Henvey Inlet Wind LP

Henvey Inlet Wind

Transmission Line

Appendix B7. Route A Stage 1 Archaeological Assessment Report

Henvey Inlet Wind LP

Henvey Inlet Wind

Stage 1 Archaeological Assessment
Transmission Line – Route A

Unorganized Townships of Henvey and Mowat, Township of Blair, District of Parry Sound, and the Unsurveyed Territory in the Municipality of Killarney, Ontario

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Original Report

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Revision Log

Revision #	Revised By	Date	Issue / Revision Description

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Executive Summary

AECOM Canada Ltd. (AECOM) was contracted by Henvey Inlet Wind LP (HIW) to conduct a Stage 1 archaeological assessment for a parcel of land for a Transmission Line corridor required to facilitate the proposed Henvey Inlet Wind Energy Centre (HIWEC) located in central Ontario. This background study was undertaken by AECOM on behalf of HIW in advance of a Category B Environmental Review as described in the Ministry of the Environment and Climate Change's *Guide to Environmental Assessment Requirements for Electricity Projects* (2011), outlined in Ontario Regulation 116/01, Electricity Projects Regulation. This undertaking is also subject to the *Ontario Heritage Act* (Ontario Government 1990a) and the *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011b).

Two transmission lines (Route A and B) are being proposed to bring the power generated from the HIWEC, located on Henvey Inlet First Nation's Indian Reserve No. 2 (HIFN I.R. #2), to the Ontario electricity grid. Only one option will be constructed. This report is for Route A only. The Transmission Line Route A study area is located off-reserve in the unorganized Townships of Henvey and Mowat, and the Township of Blair, in the District of Parry Sound. The HIWEC Transmission Line – Route A study area is comprised of a large parcel of land approximately 16-20 km east-west and up to 9 km north-south. The study area extends from Highway 69 at HIFN I.R. #2 east to the existing 500 kV Hydro One Networks Inc. (HONI) transmission line; and covers the area just north of Highway 522 south to Bekanon Road. At the time this study began two routes were being considered and therefore the study area is much larger than required as it included a potential route along Bekanon Road. The Transmission Line – Route A study area runs through the Unorganized Townships of Henvey and Mowat, and the Township of Blair, in the District of Parry Sound, and Unsurveyed Territory in the Municipality of Killarney. This assessment only pertains to off-reserve land, the on-reserve portion of the Transmission Line - Route A is incorporated within the HIFN EA process. The HIFN EA process has similar requirements for archaeological assessments as wind energy projects elsewhere in Ontario; however, Ontario Ministry of Tourism, Culture and Sport acceptance is not required as this is federal land. An overview of the Transmission Line – Route A study area location is provided in **Figure 1**, and a detailed map of the Transmission Line – Route A study area is provided in **Figure 2**.

The Transmission Line – Route A study area is primarily located on Crown-owned or managed lands. Archaeological assessments on Crown Land are governed by different agencies than private and municipal land in Ontario. Parks Canada governs archaeology done within federal parks and for national historic places. The Ontario Ministry of Natural Resources and Forestry (MNRF) governs archaeological assessments on Crown land and requires that archaeological assessments meet the Standards and Guidelines established by the MTCS (Ontario Government 2011b).

The potential for pre-contact and contact period First Nations archaeological resources within the Transmission Line – Route A study area is judged to be high within 50 m of modern watercourses, within 300 m of previously identified areas of cultural significance, and within 150 m of well-drained soil in close proximity to marshes, wetlands or watercourses (Ontario Government 2011b: Section 1.4). The presence of two registered archaeological sites within the study area boundaries increases the potential for archaeological remains. It has been noted also, that multiple archaeological sites exist beyond the study area boundaries. Outside these designated proximities the potential for pre-contact Aboriginal archaeological resources is low, however there is moderate potential for archaeological materials that are not in the ground (i.e., pictographs and quarry sites). Additionally, the presence of multiple fur trade posts increases the potential for archaeological remains. Therefore, further Stage 2 archaeological investigation is recommended to clear the Transmission Line – Route A and ensure there are no impacts to culturally significant sites that may not have been previously recorded. As no glacial shorelines are found within the Transmission Line – Route A study area this type of feature does not impact the evaluation of pre-contact Aboriginal archaeological potential. Contact period resources in the Transmission Line – Route A study

area consist of significant watercourses which would have been equally important to both Euro-Canadian and First Nations people during this time, and the possibility for raw material quarrying activities.

The potential for Euro-Canadian archaeological resources is judged to be high within 150 m of historic transportation routes and areas of early Euro-Canadian settlement and industry (Ontario Government 2011b: Section 1.4). Outside of these designated proximities the potential for Euro-Canadian archaeological resources is low and no Stage 2 archaeological assessment is recommended. Many early roads were not followed by modern highways, meaning areas of cultural heritage value or interest associated with historic roadways are now far removed from modern thoroughfares, often in remote areas or used as trails or logging roads. Therefore, archaeological potential is high within 150 m of these historic transportation routes. This includes existing and previous rail lines; the rail lines were the first form of transportation within this area of Ontario, and a large number of early communities sprang up along the lines to service the lumber industry. Historic communities within the study areas have contracted over time, each of them at their largest in the late 1800s to early 1900s, seeing a gradual decrease over time. Significant archaeological resources related to these communities may remain outside of their current limits. Archaeological potential has been determined to be high in proximity to the estimated locations of early roads, the post offices, and historic communities. Highways 69 and 522 are not considered to be historic transportation routes, and any cultural heritage value or interest associated with them has now been previously and extensively disturbed.

This Stage 1 archaeological assessment has identified areas of archaeological potential within the study area limits. As the HIWEC Transmission Line – Route A study area is situated entirely in the Canadian Shield terrain the amount of land that will require Stage 2 archaeological survey can be reduced. The following recommended strategy for Stage 2 assessment is based off Section 2.1.5 of the *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011b). In addition, due to the complex combination of land conditions in the study area there may be small areas of archaeological potential intermixed with areas of low potential and Section 2.1.6 must be followed during the Stage 2 archaeological assessment (Ontario Government 2011b).

To assist in determining where areas of archaeological potential or archaeological features are located, the impacted property will be inspected as part of the Stage 2 assessment. This property inspection will allow the archaeologist to evaluate and photo-document actual land conditions. Areas of potential are related to the location of watercourses, known archaeological sites, pockets of well-drained soil, Trading Posts, early roads, 19th century post offices, structures illustrated on 19th century maps and early Euro-Canadian communities. When the location of archaeological features is known, the reduction of survey intervals can be planned based on the fieldwork recommendations below. Areas exempt from Stage 2 archaeological assessment include: steep slope, poor drainage, previous disturbance due to road and road right-of-ways or aggregate activities, and exposed bedrock. These conditions must be photographed and documented in the field but do not require archaeological survey. Exceptions must be made for any areas of steep slope containing exposed bedrock cliff faces. These areas must be assessed and photo documented for the potential presence of rock art given the identification of multiple pictograph sites in close proximity to the current study area. The exposed bedrock may also contain areas where previous quarrying activities have been conducted, based on the proximity of the Transmission Line – Route A study area to similar locations along the eastern shore of Georgian Bay where these activities have been documented.

The Stage 2 test pit assessment survey intervals are adjusted according to proximity to features of archaeological potential as follows:

- When the feature of archaeological potential is a modern water source the Stage 2 assessment should consist of a test pit assessment at a 5 m interval in the area between 0 to 50 m of the modern water source. Beyond 50 m, a Stage 2 survey is not required (Ontario Government 2011b; Section 2.1.5, S.1).

- When the feature of archaeological potential is an early Euro-Canadian transportation route or area of early settlement or industry the Stage 2 assessment should consist of a test pit assessment at a 5 m interval in the area between 0 to 50 m of the early Euro-Canadian transportation route and at a 10 m interval between 50 to 150 m of the early Euro-Canadian transportation route. Beyond 150 m a Stage 2 survey is not required (Ontario Government 2011b; Section 2.1.5, S.2 and Section 1.4, S.1.d.).
- When the feature of archaeological potential is a previously identified archaeological site the Stage 2 assessment should consist of a test pit assessment at a 5 m interval in the area between 0 to 50 m of the archaeological site, and at a 10 m interval between 50 m to 150 m. Beyond 150 m, a Stage 2 survey is not required (Ontario Government 2011b; Section 2.1.5, S.2).
- The consultant archaeologist conducting the Stage 2 assessment should maintain survey grids as close as possible; however, intervals may vary from the standard survey grids as necessary due to complex combinations of archaeological potential and based on professional judgement. If regular survey grids are not maintained, any variations should be documented and explained in the Stage 2 report.

Based on aerial photography doesn't appear to be any agricultural land in the Transmission Route – A study area; however, in the event agricultural land is identified it should be noted that survey reductions are not permitted for agricultural fields. Agricultural land that can be ploughed must be ploughed, weathered, and subject to full pedestrian survey at 5 m intervals (Ontario Government 2011b: Section 2.1.1).

The Ontario Ministry of Tourism, Culture and Sport is asked to review this report, accept it into the provincial register of archaeological reports and provide a letter to the proponent indicating that the Ministry concurs with the recommendations provided herein.

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1. Project Context

1.1 Development Context

AECOM Canada Ltd. (AECOM) was contracted by Henvey Inlet Wind LP (HIW) to conduct a Stage 1 archaeological assessment for a parcel of land for a Transmission Line corridor required to facilitate the proposed Henvey Inlet Wind Energy Centre (HIWEC) located in central Ontario. This background study was undertaken by AECOM on behalf of HIW in advance of a Category B Environmental Review as described in the Ministry of the Environment and Climate Change's *Guide to Environmental Assessment Requirements for Electricity Projects* (2011), outlined in Ontario Regulation 116/01, Electricity Projects Regulation. This undertaking is also subject to the *Ontario Heritage Act* (Ontario Government 1990a) and the *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011b).

Two transmission lines (Route A and B) are being proposed to bring the power generated from the HIWEC, located on Henvey Inlet First Nation's Indian Reserve No. 2 (HIFN I.R. #2), to the Ontario electricity grid. Only one option will be constructed. This report is for Route A only. The Transmission Line Route A study area is located off-reserve in the unorganized Townships of Henvey and Mowat, and the Township of Blair, in the District of Parry Sound. The HIWEC Transmission Line – Route A study area is comprised of a large parcel of land approximately 16-20 km east-west and up to 9 km north-south. The study area extends from Highway 69 at HIFN I.R. #2 east to the existing 500 kV Hydro One Networks Inc. (HONI) transmission line; and covers the area just north of Highway 522 south to Bekanon Road. At the time this study began two routes were being considered and therefore the study area is much larger than required as it included a potential route along Bekanon Road. The Transmission Line – Route A study area runs through the Unorganized Townships of Henvey and Mowat, and the Township of Blair, in the District of Parry Sound, and Unsurveyed Territory in the Municipality of Killarney. This assessment only pertains to off-reserve land, the on-reserve portion of the Transmission Line - Route A is incorporated within the HIFN EA process. The HIFN EA process has similar requirements for archaeological assessments as wind energy projects elsewhere in Ontario; however, Ontario Ministry of Tourism, Culture and Sport acceptance is not required as this is federal land. An overview of the Transmission Line – Route A study area location is provided in **Figure 1**, and a detailed map of the Transmission Line – Route A study area is provided in **Figure 2**.

The Transmission Line – Route A study area is primarily located on Crown-owned or managed lands. Archaeological assessments on Crown Land are governed by different agencies than private and municipal land in Ontario. Parks Canada governs archaeology done within federal parks and for national historic places. The Ontario Ministry of Natural Resources and Forestry (MNRF) governs archaeological assessments on Crown land and requires that archaeological assessments meet the Standards and Guidelines established by the MTCS (Ontario Government 2011b).

1.1.1 Objectives

The Stage 1 archaeological assessment has been conducted to meet the requirements of the Ministry of Tourism, Culture and Sport's (MTCS) *Standards and Guidelines for Consultant Archaeologists* (2011b). The objectives of the Stage 1 overview/background study are to:

- Provide information about the study area's geography, history, previous archaeological fieldwork and current land condition;
- Identify and map archaeological potential and features of archeological potential on land within the study area limits;
- Determine whether Stage 2 survey is required for all or parts of the study area; and
- Recommend appropriate strategies for a Stage 2 survey.

1.2 Historical Context

1.2.1 Pre-Contact First Nations Settlement History

Archaeological research in central Ontario has been fairly limited in comparison to southern Ontario and northern New York State, which has resulted in a limited understanding of the pre-contact settlement history of this part of the province. **Table 1** provides a breakdown of the pre-contact cultural and temporal history of past occupations of the Transmission Line – Route A study area.

Table 1. Pre-contact Settlement Chronology for Central Ontario

Archaeological Period	Culture	Time Period	Comments
Paleo	Plano	8,000 – 4,500 BC	▪ Lancolate bifaces tools ▪ Big game hunters on relic lake shores north of Upper Great Lake
Archaic	Shield	5,400 – 250 BC	▪ Slight reduction in territory size ▪ Introduction of copper tools ▪ Broad spectrum seasonal resource exploitation ▪ Highly mobile ▪ Introduction of bow ▪ Domestication of dog
Middle Woodland	Laurel	550 BC – AD 950	▪ Introduction of pottery ▪ Horticultural production ▪ Large earthen mounds
Late Woodland	Blackduck Selkirk	AD 750 - 1650	▪ Diverse ceramics – out-flaring vessel rims, textile impressions, punctates ▪ Communal burials
Contact Aboriginal	Northern Ojibwe	AD 1650-1875	▪ Early written records and treaties ▪ European trade
Euro-Canadian		AD 1749-present	▪ European settlement

Note: taken from Dawson, 1984; Wright, 1981

The first human settlement in this area can be traced back 10,000 years; these earliest well-documented groups are referred to as Paleo which literally translates to old or ancient. The tool assemblage is dominated by finely made lanceolate-shaped, sometimes fluted, projectile points, or spear tips. Paleo people were non-agriculturalists who depended on hunting and gathering of wild food stuffs. They would have moved their encampments on a regular basis to be in the locations where these resources naturally became available and the size of the groups occupying any particular location would vary depending on the nature and size of the available food resources (Ellis and Deller, 1990; Wright 1974). The retreat of the glaciers allowed for spruce dominated boreal forests to move quickly north, occupying the once open tundra (Hinshelwood, 1990; Phillips 1993). By 10,000 years ago the closed spruce forest gave way to the rapid introduction of jack pine and white birch as a result of the increasingly warm, dry and windy environment (Hypsithermal) (Julig 1994; Phillips 1993; Wright 1974). Raw materials obtained from bedrock outcrops were used in the production of tools such as distinctive unfluted, ribbon flaked, lanceolate spear points and knives. The picture that has emerged for early and late Paleo people is of groups at low population densities who were residentially mobile and made use of large territories during annual cycles of resource exploitation (Ellis and Deller, 1990; Julig 1994).

The next major cultural period following the Paleo-Indian is termed the Archaic, where a change in technological and stylistic representations of the projectile points occurred in the archaeological record that marks the beginning of the Archaic Period (Dawson 1983b). Wright (1972) referred to it as the Shield Archaic to indicate a long-lived

tradition that encompassed much of the Canadian Shield from northern Quebec to southwest Northwest Territories. Dawson (1983) also refers to the Shield Archaic as a northern expression of the Archaic Tradition within the Precambrian Shield. The Archaic period in northwestern Ontario is defined by notched projectile points, the use of native copper, and more frequent recovery of woodworking tools such as wedges and adzes (Dawson 1983; Fox 1977; Hinshelwood 2004). There is much debate on how the term Archaic is employed; general practice bases the designation off assemblage content as there are marked differences in artifact suites from the preceding Paleo-Indian and subsequent Woodland periods. As Ellis et al (1990) note, from an artifact and site characteristic perspective the Archaic is simply used to refer to non-Paleo-Indian manifestations that pre-date the introduction of ceramics. The Archaic occupation is poorly understood in northwestern Ontario because of the underrepresentation of Archaic sites. This is a result of the complex timing for the transition from late Paleo-Indian to Archaic that occurred when lake levels in the Great Lakes Basin were lower than they are today. This resulted in the destruction of any shoreline sites, assuming they have been submerged or under sediments deposited post-8,000 years ago (Hinshelwood 2004). Another contributing factor to the underrepresentation of Archaic sites is the degree of difficulty in determining between Archaic and Woodland period lithics. Throughout the Archaic period the natural environment warmed and vegetation changed from closed conifer-dominated vegetation cover, to mixed coniferous and deciduous forest to the mixed coniferous and deciduous forest in the north and deciduous vegetation in the south we see in Ontario today (Ellis et al 1900). During the Archaic period there are indications of increasing populations and decreasing size of territories exploited during annual rounds; fewer moves of residential camps throughout the year and longer occupations at seasonal campsites; continuous use of certain locations on a seasonal basis over many years; increasing attention to ritual associated with the deceased; and, long range exchange and trade systems for the purpose of obtaining valued and geographically localized resources (Ellis et al 1990; Hinshelwood 2004).

The Woodland period is distinguished from the Late Archaic period primarily by the addition of ceramic technology, which provides a useful demarcation point for archaeologists but is expected to have made less difference in the lives of the Woodland peoples. Unlike southern Ontario where the Woodland period is divided into three distinct phases, the Woodland period of northern Ontario observes only two distinct phases, the Middle and Late Woodland periods. The introduction of pottery is believed to have made its way into northern Ontario culture from the southwest and east, creating the Laurel culture within the Boreal Shield stretching from Saskatchewan to northern Quebec. Laurel ceramics was dominated by conical style tapered base pottery manufactured using the coil method adorned with decoration across the upper portion of the vessel's exterior surface.

Along with the introduction of pottery, the bow and arrow appears as the dominant hunting tool in the Middle Woodland period. This resulted in an increase in projectile points and scrapers developed using stone chipped technology (Wright 1995:272, 274). During the Middle Woodland groups would come together into large macro-bands through the spring-summer at lakeshore or marshland areas to take advantage of spawning fish; in the fall inland river valleys were occupied for deer and nut harvesting and groups split into small micro-bands for winter survival (Spence et al 1990).

The Late Woodland period in this part of Ontario differed significantly from the settlement and subsistence shift that occurred in southern Ontario with the increasing reliance on maize horticulture. The climate and landscape of the Canadian Shield prohibited the agricultural shift occurring in the south with continued reliance on fish and large game as in previous periods. Population growth was also restricted by the Canadian Shield environment and settlement patterns were similar to those of the Middle Woodland with large summer camps located close to fish resources and typically located on level, well drained ground with access to canoe landing beaches. Throughout the pre-history contact of northern Ontario, the inhabitants utilized the many rivers and lakes as transport routes, using birch bark canoes in the warmer seasons and as trails when frozen in the winter.

Within the Late Woodland period two distinct cultures arise; the Blackduck complex and the Selkirk complex. The Blackduck culture is identified by the contrasting pottery tradition to the Laurel. Pottery vessels were large globular

and created using the paddle and anvil technique with decoration being horizontal and/or oblique lines along with circular indentations or puncates found on the neck, rim and inner rim. The Blackduck culture is considered to occur through central Ontario.

The Selkirk culture is defined by its pottery style as well, with manufacturing similar to that of the Blackduck culture but with a distinct variation in decoration. The Selkirk style of pottery, if decorated, was simple with a single row of puncates or impressed with a cord wrapped stick (Dawson 1983). Selkirk pottery is found predominantly in the northern portion of Ontario, near Manitoba.

In the 17th century two major language families, Algonquian and Iroquoian were represented by the diverse people of North America. Iroquoian speaking people were found in southern Ontario and New York State, with related dialects spoken in the mid-Atlantic and interior North Carolina, while Algonquian speaking peoples were located along the mid-Atlantic coast into the Maritimes, throughout the Canadian Shield of Ontario and Quebec and much of the central Great Lakes region (Ellis et al 1990). Linguists and anthropologists have attempted to trace the origin and development of these two language groups and usually place their genesis during the Archaic (Ellis et al 1990).

1.2.2 Contact Period Settlement History

Etienne Brule and Samuel de Champlain are the first Europeans to come to the region, travelling the French River into Georgian Bay from the Ottawa River in 1610 and 1613 respectively. At the time of European contact the Jesuits recorded a multitude of tribes in the Canadian Shield area who spoke the Algonquin language (Thwaites 1896-1901). The Anishinabek seasonal cycle involved travel over large regions to exploit resources for food, tools, medicines and ceremonial use, with large groups congregating at summer camps and dispersing into small winter hunting groups (Allen 2002).

The first European to describe the Ojibway who were located near the mouth of the French River and Georgian Bay was Samuel de Champlain:

> *We met with three hundred men of a tribe named by us the Cheveau releves or 'High Hairs', (Ojibwa?) because they had them elevated and arranged very high and better combed than our courtiers, and there is no comparison in spite of the irons and methods these have at their disposal. This, seems to give them a fine appearance. They wear no breech cloths, and are much carved about the body in divisions of various patterns. They paint their faces with different colours and have their nostrils pierced and their ears fringed with beads. When they leave their homes, they carry a club. I visited them and gained some slight acquaintance and made friends with them. I gave a hatchet to their chief who was as happy and pleased with it as if I had made him some rich gift and, entering into conversation with him, I asked him about his country, which he drew for me with charcoal on a piece of tree-bark. He gave me to understand that they had come to this place to dry the fruit called blueberries to serve them as manna in the winter when they can no longer find anything. For arms they have only the bow and arrow.*
>
> *Schmalz 1991: 14-15*

The fur trade in Canada provided the principal motivation and economic base for the exploration by Europeans of the Canadian interior. During the period from 1670 to 1713, French traders began to leave established settlements and construct trading posts that enabled traders to make direct contact with the tribes of the interior. An examination of the Atlas of Canada's map "Posts of the Canadian Fur Trade, 1600-1870" indicates the presence of two Fur Trade Posts in close proximity to the study area; one Hudson's Bay Co. (HBC) and 1 Independent Canadian Post (**Figure 3**). The HBC post is located at the mouth of the French River, which opened in 1827 and operated for anywhere from 15 to 50 years. This would have been an influential location as fur traders travelled back and forth along the French River which acted as the gateway between Ottawa and the Great Lakes. The

Canadian Independent Post was located along the coast of Lake Nipissing. There were multiple posts around the lake, but this specific one along the southern shore at the mouth of the French River opened in 1825 and was operational for approximately 4 to 16 years. Both of these posts would have facilitated the fur trade along the eastern coast of Georgian Bay as explorers and voyageurs canoed west along the French River to the Great Lakes in the spring, then back east towards Ottawa in the fall.

French explorers allied with the Huron and Ojibway people and participated in raids on Iroquoian settlements and by 1615 the French-Huron alliance was cemented, contact had been made with the Nipissing, Odawa and Petun and the geography of the eastern Great Lakes was roughly known (Heidenreich 1990). After 1615 the fur trade gained momentum with the Hurons playing a major role, utilizing existing trade routes between the Huron agriculturalists in the south and Ojibway bands to the north. In 1649 the Hurons experienced an Iroquoian attack on the Huron town of St. Ignace, as intertribal wars for control of the fur trade came to a head (Hunt 1940: 92; Pollock 1999). Henvey Inlet ancestors in this area felt the repercussions of the collapse of the Huronia, temporarily relocated to other areas due to the recurring raids of the Iroquois between 1650 and 1660 only to return after 1667 (Day 1978: 789; Pollock 1999). As a result, the northern coasts of Georgian Bay and Lake Huron may have served as a transition zone or buffer between the Anishinabek and Iroquois, as it was sparsely occupied until the return of the Ojibway along the Georgian Bay and Lake Huron in the 1700s (Pollock 1999). After this time, until the fall of New France in 1759, the Anishinabek found themselves in a position of relative control of the fur trade, as French and British encouraged the trade of the coveted furs from northern Ontario for profit and also to secure allies (Schmalz 1991: 35; Pollock 1999).

Conflict again arose in the early 1800s, this time with the Canadian Government regarding mining rights along the northern shores of Lakes Superior and Huron. These areas were to be surrendered to the Government in order to prepare for European settlement, to enforce British jurisdiction against American incursions in the region, and the provincial government's desire to encourage mineral exploration without making a treaty (Morrison 1995; Pollock 1999). As a result, the Robinson-Huron Treaty was signed in 1850 in Sault Ste. Marie by the Honourable W.B. Robinson and various Ojibway Chiefs and principal men from Georgian Bay and the north shore of Lake Huron. Among the signatories were Chief Pamequonaishcum of Magnetawan, Chief Wagemake of Henvey Inlet and Chief Mishequongai of French River (Morris 1943). Robinson then travelled to Penetanguishene, where he negotiated an adhesion of the Treaty with Chief Muckutamishaquet of Shawanaga First Nation, Chief Mekis of the Wasaksing (Parry Island) First Nation (Morrison 1995). The reserve lands were surveyed in 1851 and 1852 by J.S. Dennis and K.W. Keating.

The Robinson Huron treaty made on September 9th, 1850 between:

> *…the Honourable William Benjamin Robinson and the Principal Men of the Ojibwa Indians, inhabiting and claiming the eastern and northern shores of Lake Huron from Penetanguishene to Sault Ste. Marie, and thence to Batchewanaung Bay on the northern shore of Lake Superior, together within the Islands in the said lakes, opposite to the shores thereof and inland to the height of land which separates the territory covered by the Charter of the Honourable the Hudsons Bay Company from Canada, as well as all unconceeded lands within the limits of Canada West, to which they have any just claim of the other part…*
>
> *Morris 1943:30*

Robinson made an offer of £4000 in cash and a perpetual annuity of £1000 for the entire region, ensuring the bands would continue to enjoy their hunting and fishing rights because extensive settlement in the perceived "barren" regions of the Canadian Shield was considered unlikely. Hunting and fishing was to continue in the region for the bands, unlike the eastern regions of Upper Canada, where those activities had been hampered by extensive development (Surtees 1986). The two agreements for the lands bordering Lake Superior and Lake Huron were signed in Sault Ste. Marie referred to as the Robinson-Superior and Robinson-Huron Treaties respectively. The

Robinson-Superior Treaty contained approximately 43,200 square km of territory and was occupied by 1422 people. The Robinson-Huron Treaty contained approximately 92,500 square km of land with 1240 people living within its boundaries. The treaties also offered significant differences from other treaties developed in Ontario; a schedule of reserves chosen by the chiefs and clauses regarding features of First Nation – Euro-Canadian relations (Surtees 1986). The reserves agreed upon consisted of three on Lake Superior and twenty-one under the Robinson-Huron agreement. The clauses stated that the reserves could not be sold or leased without the consent of the Chief Superintendent of Indian Affairs; First Nations would refrain from interfering with mineral activities in the ceded areas, though mineral rights on the reserves belonged to them; the rights of Métis who could declare whether they were First Nations or not; and hunting and fishing rights where First Nations were to have "the full and free privilege to hunt over the territory now ceded by them and to fish in the waters thereof as they have heretofore been in the habit of doing" (Surtees 1971: 149-152; Surtees 1986).

The Transmission Line – Route A study area also falls within the limits of the Williams Treaty signed in 1923, although Henvey Inlet First Nation, Magnetawan First Nation, and Shawanega are not signatories. The treaty area established by the Williams Treaties overlaps that of the Robinson Huron treaty, and was signed by the Chippewa and Mississauga First Nations groups inhabiting the North Shore of Lake Ontario, as well as the interior territory between Georgian Bay and the Ottawa River (Morris 1943; Surtees 1986). The treaty covered approximately 25,900 square km section of south-central Ontario including the Ontario communities of North Bay, Barrie, Gravenhurst, Orillia, Parry Sound, Petawawa, Markham, Pickering and Coburg. The southern limits stretched from Brampton to Trenton, and along the Ottawa and French Rivers to the north. The Williams Treaty was made on October 31 and November 15, 1923 and is comprised of treaties formerly returned including parts of the original Robinson Treaty (Ojibwa), Treaty No. 20, Treaty No. 45½, and Treaty No. 27. The Williams Treaty (Chippewa and Mississauga) is:

> *Bounded on the east and south by Treaty No. 27 and the Ottawa River; on the north by the Mattawa River, Lake Nipissing, and the French River; and on the west by Georgian Bay. Excepting thereout and therefrom those land which have already been set aside as Indian Reserves. The parcel hereby surrendered contains 17,600 square miles more or less.*
>
> *Morris 1943: 23*

In late 1923, treaties were signed dealing with outstanding land claims in southern and central Ontario (Surtees 1986). The treaties covered approximately 28,000 square km of land. Ojibway nations in central Ontario signed over land rights to the federal government in exchange for $25 each, and forthcoming funds of more than $230,000. Most of the land covered by this treaty is meant to rectify 'blank treaties,' which are non-existent treaties purportedly signed between the British and the Ojibway nations, or other unfair dealings during the 1700s and 1800s (Surtees 1986). Like the Numbered Treaties that preceded the Williams Treaties, First Nations received cash in exchange for formally giving up this land. However, they also surrendered their rights to hunting, fishing and trapping on all of the land covered by the treaty (Morris 1943).

While the Henvey Inlet First Nation, Magnetawan First Nation, and Shawanega reserve lands were established under the Robinson Huron Treaty for areas along the Georgian Bay Coast and along the North Shore, the presence of overlapping treaties suggests both Robinson Huron and Williams Treaty signatories may have treaty rights related to areas off reserve. While it is difficult to determine the exact limits of treaty boundaries, **Figure 4** provides the approximate limits of the Williams Treaty in relation to the Transmission Line – Route A study area.

As European settlers encroached on their territory the nature of Aboriginal population distribution, settlement size and material culture changed. Despite these changes it is possible to correlate historically recorded villages with archaeological manifestations and the similarity of those sites to more ancient sites reveals an antiquity to documented cultural expressions that confirms a long historical continuity to systems of ideology and thought (Ferris 1009). The post-contact Aboriginal occupation of Ontario was heavily influenced by European diseases and

population movements. As Iroquoian speaking peoples, such as the Huron, Petun and Neutral were dispersed by the New York State Confederacy of Iroquois, Algonkian speaking groups from northern Ontario moved southerly into the land now abandoned. The Ojibwa of southern Ontario date from about 1701 and occupied the territory between Lakes Huron, Erie and Ontario (Schmalz 1991). This is also the period in which the Mississaugas are known to have moved into southern Ontario and the Great Lakes watersheds (Konrad 1981) while at the same time the members of the Three Fires Confederacy, the Chippewa, Ottawa and Potawatomi were immigrating from Ohio and Michigan (Feest and Feest 1978).

1.2.3 Euro-Canadian Settlement History

The eastern shore of Georgian Bay was considered a desolate and difficult place, originally thought to simply function as a hunting area for Huron, Ojibwa and Algonquin people. Initial survey consisted of efforts confined to canoes through rivers and water ways. The Northern and Pacific Junction Railway was constructed in the 1880s to connect the railways of southern Ontario to the new transcontinental line of the Canadian Pacific Railway (CPR). Communities like Britt and Key Harbour survived as CNR ports to unload coal and oil off tankers that were coming from Lake Superior and Lake Huron (Campbell 2005). The Northern and Pacific Junction Railway became part of the Grand Trunk railroad system which opened up Parry Sound and Muskoka's isolation.

The area remained relatively untouched until the Muskoka and Parry Sound Districts were surveyed between 1866 and 1870 (Campbell 2005). Despite the surveyors reporting that the land was unfit for farming, the wealth in timber was deemed highly profitable. Communities on the Bay such as Killarney, Byng Inlet/Britt and Parry Sound developed not as service centres for surrounding farmlands, which was the case in southern Ontario, but as isolated ports, railway stops, or company mill towns (Campbell 2005). Roads were not considered the main option for travel because of the intense difficulties in building and upkeep required in the rugged Canadian Shield. The small communities that appeared as a result of forestry or mineral exploration relied on the Bay, and later the railway, as the primary routes for communication and transportation (**Figure 5**) (Campbell 2005). Though as interest in the forestry and later mineral exploration, roads became a necessity and these 'Colonization Roads' served to increase access to logging, but also to provide a way north for early settlers. This network of roads provided access between the Ottawa Valley and Georgian Bay, known as the Ottawa–Huron Tract. The government built over 1,600 kilometres of roads over two decades. The Great North Road extended from Parry Sound northeast to Lake Nipissing which was started as part of this government settlement initiative in approximately 1850. This road does not follow the current Highway 69 route, but went directly to Lake Nipissing from Parry Sound. By 1955 the modern day Highway 69 connected Parry Sound and the Trans-Canada Highway (Hwy 17) at Sudbury.

1.2.3.1 Unorganized Township of Henvey

This Township was named after Henvey Inlet in 1912. Admiralty surveyor Henry W. Bayfield named the Inlet in 1822 after Lt. William Henvey who had served the St. Lawrence in 1815 (Rayburn 1997). Initial survey of Henvey was conducted along the Still River in 1912, where multiple dwellings and barns were located on both sides of the river and along the CPR line (Survey Field Notes 1912).

The CPR runs through the township, which opened in June 1908, to connect Parry Sound and Sudbury in response to increasing competition for connection to Ontario communities in order to facilitate the lumber industry.

Three mines are located within Henvey Township; Ambeau Mine, Besner Mine, and Britt Station occurrence. The Ambeau Mine deposit was worked for feldspar in 1926-1927 by Wanup Feldspar Mines Limited, with shipments totalling 907 tons being made (Sabina 1986). The Besner Mine (Bessner; Henvey pegmatite) consisted of a granite pegmatite dike, which was worked for feldspar from 1926 to 1929 by Wanup Feldspar Mines Limited, totalling

shipments of approximately 2,268 tons of feldspar. It was the largest feldspar operation in the district (Kuroda and Sherrill 1977). The Britt Station occurrence was a smaller operation consisting of a granite pegmatite dike in folded quartz paragneiss and hornblende gneiss. (Rose 1960).

1.2.3.2 Unorganized Township of Mowat

The Township was named in 1879 after Sir Oliver Mowat (1820-1903), who was a distinguished Parliamentarian for over forty years. He served as premier of Ontario from 1872 to 1896, then as federal minister of justice, a senator from 1869- 67, and finally as the eighth Lieutenant Governor of Ontario from 1897 to 1903. He was also a father of confederation (Rayburn 1997).

There are small village towns scattered throughout the Township of Mowat that prospered during the lumber industry. Mowat contains two such towns, Ludgate and Pakesley. Ludgate was initially a timber depot, named after one of the timber contractors, James Ludgate (Charbonneau 2000a). This flag station was established to supply surrounding lumber camps after the arrival of the CNR in 1908. Ludgate moved his milling operation from the McKellar area to this small siding and station stop south of Portage Lake around 1917. This move was precipitated by the additional purchase of timber reserves in the Mowat Township. The village consisted of the mill and spur line, blacksmith shop, cookery and office that later became a store, a slab and sawdust disposal yard, and various dwellings for employees. One of these dwellings would later be used as a school. The post office was situated in the store, which operated from 1927 to 1954 (Charbonneau 2000a). Only three structures remain today, including an office, one home and a bunkhouse. The structures are located on privately owned land. The sawmill village is located 2.8 kilometres south of Pakesley, where the CNR crosses the Key and Little Key River, east of Portage Lake. It was conveniently located near the intersection of the CPR and CNR lines (Charbonneau 2000a).

Pakesley was established in 1912 and was a whistle stop along the CPR line from Sudbury to Toronto (Charbonneau 2000a). Following the completion of the Key Valley Railway (KVR) from Lost Channel to Pakesley in 1919, the Schroeder Lumber Company established a large lumber yard. Pakesley grew to become an important satellite village for the lumber operations situated at Lost Channels. After construction began on the KVR, a store and post office opened in 1917, followed by employees' homes, school, hotel, and ranger station. By 1924 Pakesley had reached its zenith, containing about 150 residents and nearly 30 structures. To reflect this new prosperity, the CPR added a larger seven-room station that same year (Charbonneau 2000a). However, Pakesley suffered greatly during the Depression, when in 1935 the mill at Lost Channel finally closed, as did the KVR. The post office closed in 1950, along with the majority of businesses in the village. By 1958 the watch tower was closed, replaced by aerial surveillance, and the CPR section removed, the station torn down in 1971. All that remains are three original dwellings, some partially in use, and some foundations (Charbonneau 2000a).

Grundy Lake Provincial Park is located along the northern edge of the Transmission Line – Route A study area. It is located 13 km east of Georgian Bay on Highway 69 north of Highway 522, and 80 km from both Parry Sound and Sudbury. The park is 2,554 ha in size, incorporating seven lakes. It was established in 1959 to provide outdoor recreation activities and in order to protect the natural environment within its boundaries (Ministry of Natural Resources 1988).

1.2.3.3 Township of Blair

The Transmission Line –Route A study area buffer also just crosses into the western portion of the Township of Blair. Blair Township was named in 1878 after Adam Johnston Fergusson Blair (1815–67), a son of Adam Fergusson, the founder of Fergus (Rayburn 1997). Major settlements within the Township include Ess Narrows Landing, and Lost Channel, and also includes the Blair Township Nature Reserve Wilderness Area south of south of Hwy 522. Lost Channel was one of the first settlements in the area, when a saw mill was first opened there in 1914 (Charbonneau

2000b). A small rail line extended from Lost Channel to the main CPR line at the Pakesley siding. In 1917 the mill was taken over by the Schroeder Mills and Timber Company, based in Wisconsin. Schroeder went on to complete the Key Valley Railway and build a new workers' village. The Canadian division was headed by James Ludgate who also owned another mill close by (Charbonneau 2000b). The town included a bunkhouse, school, a small hospital, cookery, and a general store. Initially there were approximately twelve homes for workers, and another thirty-five were added later. The mill survived until 1930 when it was destroyed by a fire, finally closing in 1933. Today the former Lost Channel bunkhouse remains in use as a summer lodge, mainly for hunting and fishing. The remains of the old town site are hidden on the north side of the cove (Charbonneau 2000b).

In the twentieth century, the province used its authority as a landlord to establish the first provincial forest reserves in 1898, in order to reserve timber stands on Crown land settlers had been clear cutting as they moved into the area (Campbell 2005). To combat this clear cutting, The Department of Lands and Forests (DLF) were established to gradually bring forests under a sustained yield basis. One way this was accomplished was to open pine plantations, like the one at Lost Channel. However it was unsuccessful, because the topography did not encourage rapid or large-scale reforestation. As a result, most of the Department's energy went into controlling forest fires. Recreation soon became legalized in forest reserves as early as 1936 (Campbell 2005).

1.2.3.4 Henvey Inlet First Nation Indian Reserve No. 2

The main village on the French River Reserve No. 13 experienced industry growth while the French River was the main water artery from the St. Lawrence River to the Great Lakes from 1600 to the mid-1800s. The area prospered with the fur trade, as well as commercial logging and fishing. The French River Village eventually was developed in the late 1880s as a result of the extensive logging industry. Timber cutting, logging and lumber mills sprang up in the area in 1873 and boomed till the 1930s. A major catalyst for the logging industry occurred after the major fire in Chicago, Illinois. The logs were floated down the French River and the Wahnipitae River to aid in rebuilding the city. Today, many of the sunken logs still dot the rivers and are referred to as "dead heads" (HIFN *n.d.*).

The First Nations Community relocated near Highway 69 in the fall of 1953, when the Chief was Henry Ashawasegai, now deceased. With the assistance of the Department of Indian Affairs, bunk houses were erected, as was a school. Originally the community was known as the Lower French River Indian Reserve #13. In 1923 the two Indian Reservations of Lower French River and Henvey Inlet #2 were amalgamated and became known as the Henvey Inlet Band of Ojibwas. After the new constitution of 1982, Bands across Canada adopted the term 'First Nations' so today it is recognized as Henvey Inlet First Nation (HIFN) (Account told by Nellie Ashawasegai, in Campbell 1992: WHS 2004: 16).

Located within the French River Reserve No. 13, is Pickerel Village. This was one of the first permanent settlements that sprang up along the tributary of the French River. The Pine Lake Lumber Company purchased the mill in the town of French River in 1910. The first store and post office in the area were located at the Wanikewin Lodge, situated on the north shore of Pickerel River along the CPR line (HIFN n.d.). Population then began to increase with the commercial development of the area by Martin Henry Fenton. In 1911 the post office was converted to a permanent office, and remained in operation until 1918 when Pickerel Village opened its own post office. It was operated by E.G. William until 1929, and was subsequently relocated many times to different store locations after that. The Pickerel Village expanded along spur lines of the CPR, growing outward to include many different sites scattered over a long distance, consisting of a variety of houses, various businesses, churches, barns, wharfs, schools and boarding houses. In 1922, the water towers stood east of the CPR. However, the forestry industry in the area began to fall, as easier access was made to northeastern Ontario. The Tie & Lumber Co was the first to close its mill in 1928, followed in 1930 by the Pine Lake Mill as a result of a fire and was never rebuilt. The Trottier Mill was built in 1941 and was operational until 1950. With the increased development of transportation routes, the area saw an influx of tourists and seasonal residences (HIFN *n.d.*). Pickerel Village's population declined steadily during the depression years, but it was never totally abandoned. Today it continues to support a small population and enjoys a summer boom. A few original structures still remain, along with extensive foundations from the mill (HIFN *n.d.*).

In the early 1960s, the Ontario Government closed the area for further development making it part of the North Georgian Bay Recreation Reserve. In 1986 French River was designated Canada's first Heritage River. Currently, the main village is on the French River Reserve No. 13, along Pickerel River Road. HIFN Band Office is located at that location. At the present time there are 50 houses; most have been built within the last 10 to 15 years. More housing is in the planning stages for along the Pickerel River Rd and in the subdivision, should population continue to increase, and there is a small population at HIFN I.R. #2 (HIFN *n.d.*).

HIFN negotiated a land claim for HIFN I.R. #2 for 450 ha at the northwest corner of the reserve south of the Key River. Those lands were expropriated in 1907 for railway purposes. After five years of non-use by the James Bay Railroad, the lands should have been returned to the First Nation's status, of which Canada has admitted to this breach of its fiduciary obligations. It was not returned to First Nation's status, but sold or leased out as private patent land. HIFN successfully won the land claim, however it was decided to leave the private lands in exchange for lands granted by the Crown in a different location (Ken Noble pers. com. 2014).

1.2.3.5 Municipality of Killarney

The Transmission Line –Route A study area buffer passes through the very southeast corner of the unsurveyed lands of the Municipality of Killarney. Extensive efforts were made to locate information on the Unsurveyed Territory within the Municipality of Killarney, however because it is unsurveyed the data could not be located. This Unsurveyed Territory also includes French River Provincial Park, along the north shore of the Key River.

The area north of the Key River consists of semi-permanent dwellings used mostly as cottages. The village of Key Harbour once existed on the north shore of the Key River at the mouth of Georgian Bay (Charbonneau 2003). In 1908 the CNR built a spur line to Key Harbour, in order to transport large quantities of ore from Sudbury to the United States. The Key Harbour was utilized to facilitate the transfer of ore pellets from rail cars to tanker ships (Campbell 1995: 71). Key Harbour was decommissioned in 1920, as larger quantities of ore were being shipped out of Depot Harbour near Parry Sound. During the 1920s and early 1930s, Key Harbour was used to ship coal north to Sudbury. After 1938, the docks were abandoned and the tracks were mainly used by jitneys for bringing in cottagers and sending out frozen packed fish from Gauthier's fishery station, also located at Key Harbour. In 1960 the spur line was torn up and sold for scrap. The ruins of the old generating plant and rotting dock supports still remain in the Key River (Charbonneau 2003).

1.3 Archaeological Context

1.3.1 Natural Environment

This part of Ontario consists of bedrock that is Precambrian in age (Dredge and Cowan 1983; Teller and Thorleifson 1983). The Canadian Shield is united by two distinctive characteristics, the mixed forest of coniferous and deciduous trees and the ancient bedrock of the southern edge of the Canadian Shield. The Hudson Bay Lowlands are found further to the north, and consist of Devonian and Silurian bedrock mantled by poorly drained marine, Tyrrell Sea sediments. The Boreal Forest mantles the Shield, but with the southern edge containing the mixed wood Great Lakes-St. Lawrence Forest. The land consists of knobbly wooded hills incised by rivers and streams, often backed up by numerous beaver dams and rocky ledges, and dotted with thousands of lakes. Extensive areas of exposed bedrock are common, much of it having been scraped clean by glacial movement; while in other areas deposits left by glacial river meltwater soften the relief (Zoltai 1965). Glacial action contributed deposits of till in moraines or drumlins. Subsequent glacial lakes left beds of clay in some valleys, while sand deposits marks where the rivers met the lakes. The surficial geology of the study area is illustrated on **Figure 6**.

The complex history of deglaciation and meltwater lake formation and drainage in Ontario is not completely understood, although there is extensive literature presenting interpretations and hypotheses (Dyke 2004; Larson

and Schaetzl 2001; Leverington and Teller 2003; Lowell et al 2009; Teller 1995; Zoltai 1965). The complex formation processes and subsequent drainage of the glacial lakes, in combination with many geomorphic processes, had a profound effect on the surrounding topography and distribution of early archaeological sites in northwestern Ontario. Through a complex lake history, the intense convergence of water from Glacial Lakes Agassiz in Manitoba, the Tyrell Lake over modern day Hudson's Bay, resulted in the erosion of a moranic barrier between Nadoway Point, Michigan and Gross Cap, Ontario that controlled the post-Minong levels of the Lake Superior Basin and Glacial Lake Algonquin levels over Lake Huron (**Figure 7**) (Slatterly et al 2007; Farrand and Drexler 1985; Yu et al 2010; Booth 2002; Lewis 2007).

Glacial Lake Algonquin encompassed the modern Lake Michigan basin, the modern Lake Huron basin and the southeastern Lake Superior basin ~11,200 to 10,400 years ago (Jackson et al 2000). It extended inland from modern Georgian Bay to the area surrounding the current Lake Simcoe basin (Karrow 1975). As the glaciers retreated, isostatic rebound resulted in the draining of the lake east through the Ottawa River into the St. Lawrence River. By approximately 10,000 years ago, water levels had dropped dramatically to much below those of modern times forming Lakes Stanley and Hough in the modern Huron and Georgian Bay basins, respectively (Jackson et al., 2000). These lake fluctuations resulted in the creation of moraines and beach ridges that became attractive to Paleo people. The glacial lake levels of all of the early Great Lakes are complex and inter-related; each affecting the other in various ways as ice retreated and melted. The lake levels rose and fell accordingly thereby creating the deposits observed within the existing topography. The current study area would have been under the Laurentian ice sheet until the glacier receded. After the recession of the ice sheet, the study area would have been completely inundated by Glacial Lakes Algonquian until this lake receded (**Figure 7**).

As the glaciers and glacial lakes receded, forests spread into southeastern Ontario approximately 10,000 years ago and through the pollen analysis vegetation associations can be determined. **Table 2** provides details on the post-glacial vegetation of this part of Ontario.

Table 2. Post Glacial Vegetation History

Time	Forest Characteristics
>8600 BC	Open spruce forest in dwarf-shrub tundra. Spruce (Picea) dominant, with willow (Salix) and pine (Pinus); weeds: wormwood and ragweed (Ambrosia)
8600 – 5500 BC	Climate changing from cold to cool and dry. Open pine forest. Pine dominant, declining spruce, modestly increasing oak (Quercus).
5500 – 2700 BC	Climate changing from cool and dry to warm and wet. Mixed coniferous-deciduous forest. Moving towards Hemlock (Tsuga) dominance, with decreasing pine, rise of bassword (Tilia) and hickory (Carya)
2700 – 1000 BC	Decline of hemlock and rise of birch (Betula)
1000 BC – AD 1800	Recovery of hemlock. Hemlock dominance, increasing beech (Fagus), elm (Ulmus) and birch; declining pine and oak.
1800 - present	Deforestation stage. Post-settlement vegetation. Increasing non-arboreal (not from trees) pollen, e.g., ragweed denoting time transgressive onset of impacts of lumbering, mining, and agriculture 1880 CE: Chestnut decline 1930 CE: Elm decline

Taken from Schoch and Rowsell (2013)

The Transmission Line – Route A study area is characterized by forest with numerous lakes, streams and bedrock outcrops. The topography and drainage of the area is controlled entirely by the bedrock. It is located on the Georgian Bay Fringe as defined by Chapman and Putnam (1984). The Georgian Bay Fringe area is approximately 334,000 ha in size and covers most of the District of Parry Sound. The area is characterized by very shallow soil with exposed rock knobs and ridges. The physiography of the area is described as Shallow Till and Rock Ridges (Chapman and Putnam 1984). The Canadian Shield had an abundance of dense forests dominated by white pine prior to European logging practices.

The French River is located north of the study area, and was a major artery connecting Georgian Bay and the Great Lakes to Ottawa, Montreal and the St. Lawrence River system. This route was utilized by early First Nation groups, and became increasingly significant during the fur trade after 1650 (Campbell 1992). The Key River was used to get back east towards Lake Nipissing, as an alternative to the French River. Canoeing up the French was more difficult and was quite congested. The Key River provided a gentle, rapid-free ride back to Lake Nipissing, and got its name from being the "Key" to the east (Joe Herbert pers. com. 2014). The French River was designated a Canadian Heritage River in 1986.

The HIWEC Transmission Line – Route A study area includes numerous lakes, rivers, creeks and streams, the shorelines of which retain potential for archaeological resources. In addition to these sources of potable water and transportation are wetlands, which were a source of rich natural resources related to hunting and plant collection throughout the history of central Ontario. Camps associated with wetlands would be located on well drained areas in close proximity, or on ridges that extend into the wetland areas. The shorelines of wetlands alone do not retain archaeological potential.

1.3.2 Previous Archaeological Assessments, Registered Archaeological Sites and Cemeteries

A request was made to Archaeology Data Coordinator Robert von Bitter of the MTCS on February 10, 2015 for information on registered archaeological sites surrounding the Transmission Line – Route A study area from the provincial Archaeological Sites Database (ASDB). The database search resulted in the identification of four registered archaeological sites located within 1 km of the study area boundaries, listed in **Table 3** below. The Wagamake site (BlHd-2) and the Percy Currie Site (BlHd-1) are located within the study area boundaries.

Table 3. Archaeological Sites within 1 km of the Transmission Line – Route A Study Area

Borden #	Site Name	Cultural Affiliation	Site Type/Feature	Researcher
BlHd-2	Wagamake	Historic	Rock Formations	URS 2013
BlHd-1	Percy Currie Site	First Nation	Campsite	ASI 1999, 2007
BlHd-3	Nekickshegeshine Wabanong	First Nation	Village	Allen 2008
BkHd-2	Besner	Late Archaic	Findspot	Allen 2001

Multiple archaeological assessments have been conducted along Highway 69 during the road widening process. A Stage 1 archaeological assessment was conducted by Woodland Heritage Services Ltd. (WHS) in 2004 for a portion of Highway 69 that was to be widened, and identified a number of areas that required further work. WHS completed Stage 2 assessments in 2005 and 2007 and found no archaeological materials. As the design of the highway changed, URS was contracted by the Ministry of Transportation (MTO) to conduct Stage 2 assessments of lands included in the new designs. The Stage 2 was conducted between 2010 and 2013, and one archaeological site was identified (URS 2014). This site was previously registered as the Wagamake site (BlHd-2) by a local avocational archaeologist. URS conducted a Stage 3 of the Wagamake site (BlHd-2) in 2013, which consisted of large piles of antiquated, but intentionally constructed piles of stone east of HIFN near Bekanon Road. The Stage 3 consisted of systematically excavating the piles of stone, but no archaeological materials were recovered (URS 2013). Upon further research, URS noted that similar stone piles elsewhere in central Ontario were the result of small-scale 19th to 20th century quarrying by landowners in order to sell building materials for road or railway construction, or for use in barn foundations (URS 2013:7).

The Percy Currie Site (BlHd-1) was identified by Archaeological Services Inc. (ASI) in 1999, where 12 artifacts were discovered, including four fragments of pottery, one scraper, one bladelet, and modern garbage (ASI 1999). It was further explored in 2007 by ASI, which yielded positive Stage 2 test pits that contained Late Archaic lithics, and Middle Woodland Aboriginal pottery. Further Stage 3 work is recommended for that area.

Though the ASDB only yielded four registered archaeological sites within 1 km of the Transmission Line – Route A study area, other notable sites have been discovered in the surrounding region, beyond of the 1 km buffer the MTCS provides in their records. These are important to note because of the lack of discovery of archaeological sites, which points towards the lack of archaeological work conducted in the area, not necessarily that there are none present. These are listed in **Table 4** below, and consist primarily of findspots located by J.V Wright in 1961. Unfortunately, the original document containing the descriptions of these finds could not be located so much of the information is missing.

Table 4. Significant Archaeological Sites beyond 1 km of the Transmission Line – Route A Study Area

Borden #	Site Name	Cultural Affiliation	Site Type/Feature	Researcher
BlHe-2	Nekickshegeshing	Contact First Nation	Village	Allen 2008
BlHe-3	Amikwa	Multi-Component	Campsite?	Allen 2008
CaHe-1	CNR Upstream	N/A	Findspot	J.V. Wright 1961
CaHe-2	Upriver From Flowerpot Bay	N/A	Findspot	J.V. Wright 1961
CaHe-5	Potvin Island	N/A	Findspot	J.V. Wright 1961
CaHe-6	Main Outlet	N/A	Findspot	J.V. Wright 1961
CaHe-7	Pickerel 2	N/A	Undetermined	J.V. Wright 1961
CaHe-11	Ox Bay Pictographs	Woodland	Pictograph	Thor Conway 1974
CaHd-4	Golf Course	N/A	Findspot	J.V. Wright 1961
CaHd-6	First Rapids	N/A	Findspot	J.V. Wright 1961
CaHd-7	West Dry Pine Bay	N/A	Findspot	J.V. Wright 1961
CaHd-11	Recollet Falls Pictograph	Pre-contact	Pictograph	Dewdney 1981
CaHd-12	French River Pictograph	Pre-contact	Pictograph	Thor Conway 1981
CaHd-14	Recollet Falls	First Nation, Euro-Canadian	Campsite	Thor Conway 1981
BlHe-1	Pickerel River Pictograph	Woodland	Pictograph	Thor Conway 1975

Archaeological assessments are few and far between for this part of Ontario. When they have been done in the past, it was not necessarily to the same standards as archaeological information is collected today. The majority of the information is published in obscure grey literature that is generally inaccessible, either because it is not digitized, or it is simply too old that original copies could not be located. Early assessments began in the early 1900s by Emmerson Greenman in the vicinity of Killarney (Greenman 1951; 1966). Modern archaeological surveys began along the east coast of Georgian Bay in the 1960s to 1980s by J.V. Wright. Simultaneously, south of the study area, near Parry Sound, Bruce Emerson conducted work in the Blackstone Harbour Provincial Park, where he located thirty-three sites (Ontario 1974; Pollock 1999). Other sites have been confirmed in the area, the majority coming from archaeological surveys of Highway 69 four lane expansions, north of the French River towards Sudbury (Pollock 1999).

Wright (1965) provides a summary of the archaeological sites discovered in the Upper Great Lakes area. The Shebeshekong site is situated on Georgian Bay near the mouth of the Shebeshekong River. The site was excavated in 1955, unearthing two components; one contact period and one pre-contact (Wright 1965). Features were limited to several large pits associated with the pre-contact component. The contact period component consisted of artifacts from the 17-18th centuries. The artifact assemblage included trade beads, gunflints, clay pipe bowls, ceramics both Huron-Petun and Blackduck, stone tools such as wedges, scrapers, projectile points, and copper (Wright 1965). The

Frank Bay site is located along the south shore of Lake Nipissing near the mouth of the French River, which was excavated in 1954 by Frank Ridley. The occupation dates back to 1,000 BC (3,000 years B.P) and contains Huron-Petun ceramics and some linear stamped pottery common to northern Michigan, all associated with 17th century European trade goods (Ridley 1954; Wright 1965). Six dog burials were also present, believed to represent the ceremonial butcher and/or sacrifice sometime in the 11th century (Brizinski and Savage 1983). Much remains unclear surrounding this social ritual of butchering and binding dog remains; it could possibly have some relation to the historic Nipissing Feast of the Dead ceremony, as documented by the Jesuits (1896-1701).

Further south, work was done by Norman Emerson in the Blackstone Harbour area near Parry Sound during the early 1970s. Numerous pre-contact sites ranging from quartz quarry locations to small occupation sites are located close to major lakes and rivers, while quartz acquisition sites are often located at a greater distance from water, where a suitable seam of toolstone quality quartz was accessible at the surface (Archaeologix 2004; AFBY Archaeological & Heritage Consultants 2001). In addition, a single puckasaw pit has also been reported (Ontario 1974: 11).

The Ontario Cemeteries Register was consulted as part of this study to identify any cemeteries within the limits of the study area. No registered cemeteries are listed within the current study area (MGCS 2014).

1.3.3 Current Conditions

The Transmission Line – Route A study area consists predominantly of Crown-owned or managed lands made up of extensive mixed forested hills, exposed bedrock and numerous lakes and rivers. The population is small and modern settlement is concentrated along the lakes and rivers that run through the area, as were the earliest settlements here. Logging practices are still conducted, albeit at a smaller scale than during the hey-day of logging in the 1800s. Seasonal recreation facilities and cottages are numerous and tourism is an important industry, particularly along the coast of Georgian Bay. The typical natural environment of the Transmission Line – Route A study area is exposed Canadian Shield bedrock with a significant number of rivers, lakes, and streams. This is a rural setting with a sparse population of small farms and communities concentrated along shorelines and major roads. Current industry includes aggregates and quarries, fisheries, tourism, and logging.

Highway 69 runs through the western side of the study area, which is part of the Trans-Canada Highway, linking Sudbury to Parry Sound. This highway is fairly modern, completed in the 1950s, and does not represent a historic road route. Highway 522 runs along the north of the current study area. The highway was built to connect Loring with Trout Creek in the east in 1956. The route was extended from Loring to Highway 69 between 1974 and 1976.

2. Analysis and Conclusions

2.1 Archaeological Potential Analysis

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Criteria commonly used by the Ontario MTCS (Ontario Government, 2011b:17-18) to determine areas of archaeological potential 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;
- Resource areas including food or medicinal plants, scarce raw materials and early Euro-Canadian industry;
- Areas of early Euro-Canadian settlement and early transportation routes;
- Properties listed on municipal register of properties designated under the *Ontario Heritage Act* (Government of Ontario 1990b);
- Properties that local histories or informants have identified with possible archaeological sites, historical events, activities or occupants; and
- Historic landmarks or sites.

Certain features indicate that archaeological potential has been removed, such as land that has been subject to extensive and intensive deep land alterations that have severely damaged the integrity of any archaeological resources. This includes landscaping that involves grading below the topsoil level, building footprints, quarrying, sewage and infrastructure development (Ontario Government, 2011b, Section 1.3.2).

2.1.1 Known Archaeological Sites

Two registered archaeological sites are situated within the Transmission Line – Route A study area and archaeological potential is elevated in proximity to each of these known and registered sites. In accordance with Section 1.4 Standard 1.c.i. of the *Standards and Guidelines for Consultant Archaeologists,* all land within 300 m of a registered archaeological site must be subject to Stage 2 archaeological assessment (Ontario Government, 2011b). However, as the Transmission Line – Route A study area is located within the Canadian Shield, Section 1.4 is superseded by Section 2.1.5, Standard 2 which states that Stage 2 survey is not required beyond 150 m of features of archaeological potential. While four archaeological sites have been registered within 1 km of the study area limits, it is important to note that this is not because additional archaeological sites do not exist, but rather because there have been very few development activities that would have triggered an archaeological assessment that would identify them.

It is also important to note that archaeological potential exists in and around areas other than in the ground. More than 400 rock art paintings adorn the cliff faces of the Canadian Shield that date back to over 2,000 years ago (Dewdney and Kidd 1962, Rajnovich 1998). These paintings are a legacy of the Algonkian-speaking First Nations of the Canadian Shield, who traditionally put picture writing onto birch bark, copper, wooden objects, and stone. Four registered Pictograph sites are present in close proximity to the current study area, including Ox Bay Pictographs (CaHe-11), Recollet Falls Pictograph (CaHd-11), French River Pictograph (CaHd-12), and Pickerel River Pictograph (BlHe-1), which clearly demonstrates the importance of this area to First Nations people. Section 4.2.7 of the *Standards and Guidelines for the Conservation of Historic Places in Canada* recommends that rock art

be documented using non-invasive methods, and that it be preserved and stabilized *in situ* (Government of Canada 2010). Archaeological site locations are not subject to Freedom of Information Act as disclosing their locations has led to looting or other destructive activities. For this reason the exact location of archaeological resources will not be provided in this report.

Raw material quarrying of quartz has been identified in the surrounding regions at other archaeological sites along the east coast of Georgian Bay (AFBY Archaeological & Heritage Consultants 2001). Bedrock outcrops should not only be examined for potential rock art, but also for areas where quarrying activities for the purposes of raw material acquisition to create stone tools, such as spear tips, have been conducted. Quartz spear tips have been found in close proximity to the HIWEC study area, and are currently on display in French River Provincial Park (Joe Herbert pers. comm. 2014). However, quartz is a notoriously difficult material to analyse (Knight 1991), therefore caution should be exercised when/if it is encountered when determining if the stone has been modified by human activity or natural processes.

2.1.2 Natural Environment Features

The evaluation of archaeological potential based on the proximity of the study areas to water sources must take into account a number of factors. A basic example would be the difference between an accessible shoreline versus an inaccessible shoreline, as the potential for archaeological sites to be present is elevated in areas where there is easy access to water. Archaeological site locations and site types are affected in varying degrees by proximity to different types of water sources and shorelines. Primary sources of water such as lakes, rivers, streams and creeks are reliable sources of drinking water and transportation routes, while secondary water sources such as seasonal streams and creeks, springs, marshes and swamps are intermittent sources of potable water. Features indicating past water sources, for example glacial lake shorelines, relic river or stream channels and shorelines of drained lakes or marshes are archaeologically significant features that indicate archaeological potential.

Within the HIWEC Transmission Line – Route A study area there is an abundance of water sources, as attested by the extensive wetlands, small streams, and numerous lakes. Lakes and large rivers are the most important foci of pre-contact settlement, as are substantial rivers and streams, and indicate high archaeological potential. The shoreline of glacial Lake Algonquin is located outside the Transmission Line study area limits to the east. The Transmission Line – Route A study area is situated entirely on Canadian Shield and bedrock terrain with elevated, densely forested topography between the various watercourses that transect the land.

2.1.3 Areas of Early Euro-Canadian Settlement and Industry

Areas of early Euro-Canadian settlement are indicated on the 19th and 20th century maps and from archival research conducted during the course of this study. The earliest roads within the study area consisted of gravel roads to facilitate lumber transportation, and were developed in the late 1800s. Along these roads, early milling villages sprung up. There are only few post offices mentioned in the extensive background study. They are located at two locations of abandoned villages that prospered during the height of the lumber industry in the early 1900s. The creation of the CPR line through the study area would have connected Parry Sound to Sudbury in the north, providing a direct route north for mineral and lumber exploration. Each of these historic features contributes to the archaeological potential within the Transmission Line – Route A study area.

2.2 Conclusions

The small number of archaeological assessments in the area has resulted in a limited understanding of pre-contact Aboriginal occupation practices in this part of the Province; therefore, archaeological potential modeling is based on the requirements outlined in the *Standards and Guidelines for Consultant Archaeologists* (Ontario Government

2011b). While Section 1.4 in the *Standards and Guidelines for Consultant Archaeologists* outlines the conditions for recommendations for the reduction of test pit survey coverage, this is superseded for the HIWEC Transmission Line - Route A study area by Section 2.1.5 as the land has been demonstrated to be situated entirely on Canadian Shield (Ontario Government 2011b).

2.2.1 Pre-contact Aboriginal and Contact Period Archaeological Potential

The potential for pre-contact and contact period Aboriginal archaeological resources within the Transmission Line – Route A study area is judged to be high within 50 m of modern watercourses, within 300 m of previously identified areas of cultural significance, and within 150 m of well-drained soil in close proximity to marshes, wetlands or watercourses (Ontario Government 2011b: Section 1.4). The presence of two registered archaeological sites within the study area boundaries increases the potential for archaeological remains. It has been noted also, that multiple archaeological sites exist beyond the study area boundaries. Outside these designated proximities the potential for pre-contact Aboriginal archaeological resources is low, however there is moderate potential for archaeological materials that are not in the ground (i.e., pictographs and quarry sites). Additionally, the presence of multiple fur trade posts increases the potential for archaeological remains. Therefore, further Stage 2 archaeological investigation is recommended to clear the Transmission Line – Route A and ensure there are no impacts to culturally significant sites that may not have been previously recorded. As no glacial shorelines are found within the Transmission Line – Route A study area this type of feature does not impact the evaluation of pre-contact Aboriginal archaeological potential. Contact period resources in the Transmission Line – Route A study area consist of significant watercourses which would have been equally important to both Euro-Canadian and First Nations people during this time, and the possibility for raw material quarrying activities.

2.2.2 Euro-Canadian Archaeological Potential

The potential for Euro-Canadian archaeological resources is judged to be high within 150 m of historic transportation routes and areas of early Euro-Canadian settlement and industry (Ontario Government 2011b: Section 1.4). Outside of these designated proximities the potential for Euro-Canadian archaeological resources is low and no Stage 2 archaeological assessment is recommended.

Many early roads were not followed by modern highways, meaning areas of cultural heritage value or interest associated with historic roadways are now far removed from modern thoroughfares, often in remote areas or used as trails or logging roads. Therefore, archaeological potential is high within 150 m of these historic transportation routes. This includes existing and previous rail lines; the rail lines were the first form of transportation within this area of Ontario, and a large number of early communities sprang up along the lines to service the lumber industry. Historic communities within the study areas have contracted over time, each of them at their largest in the late 1800s to early 1900s, seeing a gradual decrease over time. Significant archaeological resources related to these communities may remain outside of their current limits. Archaeological potential has been determined to be high in proximity to the estimated locations of early roads, the post offices, and historic communities. Highways 69 and 522 are not considered to be historic transportation routes, and any cultural heritage value or interest associated with them has now been previously and extensively disturbed where the natural environment has been impacted by their construction.

2.2.3 Areas Retaining No Archaeological Potential

The most common disturbance that has removed archaeological potential in the study areas is the roadways and major highways that the Transmission Line – Route A study area follows. The road and road right-of-ways, including gravel shoulders and associated drainage ditches, do not require Stage 2 archaeological assessment (Ontario Government 2011b; Section 1.3.2) as these areas have been subject to extensive land alterations that have severely damaged the integrity of any archaeological resources that may have been present.

Areas of steep slope and poor drainage are not considered to have archaeological potential and may be excluded from further assessment regardless of proximity to archaeological features. However, exceptions must be made for any areas of steep slope containing exposed bedrock cliff faces. These areas must be assessed and photo documented when warranted for the potential presence of rock art given the identification of pictograph sites in close proximity to the current study area. The exposed bedrock may also contain areas where previous quartz quarrying activities have been conducted, based on the proximity of the Transmission Line – Route A study area to similar locations along the eastern shore of Georgian Bay where these activities have been documented. These areas must be assessed and photo documented for potential quarrying. Numerous wetlands are scattered within the HIWEC Transmission Line – Route A study area and these poorly drained areas do not retain archaeological potential and, therefore, do not require Stage 2 archaeological assessment. However, the presence of wetlands or marshes can elevate the archaeological potential of adjoining land if there are well drained areas of elevated topography adjacent to them.

2.2.4 Stage 2 Archaeological Assessment Strategies

The Ontario MTCS allows for alternative strategies for archaeological assessments in areas within the Canadian Shield and bedrock environments (Ontario Government, 2011b). While Section 1.4 in the *Standards and Guidelines for Consultant Archaeologists* outlines the conditions for recommendations for the reduction of test pit survey coverage, this is superseded for the Transmission Line – Route A study area by Section 2.1.5 as the land has been demonstrated to be situated entirely on Canadian Shield (Ontario Government 2011b). Therefore, while the archaeological potential may be judged to be high based on proximity to a feature that contributes to archaeological potential, Stage 2 survey areas are reduced and survey intervals are different than they would be in areas outside Canadian Shield terrain. The exception to this is agricultural fields that can be ploughed which must be subject to full pedestrian survey as Stage 2 survey reductions are only permitted for test pit assessments.

Areas exempt from Stage 2 archaeological assessment include: areas of steep slope, exposed bedrock, poor drainage, and previous disturbance due to road and road right-of-ways or aggregate activities. Exceptions must be made for any areas of steep slope containing exposed bedrock cliff faces. These areas must be assessed and photo documented for the potential presence of rock art given the identification of multiple pictograph sites in close proximity to the current study area. The exposed bedrock may also contain areas where previous quarrying activities have been conducted, based on the proximity of the Transmission Line study area to similar locations along the eastern shore of Georgian Bay where these activities have been documented. These areas must be assessed and photo documented for the potential quarrying.

3. Recommendations

The HIWEC Transmission Line – Route A study area is situated Canadian Shield terrain and the following recommended strategy for Stage 2 assessment is based off Section 2.1.5 of the *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011b). In addition, due to the complex combination of land conditions in the Study Area there may be small areas of archaeological potential intermixed with areas of low potential and Section 2.1.6 must be followed during the Stage 2 archaeological assessment (Ontario Government 2011b).

3.1 Property Inspection

To assist in determining where areas of archaeological potential or archaeological features are located, the impacted property will be inspected as part of the Stage 2 assessment. This property inspection will allow the archaeologist to evaluate and photo-document actual land conditions. Areas of potential are related to the location of watercourses, known archaeological sites, pockets of well-drained soil, Trading Posts, early roads, 19th century post offices, structures illustrated on 19th century maps and early Euro-Canadian communities. When the location of archaeological features is known, the reduction of survey intervals can be planned based on the fieldwork recommendations below. Areas exempt from Stage 2 archaeological assessment include: steep slope, poor drainage, previous disturbance due to road and road right-of-ways or aggregate activities, and exposed bedrock. These conditions must be photographed and documented in the field but do not require archaeological survey. Exceptions must be made for any areas of steep slope containing exposed bedrock cliff faces. These areas must be assessed and photo documented for the potential presence of rock art given the identification of multiple pictograph sites in close proximity to the current study area. The exposed bedrock may also contain areas where previous quarrying activities have been conducted, based on the proximity of the Transmission Line study area to similar locations along the eastern shore of Georgian Bay where these activities have been documented.

3.2 Stage 2 Pedestrian Survey

Based on aerial photography doesn't appear to be any agricultural land in the Transmission Route – A study area; however, in the event agricultural land is identified it should be noted that survey reductions are not permitted for agricultural field. Agricultural land that can be ploughed must be ploughed, weathered and subject to full pedestrian survey at 5 m intervals (Ontario Government 2011b: Section 2.1.1).

3.3 Stage 2 Test Pit Assessment

The Stage 2 test pit assessment survey intervals are adjusted according to proximity to features of archaeological potential as follows:

- When the feature of archaeological potential is a modern water source the Stage 2 assessment should consist of a test pit assessment at a 5 m interval in the area between 0 to 50 m of the modern water source. Beyond 50 m, a Stage 2 survey is not required (Ontario Government 2011b; Section 2.1.5, S.1).
- When the feature of archaeological potential is an early Euro-Canadian transportation route or area of early settlement or industry the Stage 2 assessment should consist of a test pit assessment at a 5 m interval in the area between 0 to 50 m of the early Euro-Canadian transportation route and at a 10 m interval between 50 to 150 m of the early Euro-Canadian transportation route. Beyond 150 m a Stage 2 survey is not required (Ontario Government 2011b; Section 2.1.5, S.2 and Section 1.4, S.1.d.).

- When the feature of archaeological potential is a previously identified archaeological site the Stage 2 assessment should consist of a test pit assessment at a 5 m interval in the area between 0 to 50 m of the archaeological site, and at a 10 m interval between 50 m to 150 m. Beyond 150 m, a Stage 2 survey is not required (Ontario Government 2011b; Section 2.1.5, S.2).
- The consultant archaeologist conducting the Stage 2 assessment should maintain survey grids as close as possible; however, intervals may vary from the standard survey grids as necessary due to complex combinations of archaeological potential and based on professional judgement. If regular survey grids are not maintained, any variations should be documented and explained in the Stage 2 report.

The Ontario Ministry of Tourism, Culture and Sport is asked to review this report, accept it into the provincial register of archaeological reports and provide a letter to the proponent indicating that the Ministry concurs with the recommendations provided herein.

4. Advice on Compliance with Regulations

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.

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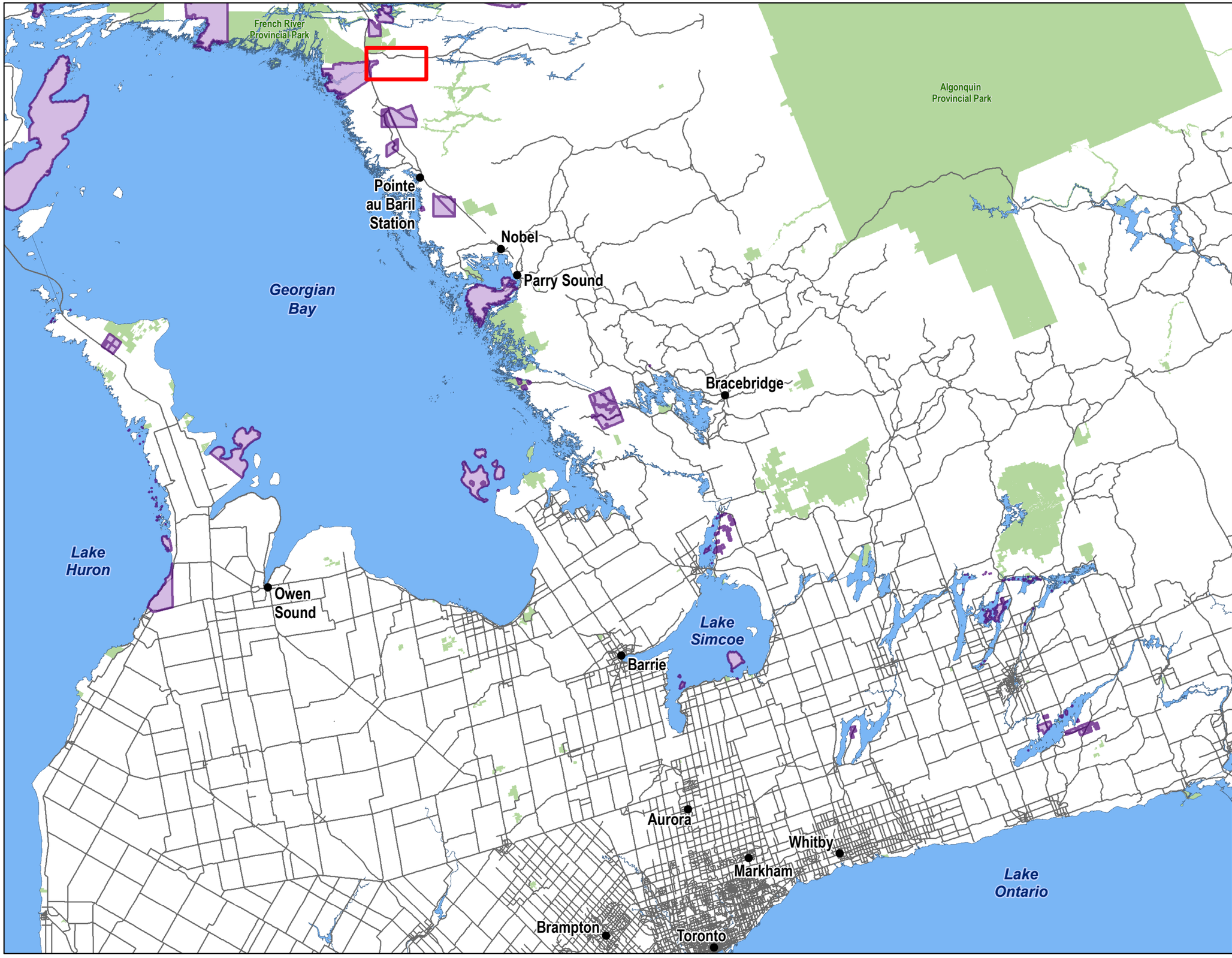
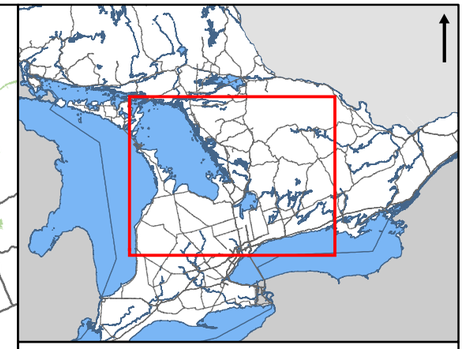
6. Maps

All maps for the Stage 1 archaeological assessment conducted for the HIWEC Transmission Line – Route A study area are provided on the following pages.





Legend

- Roads
- Provincial Parks
- Waterbodies
- First Nations Communities
- Transmission Line Route A Study Area

N

0 10 20 40
Kilometers

Henvey Inlet Wind LP

Location of Study Area

June 2015	1:1,000,000	Datum: NAD 83, Zone 17 Source: Stantec, OBM, LIO
P#: 60341251	V#:	

Figure 1

Map location: O:\PROJECTS\60333000 - HFN\GIS\Design\Baseline EA Report\TLine_A_Overview.mxd
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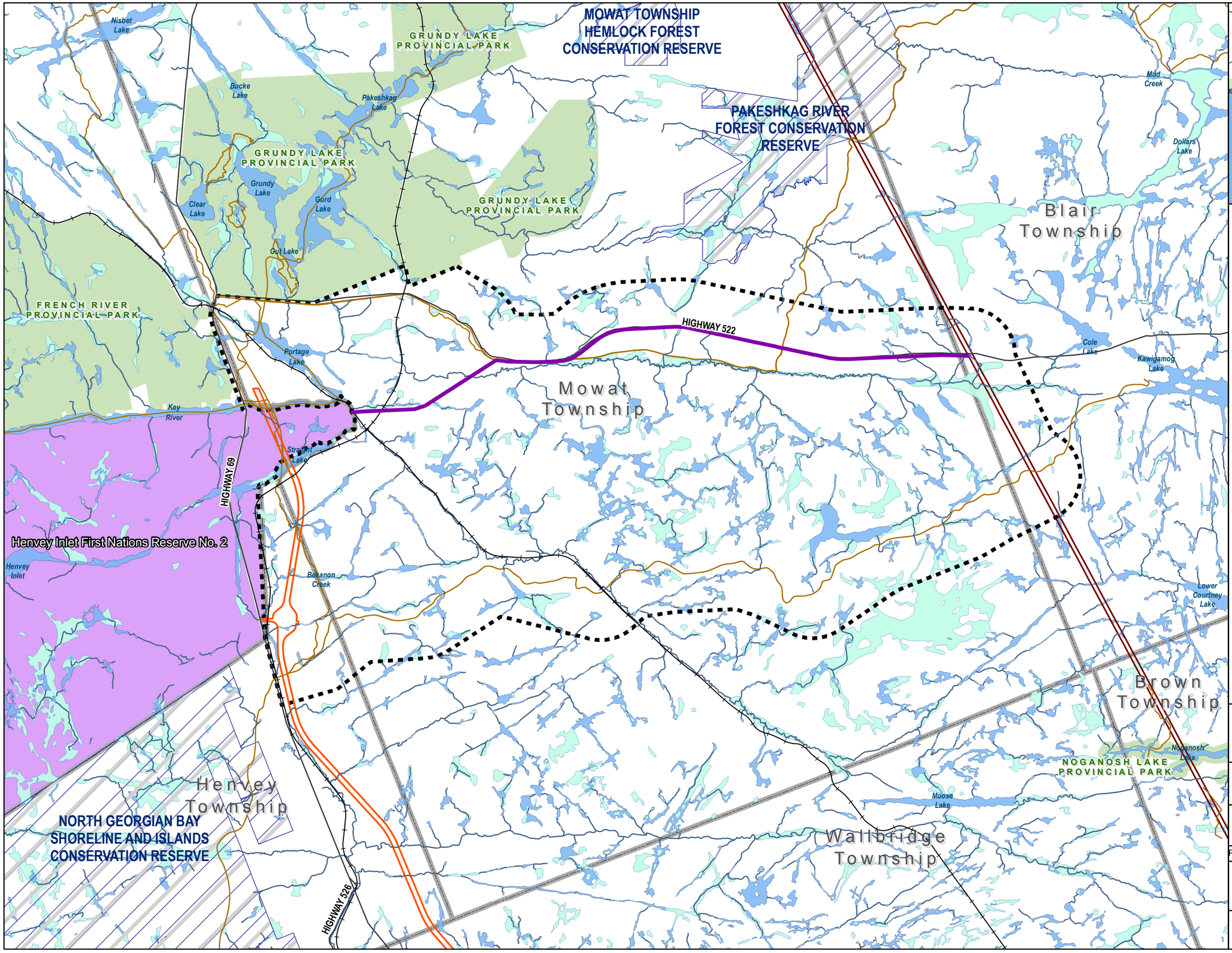

Legend

- Transmission Line Route A
- Proposed Hwy 69 Relocation

Base Layers

- Roads
- Trails
- Railway
- Hydro Corridor
- Watercourses
- Provincial Parks
- Wetlands
- Waterbodies
- Conservation Reserve
- Transmission Line Route A Study Area
- Henvey Inlet First Nation

N

0 0.75 1.5 3
Kilometers

Henvey Inlet Wind LP

Transmission Line Route A Study Area

June 2015	1:75,000	Datum: NAD 83, Zone 17 Source: Stantec, OBM, LIO
P#: 60341251	V#:	

Figure 2

Henvey Inlet

Map location: O:\PROJECTS\60333000 - HIFN\GIS\Design\Baseline EA Report\TLine_A_SitePlan.mxd
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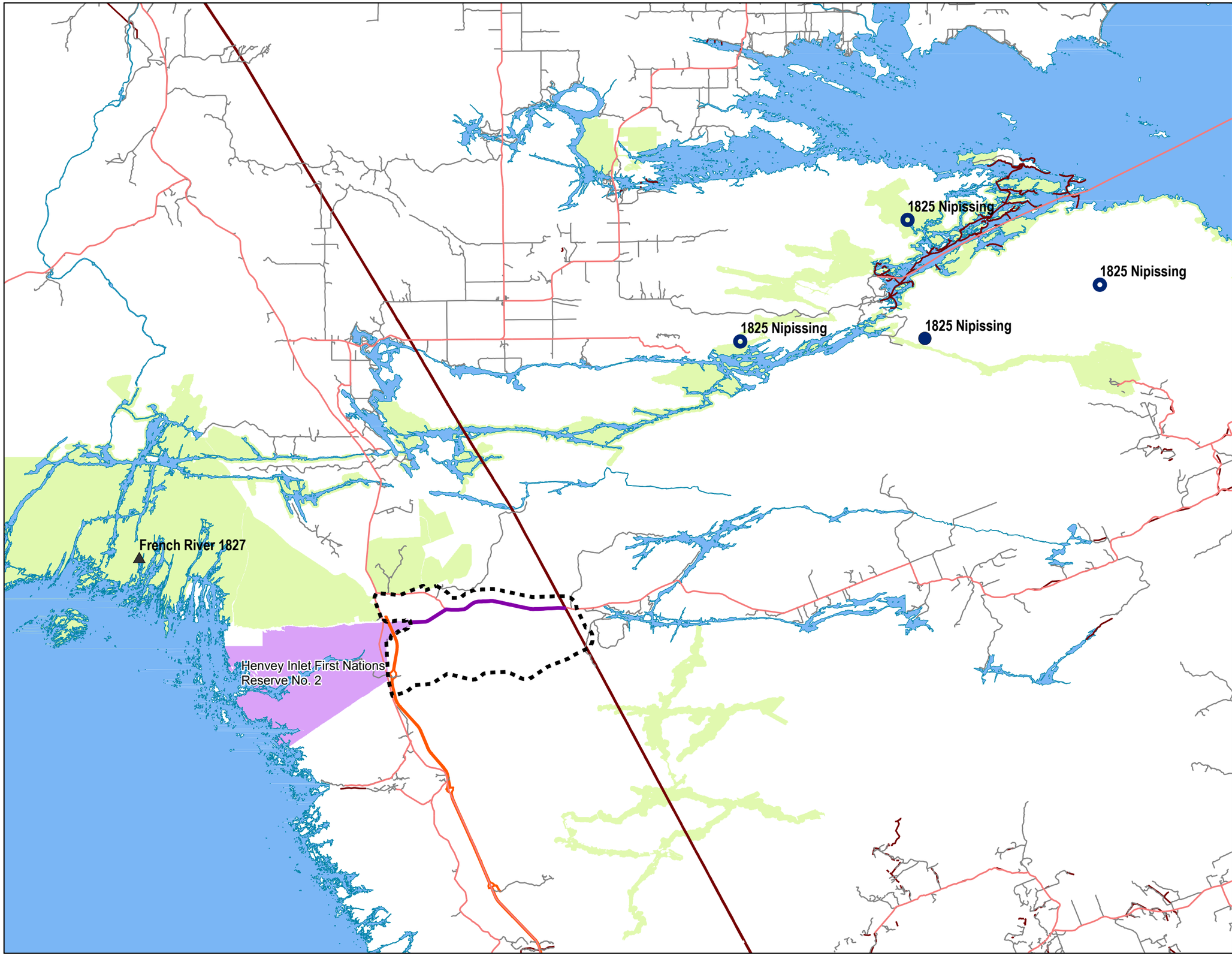

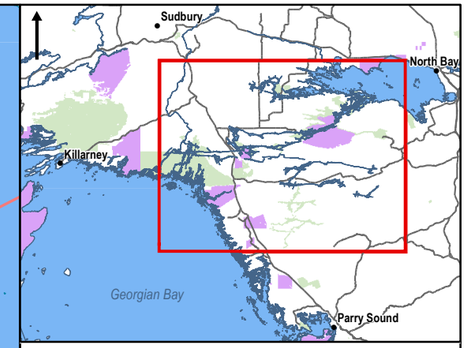

Legend

- Transmission Line Route A
- Proposed Hwy 69 Relocation

First Known Owner of Post*

- 1-3 years Canadian Independent
- 1-3 years Hudson Bay Company
- 16-50 years Hudson Bay Company
- 4-15 years Canadian Independent
- 4-15 years Hudson Bay Company

Base Layers

- Major Roads
- Minor Roads
- Hydro Corridor
- Waterbodies
- Provincial Parks
- Henvey Inlet First Nation
- Transmission Line Route A Study Area

N

*Atlas of Canada's "Posts of the Canadian Fur Trade, 1600 to 1870"

0 4 8 16
Kilometers

Henvey Inlet Wind Energy Centre

Estimated Location of Fur Trade Posts (1827-1829)

June 2015	1:300,000	Datum: NAD 83, Zone 17 Source: Stantec, OBM, LIO, Atlas of Canada
P#: 60341251	V#: 002	

Figure 3

Henvey Inlet

Map location: O:\PROJECTS\60333000 - HFN\GIS\Design\Baseline EA Report\TLine_A_HBCPosts.mxd
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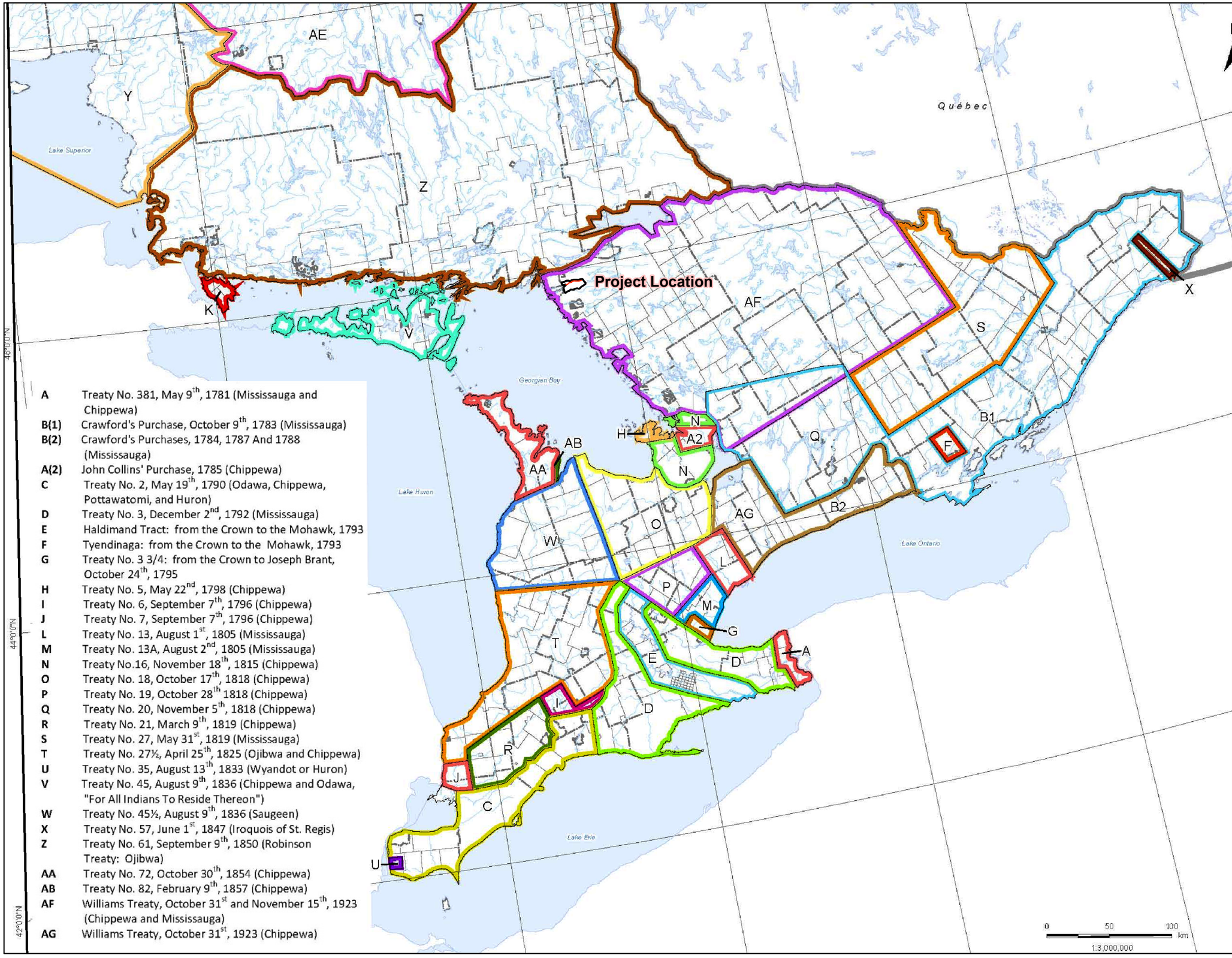
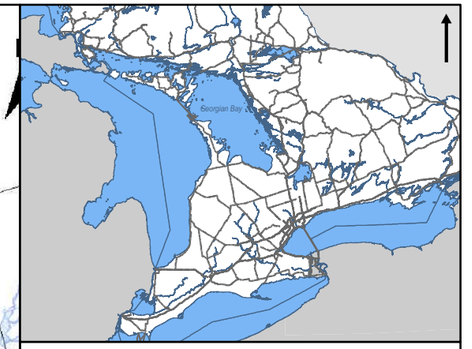


A	Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
B(1)	Crawford's Purchase, October 9th, 1783 (Mississauga)
B(2)	Crawford's Purchases, 1784, 1787 And 1788 (Mississauga)
A(2)	John Collins' Purchase, 1785 (Chippewa)
C	Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
D	Treaty 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)



Legend

- Transmission Line Route A
- Transmission Line Route A Study Area

N

0 30 60 120
Kilometers

Henvey Inlet Wind LP

Treaties and Purchases
Adapted from Morris 1931

June 2015	N.T.S	Datum: NAD 83, Zone 17 Source: Morris 1931
P#: 60341251	V#:	

Figure 4

Map location: O:\PROJECTS\60333000 - HIFN\GIS\Design\Baseline EA Report\TLine_A_TreatiesPurchases.mxd
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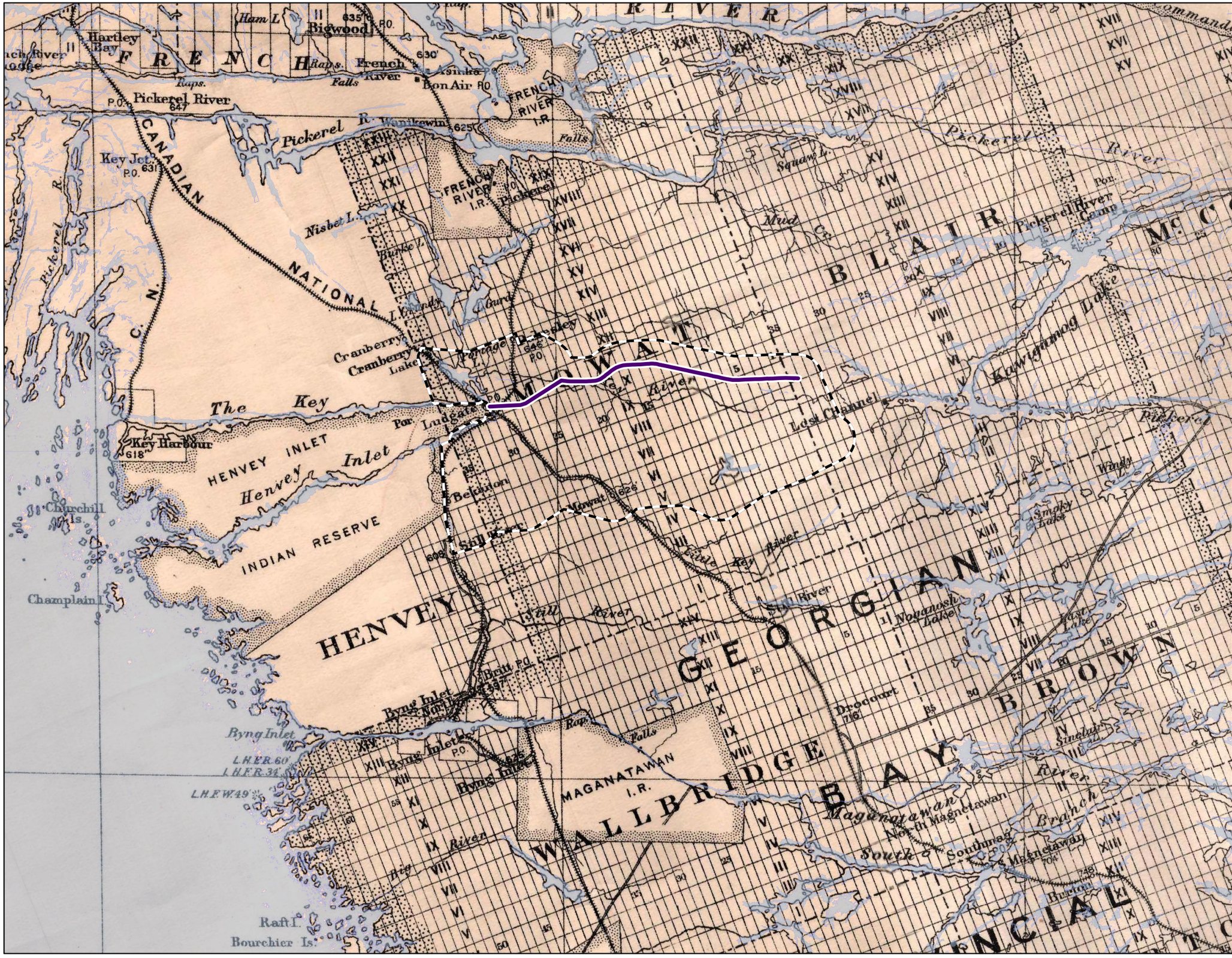

Legend

- Transmission Line Route A
- Waterbodies
- Transmission Line A Study Area

N

0 1.75 3.5 7

Kilometers

Henvey Inlet Wind LP

Portion of the 1931 Historic Map of the Parry Sound District

June 2015	1:150,000	Datum: NAD 83, Zone 17 Source: Ontario Department of Lands & Forests. Surveys Branch: Toronto
P#: 60333000	V#:	

Figure 5

Map location: O:\PROJECTS\60333000 - HIF\GIS\Design\Baseline EA Report\TLine_A_HistoricMap.mxd
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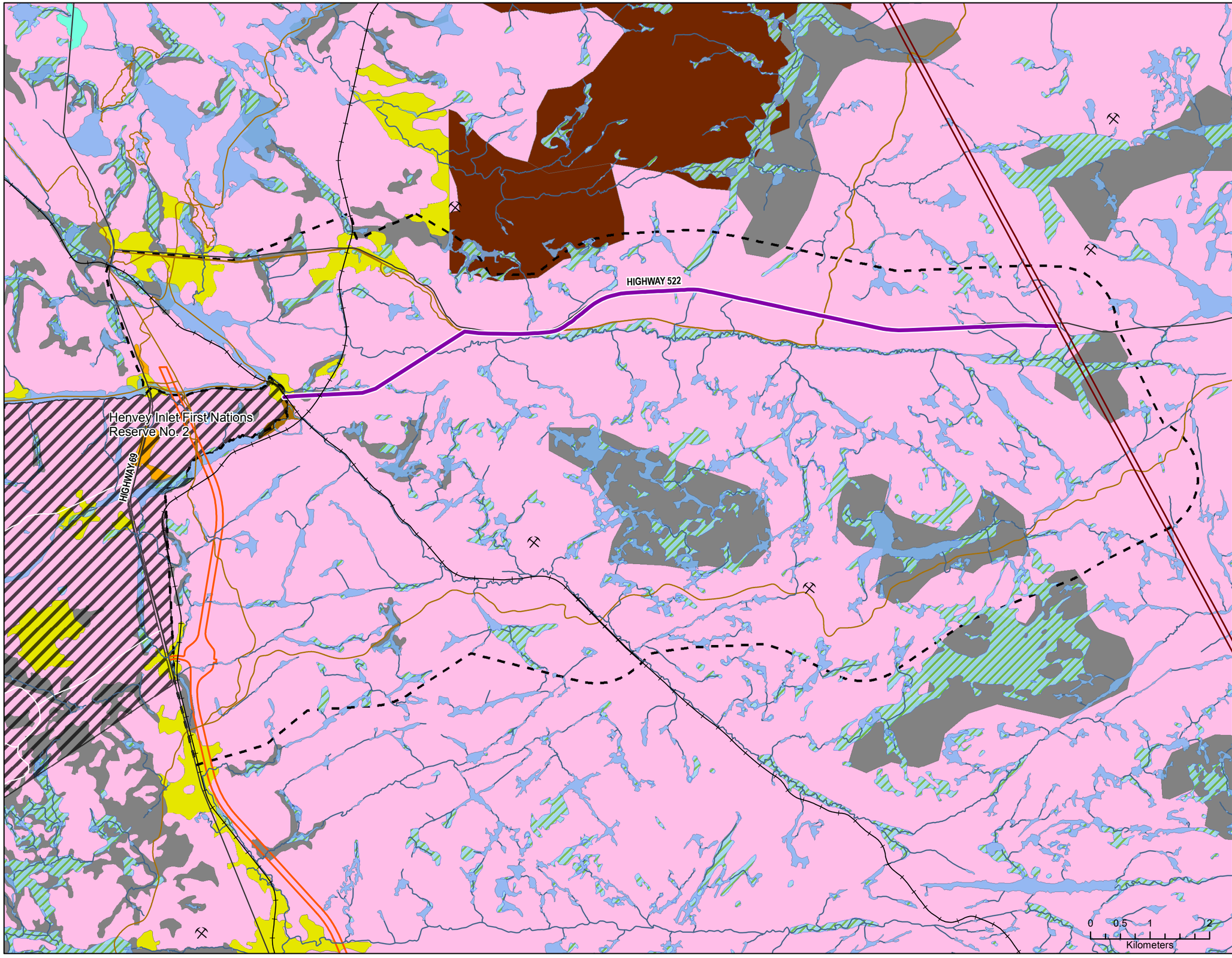

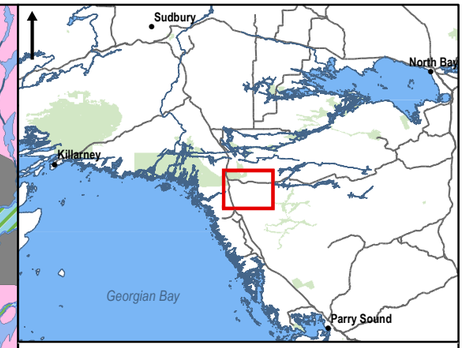

Aggregate Site
Transmission Line Route A
Proposed Hwy 69 Corridor

Geologic Deposit (Primary Material)

- Coarse-textured lacustrine deposits (Sand/Gravel)
- Modern alluvial deposits (Sand/Slit/Gravel)
- Bedrock
- Organic Deposits (Peat/Muck)
- Till
- Ice-contact stratified deposits (Sand/Gravel)
- Glaciofluvial deposits (Sand/Gravel)
- Coarse-textured glaciolacustrine deposits (Sand/Gravel)
- Fine-textured glaciolacustrine deposits (Silt/Clay)
- Glaciolacustrine Deposits (Clay/Silt/Sand/Gravel)

Base Layers

- Railway
- Watercourses
- Trails
- Roads
- Hydro One Corridor
- Wetlands
- Waterbodies
- Transmission Line Route A Study Area
- Henvey Inlet First Nation

N

Henvey Inlet Wind LP

Surface Geology of the Transmission Line Route A study area

June 2015	1:60,000	Datum: NAD 83, Zone 17 Source: Stantec, OBM, LIO
P#: 60341251	V#:	

Figure 6

Map location: O:\PROJECTS\60333000 - HIFN\GIS\Design\Baseline EA Report\TLine_A_SurficialGeology.mxd
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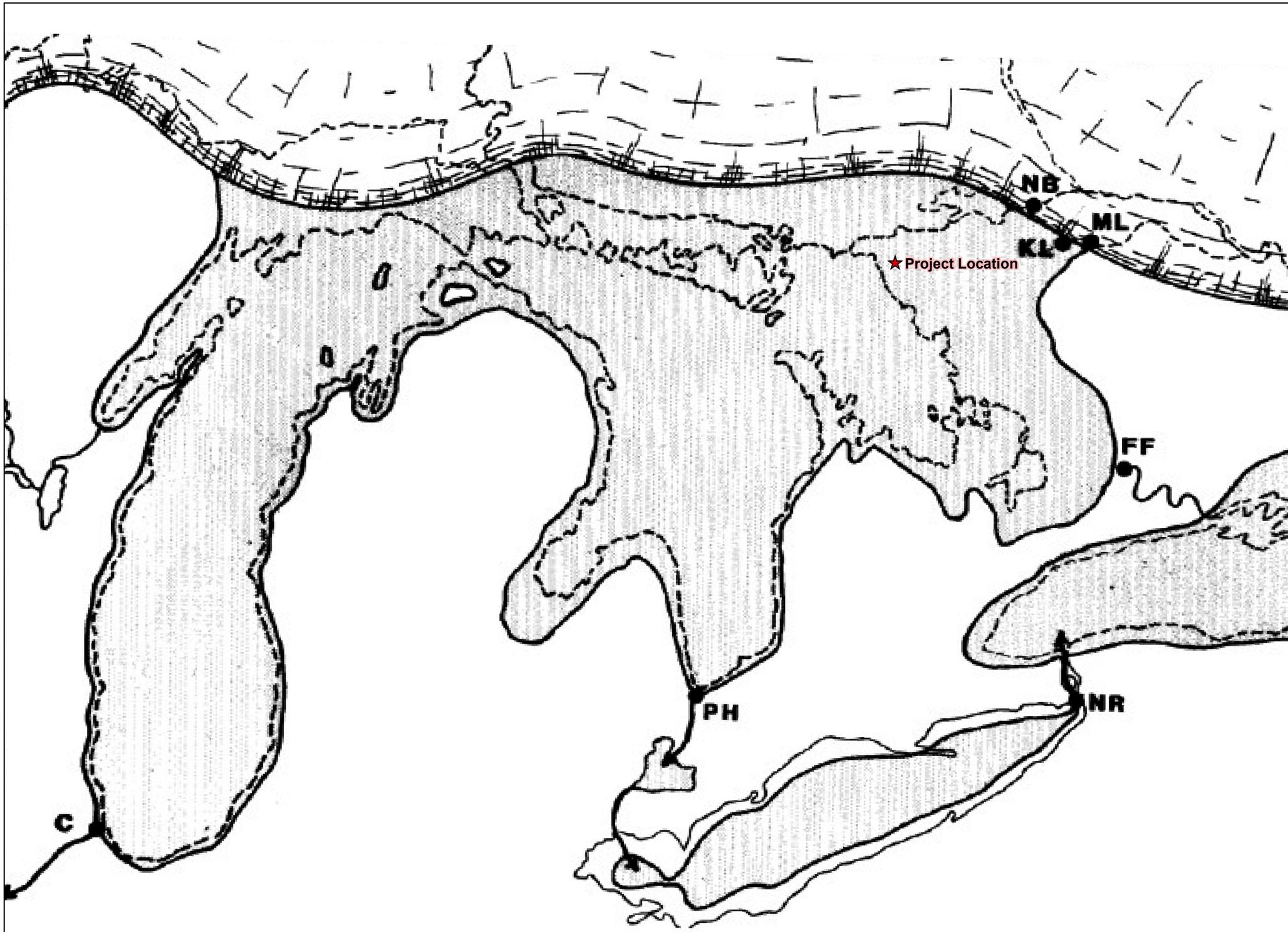

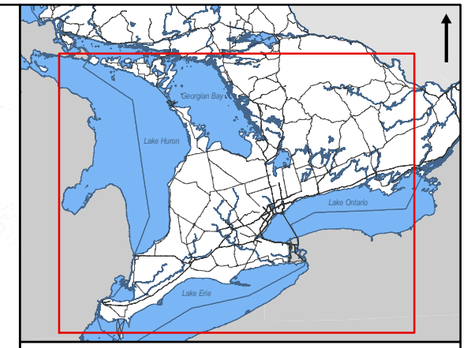

Legend

- Glacier
- Lake Algonquin
- Dry Land

N

Source: Geological History of Glacial Lake Algonquin and the Upper Great Lakes. US geological survey bulleten 1987. ~Curtis E. Larsen

0 30 60 120
Kilometers

Henvey Inlet Wind LP

Approximate Location of Glacial Lake Algonquin to the Transmission Line Route A study area

June 2015	N.T.S	Datum: NAD 83, Zone 17 Source: *see above*
P#: 60333000	V#:	

Figure 7

Map location: O:\PROJECTS\60333000 - HIFN\GIS\Design\Baseline EA Report\TLine_A_GlacialLakes.mxd
Date Saved: 02/07/2015 11:53:22 AM