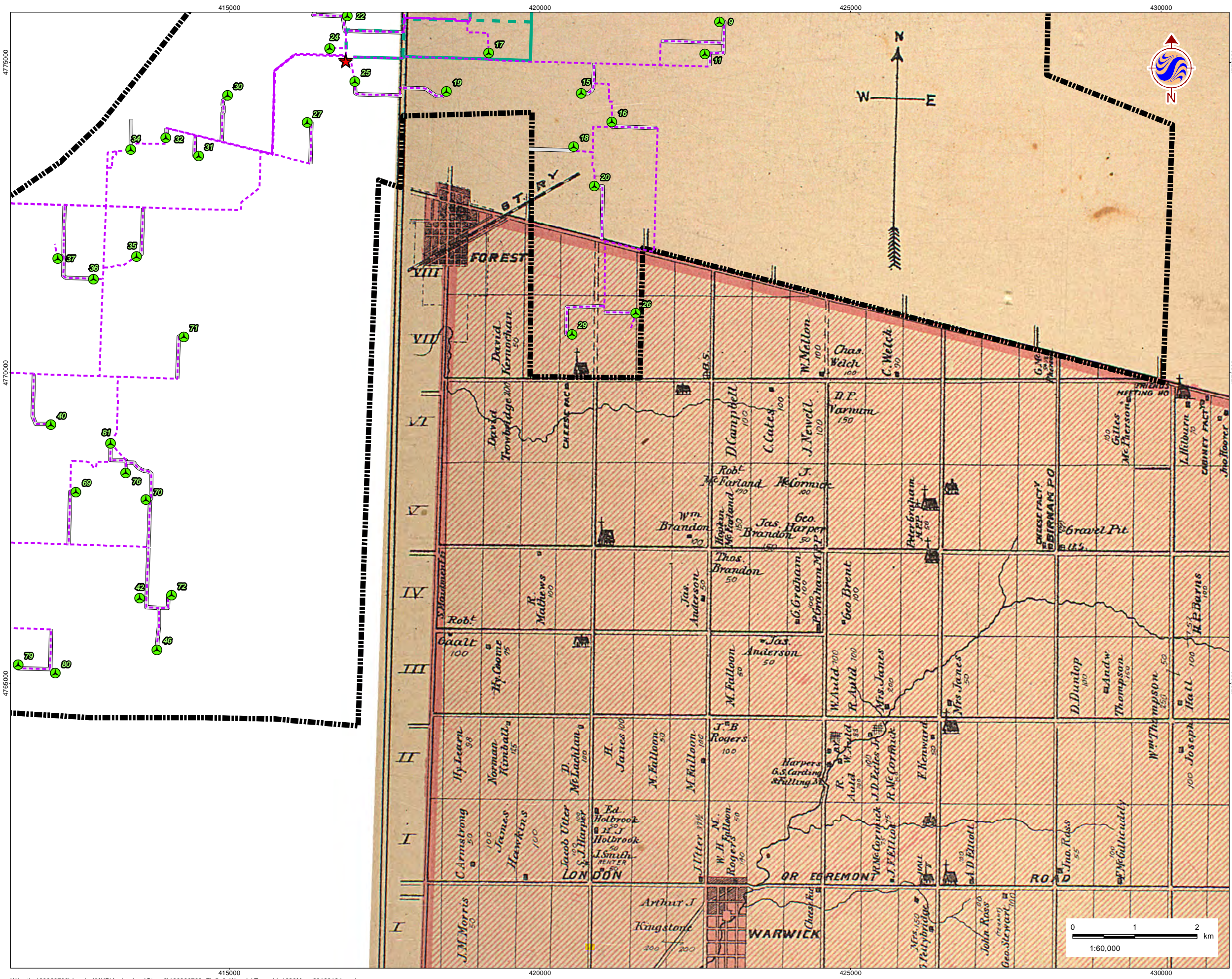


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Suncor Energy
Cedar Point Wind Power Project

Figure No.
4.0

Title
A Portion of the 1880 Map of Plympton Township



Legend

Study Area

Proposed Project Components

- Turbine
- Substation
- Access Road
- Collector Line
- Transmission Line
- Transmission Line Alternate Route

Other Infrastructure

- Substation- NextEra Jericho



- ### Notes
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 - Historic Map Source: Belden, H. and Company. 1880. *Illustrated Historical Atlas of the County of Lambton*. 1973 reprint. Sarnia: Edward Phelps.

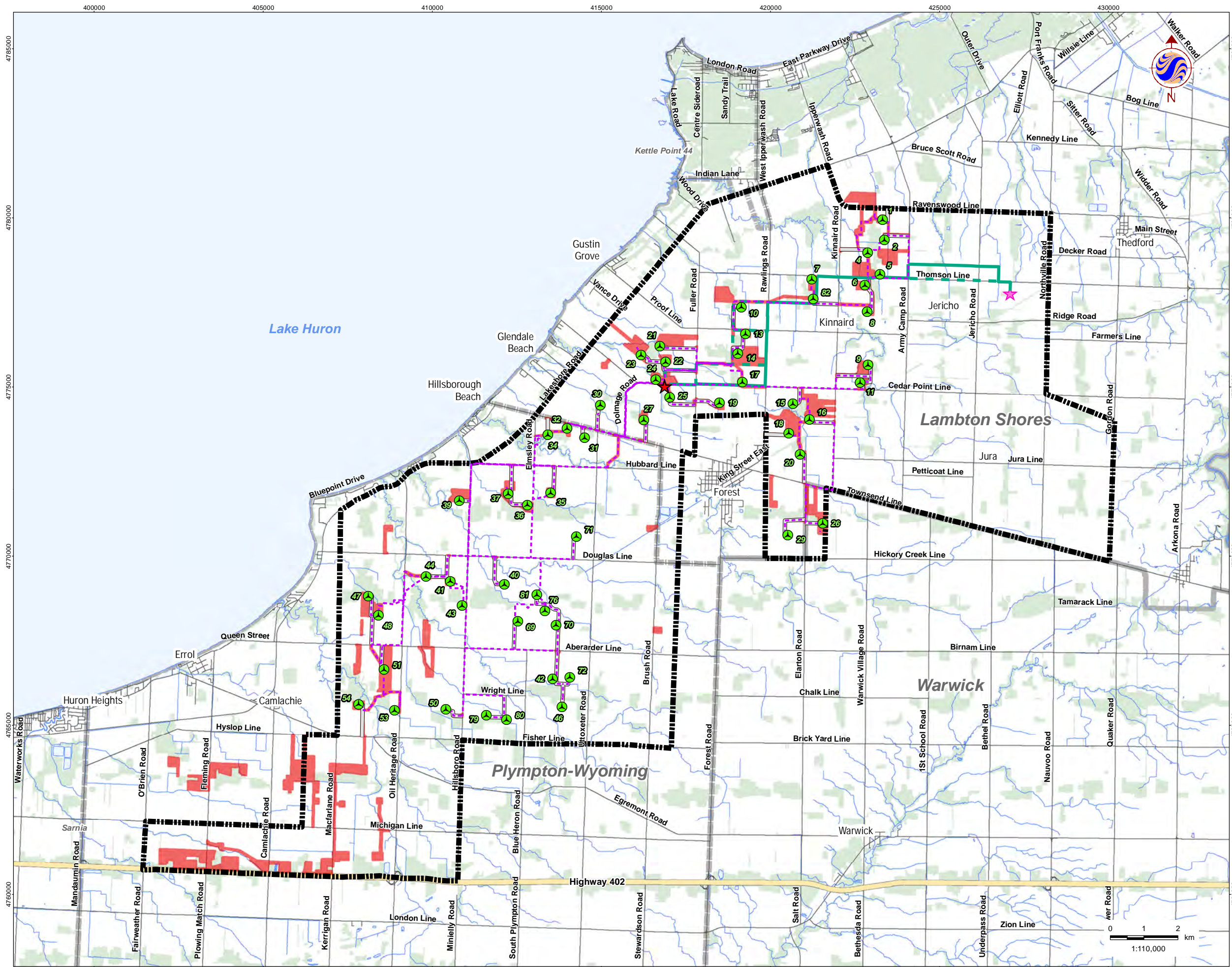


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Cedar Point Wind Power Project

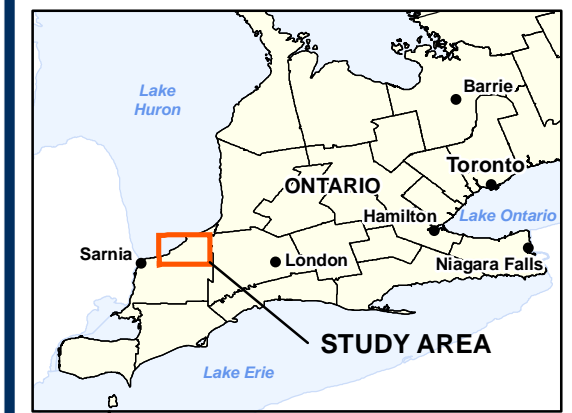
Figure No.
5.0

Title
A Portion of the 1880 Map of Warwick Township



Legend

- Project Boundary
- Proposed Project Components**
 - Turbine
 - Substation
 - Access Road
 - Collector Line
 - Transmission Line
 - Transmission Line Alternate Route
- Other Infrastructure**
 - Substation- NextEra Jericho
- Existing Features**
 - Expressway / Highway
 - Road
 - Wooded Area
 - Watercourse
 - Waterbody
 - Municipal Boundary
- Surveyed Areas**
 - Previously Assessed Areas -Golder



- ### Notes
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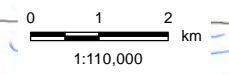


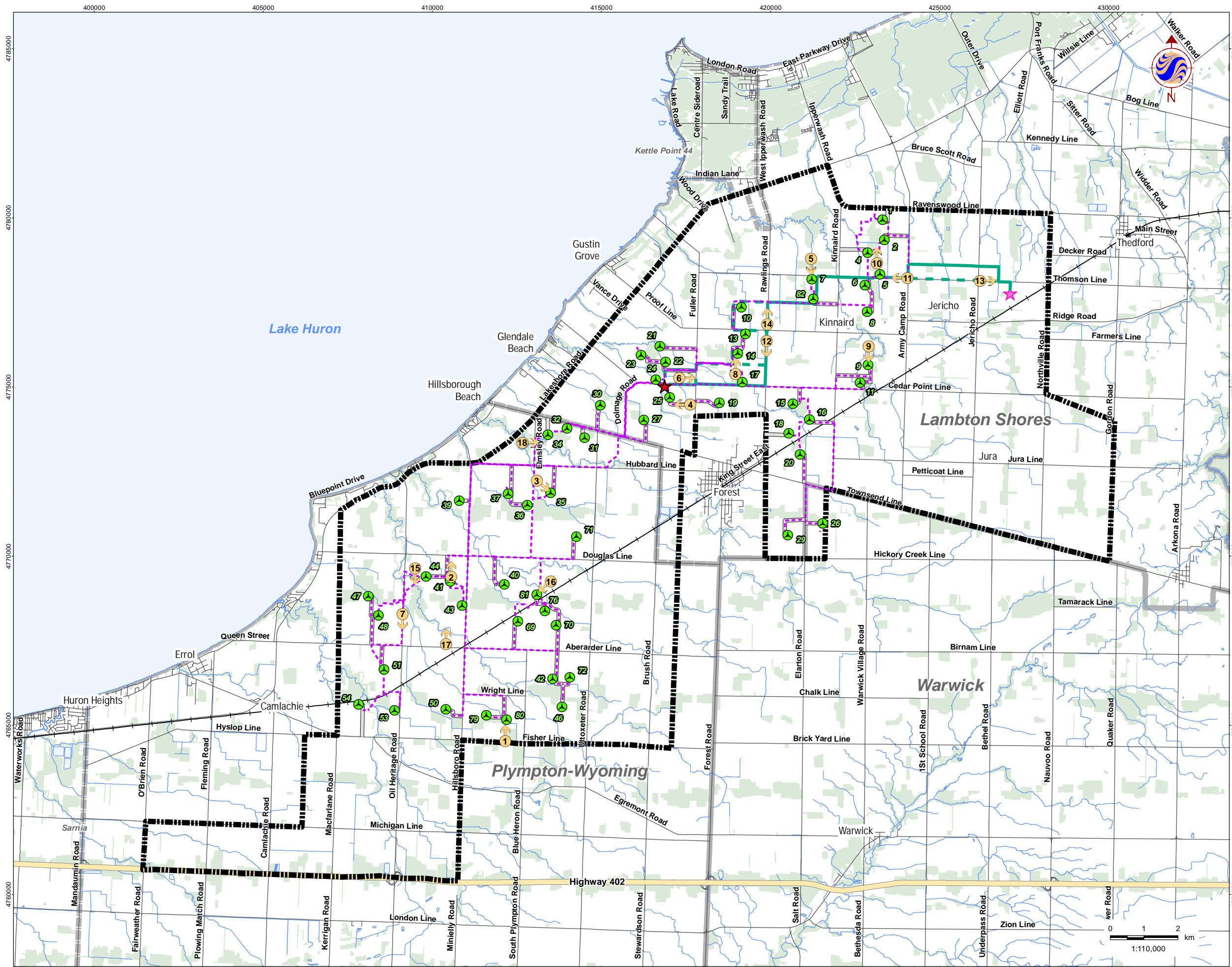
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Figure No.
6.0

Title
Previously Assessed Areas





Legend

- Project Boundary
- Photo Location and Direction
- Proposed Project Components**
 - Turbine
 - Substation
 - Access Road
 - Collector Line
 - Transmission Line
 - Transmission Line Alternate Route
- Other Infrastructure**
 - Substation- NextEra Jericho
- Existing Features**
 - Expressway / Highway
 - Road
 - Railway
 - Wooded Area
 - Watercourse
 - Waterbody
 - Municipal Boundary



- ### Notes
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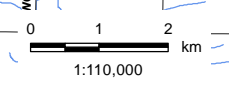


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Suncor Energy
Cedar Point Wind Power Project

Figure No.
7.0

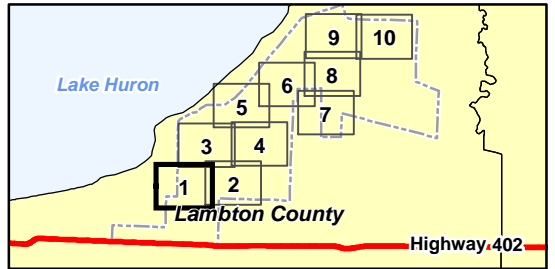
Title
Photo Locations and Directions





Legend

- | | |
|--|---|
| Project Boundary | Other Infrastructure |
| Proposed Project Components | Transformer- NextEra Jericho |
| Proposed Turbine Location | Substation- NextEra Jericho |
| Transformer | Existing Features |
| Access Road | Road |
| Transmission Line | Watercourse |
| Transmission Line Alternate Route | Constructed Drain |
| Collector Line | Waterbody |
| Access Road Constructible Area (40m) | Municipal Boundary |
| Overhead Transmission Line Constructible Area | Areas Previously Surveyed by Golder |
| Substation/ Operation and Maintenance Building | Survey Method |
| Turbine Constructible Area | Creek, Not Assessed |
| Underground Cable Constructible Area (20m) | Creek and Steeply Sloped, Not Assessed |
| | Previous Disturbance, Not Assessed |
| | Pedestrian Survey, Assessed at Five Meter Intervals |
| | Test Pit Survey, Assessed at Five Meter Intervals |



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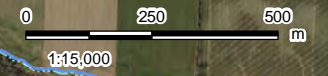
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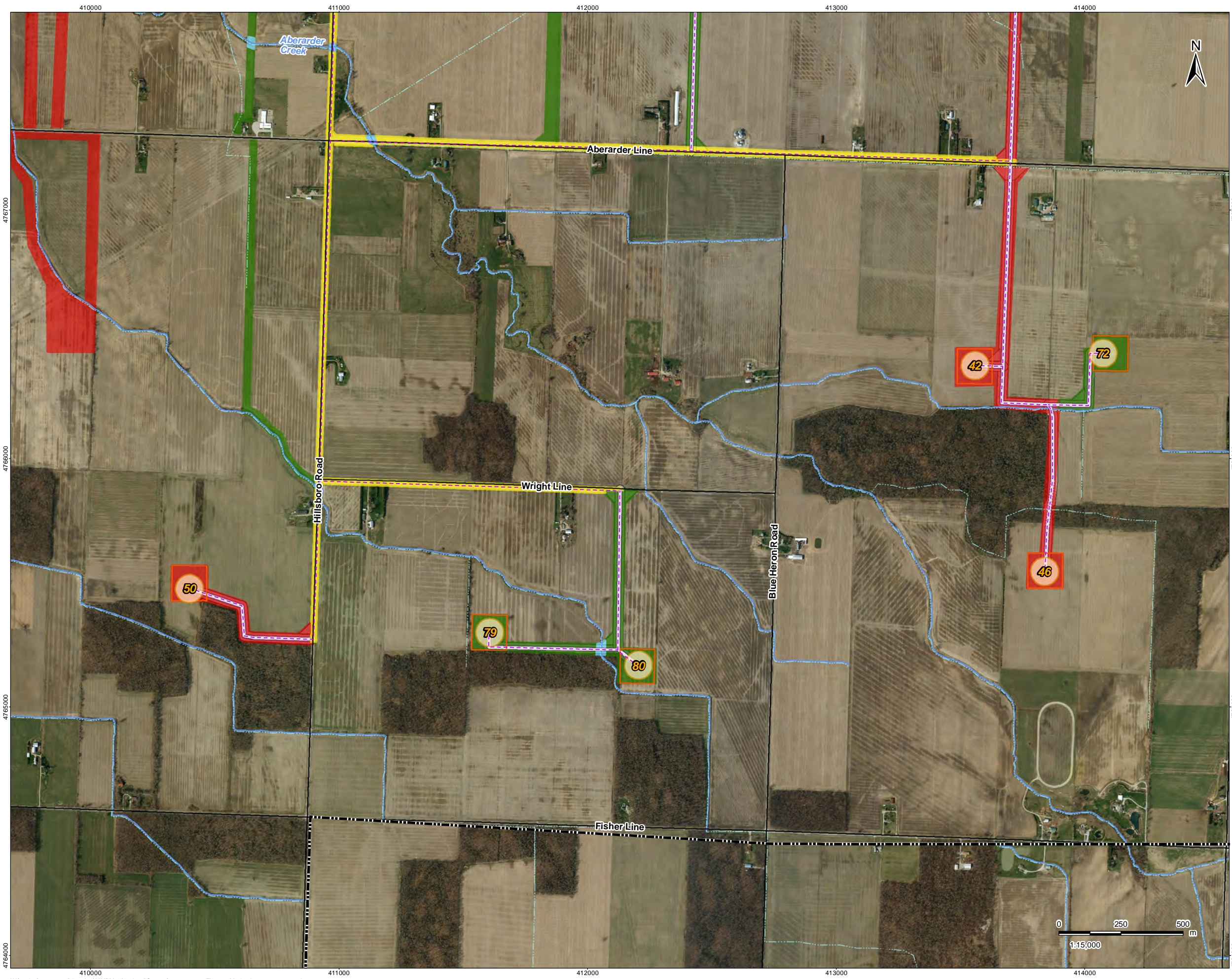
Client/Project
Suncor Energy
Cedar Point Wind Power Project

Figure No.
8.1

DRAFT

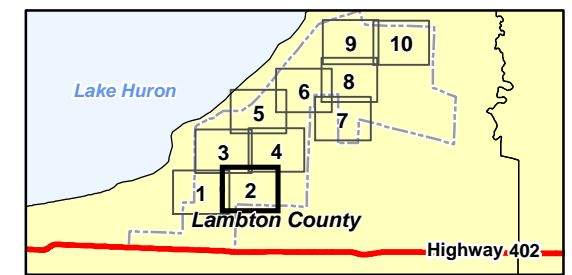
Title
Methods





Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
Access Road Constructible Area (40m)	Municipal Boundary
Overhead Transmission Line Constructible Area	Areas Previously Surveyed by Golder
Substation/ Operation and Maintenance Building	Survey Method
Turbine Constructible Area	Creek, Not Assessed
Underground Cable Constructible Area (20m)	Creek and Steeply Sloped, Not Assessed
	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



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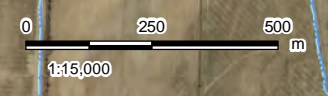
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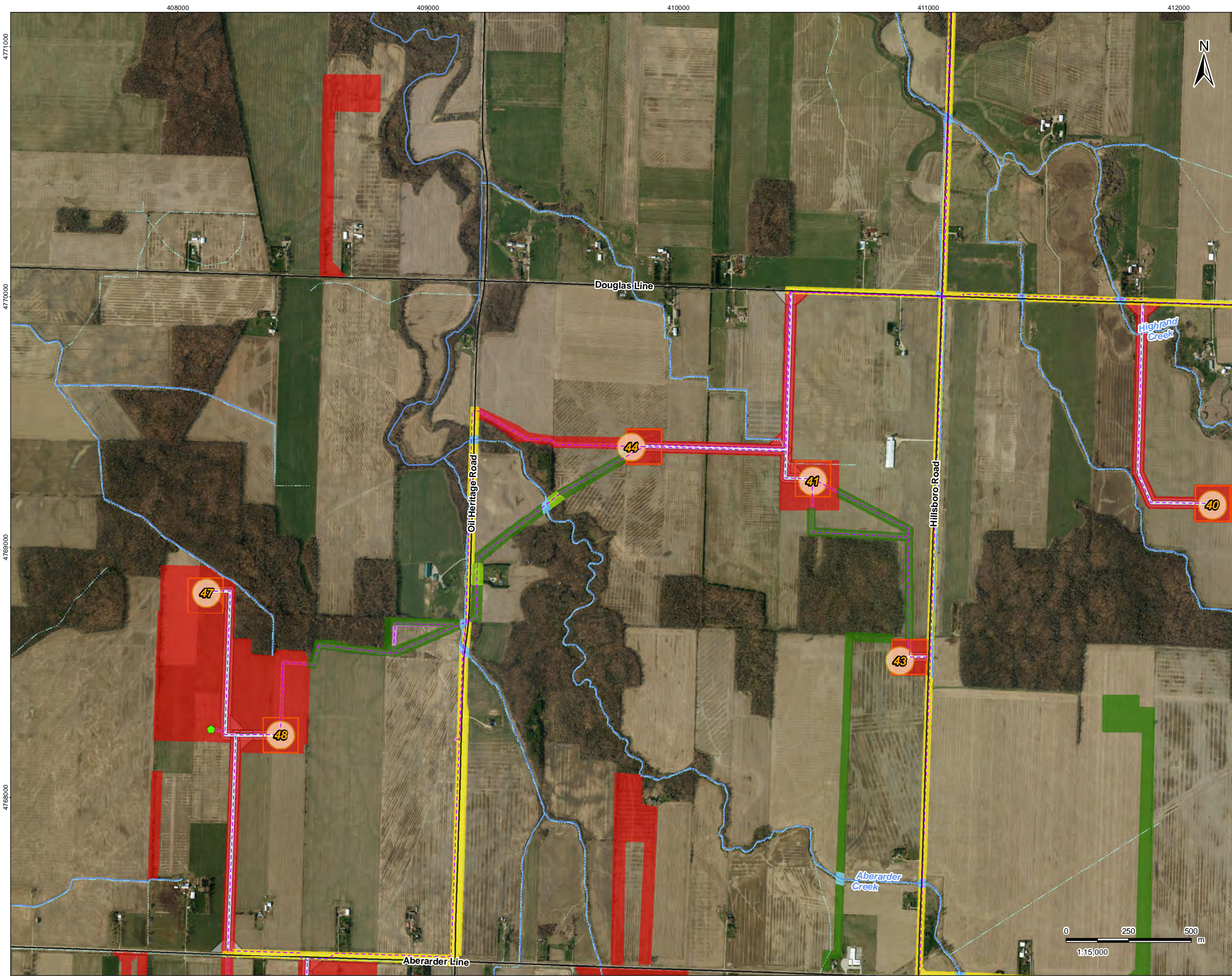
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Suncor Energy
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Figure No.
8.2 **DRAFT**

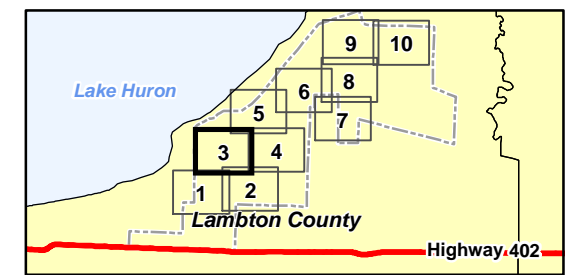
Title
Methods





Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
Access Road Constructible Area (40m)	Municipal Boundary
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Substation/ Operation and Maintenance Building	Survey Method
Turbine Constructible Area	Creek, Not Assessed
Underground Cable Constructible Area (20m)	Creek and Steeply Sloped, Not Assessed
	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



Notes

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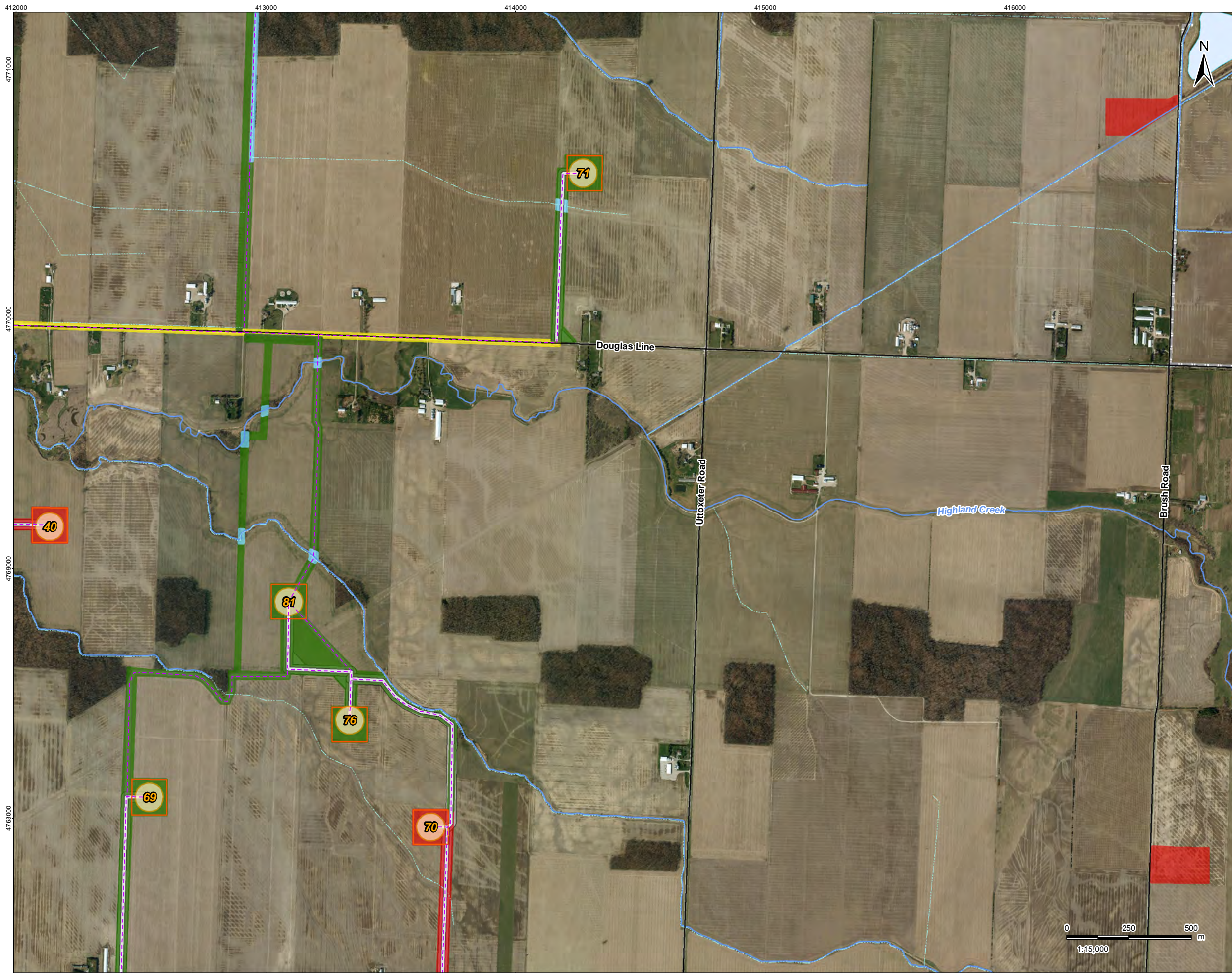
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Cedar Point Wind Power Project

Figure No.
8.3 **DRAFT**

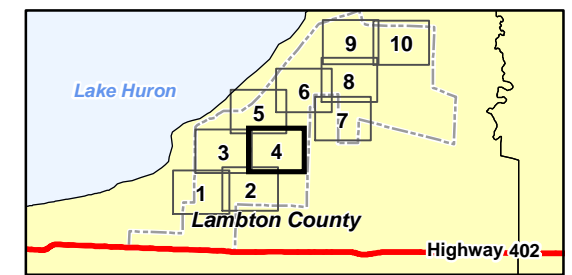
Title
Methods





Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
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	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



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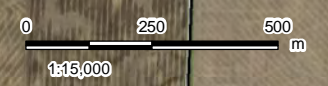
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Cedar Point Wind Power Project

Figure No.
8.4 **DRAFT**

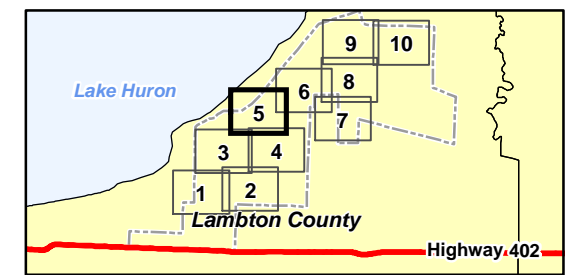
Title
Methods





Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
Access Road Constructible Area (40m)	Municipal Boundary
Overhead Transmission Line Constructible Area	Areas Previously Surveyed by Golder
Substation/ Operation and Maintenance Building	Survey Method
Turbine Constructible Area	Creek, Not Assessed
Underground Cable Constructible Area (20m)	Creek and Steeply Sloped, Not Assessed
	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



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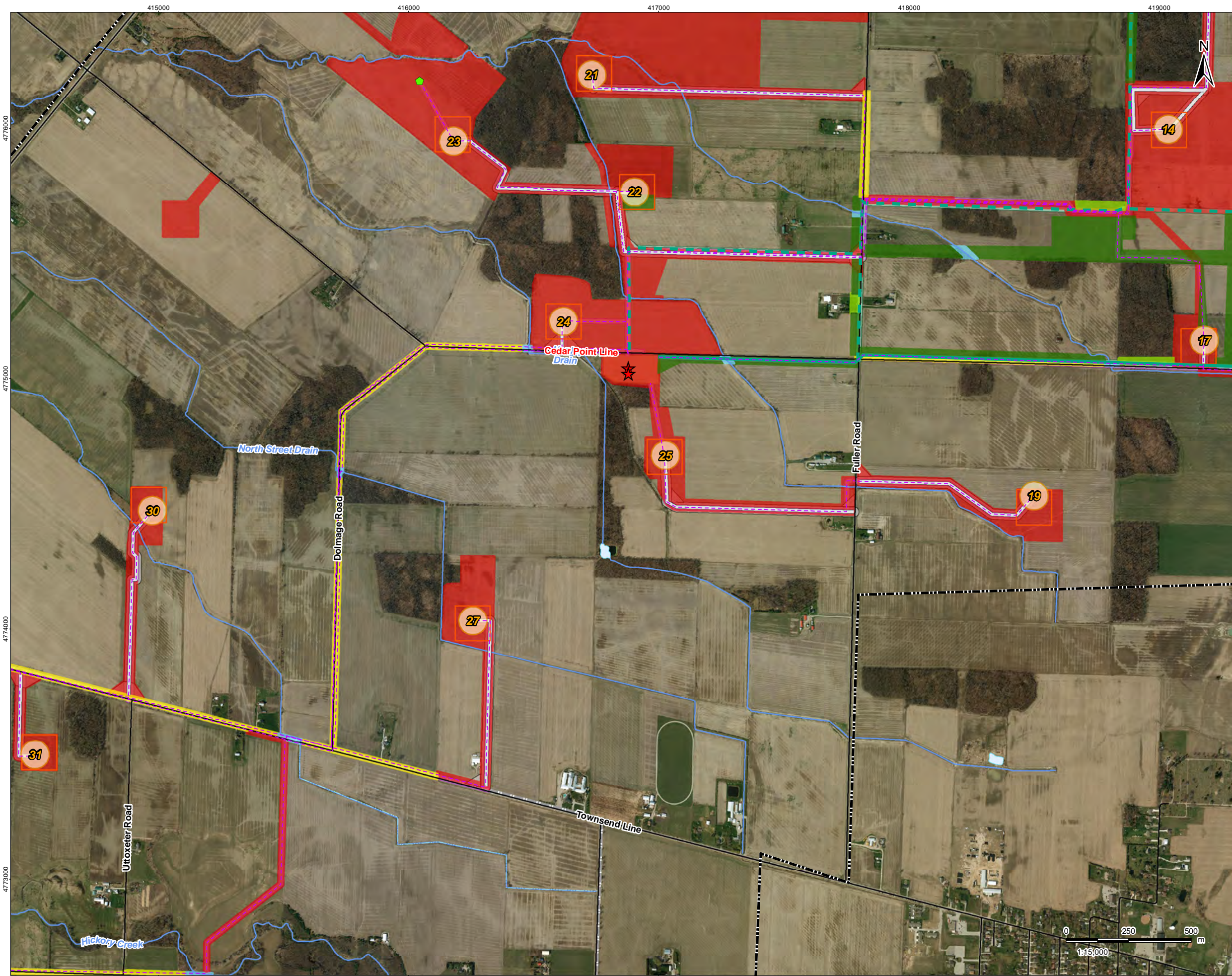
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Client/Project
Suncor Energy
Cedar Point Wind Power Project

Figure No.
8.5

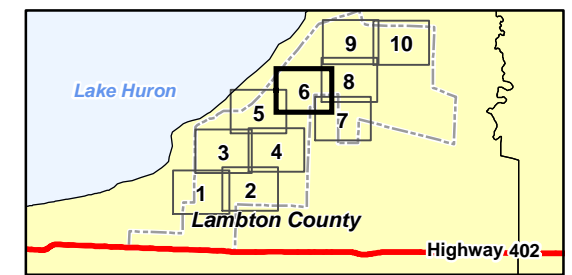
DRAFT

Title
Methods



Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
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Overhead Transmission Line Constructible Area	Areas Previously Surveyed by Golder
Substation/ Operation and Maintenance Building	Survey Method
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Underground Cable Constructible Area (20m)	Creek and Steeply Sloped, Not Assessed
	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



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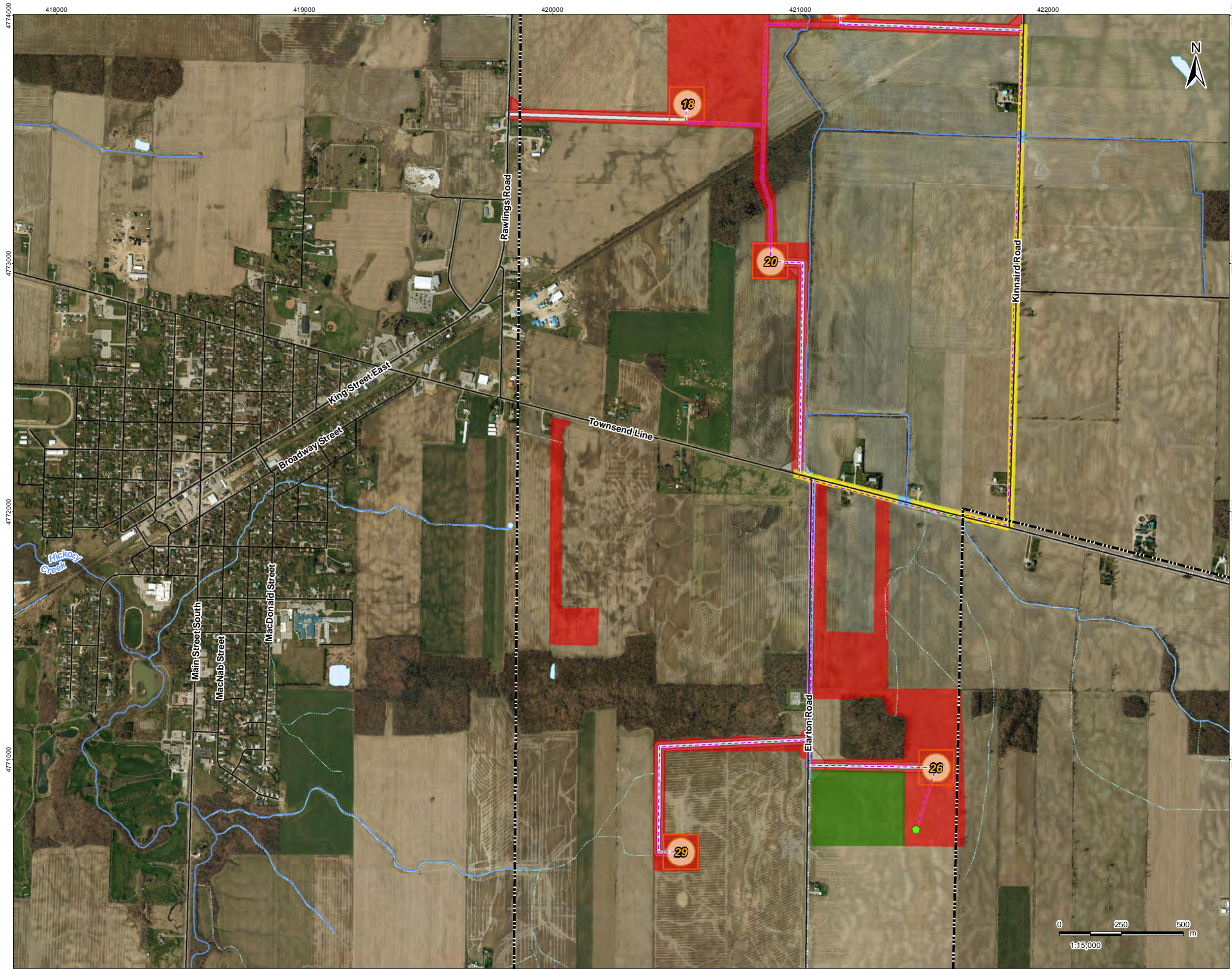
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Figure No.
8.6

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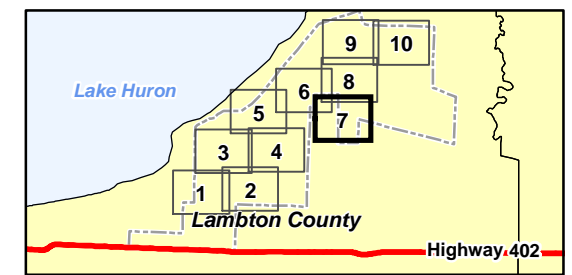
Title
Methods





Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
Access Road Constructible Area (40m)	Municipal Boundary
Overhead Transmission Line Constructible Area	Areas Previously Surveyed by Golder
Substation/ Operation and Maintenance Building	Survey Method
Turbine Constructible Area	Creek, Not Assessed
Underground Cable Constructible Area (20m)	Creek and Steeply Sloped, Not Assessed
	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



- Notes**
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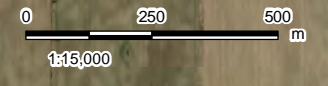
January 2013
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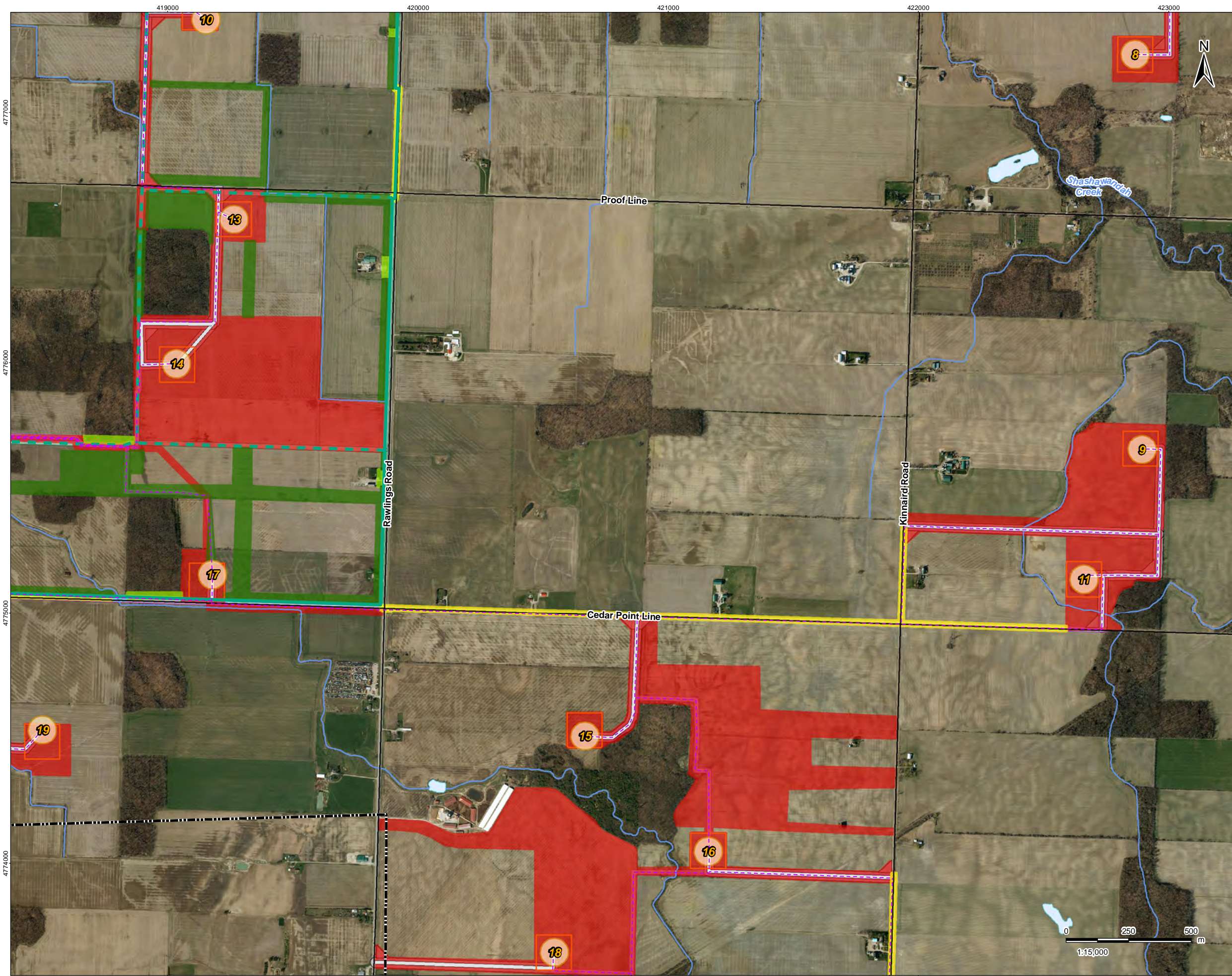
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Cedar Point Wind Power Project

Figure No.
8.7

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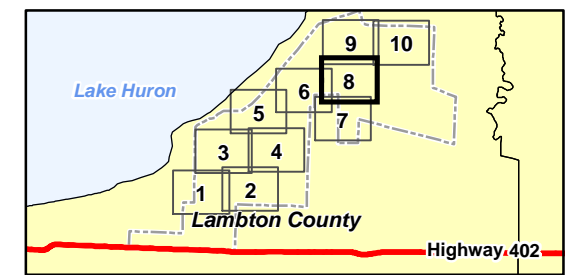
Title
Methods





Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
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Overhead Transmission Line Constructible Area	Areas Previously Surveyed by Golder
Substation/ Operation and Maintenance Building	Survey Method
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Underground Cable Constructible Area (20m)	Creek and Steeply Sloped, Not Assessed
	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



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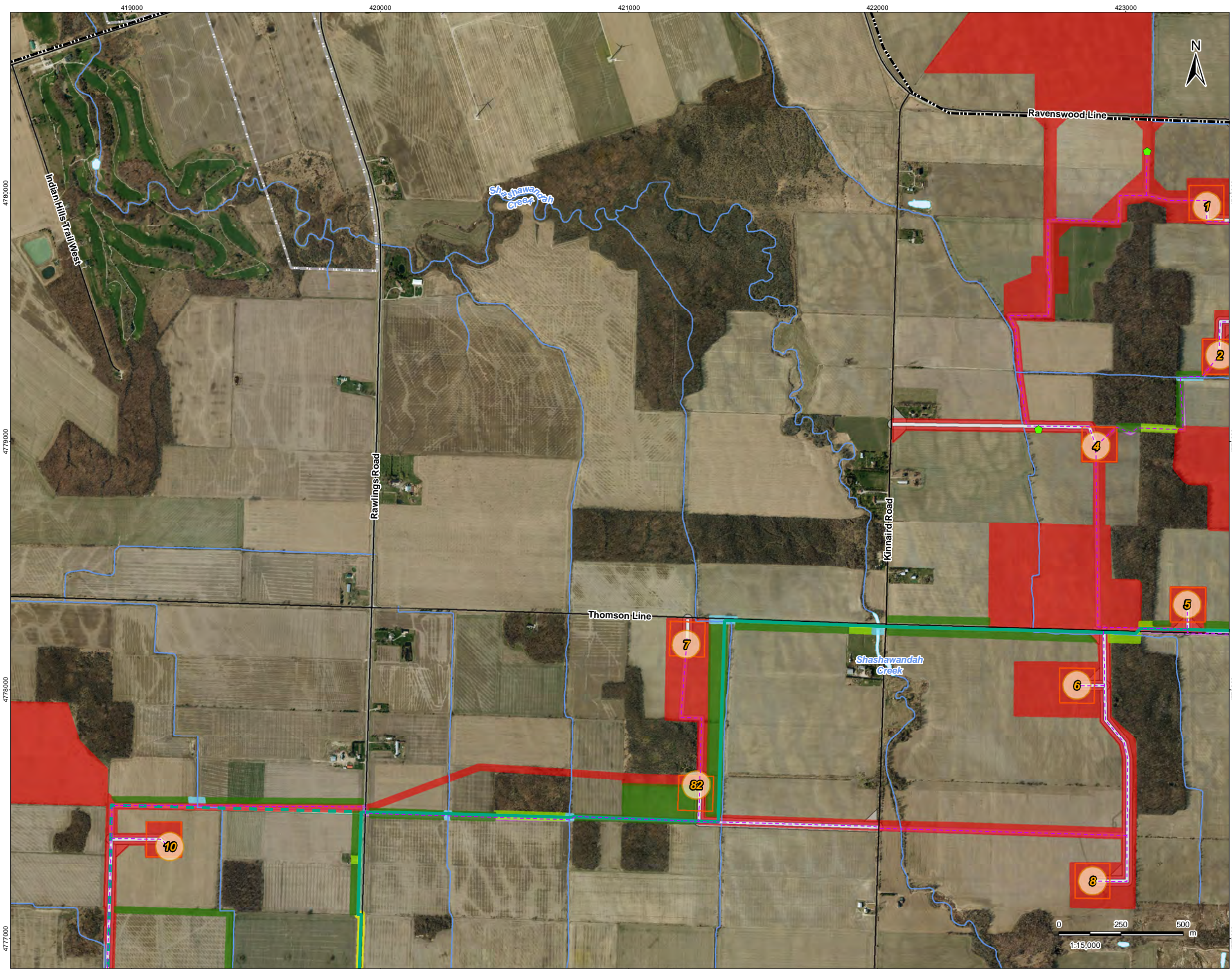
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Cedar Point Wind Power Project

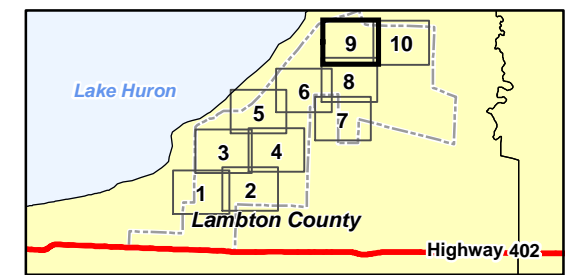
Figure No.
8.8 **DRAFT**

Title
Methods



Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
Collector Line	Waterbody
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Substation/ Operation and Maintenance Building	Survey Method
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Underground Cable Constructible Area (20m)	Creek and Steeply Sloped, Not Assessed
	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



Notes

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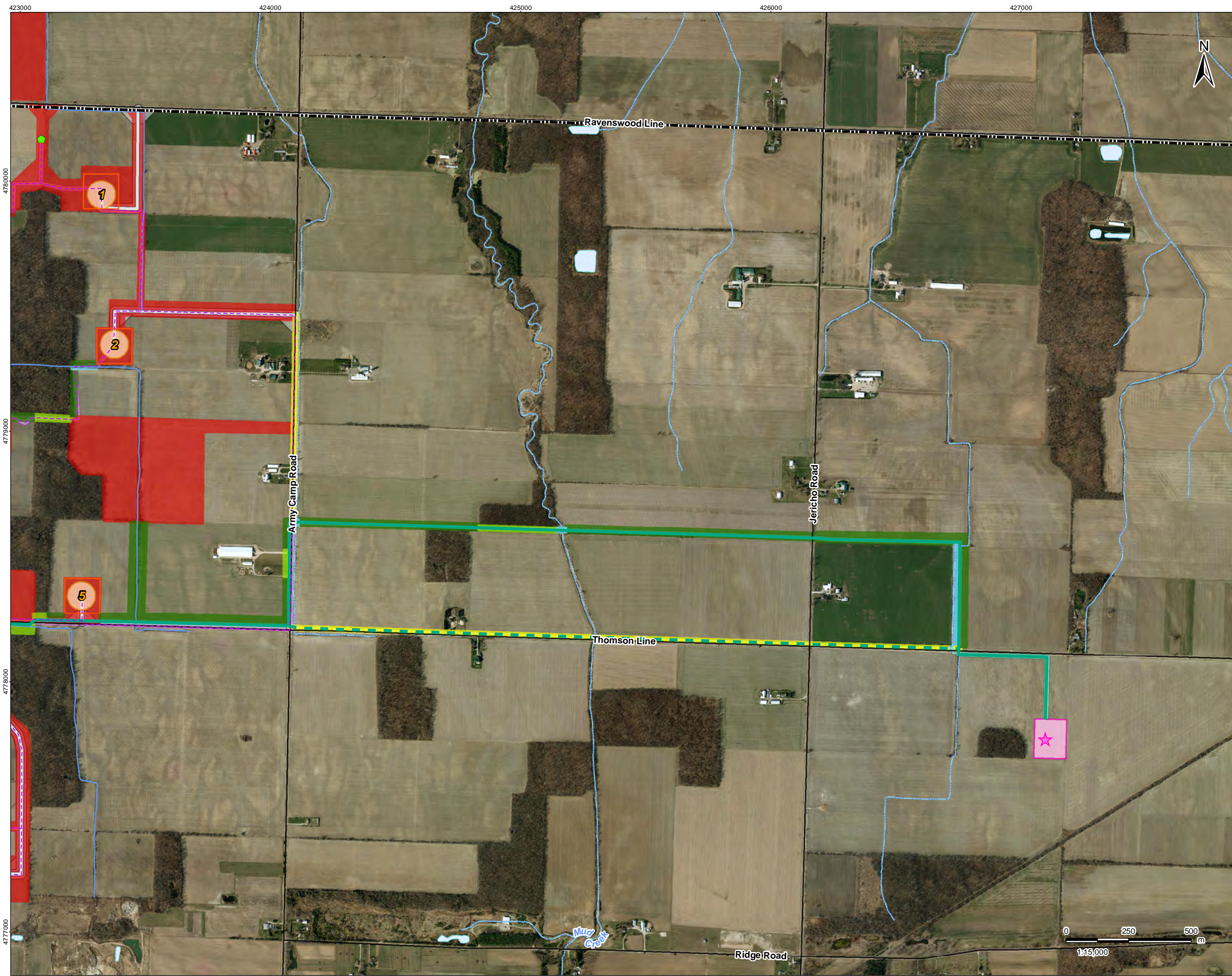
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Figure No.
8.9 **DRAFT**

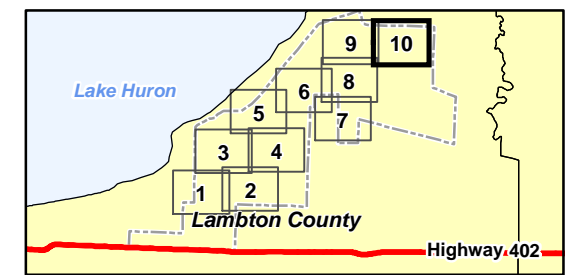
Title
Methods





Legend

Project Boundary	Other Infrastructure
Proposed Project Components	Transformer- NextEra Jericho
Proposed Turbine Location	Substation- NextEra Jericho
Transformer	Existing Features
Access Road	Road
Transmission Line	Watercourse
Transmission Line Alternate Route	Constructed Drain
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	Previous Disturbance, Not Assessed
	Pedestrian Survey, Assessed at Five Meter Intervals
	Test Pit Survey, Assessed at Five Meter Intervals



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Figure No.
8.10 **DRAFT**

Title
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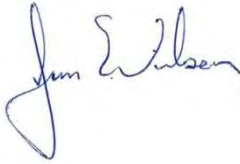


10.0 Closure

This report has been prepared for the sole benefit of Suncor Energy Products Inc., and may not be used by any third party without the express written consent of Stantec Consulting Ltd. and Suncor Energy Products Inc. Any use which a third party makes of this report is the responsibility of such third party.

We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this report.

Yours truly,



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