ACC
ARCHAEOLOGICAL
CONSULTANTS CANADA

Stage 1 & 2 Archaeological Assessment

502 Woodcox Road, in Part of Lot 8, Concession 2, Geographic Township of Herschel, Municipality of Hastings Highland, County of Hastings Ontario

Original Report

Prepared for:

Ontario Ministry of Citizenship and Multiculturalism

Prepared by:

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PIF#: P066-0384-2024
Project No. 284-12-24
24 September 2024

EXECUTIVE SUMMARY

Archaeological Consultants Canada ("ACC") was contracted by the Proponent to conduct a Stage 1 & 2 archaeological assessment as part of a proposed development. An archaeological assessment was required as part of the pre-approval process for future development under the *Planning Act, R.S.O. 1990.* The area of assessment, or the "subject property", is located at 502 Woodcox Road, in Part of Lot 8, Concession 2, Geographic Township of Herschel, Municipality of Hastings Highland, County of Hastings Ontario. The subject property measures 16.59 hectares ("ha") in size.

The Stage 1 & 2 assessment was conducted under Professional Archaeological License P066, held by Kristy O'Neal. Fieldwork was conducted under the direction of Michelle Volpe (R1241) The Ontario Ministry of Citizenship and Multiculturalism ("MCM") assigned Project Information Form ("PIF") number P066-0384-2024 to this project. The licensee of ACC received permission from the Proponent to access the property and to conduct all required archaeological fieldwork activities including the removal of artifacts, as necessary.

Stage 1 background research indicated that the subject property has general archaeological potential due to the following factors:

- The subject property is largely comprised of well- drained sandy soil in an area of rocky ground
- York River is located directly east of the subject property.

The subject property measures 16.59 ha. A visual property inspection determined that 1.05 ha of the subject property has been previously disturbed by modern construction activities and has low to no archaeological potential.

15.54 ha of the subject property retained archaeological potential and was recommended for Stage 2 assessment. The subject property consisted of woodlot and was assessed by test pit survey at 5 m intervals.

No artifacts or other archaeological resources were identified during the Stage 2 archaeological assessment.

The following recommendation is provided for consideration by the Proponent and by the MCM:

1. No artifacts or other archaeological resources were identified during the Stage 1 & 2 archaeological assessment. The subject property has now been fully assessed according to the Ontario Ministry of Citizenship and Multiculturalism's 2011 *Standards and Guidelines for Consultant Archaeologists*. No further archaeological assessment of the property is required.

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LIST OF ABBREVIATIONS

The following is a list of abbreviations and acronyms used throughout this report.

ACC	Archaeological Consultants Canada
CHVI	Cultural Heritage Value or Interest
cm	centimetre
ha	hectares
km	kilometre
m	metre
MCM	Ministry of Citizenship and Multiculturalism
OASD	Ontario Archaeological Sites Database
PIF	Project Information Form
%	percent

PROJECT PERSONNEL

Project Manager:	Matthew Muttart, M.A., P1208
Professional License:	Kristy O'Neal, M.A., P066
Field Director:	Michelle Volpe, MLIS, R1241
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Stage 1 & 2 Archaeological Assessment

502 Woodcox Road, in Part of Lot 8, Concession 2, Geographic Township of Herschel, Municipality of Hastings Highland, County of Hastings Ontario

1.0 PROJECT CONTEXT

1.1 Development Context

Archaeological Consultants Canada ("ACC") was contracted by the Proponent to conduct a Stage 1 & 2 archaeological resource assessment including background research and property survey. An archaeological assessment was required as part of the pre-approval process for future development under the *Planning Act, R.S.O. 1990.* The area of assessment, or the "subject property", is located at 502 Woodcox Road, in Part of Lot 8, Concession 2, Geographic Township of Herschel, Municipality of Hastings Highland, County of Hastings Ontario. The subject property measures 16.59 hectares ("ha") in size (Figure 1).

The objective of a Stage 1 background study is to provide information about the subject property's geography, history, previous archaeological fieldwork, and current land conditions. A Stage 1 study evaluates the subject property's archaeological potential in order to recommend appropriate strategies for the Stage 2 survey.

The objective of a Stage 2 property assessment is to document all archaeological resources present on the property and to make a determination about whether these resources, if present, have cultural heritage value or interest. Archaeological resources consist of artifacts (Indigenous stone tools, pottery and subsistence remains as well as Euro-Canadian objects), subsurface settlement patterns and cultural features (post moulds, trash pits, privies, and wells), and sites (temporary camps and special purpose activity areas, plus more permanent settlements such as villages, homesteads, grist mills and industrial structures). If any archaeological resources are present that exhibit Cultural Heritage Value or Interest, a Stage 2 survey will determine whether these resources require further assessment and, if necessary, recommend appropriate Stage 3 strategies for identified archaeological sites.

The Stage 1 & 2 assessment was conducted under Professional Archaeological License P066, held by Kristy O'Neal. Fieldwork was conducted under the direction of Michelle Volpe (R1241). The Ontario Ministry of Citizenship and Multiculturalism ("MCM") assigned Project Information Form ("PIF") number P066-0384-2024 (Stage 1 & 2) to this project. The licensee of ACC received permission from the Proponent to access the property and to conduct all required archaeological fieldwork activities including the removal of artifacts, as necessary. The property was accessed on September 9 - 11, 2024.

All fieldwork and reporting were completed using MCM's 2011 *Standards and Guidelines for Consultant Archaeologists.* This report documents the research, the field methods and results, and the conclusions and recommendations based on the Stage 1 & 2 archaeological assessment.

All documents and records related to this project will be curated at the offices of ACC, in accordance with subsection 66(1) of the *Ontario Heritage Act.*

1.2 Historical Context

1.2.1 Background Research

Stage 1 background research was conducted to determine the potential for finding and identifying archaeological resources including sites within the current subject property and to determine the necessity of conducting a Stage 2 survey. This is done by reviewing geographic, archaeological, and historical data for the property and the surrounding area. The background research was conducted to:

- amass all the readily available information on any previous archaeological surveys in the area.
- determine the locations of any registered and unregistered sites within and around the subject property.
- develop an historical framework for assigning levels of potential significance to any new sites discovered during fieldwork.

1.2.2 A Cultural Chronology for Southern Ontario

Over their thousands of years of occupation in the general region, Indigenous peoples have left behind, to a greater or lesser degree, physical evidence of their lifeway activities and settlements at many locations. Based upon a published synthesis of Indigenous cultural occupations (Wright, 1968). Table 1 is a general outline of the cultural history of southern Ontario that is applicable to the subject property. Ellis and Ferris (1990) provide greater detail of the distinctive characteristics of each time period and cultural group.

It is likely that Ontario was occupied soon after the retreat of the Ice Age glaciers. The earliest known human occupation in the area was during the Paleoindian period (between 12,000 and 9,500 years ago) wherein small groups of nomadic peoples hunted big game such as caribou in a cool sub-arctic climate. Sites are typically found near glacial features such as the shorelines of glacial lakes or kettle ponds which would have allowed access to the low-lying environments that were favoured by the caribou and other wildlife. These people were few and their small, temporary campsites are relatively rare. Paleoindian sites are recognized by the presence of distinctive artifacts such as fluted projectile points, beaked scrapers, and gravers and by the preference for light colored cherts, such as Collingwood chert. The Paleoindian Period is divided into two sub-periods, Early Paleoindian, and Late Paleoindian.

Table 1: General Cultural Chronology for Southern Ontario

PERIOD	SUBDIVISION I	SUBDIVISION II	YEARS BEFORE PRESENT	COMMENTS
PALEOINDIAN	Early Paleoindian	Fluted Point Horizon	12,000-10,500	big game hunters
	Late Paleoindian	Holcombe & Hi-Lo Horizons	10,500-9,500	small nomadic groups

PERIOD	SUBDIVISION I	SUBDIVISION II	YEARS BEFORE PRESENT	COMMENTS
ARCHAIC	Early Archaic	Side Notched Horizon	10,000-9,700	nomadic hunters and gatherers
		Corner-Notched Horizon	9,700-8,900	
		Bifurcate Horizon	8,900-8,000	
	Middle Archaic	Middle Archaic I/Stemmed Horizon	8,000-5,500	territorial settlements
		Middle Archaic II	5,500-4,500	polished ground stone tools
	Late Archaic	Narrow Point Horizon	4,500-3,500	
		Broad Point Horizon	4,000-3,500	
		Small Point Horizon (including Haldimand and Glacial Kame Complexes)	3,500-2,800	burial ceremonialism
WOODLAND	Early Woodland	Meadowood Complex	2,900-2,400	introduction of pottery
		Middlesex Complex	2,500-2,000	
	Middle Woodland	SW Ontario: Saugeen	2,300-1,500	long distance trade networks
		Western Basin: Couture	2,300-1,500	
	Transitional Woodland	SW Ontario:		
		Princess Point	1,500/1,400-1,200	incipient agriculture
		Western Basin:		
		Riviere au Vase	1500/1400-1200/1100	
	Late Woodland: Ontario Iroquois Tradition	Early: Glen Meyer	1200/100-750/700	transition to village life
		Middle I: Uren	720/700-710/670	large villages with palisades
		Middle II: Middleport	710/670-670/600	wide distribution of ceramic styles
		Late: Neutral	600-450	
	Late Woodland: Western Basin Tradition	Younge Phase	1200/1100-800	
		Springwells Phase	800-600	
		Wolf Phase	600-450	
HISTORIC	SW Ontario Iroquois	Historic Neutral	450-350	tribal warfare
	European Contact	Initial Contact	380-300	tribal displacement
		European Settlement	200 >	European settlement
		First Nations Resettlement	200 >	

(Compiled from Adams, 1994, Ellis *et al.*, 1990, Wright, 1968)

People during the Archaic period (*circa* 10,00 to 500 years ago) were still primarily nomadic hunters, but they adapted to a more temperate climate. Groups were dispersed during winter months and converged around watercourses from the spring to fall in large fishing campsites. The Archaic period is characterized by the appearance of ground stone tools, notched, or stemmed projectile points. The Archaic Period is divided into three sub-periods, Early, Middle, and Late Archaic. During the Archaic Period, groups began to establish territorial settlements and introduce burial ceremonialism. There is a marked increase in the number and size of sites, especially during the Late Archaic period.

The Woodland period is distinguished by the introduction of pottery vessels for storage and cooking. Sites of the Woodland period (*circa* 3000 to 400 years ago) are usually the most

numerous because the population levels in southern Ontario had significantly increased, especially along the shores of Lakes Erie and Ontario. The Woodland Period is also marked by the establishment of complex long distance trading networks. The Woodland Period is divided into three sub-periods, Early, Middle and Late Woodland. During the Late Woodland Period, there is increasing sedentarism and the establishment of horticulture, a reliance on tribal warfare, and the introduction of semi-permanent villages with large protective palisades. The Late Woodland period also envelops the emergence of Iroquoian tribes and confederacies.

The historic period (from A.D. 1650 to 1900) begins with the arrival of Euro-Canadian groups. While North America had been visited by Europeans on an increasing scale since the end of the fifteenth century, it was not until the voyages of Jacques Cartier in the 1530s that Europeans visited Ontario Iroquoians in their home territories. Sites of this period document European exploration, trade, and the displacement and devastation of native groups caused by warfare and infectious disease. The most common sites of this period include Euro-Canadian homesteads, industries, churches, schools, and cemeteries.

During pre-contact and early contact times, the vicinity of the subject property would have contained a mixture of deciduous trees, coniferous trees, and open areas. In the early nineteenth century, Euro-Canadian settlers arrived via easily accessible colonization routes from York and began to clear the forests for agricultural purposes. In the nineteenth and early twentieth centuries, the subject property and surrounding land were primarily used for agricultural purposes, Mixed farming was common, with wheat crops and beef cattle dominating the landscape (Chapman and Putnam, 1984:177).

While North America had been visited by Europeans on an increasing scale since the end of the 15th century, the first European to venture into what would become southern Ontario was Étienne Brûlé. Brûlé was sent by Samuel de Champlain in the summer of 1610 to consolidate an emerging friendship between the French and the First Nations, and to learn their languages and customs. Other Europeans would subsequently be sent by the French to train as interpreters. These men played an essential role in communications with the First Nations (Gervais and Rothe, 2004:182).

The late 17th and early 18th centuries saw the growth and spread of the fur trade, with the establishment and maintenance of trading posts along the Great Lakes. In 1754, hostilities over trade and the territorial ambitions of the French and the British led to the Seven Years' War, which ended when the French surrendered in 1760 (Smith, 1987:22). In addition to cementing British control over the Province of Quebec, the British victory over the French also proved pivotal in catalyzing the Euro-Canadian settlement process.

During pre-contact and early contact times, the vicinity of the subject property would have contained a mixture of deciduous trees, coniferous trees, and open areas. In the early 19th century, Euro-Canadian settlers arrived via easily accessible colonization routes and began to clear the forests for agricultural purposes. In the 19th and early 20th centuries, the subject property and surrounding land were primarily used for agricultural purposes, Mixed farming was common, with wheat crops and beef cattle dominating the landscape (Chapman and Putnam, 1984:177).

The subject property was historically located on Part of Lot 8, Concession 2 in the Township of Herschel, Hastings County. In 1791, the provinces of Lower Canada and Upper Canada were created from the former province of Quebec by a British parliamentary act. Colonel John Graves Simcoe was appointed as the Lieutenant Governor of Upper Canada and was tasked with governing and directing its settlement, as well as establishing a constitutional government based on Britain's model (Coyne et al, 1895:33).

Hastings County originally named after Francis Rawdon Hastings, the Earl of Moira, a famous soldier and administrator. The area covering 1,100,562 acres was made into an electoral district in 1792(Middleton, 1927). The original settlers were mainly Loyalists from the Mohawk tribe. The area was first surveyed by the Bay of Quinte in 1784. Land was surveyed further north as the population grew from Simcoe's land grants (Mika and Mika, 1981). Hastings County was one of the first nineteen counties of Upper Canada created by Simcoe. Later it was part of the Midland District, that comprised the Province of Upper Canada, until the community of Belleville wanted separation and petitioned to be the new districts town. The new district known as the Victoria district was created using the boundaries of Hastings County in 1837 (Mika and Mika, 1980). The southern third of the county was primarily used for agriculture especially growing wheat, while the northern two thirds were part of the Canadian shield, so instead depended on lumber and minerals, such as iron, gold, talc, and uranium. Minning was popular though plagued by transportation issues, with most of the northern thirds of the county staying rural into the 20th century.

Herschel Township along with Monteagle township was opened in 1857. Named for Thomas Spring-Rice, Lord Monteagle and Sir Fredrick William Herschel, an English astronomer and physicist (Middleton, 1927). When the township was surveyed in 1864 by A.B. Perry it was described as "Considerably broken with lakes, ponds, swamps, marches and granite hills…" The first sawmill opened on the bay of Baptiste Lake at the end of the 19th century (Mika and Mika, 1980).

Historical records and mapping were examined for evidence of early Euro-Canadian occupation within and near the subject property. Figure 2 represents the Euro-Canadian settlement in and around the current subject property in the late 19th century. Belden & Co.'s' 1878 *Illustrated Historical Atlas of the Counties of Hastings and Prince Edward, Ont.* indicates that the area at the time was primarily rural. The area has surveyed lots, no roads are illustrated on the map. Some of the water ways are depicted. The subject area is directly west of a river.

While there are no structures illustrated within the subject property on the historical atlas mapping, this does not necessarily mean that one or more additional structures were not present at that time, earlier or later. Not all features of interest were mapped systematically on the Ontario series of historical maps and atlases, given that they were financed by subscription, and subscribers were given preference regarding the level of detail provided on the maps (Caston, 1977:100).

1.3 Archaeological Context

1.3.1 Natural Environment

The subject property is located within the Algonquin Highlands physiographic region (Chapman and Putnam, 1984:113). This dome shaped region takes in much of the area underlain by granite and other Precambrian rocks. It is made up of generally shallow till soils with frequent outcrops of bare rock and rock ridges (Chapman and Putnam, 1984:211). Soils are generally too stony and acidic for agriculture, and the vast majority of the region is forested, with rough topography and swamp areas (Chapman and Putnam, 1984:212). While there are few farms in the region, mining and lumber are the predominant industries. The region also produces one-third of Ontario's maple syrup and is a thriving recreational area, especially in the summer (Chapman and Putnam, 1984:212).

The *Soils of Hastings County* (Gillespie, J.E., R.E. Wicklund, 1962) indicates that the dominant surface soil type within the subject property is Monteagle sandy loam (Figure 6). This soil consists of sandy loam textures. This soil has good to excessive drainage.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Primary water sources include, among others, lakes, rivers, creeks, and streams. Secondary water sources include intermittent streams, creeks, springs, marshes, and swamps. Past water sources, such as raised beach ridges, relic water channels, and glacial shorelines are also considered to have archaeological potential. Swamps and marshes are also important as resource extraction areas, and any resource areas are considered to have archaeological potential. The nearest water source is York River, located along the eastern boundary of the subject property.

1.3.2 Current Land Use

Figure 5 shows the current land use of the subject property. The area consists of a woodlot, with areas of low-lying marshes. The subject property is located within a rural area. Woodcox Road is located directly to the west.

Fieldwork for the project was completed on September 9 - 11, 2024.

1.3.3 Previous Archaeological Investigations

1.3.3.1 Registered Archaeological Sites

Previously registered archaeological sites can be used to indicate archaeological potential. To determine if any previous assessments have yielded archaeological sites, either within or surrounding the current subject property, two main sources were consulted. These include the *Ontario Archaeological Sites Database* ("OASD") and the *Public Register of Archaeological Reports*, both of which are maintained by MCM.

The OASD contains archaeological sites registered within the Borden system (Borden, 1952). The Borden system divides Canada into 13 km by 18.5 km blocks based on longitude and latitude. Each Borden block is designated with a four-letter label and sites identified within the block are numbered sequentially as they are registered. The subject property is located within the *BgGl* Borden block.

According to the OASD, no archaeological sites have been registered within the subject property, no sites have been registered within 1 km of the subject property (MCM, 2024a). The absence of registered sites may reflect a lack of systematic survey in the area rather than an indication of cultural occupation.

1.3.3.2 Previous Archaeological Reports

A review of archaeological reports within the *Public Register of Archaeological Reports* indicated that there is no archaeological reports detailing previous archaeological fieldwork within the subject property. There were no additional reports detailing fieldwork within 50 m of the subject property filed with the MCM at the time this report was written. Reports were searched based on registered site information, historic lots and concessions, and nearby streets.

2.0 FIELD METHODS

The subject property measures 16.59 ha. A Stage 1 visual inspection and Stage 2 property assessment were conducted concurrently on September 9 - 11, 2024, with advance permission to enter the subject property obtained from the Proponent. Table 2 provides detailed weather conditions for each day of the assessment.

Table 2: Daily Fieldwork Conditions

DATE	WEATHER CONDITIONS	FIELD DIRECTOR
September 9, 2024	19°C, overcast	Michelle Volpe, R1241
September 10, 2024	22°C, clear skies	Michelle Volpe, R1241
September 11, 2024	24°C, clear skies	Michelle Volpe, R1241

The Stage 1 assessment of the subject property began with an on-site property inspection to gain first-hand knowledge of the geography, topography, and current condition of the property. The entirety of the subject property was accessible and was inspected. Appropriate photographic documentation was taken during the visual inspection. Coverage of the property was sufficient to identify the presence or absence of features of archaeological potential, meeting the requirements of Section 1.2 Standard 1 of the *Standards and Guidelines for Consultant Archaeologists.*

Areas of low to no archaeological potential include lands that have been previously disturbed, lands that have steeply sloping topography, and lands that are low-lying and permanently wet. No areas of low-lying and permanently wet or steeply sloping topography were observed. 1.05 ha, 6 percent ("%") of the subject property, has been previously disturbed by intensive and extensive modern soil alterations, including the stripping and leveling for garden areas.

The remainder of the subject property, totaling 15.54 ha or 94%, retained archaeological potential and was recommended for Stage 2 archaeological assessment. The study area consists of woodlot that required Stage 2 assessment by test pit survey. Ploughing of these areas is not possible due to trees and heavy vegetation meeting the requirements of Section 2.1.2 1a of the *Standards and Guidelines for Consultant Archaeologists*, that ploughing or cultivation is not viable. The woodlots were subjected to test pit excavation by hand at 5 m intervals. Each test pit was 30 centimetres in diameter and was dug to at least five centimetres into the subsoil. Test pits were examined for stratigraphy, cultural features, or evidence of fill.

Appropriate photographic documentation was taken, and all test pits were backfilled upon completion. As no artifacts were observed during the test pit assessment no intensified survey was conducted.

There were no weather, ground, or lighting conditions detrimental to the recovery of artifacts. As such, it is confirmed that the assessment met Section 1.2 Standard 2 and Section 2.1 Standard 3 of the *Standards and Guidelines for Consultant Archaeologists* regarding weather and lighting.

The entirety of the subject property was assessed. The results of Stage 1 & 2 assessment are shown in Figure 5. Images of the assessment are shown in Section 8.0.

3.0 RECORD OF FINDS

3.1 Soils

Test pits contained approximately 3 to 40 cm of medium orange, brown sandy loam topsoil above yellow to orange sandy loam subsoil (Image 11 & 12).

3.2 Archaeological Resources

No artifacts or other archaeological resources were observed during the Stage 1 & 2 assessment of the subject property.

3.3 Documentary Record

All fieldwork-related activities were documented and kept, including field notes and observations and detailed maps. Appropriate photographic records were kept of the assessment and all image descriptions were recorded in a photo log.

A detailed list of field records is presented in Table 3. All digital items have been duplicated and all paper items have been scanned and stored as digital documents. All items are housed in the corporate offices of ACC.

Under Section 6 of Regulation 881 of the *Ontario Heritage Act,* ACC will keep in safekeeping all objects of archaeological significance that are found under the authority of the license and all field records that are made in the course of the work authorized by the license, except where the objects and records are donated to His Majesty the King in right of Ontario or are directed to be deposited in a public institution under subsection 66 (1) of the Act.

Table 3: Inventory of Documentary and Material Records

PROJECT INFORMATION		
ACC project number	284 -12-24	
Licensee	Kristy O'Neal	
MCM PIF number	P066-0384-2024	
DOCUMENT/MATERIAL	NUMBER	DESCRIPTION
field notes & photo logs	2	pages (paper, with digital copies)
maps	1	aerial imagery of the subject property
photos	12	digital colour photographs

4.0 ANALYSIS AND CONCLUSIONS

4.1 Potential for Archaeological Resources

Archaeological potential is defined as the likelihood of finding archaeological sites within a subject area. For planning purposes, determining archaeological potential provides a preliminary indication that significant sites might be found within the subject area, and consequently, that it may be necessary to allocate time and resources for archaeological survey and mitigation.

The framework for assigning levels of potential archaeological significance is drawn from provincial guidelines found in the *Standards and Guidelines for Consultant Archaeologists* (MCM, 2011: Sections 1.3.1 and 1.3.2). The following are features or characteristics that can indicate archaeological potential:

- previously identified archaeological sites
- water sources (It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees.).
    - primary water sources (e.g., lakes, rivers, streams, creeks)
    - secondary water sources (e.g., intermittent streams and creeks, springs, marshes, swamps)
    - features indicating past water sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches)
    - accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)
- elevated topography (e.g., eskers, drumlins, large knolls, plateaus)
- pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground
- distinctive land formation that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.
- resource areas, including:
    - food or medicinal plants (e.g., migratory routes, spawning areas, prairie)
    - scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)
    - early Euro-Canadian industry (e.g., fur trade, logging, prospecting, mining)

- areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and cemeteries. There may be commemorative markers of their history, such as local provincial, or federal monuments or heritage parks
- early historical transportation routes (e.g., trails, passes, roads, railways, portages)
- property listed on a municipal register or designated under the OHA or that is in a federal, provincial, or municipal historic landmark site
- property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations

Archaeological potential can be determined not to be present for either the entire property or parts of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as "disturbed" or "disturbance" and may include:

- quarrying
- major landscaping involving grading below topsoil
- building footprints
- sewage and infrastructure development
- activities such as agricultural cultivation, gardening, minor grading, and landscaping do not necessarily affect archaeological potential.

4.2 Discussion

Section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* (MCM, 2011) lists criteria indicative of archaeological potential. Stage 1 background research indicated that the subject property has general archaeological potential due to the following factors:

- The subject property is largely comprised of well- drained sandy soil in an area of rocky ground
- York River is located directly east of the subject property.

Given the above criteria, background archival research indicates that the subject property exhibits general archaeological potential for the discovery of both pre/post-contact Indigenous and Euro-Canadian archaeological resources therefore, a Stage 2 archaeological assessment was required.

The subject property measures 16.59 ha. A visual property inspection determined that 1.05 ha of the subject property has been previously disturbed by modern construction activities and has low to no archaeological potential.

15.54 ha of the subject property retained archaeological potential and was recommended for Stage 2 assessment. The subject property consisted of woodlot and was assessed by test pit survey at 5 m intervals.

No artifacts or other archaeological resources were identified during the Stage 2 archaeological assessment. According to the *Standards and Guidelines for Consultant Archaeologists* (MCM, 2011), the subject property has now been completely assessed and does not require any additional fieldwork.

5.0 RECOMMENDATIONS

Subject to acceptance of the results and approval of the recommendations, MCM is requested to deem this report compliant with ministry requirements for archaeological fieldwork and reporting and to issue a letter accepting this report into the *Ontario Public Register of Archaeological Reports.*

The following recommendation is provided for consideration by the Proponent and by the MCM:

1. No artifacts or other archaeological resources were identified during the Stage 2 archaeological assessment. The subject property has now been fully assessed according to the Ontario Ministry of Citizenship and Multiculturalism's 2011 *Standards and Guidelines for Consultant Archaeologists*. No further archaeological assessment of the property is required.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

The following advice on compliance with current legislation is provided for consideration:

a. This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part IV of the *Ontario Heritage Act*, R.S.O. 2005, c O.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 Citizenship and Multiculturalism, 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.

b. 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 a time as a licensed archaeologist has completed archaeological 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 Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act.*

c. 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*.

d. The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the local police or coroner and the Registrar, Burials Unit, at the Ministry of Public and Business Service Delivery.

7.0 BIBLIOGRAPHY AND SOURCES

Adams, Nick
1994 *Field Manual for Avocational Archaeologists in Ontario*. Publication No.16, Ontario Archaeological Society Inc.

Belden H., & Co.
1878 *Illustrated Historical Atlas of the Counties of Hastings and Prince Edward, Ont.* Toronto: H. Belden & Co.

Borden, Charles E.
1952 A Uniform Site Designation Scheme for Canada. *Anthropology in British Columbia*, No. 3, 44-48.

Caston, Wayne
1997 Evolution in the Mapping of Southern Ontario and Welling ton County. *Wellington County History*. 10:91-106.

Chapman, Lyman John and Donald F. Putnam
1984 The Physiography of Southern Ontario (Third Edition). *Ontario Geological Survey Special Volume 2*. Ontario Ministry of Natural Resources, Toronto.

Coyne, James, C. O. Ermatinger, K. W. McKay
1895 *Historical Sketches of the County of Elgin.* Elgin Historical and Scientific Institute, St. Thomas.

Ellis, Chris & Neal Ferris
1990 *The Archaeology of Southern Ontario to A.D. 1650.* Occasional Publication No. 5. London Chapter, Ontario Archaeological Society Inc.

Gervais, Gaetan and Kathe Roth
2004 Champlain and Ontario (1603-35). In R. Litalien and D. Vaugeois (Eds.), *Champlain: The Birth of French America (pp.180-90).* McGill- Queens University Press.

Gillespie, J.E., R.E. Wicklund
1962 *The Soil Survey of Hastings County.* Report No. 27 of the Ontario Soil Survey. Research Branch, Canada, Department of Agriculture and Ontario Agricultural college

Middleton, Jesse
1927 *The Province of Ontario: A History, 1615-1927.* Toronto: Dominion Publishing Co.

Mika, Nick and Helma Mika
1980 *Places in Ontario: Their Name Origins and History. Part II, F-M.* Mika Publishing Company, Belleville.

Ministry of Citizenship and Multiculturalism ("MCM")
2005 *The Heritage Act, R.S.O. 2005.* Queen's Printer, Toronto.
2011 *Standards and Guidelines for Consultant Archaeologists.* Toronto.
2024a Sites within a one km radius of the subject property. Provided from the *Ontario Archaeological Sites Database*.
2024b Archaeological assessments completed within the subject property or within 50 m of the subject property. Provided from the Ontario *Public Register of Archaeological Reports.*

Ministry of Natural Resources and Forestry
2019 Topographic Map, Land Information Ontario
https://www.lioapplications.lrc.gov.on.ca/MakeATopographicMap/index.html?viewer=Make_A_Topographic_Map.MATM&locale=en-CA
[Accessed September 24, 2024]

Ministry of Northern Development and Mines ("MNDM")
2007 Physiography of Southern Ontario. Chapman, L.J. and D.F. Putnam, authors. GIS map data layer distributed by the Ontario Geological Survey as Miscellaneous Release – Data (MRD) 228. Queen's Printer for Ontario.
http://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth
[Accessed September 24, 2024]

Ontario Ministry of Agriculture, Food and Rural Affairs ("OMAFRA")
2012 *GIS Layers for Soils and Physiography in the Province of Ontario.*
http://sis.agr.gc.ca/cansis/publications/surveys/on/index.html
[Accessed September 24, 2024]

Office of Public Roads & Highways of Ontario
1914 *Hershal Township, New Road System.*
Smith, D. B.
1987 *Sacred Feathers: The Reverend Peter Jones (Kahkewaquonaby) and the Mississauga Indians*. Toronto: University of Toronto Press.

Wright James V.
1968 *Ontario Prehistory: an eleven thousand-year archaeological outline*.
Archaeological Survey of Canada, National Museums of Canada, Ottawa.

8.0 IMAGES

Image 1: Ground alteration disturbance, facing north

Image 2: Ground alteration disturbance, facing north

Image 3: Subject property, facing south

Image 4: Subject property, facing north

Image 5: Subject property, facing south

Image 6: Subject property, facing east

Image 7: Subject property, facing east

Image 8: Subject property, facing south

Image 9: Subject Property, facing west

Image 10: Subject property, facing south

Image 11: Test pit

Image 12: Test pit

9.0 FIGURES

Figure 1: Location of the Subject Property on a 1:50,000 Scale Topographic Map

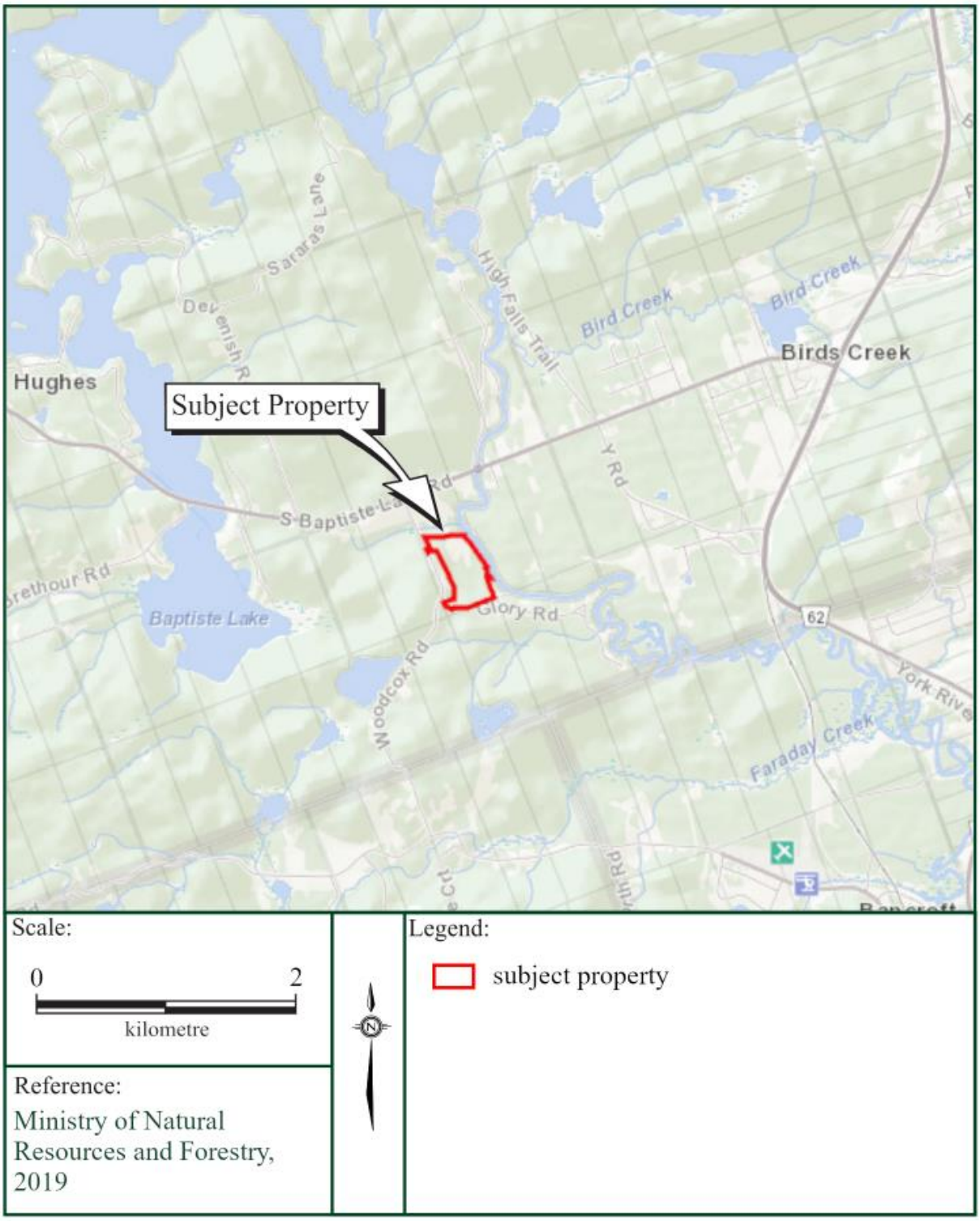

Figure 2: Location of the Subject Property on Belden & Co.'s 1878 Illustrated Historical Atlas Map of Herschel Township, Hastings County

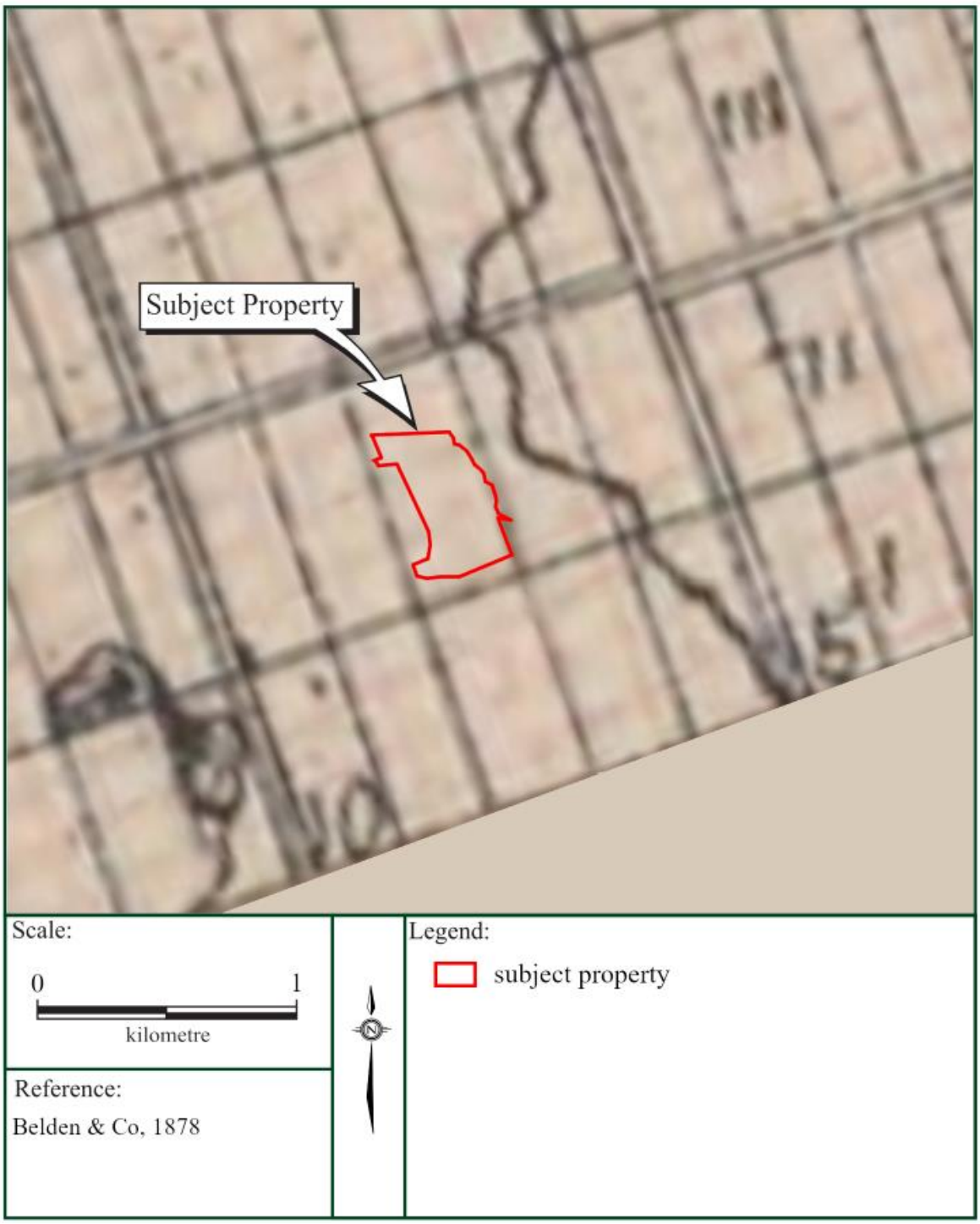

Figure 4: Location of the Subject Property of the Soils Map of Hastings County

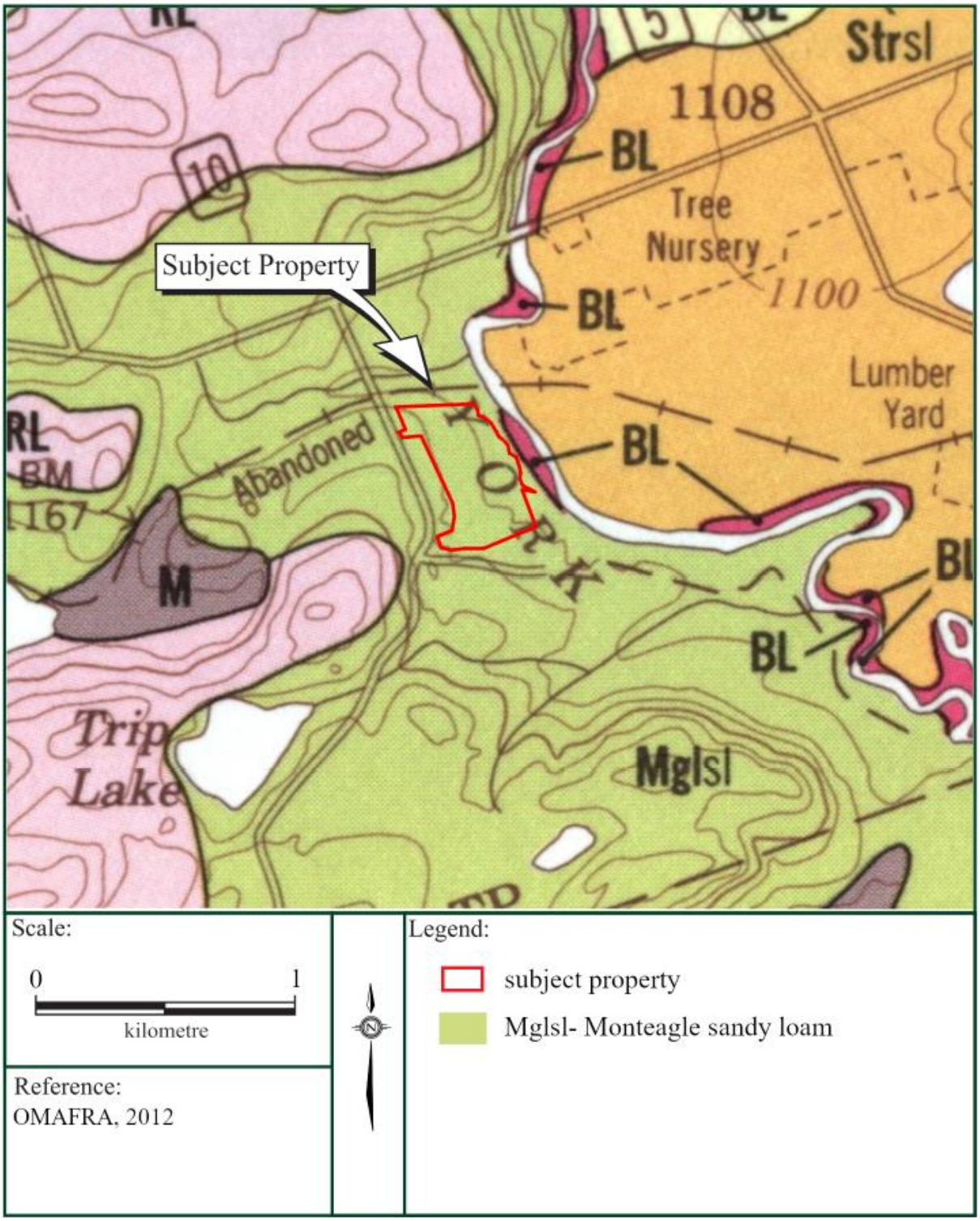

Figure 5: Current Land Use of the Subject Property

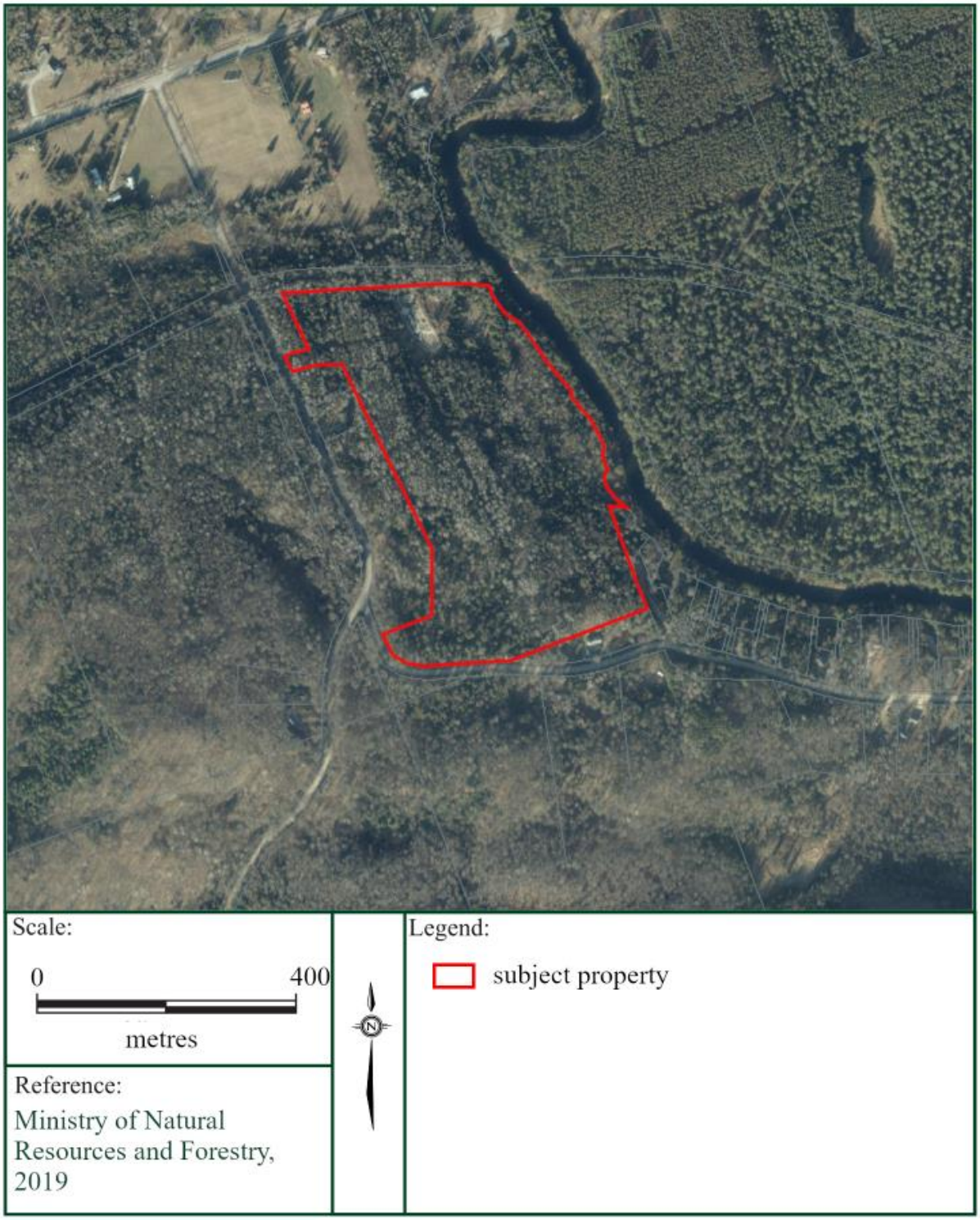

Figure 6: Aerial Imagery Showing the Results of the Stage 1 & 2 Archaeological Assessment of the Subject Property, with Image Locations and Directions