
APPENDIX D

Stage 1 Archaeological Study



**Stage I Archaeological Assessment
Municipal Class Environmental Assessment Schedule B
Six Mile Creek Flooding Project
Town of Fort Erie, Regional Municipality of Niagara
Part of Lots 16-18, Concession I Lake Erie
And Broken Front Concession on Lake Erie
Geographic Township of Bertie
Former County of Welland, now County of Niagara South, Ontario**

Original Report

Submitted to:
Ministry of Citizenship and Multiculturalism

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Project No: 2023-340
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EXECUTIVE SUMMARY

In 2023, the Town of Fort Erie initiated the Six Mile Creek Flooding Project to develop a solution to address flooding in the Thunder Bay area, specifically in the Six Mile Creek subwatershed, located within the Town of Fort Erie, Regional Municipality of Niagara, Ontario. Although the area is within the documented Niagara Peninsula Conservation Authority (NPCA) 100-year riverine floodplain, it is suspected that the localized flooding occurs primarily due to seiche effect from the Lake. The Town and residents have experienced flooding over the past decades, and more recently elevated lake level and wind gusts caused significant flooding on October 31, 2019, November 15, 2020, and December 2022 (Winter Storm Elliot).

As part of the Six Mile Creek Flooding Project, TMHC Inc. (TMHC) was contracted by Matrix Solutions Inc. (Matrix) on behalf of the Town of Fort Erie to carry out a Stage I archaeological assessment. The project area is roughly 26.59 ha (65.71 ac) in size and is located within Lots 16-18 of Concessions 1 and Broken Front, in the Geographic Township of Bertie, formerly Welland County, now Niagara South County. The majority of the project area is forested lands surrounding Six Mile Creek, up to and including the shoreline of Lake Erie. Residential properties comprise the remaining lands within the project area, surrounding seven major roadways: Colony Road, Thunder Bay Road, Neva Road, Shirley Road, Bethune Avenue, Poplar Avenue, and Centralia Avenue North. The project area is bound to the south by Lake Erie, to the west by Nicolas Road and residential properties, and to the north and east by the continuation of woodlot.

The Stage I archaeological assessment was conducted in accordance with the provisions of the *Environmental Assessment Act*, following a Schedule 'B' Municipal Class Environmental Assessment (MCEA) process. The work was also in keeping with Town of Fort Erie's *Archaeological Master Plan* (ASI et al. 2003), a guide for assessing potential archaeological impacts in land use planning in the Town of Fort Erie. The purpose of the assessment was to determine whether there was potential for the discovery of archaeological resources within the project area.

The Stage I background study included a review of current land use, historic and modern maps, past settlement history for the area and a consideration of topographic and physiographic features, soils and drainage. It also involved a review of previously registered archaeological resources within 1 km of the project area and previous archaeological assessments within 50 m. The background study indicated that the project area had potential for the recovery of archaeological resources due the proximity (i.e., within 300 m) of features that signal archaeological potential, namely:

- water sources (Lake Erie, Six Mile Creek and its tributaries);
- mapped 19th-century thoroughfares (Thunder Bay Road, Centralia Avenue North, and Bernard Avenue);
- mapped 19th-century transportation routes (Buffalo and Lake Huron Railway/Grand Trunk Railway); and
- mapped 19th-century structures (homesteads near and within the project area).

In addition, the Town of Fort Erie's *Archaeological Master Plan* identifies portions of the project area as having archaeological potential.

As the project area contained several features signaling archaeological potential, as well as imagery indicating that disturbance had occurred within portions of the project area, a Stage I property inspection was conducted to evaluate the current conditions of the project area and determine if any areas of archaeological



potential remained intact. Based on the Stage I background research and property inspection, the following recommendations are made:

- All portions of the project area identified as extensively disturbed (3.36 ha; 12.6%) or low-lying and wet (0.23 ha; 0.9%), do not retain land-based archaeological potential and do not require further assessment.
- All portions of the project area identified as retaining archaeological potential will require a Stage 2 archaeological assessment prior to ground disturbing activities (21.79 ha; 81.9%). Manicured grasslands, woodlot, and the sandy beach within the project area must be subject to a test pit survey as per Section 2.1.2 of the *Standards and Guidelines*.
- If impacts are planned within Six Mile Creek, a Marine Archaeological Checklist should be completed, and further archaeological assessment may be required (1.21 ha; 4.6%).

These recommendations are subject to the conditions laid out in Section 7.0, and to the Ministry of Citizenship and Multiculturalism's (MCM's) review and acceptance of this report into the provincial register of archaeological reports.



TABLE OF CONTENTS

Executive Summary	i
Table of Contents	iii
List of Tables	iv
List of Images	iv
List of Maps	v
Project Personnel	vi
Acknowledgements	vi
Territorial Acknowledgement	vii
About TMHC	viii
Key Staff Bios	ix
Statement of Qualifications and Limitations	x
Quality Information	xi
1 Project Context	1
1.1 Development Context	1
1.1.1 Introduction	1
1.1.2 Purpose and Legislative Context	2
2 Stage I Background Review	3
2.1 Research Methods and Sources	3
2.2 Project Context: Archaeological Context	5
2.2.1 Project Area: Overview and Physical Setting	5
2.2.2 Summary of Registered or Known Archaeological Sites	6
2.2.3 Summary of Past Archaeological Investigations within 50 m	6
2.3 Project Context: Historical Context	8
2.3.1 Indigenous Settlement in the Niagara Region	8
2.3.2 Treaty History	11
2.3.3 Nineteenth-Century and Municipal Settlement	11
2.3.4 Review of Historic Maps	13
2.3.5 Review of Heritage Properties	14
3 Stage I Property Inspection	15
3.1 Current Conditions	15
3.1.1 Section 1 – North of Thunder Bay Road	15
3.1.2 Section 2 – South of Thunder Bay Road	15
3.2 Summary	16
4 Analysis and Conclusions	17
5 Recommendations	18
6 Summary	19
7 Advice on Compliance with Legislation	20
8 Bibliography	21
9 Images	24
10 Maps	39



LIST OF TABLES

Table 1: Registered Archaeological Sites within 1 km of the Project Area.....	7
Table 2: Chronology of Indigenous Settlement in the Niagara Region	8
Table 3: 1862 Historical Maps – Lot and Concession Owner Information	13
Table 4: 1876 Historical Maps – Lot and Concession Owner Information	13
Table 5: Documentary Records	16

LIST OF IMAGES

Image 1: Manicured Grass within Vacant Lot Along Shirley Road	25
Image 2: Grassed Lands Along Bethune Avenue	25
Image 3: Manicured Lawn Along Shirley Road.....	26
Image 4: Woodlot South of Bethune Avenue	26
Image 5: Residential Properties between Poplar and Evadere Avenues	27
Image 6: Residential Properties on Evadere Avenue	27
Image 7: Sewage Pumping Station on Shirley Road.....	28
Image 8: Ditch Along Neva Road.....	28
Image 9: Ditch Along Poplar Road.....	29
Image 10: Ditch Along Bethune Avenue.....	29
Image 11: Ditch Along Bethune Avenue.....	30
Image 12: Ditch and Culvert Along Shirley Road.....	30
Image 13: Ditch Along Shirley Road.....	31
Image 14: Channelized Tributary East of Shirley Road	31
Image 15: Channelized Tributary East of Shirley Road	32
Image 16: Manicured Lawn Along Shirley Road.....	32
Image 17: Manicured Lawn and Ditch Along Thunder Bay Road	33
Image 18: Woodlot and Ditching South of Thunder Bay Road	33
Image 19: Woodlot South of Thunder Bay Road.....	34
Image 20: Woodlot North of Thunder Bay Road.....	34
Image 21: Woodlot West of Colony Road	35
Image 22: Woodlot and Colony Road	35
Image 23: Woodlot Surrounding Residential Property.....	36
Image 24: Landscaped Beach at Six Mile Creek River Mouth.....	36
Image 25: Residential Properties Along Lake Erie Shoreline	37
Image 26: Wetlands North of Thunder Bay Road, East of Six Mile Creek	37
Image 27: Six Mile Creek South of Thunder Bay Road.....	38
Image 28: Six Mile Creek Bisecting Colony Road	38



LIST OF MAPS

Map 1: Location of the Project Area in Town of Fort Erie, ON.....	40
Map 2: Aerial Photograph Showing the Location of the Project Area	41
Map 3: Physiography Within the Vicinity of the Project Area.....	42
Map 4: Soils Within the Vicinity of the Project Area	43
Map 5: Location of the Project Area Shown on the 1862 Tremaine’s Map of the Counties of Lincoln and Welland.....	44
Map 6: Location of the Project Area Shown on the 1876 Map of Lincoln and Welland Counties.....	45
Map 7: Location of the Project Area Shown on a 1907 Topographic Map.....	46
Map 8: Location of the Project Area Shown on 1934 Aerial Imagery.....	47
Map 9: Location of the Project Area Shown on 1960 Aerial Imagery.....	48
Map 10: Location of the Project Area Shown on 2000 Aerial Imagery	49
Map 11: Stage I Results and Recommendations, Section 1 – North of Thunder Bay Road, Map 1 of 2	50
Map 12: Stage I Results and Recommendations, Section 2 – South of Thunder Bay Road, Map 2 of 2	51



PROJECT PERSONNEL

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ACKNOWLEDGEMENTS

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TERRITORIAL ACKNOWLEDGEMENT

The project area is located on the traditional lands of the Anishinaabek (Ah-nish-in-a-bek), Haudenosaunee (Ho-den-no-show-nee), and Ojibway/Chippewa peoples on lands connected with the Between the Lakes Treaty (Treaty 3). Most recently, the territory is of the Mississaugas of the Credit First Nation who are direct descendants of the Mississauga of the Credit, and the Six Nations of the Grand River. This land continues to be home to diverse Indigenous peoples (e.g., First Nations, Métis and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society.



ABOUT TMHC

Established in 2003 with a head office in London, Ontario, TMHC Inc. (TMHC) provides a broad range of archaeological assessment, heritage planning and interpretation, cemetery, and community consultation services throughout the Province of Ontario. We specialize in providing heritage solutions that suit the past and present for a range of clients and intended audiences, while meeting the demands of the regulatory environment. Over the past two decades, TMHC has grown to become one of the largest privately-owned heritage consulting firms in Ontario and is today the largest predominately woman-owned CRM business in Canada.

Since 2004, TMHC has held retainers with Infrastructure Ontario, Hydro One, the Ministry of Transportation, Metrolinx, the City of Hamilton, and Niagara Parks Commission. In 2013, TMHC earned the Ontario Archaeological Society's award for Excellence in Cultural Resource Management. Our seasoned expertise and practical approach have allowed us to manage a wide variety of large, complex, and highly sensitive projects to successful completion. Through this work, we have gained corporate experience in helping our clients work through difficult issues to achieve resolution.

TMHC is skilled at meeting established deadlines and budgets, maintaining a healthy and safe work environment, and carrying out quality heritage activities to ensure that all projects are completed diligently and safely. Additionally, we have developed long-standing relationships of trust with Indigenous and descendent communities across Ontario and a good understanding of community interests and concerns in heritage matters, which assists in successful project completion.

TMHC is a Living Wage certified employer with the [Ontario Living Wage Network](#) and a member of the [Canadian Federation for Independent Business](#).



KEY STAFF BIOS

Matthew Beaudoin, PhD – Principal

Matthew received a PhD in Anthropology from Western University in 2013 and has a professional archaeological license with the Province of Ontario (P324). During his archaeological career, Matthew has conducted extensive field research and artifact analysis in Labrador and Ontario, and has taught the Field Methods Course and Principals of archaeology courses as a part-time faculty member at Western University. Matthew has also conducted ethnographic projects in Labrador, and has volunteered with the OAS to provide archaeological training to several Indigenous communities throughout the province.

Over the course of his career, Matthew has supervised over 800 archaeological assessments in Ontario, including Stages I-4, under a variety of regulatory triggers including provincial and municipal Environmental Assessments, Green Energy projects, development projects under the *Planning Act*, and as due diligence process. Matthew has extensive experience managing large and complex archaeological projects in conjunction with other disciplines, specialists, and Indigenous communities including Enbridge Line 10 Westover Segment, Imperial Oil from Waterdown to Finch, and Highway 3 Widening in Kingsville. Since joining TMHC in 2008, Matthew has also been involved with several notable projects, such as the archaeological assessment of Stoney Point/Camp Ipperwash. For these and other projects, Matthew works closely with heritage staff at TMHC and with heritage staff employed by clients and stakeholder communities.

Matthew is an active member of the Canadian Archaeological Association, the Ontario Archaeological Society, the Society for American Archaeology, and the Society for Historical Archaeology.

Amanda Parks, MA – Manager – Environmental Assessments Project Division

Amanda began her career in archaeology in 2004 and has dedicated her work to the conservation of cultural heritage resources in Ontario. Amanda has worked on numerous Stage I-4 archaeological assessments in a multitude of roles: project manager, field director, report writer, artifact analyst, and engagement specialist. Regarding the latter, Amanda has worked regularly with Indigenous communities throughout Ontario, engaging communities for archaeological projects, environmental assessments, and property management plans. She has established good working relationships with communities by focusing on a collaborative approach to the protection and documentation of archaeological sites.

Amanda earned a BA in Archaeological Science from the University of Toronto in 2012 and completed her MA in Applied Archaeology at Western in 2018. Her masters research focused on the sweat baths at the Redeemer site, a Middle Ontario Iroquoian site located in the City of Hamilton.



STATEMENT OF QUALIFICATIONS AND LIMITATIONS

The attached Report (the “Report”) has been prepared by TMHC Inc. (TMHC) for the benefit of the Client (the “Client”) in accordance with the agreement between TMHC and the Client, including the scope of work detailed therein (the “Agreement”).

The information, data, recommendations and conclusions contained in the Report (collectively, the “Information”):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the “Limitations”);
- represents TMHC’s professional judgment in light of the Limitation and industry standards for the preparation of similar reports;
- may be based on information provided to TMHC which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and sections thereof should not be read out of such context; and
- was prepared for the specific purposes described in the Report and the Agreement.

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TMHC agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but TMHC makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

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This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.



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I PROJECT CONTEXT

I.1 Development Context

I.1.1 Introduction

In 2023, the Town of Fort Erie initiated the Six Mile Creek Flooding Project to develop a solution to address flooding in the Thunder Bay area, specifically in the Six Mile Creek subwatershed, located within the Town of Fort Erie, Regional Municipality of Niagara, Ontario. Although the area is within the documented Niagara Peninsula Conservation Authority (NPCA) 100-year riverine floodplain, it is suspected that the localized flooding occurs primarily due to seiche effect from the Lake. The Town and residents have experienced flooding over the past decades, and more recently elevated lake level and wind gusts caused significant flooding on October 31, 2019, November 15, 2020, and December 2022 (Winter Storm Elliot).

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The Stage I archaeological assessment was conducted in accordance with the provisions of the *Environmental Assessment Act*, following a Schedule 'B' Municipal Class Environmental Assessment (MCEA) process. The work was also in keeping with Town of Fort Erie's *Archaeological Master Plan* (ASI et al. 2003), a guide for assessing potential archaeological impacts in land use planning in the Town of Fort Erie. The purpose of the assessment was to determine whether there was potential for the discovery of archaeological resources within the project area.

All archaeological assessment activities were performed under the professional archaeological license of Amanda Parks, MA (P450) and in accordance with the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011, "Standards and Guidelines").



1.1.2 Purpose and Legislative Context

The *Ontario Heritage Act* (R.S.O. 1990) ([OHA](#)) provides legislative oversight for the conservation, protection, and preservation of heritage resources in the Province of Ontario, including archaeological resources. The *OHA* assigns responsibility for doing so to a provincial ministry, now the Ministry of Citizenship and Multiculturalism (MCM). The MCM regulates how archaeological sites are dealt with by:

- Establishing a system to license individuals permitted to identify and investigate archaeological sites;
- Creating technical standards and guidelines for archaeological fieldwork and reporting;
- Maintaining a list of registered archaeological sites; and
- Overseeing transfers of archaeological collections.

The *OHA* does not speak to the need for undertaking archaeological assessments prior to land development. Instead, it regulates how such work must be undertaken and how archaeological sites are dealt with when the need for an archaeological assessment is prompted by other pieces of legislation.

The *Environmental Assessment Act* (R.S.O. 1990) ([EAA](#)) was developed to provide for the protection, conservation and wise management of the environment in Ontario. It applies to projects carried out by a provincial ministry, municipality or designated public body, and which can be made to apply to private sector proponents through a designation regulation. Section 1 of the *EAA* has broadly defined “environment” to cover “cultural heritage” resources. As per policy guidelines, the *EAA* provides for two types of environmental assessment planning and approval processes for undertakings subject to the act: environmental assessments (EAs) and class environmental assessments (Class EAs).

The current project follows an approved Class Environmental Assessment (EA) developed by the Municipal Engineers Association on behalf of Ontario municipalities, as documented in *Municipal Class Environmental Assessments* (Municipal Engineers Association 2023). The document enables the planning and implementation of municipal infrastructure (including the road, water, wastewater, and transit undertakings set out in Appendix 1 of the document) to be undertaken in accordance with an approved procedure designed to protect the environment (Municipal Engineers Association 2023). Since the undertakings carried out by municipalities can vary in their potential environmental impact, undertakings have been classified as exempt, eligible for screening, B, and C with each classification having different requirements. Projects that are eligible for exemption must still be subject to an archaeological screening process to determine whether the project is exempt from the requirements of the *EAA*.

Town of Fort Erie’s *Archaeological Master Plan* (ASI et. al 2003) is a planning tool developed to implement these requirements by identifying areas where there is potential for archaeological sites to exist. If properties are deemed to have potential for archaeological sites, a Stage 1 and 2 archaeological assessment is required.

2 STAGE I BACKGROUND REVIEW

2.1 Research Methods and Sources

A Stage I overview and background study was conducted to gather information about known and potential cultural heritage resources within the project area. According to the *Standards and Guidelines*, a Stage I background study must include a review of:

- an up-to-date listing of sites from the MCM's PastPortal for 1 km around the property;
- reports of previous archaeological fieldwork within a radius of 50 m around the property;
- topographic maps at 1:10,000 (recent and historical) or the most detailed scale available;
- historical settlement maps (e.g., historical atlas, survey);
- archaeological management plans or other archaeological potential mapping when available; and,
- commemorative plaques or monuments on or near the property.

For this project, the following activities were carried out to satisfy or exceed the above requirements:

- a database search was completed through MCM's PastPortal system that compiled a list of registered archaeological sites within 1 km of the project area (completed May 9, 2024);
- a review of known prior archaeological reports for the property and adjacent lands;
- Ontario Base Mapping (1:10,000) was reviewed through ArcGIS and mapping layers under the Open Government Licence – Canada and the Open Government Licence- Ontario;
- detailed mapping provided by the client was reviewed;
- a series of historic maps and photographs was reviewed related to the post-1800 land settlement; and
- the Town of Fort Erie's *Archaeological Master Plan* (ASI et al. 2003) was also reviewed.

Additional sources of information were also consulted, including modern aerial photographs, local history accounts, soils data provided by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), physiographic data provided by the Ontario Ministry of Northern Development and Mines, and detailed topographic data provided by Land Information Ontario.

When compiled, background information was used to create a summary of the characteristics of the project area, in an effort to evaluate its archaeological potential. The Province of Ontario (MTC 2011; Section 1.3.1) has defined the criteria that identify archaeological potential as:

- previously identified archaeological sites;
- water sources;
 - 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, relic river or stream channels, shorelines of drained lakes or marshes, cobble beaches);
 - accessible or inaccessible shorelines (e.g., high bluffs, sandbars stretching into a marsh);
- elevated topography (e.g., eskers, drumlins, large knolls, plateau);
- pockets of well-drained sandy soils;
- distinctive land formations that might have been special or spiritual places (e.g., waterfalls, rock outcrops, caverns, mounds, promontories and their bases);



- resource areas, including:
 - food or medicinal plants (e.g., migratory routes, spawning areas, prairies);
 - scarce raw materials (e.g., quartz, copper, ochre, or chert outcrops);
 - early industry (e.g., fur trade, logging, prospecting, mining);
- areas of early 19th-century settlement, including:
 - early military locations;
 - pioneer settlement (e.g., homesteads, isolated cabins, farmstead complexes);
 - wharf or dock complexes;
 - pioneer churches;
 - early cemeteries;
- early transportation routes (e.g., trails, passes, roads, railways, portage routes);
- a property listed on a municipal register, designated under the *Ontario Heritage Act*, or that is a federal, provincial, or municipal historic landmark or site; and,
- a property that local histories or informants have identified with possible archaeological sites, historical event, activities, or occupations.

In Southern Ontario (south of the Canadian Shield), any lands within 300 m of any of the features listed above are considered to have potential for the discovery of archaeological resources.

Typically, a Stage I assessment will determine potential for Indigenous and 19th-century period sites independently. This is due to the fact that lifeways varied considerably during these eras, so the criteria used to evaluate potential for each type of site also varies.

It should be noted that some factors can also negate the potential for discovery of intact archaeological deposits. The *Standards and Guidelines* (MTC 2011; Section 1.3.2) indicates that archaeological potential can be removed in instances where land has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. Major disturbances indicating removal of archaeological potential include, but are not limited to:

- quarrying;
- major landscaping involving grading below topsoil;
- building footprints; and,
- sewage and infrastructure development.

Some activities (agricultural cultivation, surface landscaping, installation of gravel trails, etc.) may result in minor alterations to the surface topsoil but do not necessarily affect or remove archaeological potential. It is not uncommon for archaeological sites, including structural foundations, subsurface features and burials, to be found intact beneath major surface features like roadways and parking lots. Archaeological potential is, therefore, not removed in cases where there is a chance of deeply buried deposits, as in a developed or urban context or floodplain where modern features or alluvial soils can effectively cap and preserve archaeological resources.



2.2 Project Context: Archaeological Context

2.2.1 Project Area: Overview and Physical Setting

The project area is located at the eastern end of the Thunder Bay neighbourhood in the Town of Fort Erie, Regional Municipality of Niagara, Ontario (Maps 1 and 2). It is roughly 26.59 ha (65.71 ac) in size and is located within Lots 16-18 of Concessions 1 and Broken Front, in the Geographic Township of Bertie, former Welland County, now Niagara South County. The majority of the project area is forested lands surrounding Six Mile Creek, up to and including the shoreline of Lake Erie. Residential properties comprise the remaining lands within the project area, surrounding seven major roadways: Colony Road, Thunder Bay Road, Neva Road, Shirley Road, Bethune Avenue, Poplar Avenue, and Centralia Avenue North. The project area is bounded to the south by Lake Erie, to the west by Neva Road and residential properties, to the north by woodlot, and to the east by Colony Road and woodlot.

The project area is located within the Haldimand Clay Plain physiographic region (Map 3), as defined by Chapman and Putnam (1984:113). This region encompasses some 1,350 square miles between the Niagara Escarpment and Lake Erie and was once entirely submerged by glacial Lake Warren. It contains both flat clay plains and more gently rolling topography, particularly where till moraines and drumlins are prominent surface features (Chapman and Putnam 1984:156). Limestone plains are roughly 330 m to the east of the project area and 880 m to the northwest. A glacial Lake Warren beach falls roughly 1.7 km to the west.

According to generalized soils mapping for the Town of Fort Erie, the predominant soil type of the project area is Alluvium silty clay loam, which surrounds the river and its tributaries; Maplewood-red phase loam is present to the west, and Brooke-shallow phase clay loam can be found to the east (Map 4). Formal soil surveys (Kingston and Presant 1989) describe Alluvium soils as having variable drainage, but most are imperfectly or poorly drained and are likely to encounter issues with flooding. Alluvium soil develops on recent alluvial deposits with undifferentiated drainage. Maplewood soils generally consist of loamy sediments over lacustrine clay or loams, mottled with strong brown to dark-yellowish-brown in the subsoil, and are poorly drained. Brooke-shallow phase soils also exhibit poor drainage, with clayey or loamy textured soil 50-100 cm over bedrock. Portions of the project area are not mapped.

The project area lies within the Six Miles Creek drainage, and the main branch of the creek runs through the project area, draining into Lake Erie to the south (Map 1). According to the Ontario Watershed Information Tool, the drainage area of the creek's associated watershed covers roughly 17 km², extending from Thunder Bay Road to the south, past Bertie Street to the north (Lot 3, Concessions 9 and 10), Edgewood Park to the east, and Ridgeway to the west (Ontario Ministry of Natural Resources and Forestry 2023). The longest main branch of the creek extends roughly 7 km from mouth to headwater. Historically, land use surrounding the creek has seen little alteration since 1955, being mostly agricultural and scrublands with residential parcels present around main roads and the Lake Erie shoreline, although gradual re-naturalization to denser woodlot, scrubland, and even swamp habitats have been noted since 1995 (Philips Engineering Ltd. 2008). Two of its tributaries were modified into functioning drains for agricultural purposes prior to 1955. The lower portions of the creek, covered by the project area, house a diverse array of fish species, including white sucker and quillback. All Six Mile Creek channels are classed as Critical Habitats (Philips Engineering Ltd. 2008).



2.2.2 Summary of Registered or Known Archaeological Sites

According to PastPortal (accessed May 9, 2024) there are 15 registered archaeological sites within 1 km of the project area (Table 1). Upon further research, it was determined that several sites listed on PastPortal may be further than 1 km: AfGs-7, AfGs-8, AfGs-9, AfGs-10, AfGs-104, AfGs-110, AfGs-136, and AfGs-137.

A cluster of five sites, AfGs-105, 106, 107, 108, and 109, are the closest registered sites to the project area, being roughly 960 m to the west. All four sites were excavated by Robert Mayer (under License 2000-001) and yielded lithic artifacts, with counts ranging from eight to 265; the diagnostic pieces were all made on Onondaga chert. The materials are believed to relate to Indigenous campsites. Of note, AfGs-109 is considered to retain further cultural and heritage interest (CHVI), being a multi-component site containing both Indigenous and 19th-century material. Eighty Indigenous artifacts were found, including 78 pieces of chipping detritus, and scrapers, and 356 19th-century artifacts were recovered, including ceramics, glass tableware, window plane glass, wire nails, metal objects, and an electrical insulator. The site is considered to be an Indigenous campsite and a 19th-century homestead.

Although there are no sites registered within the project area, this is likely due to a lack of systematic survey in the vicinity, rather than a paucity of past activity.

2.2.3 Summary of Past Archaeological Investigations within 50 m

During the course of this study no record was found of any archaeological investigations within 50 m of the project area. The closest assessment was conducted for a property roughly 315 m away within Lots 18 and 19, Concession 1, which yielded no artifacts (Amec Foster Wheeler 2016). However, it should be noted that the MCM currently does not provide an inventory of archaeological assessments to assist in this determination.



Table 1: Registered Archaeological Sites within 1 km of the Project Area

Borden Number	Site Name	Time Period	Affinity	Site Type	Status	Distance
AfGs-7	.*	Archaic, Late	Aboriginal	findspot	-	> 1 km
AfGs-8	-	-	-	-	-	> 1 km
AfGs-9	Dean	Archaic, Late	Aboriginal	Othercamp/campsite	-	> 1 km
AfGs-10	Mann	Woodland, Late	Aboriginal, Iroquoian	Othercamp/campsite	-	> 1 km
AfGs-104	Ridgeway Shores	Pre-Contact	Aboriginal	Othercamp/campsite, scatter	-	> 1 km
AfGs-105	Location 1	Pre-Contact	Aboriginal	Othercamp/campsite	No Further CHVI	< 1 km
AfGs-106	Location 3	Pre-Contact	Aboriginal	Othercamp/campsite	-	< 1 km
AfGs-107	Location 5	Pre-Contact	Aboriginal	Othercamp/campsite	-	< 1 km
AfGs-108	Location 9	Pre-Contact	Aboriginal	Othercamp/campsite	No Further CHVI	< 1 km
AfGs-109	Location 11	Post-Contact, Pre-Contact	Aboriginal, Euro-Canadian	Othercamp/campsite, homestead	Further CHVI	< 1 km
AfGs-110	Wood Tick Ridge	Archaic, Middle	Aboriginal	Othercamp/campsite	-	> 1 km
AfGs-121	Dominion 1	Pre-Contact	Aboriginal	scatter	-	> 1 km
AfGs-134	-	Post-Contact	Euro-Canadian	farmstead	Further CHVI	> 1 km
AfGs-136	Lot 34 Site	Archaic, Late	Aboriginal	camp / campsite	No Further CHVI	> 1 km
AfGs-137	Block 80	Archaic, Middle	Aboriginal	camp / campsite	No Further CHVI	

*no information provided within OASD



2.3 Project Context: Historical Context

2.3.1 Indigenous Settlement in the Niagara Region

The Niagara Region attracted considerable Indigenous settlement in the past and contains numerous archaeological sites. In recent years, our archaeological knowledge of the area has improved greatly, at the hands of various cultural resource management surveys and archaeological research projects that have accompanied development in the region. Using existing data and regional syntheses, it is possible to propose a generalized model of Indigenous settlement in the project area. The general themes, time periods and cultural traditions of Indigenous settlement, based on archaeological evidence, are provided below and in Table 2.

Table 2: Chronology of Indigenous Settlement in the Niagara Region

Period	Time Range	Diagnostic Features	Archaeological Complexes
Early Paleo	9000-8400 BCE	fluted projectile points	Gainey, Barnes, Crowfield
Late Pale	8400-8000 BCE	non-fluted and lanceolate points	Holcombe, Hi-Lo, Lanceolate
Early Archaic	8000-6000 BCE	serrated, notched, bifurcate base points	Nettling, Bifurcate Base Horizon
Middle Archaic	6000-2500 BCE	stemmed, side & corner notched points	Brewerton, Otter Creek, Stanly/Neville
Late Archaic	2000-1800 BCE	narrow points	Lamoka
Late Archaic	1800-1500 BCE	broad points	Genesee, Adder Orchard, Perkiomen
Late Archaic	1500-1100 BCE	small points	Crawford Knoll
Terminal Archaic	1100-950 BCE	first true cemeteries	Hind
Early Woodland	950-400 BCE	expanding stemmed points, Vinette pottery	Meadowood
Middle Woodland	400 BCE-500 CE	dentate, pseudo-scallop pottery	Point Peninsula
Transitional Woodland	500-900 CE	first corn, cord-wrapped stick pottery	Princess Point
Late Woodland	900-1300 CE	first villages, corn horticulture, longhouses	Glen Meyer
Late Woodland	1300-1400 CE	large villages and houses	Uren, Middleport/Springwells
Late Woodland	1400-1650 CE	tribal emergence, territoriality	
Contact Period - Indigenous	1650 CE-present	treaties, mixture of Indigenous & European items	
Contact Period - Settler	1796 CE-present	industrial goods, homesteads	Pioneer life, municipal settlement



2.3.1.1 Paleo Period

The first human populations to inhabit the region arrived between 12,000 and 10,000 years ago, coincident with the end of the last period of glaciation. Climate and environmental conditions were significantly different then they are today; local environs would not have been welcoming to anything but short-term settlement. Ontario's early Indigenous peoples would have crossed the landscape in small groups (i.e., bands or family units) searching for food, particularly migratory game species. In this area, caribou may have provided the staple of the Paleo period diet, supplemented by wild plants, small game, birds and fish.

Given the low density of populations on the landscape at this time and their mobile nature, Paleo period sites are small and ephemeral. They are sometimes identified by the presence of fluted projectile points manufactured on a highly distinctive whitish-grey chert named "Fossil Hill" (after the formation) or "Collingwood." This material was acquired from sources near the edge of the escarpment on Blue Mountain. It was exploited by populations from as far south as the north shore of Lake Ontario, who would have traveled to the source as part of their seasonal round. There are known Paleo period sites in this region and these are often found in association with glacial lake shorelines.

2.3.1.2 Archaic Period

Settlement and subsistence patterns changed significantly during the Archaic period as both the landscape and ecosystem adjusted to the retreat of the glaciers. Building on earlier patterns, early Archaic period populations continued the mobile lifestyle of their predecessors. Through time and with the development of more resource rich local environments, these groups gradually reduced the size of the territories they exploited on a regular basis. A seasonal pattern of warm season riverine or lakeshore settlements and interior cold weather occupations has been documented in the archaeological record.

Since the large cold weather mammal species that formed the basis of the Paleo period subsistence pattern became extinct or moved northward with the onset of warmer climate conditions, Archaic period populations had a more varied diet, exploiting a range of plant, bird, mammal and fish species. Reliance on specific food resources like fish, deer and nuts becomes more pronounced through time and the presence of more hospitable environments and resource abundance led to the expansion of band and family sizes. In the archaeological record, this is evident in the presence of larger sites and aggregation camps, where several families or bands would come together in times of plenty. The change to more preferable environmental circumstances led to a rise in population density. As a result, Archaic sites are more plentiful than those from the earlier period. Artifacts typical of these occupations include a variety of stemmed and notched projectile points, chipped stone scrapers, ground stone tools (e.g., celts, adzes) and ornaments (e.g., bannerstones, gorgets), bifaces or tool blanks, animal bone (where and when preserved) and waste flakes, a by-product of the tool making process.



2.3.1.3 Early, Middle and Transitional Woodland Periods

Significant changes in cultural and environmental patterns are witnessed in the Woodland period (c. 950 BCE-1700 CE). By this time, the coniferous forests of earlier times were replaced by stands of mixed and deciduous species. Occupations became increasingly more substantial in this period, culminating in major semi-permanent villages by 1,000 years ago. Archaeologically, the most significant changes by Woodland times are the appearance of artifacts manufactured from modeled clay and the construction of house structures. The Woodland period is often defined by the occurrence of pottery, storage facilities and residential areas similar to those that define the incipient agricultural or Neolithic period in Europe.

Early and Middle Woodland peoples are also known for a well-developed burial complex and ground stone tool industry. Unique Early Woodland ground stone items include pop-eyed birdstones and gorgets. In addition, there is evidence of the development of widespread trading with groups throughout the northeast. The recovery of marine shells from the Lake Superior area indicates that exchanges of exotic materials and finished items from distant places were common place. The Middle Woodland period in the region is dominated by sites recognized as part of the Point Peninsula archaeological complex. Point Peninsula groups were influenced by Hopewell culture developments in the American Midwest, including mound burial and participation in widespread trade in exotic materials, many of which were used as burial offerings.

2.3.1.4 Late Woodland Period

Beginning circa 1000 BCE, the archaeological record documents the emergence of more substantial, semi-permanent settlements and the adoption of corn horticulture. These developments are most often associated with Iroquoian-speaking populations, the ancestors of the Wendat (Huron) and Attawandaron (Neutral) nations who were known to have resided in the province upon the arrival of the first European explorers and missionaries. Iroquoian villages incorporated a number of longhouses, multi-family dwellings that contained several families related through the female line. Precontact Iroquoian sites may be identified by a predominance of well-made pottery decorated with various simple and geometric motifs, triangular projectile points, clay pipes and ground stone artifacts. Sites post-dating European contact are recognized through the appearance of various items of European manufacture. The latter include materials acquired by trade (e.g., glass beads, copper/brass kettles, iron axes, knives and other metal implements) in addition to the personal items of European visitors and Jesuit missionaries (e.g., finger rings, stoneware, rosaries, and glassware).

Indigenous people had long inhabited the Niagara region prior to the arrival of European explorers and missionaries in the 17th century. The Iroquoian-speaking Attawandaron lived in the region between the Grand and Niagara Rivers prior to the arrival of Europeans. French explorers referred to the Attawandaron Nation as the Neutral, after observing that the group often remained neutral during conflicts between the Wendat (Huron) and the Haudenosaunee Confederacy, and their neighbours referred to them as the Attawandaron. In the mid-17th century, Attawandaron villages were destroyed by the Seneca, who lived on the east side of the Niagara River. The Attawandaron population was decimated by these attacks, as well as earlier smallpox epidemics.

In the late-18th and early-19th centuries the Niagara Peninsula and environs was actively used by the Haudenosaunee who had settled along the Grand River and the Mississaugas, whose territory included lands further west into present day Toronto.



2.3.2 Treaty History

The project area is encompassed by the Between the Lakes Treaty (Treaty No. 3). The Mississauga people reached a provisional agreement with the Crown in 1784, but it proved to be unclear. Consequently, the treaty was redrafted to provide a better description of the affected lands and signed on December 7, 1792. The area covered by the treaty extended from Mapleton Township in the northwest to Elgin County in the southwest to the edge of a tract of land ceded earlier along the Niagara River in the east. The stated purpose of Treaty No. 3 (MCFN 2020; Surtees 1984) was the Crown acquisition of land for the resettling of British allies from the American Revolutionary War, most notably allies from the Haudenosaunee Confederacy (Six Nations). Of these groups, Joseph Brant and some 1,843 members of the Six Nations and their allies settled along the Grand River in what would become known as the Haldimand Tract (Surtees 1984:25).

2.3.3 Nineteenth-Century and Municipal Settlement

Historically the project area falls within Lots 16-18, Concessions 1 and Broken Front on Lake Erie, in the Geographic Township of Bertie, former Welland County, now Niagara South County, Ontario. A brief discussion of 19th-century settlement and land use in the township is provided below in an effort to identify features signaling archaeological potential.

2.3.3.1 Welland County

The first settlers in Lincoln and Welland Counties were United Empire Loyalists, like the Butler's Rangers, who migrated north to the Niagara region, alongside many from Six Nations, after the American Declaration of Independence in 1776 (H.R. Page 1876:5). In 1781, the British Crown secured a four-mile strip along the Niagara River from Lake Erie to Lake Ontario (Jackson 1976:62) and shortly thereafter the land was settled, with the assistance of Colonel John Butler. In 1783, considerations were made for expanding the Niagara settlement westward to include Twelve Mile Creek and lands west. Many of those who would receive early land grants in the Niagara settlement were United Empire Loyalists and ex-military men, some of whom were absentee landowners or later sold their holdings for profit.

Welland County lies in the southeast portion of the Niagara peninsula of Ontario, bordered on the south by Lake Erie and on the east by the Niagara River. When Sir John Graves Simcoe became the first governor of Upper Canada in 1792, the Province of Ontario (then Upper Canada) began to be divided into counties and further into townships (Fretz 1953:1). In the Niagara peninsula, township names were to be taken from various places in England and Scotland, counter to previous methods of naming rights being given to early settlers (Exploring Niagara 2014). Ontario, legally a part of Quebec as the Act of 1774, had previously been divided into four districts by Lord Dorchester: the Detroit settlement, called Hesse; the Niagara settlement, called Nassau; the Bay of Quinte and Lake Ontario settlement, called Mecklenberg; and the St. Lawrence front in the east, called Lunenburg (Fretz 1953:1). The Niagara District became the County of Lincoln; by 1845, the southern portion of Lincoln County was annexed to form Welland County (Exploring Niagara 2014) and by about 1881, only the townships between the Niagara River and the Welland Canal comprised Welland County (Fretz 1953:1).

The Niagara Region, and Fort Erie specifically, were a vital part of the Underground Railroad. Following the passage of the *Act to Limit Slavery in Upper Canada* in 1793 and the *Slavery Abolition Act* by the British Parliament in 1834, there was a significant increase in the number of Black refugees making the journey to Upper Canada.



The Underground Railroad's traffic reached its peak between 1840 and 1860, and particularly after the United States passed the *Fugitive Slave Act* in September 1850. Fort Erie was known as "The Crossing" and its marina became known as "Little Africa," because it was a popular area of settlement for Black refugees in the region. Fort Erie was also a hub for movement north by Black refugees (Hill 1981). As an early road, the Niagara Parkway would be one of the routes followed to the north.

2.3.3.2 Bertie Township

The Township of Bertie was originally referred to as Quaker Township when settlement began in 1784 with an influx of Loyalists. The township was bounded to the east by the Niagara River, to the south by Lake Erie, and to the north and west by Willoughby and Humberstone townships, respectively. The township was divided into blocks which contained two 100 acre lots with a road allowance around each block (Exploring Niagara 2014). The township was officially named Bertie in 1793 by an Act of Parliament and by 1808 there were approximately 40 homes in the township (ASI 2003:21). The township was incorporated in 1850. Throughout the 19th century the township remained rural in its character. By 1885 there were approximately 4,000 inhabitants and three villages: Victoria, Stevensville and Ridgeway all of which were oriented to the railway lines that transected the township.

2.3.3.3 Ridgeway and Crystal Beach

Ridgeway was originally the seat of government for the Township of Bertie (Downtown Ridgeway n.d.). Named for the limestone ridge that runs through the town from north to south, its main street, Ridge Road, follows the ridge and is one of the earliest wagon trails in Bertie, connecting Port Abino on Lake Erie to Miller's Creek on the Niagara River. The Battle of Ridgeway was fought on June 1866 between Canada's volunteer militia - Queen's Own Rifles, 13th Hamilton Battalion, Caledonia and York Rifle Companies of Haldimand - against Fenian raiders from America (H.R. Page & Co. 1876; Parks Canada n.d.). South of Ridgeway, sitting on the shores of Lake Erie, Crystal Beach began as a police village and was not incorporated into a village until 1920 (Rossi 2005). A summer post office opened in 1896. The village was absorbed into the Town of Fort Erie in 1970, and became most well-known for Crystal Beach Park, an amusement park that operated from 1888 to 1989. The Park was a popular tourist attraction for both Canadians and Americans due to the passenger ferry *Canadiana* that serviced Buffalo.



2.3.4 Review of Historic Maps

The project area falls within Lots 16-18, Concessions I and Broken Front Concession on Lake Erie, in the Geographic Township of Bertie, former Welland County, now Niagara South County, Ontario. Individuals depicted as associated with the specific lots, as well as any structures depicted on those properties are summarized in Tables 3 and 4.

Table 3: 1862 Historical Maps – Lot and Concession Owner Information

Lot	Con.	Name	Structure	Notes
16	I	Michael Sourwine	Homestead	Bisected by Buffalo and Lake Huron Railway (now Buffalo Brantford and Goderich Railway) and Six Mile Creek
17	I	James Haun		Bisected by Buffalo Brantford and Goderich Railway and Six Mile Creek
18	I	James Haun	Homestead	Bisected by Buffalo Brantford and Goderich Railway
16	BF	M.E. Carter		
17	BF	D. Flacke		Six Mile Creek
18	BF	James Haun	Homestead	

Table 4: 1876 Historical Maps – Lot and Concession Owner Information

Lot	Con.	Name	Structure	Notes
16	I	Johnathan S.	Homestead, orchard	Bisected by Grand Trunk Railway (previously named Buffalo and Lake Huron Railway, now Buffalo Brantford and Goderich Railway) and Six Mile Creek
17	I	Edward Buck (west), Henry Rathi (east)	Homesteads, orchard	Bisected by Grand Trunk Railway and Six Mile Creek
18	I	Robert Haun	Orchard	Bisected by Grand Trunk Railway
16	BF	Hawley and Vellacott	Homestead, orchard	
17	BF	Edward Buck (west), Henry Rathi and George V. (east)		Bisected by Six Mile Creek

Two structures are depicted on the 1862 *Tremaine's* map within the project area; one in the northeast corner of Lot 18, Concession I, and one in the middle of Lot 18, Broken Front (Map 5). The Buffalo and Lake Huron Railway is shown 70 m to the north, and Six Mile Creek bisects the project area at Lot 17, Concessions I and Broken Front Concession. By 1876, two structures are depicted within the project area, within Lot 17, Concession I, as well as orchards within Lots 17 and 18, Concession I (Map 6). A structure on Lot 18, Broken Front, is roughly 100 m to the west of the project area. A portion of Centralia Avenue North and Bernard Avenue is depicted as open at this time, while the southern portion of both roadways and Thunder Bay Road are shown as proposed roadways. The Buffalo and Lake Huron Railway was renamed the Grand Trunk Railway.

Topographic mapping from the 20th century is available for review in this area. A 1907 map depicts one structure within the project area, fronting Six Mile Creek near the mouth of the creek, and several more



structures along the lakeshore and Centralia Avenue North (Map 7). Centralia Avenue North at this time heads westward at the creek into Bethune Avenue, before heading south again as Shirley Road. Thunder Bay Road and Bethune Avenue are not depicted yet.

A review of a 1934 aerial photograph shows that the project area, and the general area surrounding it, is largely characterized as agricultural as of this date (Map 8), with tree cover along the banks of the river and along field edges. Thunder Bay Road is now open. Additional roads that opened by this time include Colony Road, Neva Road, Popular Avenue, and Nicolas Road. Lot 18 has been subdivided into smaller residential parcels, and residential properties are present west of the project area as well as along the Lake Erie shoreline. The beach along the lake is wider than modern times.

By 1960, much of the project area appears to be undergoing reforestation (Map 9); this trend will continue to today, where much of the project area is wooded, where once there were agricultural fields (Map 2). This area was also becoming increasingly residential west of Neva Road by the 1960s. The section of Six Mile Creek that bisects Thunder Bay Road appears straightened, with two branches of the creek appearing south of the road.

By 2000, numerous residential properties can be seen fronting Thunder Bay Road, Centralia Avenue, Bethune Avenue, and the Lake Erie shoreline (Map 10). The smaller roadways within the residential areas have also been constructed. Much of the project area and its surrounding lands has been reforested, particularly lands along the creek, and to the north of the project area.

2.3.5 Review of Heritage Properties

There are no designated heritage properties or plaques within 50 m of the project area.

3 STAGE I PROPERTY INSPECTION

3.1 Current Conditions

As the project area was in proximity to several features signaling archaeological potential, a Stage I property inspection was conducted to evaluate the current conditions of the project area and its integrity. The property inspection was conducted on November 29, 2024, in cold weather conditions with a mix of sun and clouds that allowed for good visibility for the inspection of surface features. No weather conditions were encountered that would impede the visibility of features within the project area. The field review was completed from public rights-of-way (ROWs) and involved the recording and photo-documentation of the field conditions. The project area was determined in the field based on project mapping and visible landmarks.

The following presents the conditions of the property in two sections, north and south of Thunder Bay Road.

3.1.1 Section 1 – North of Thunder Bay Road

Images 1-15; Map 11

This section encompasses the project lands surrounding Poplar Avenue, Evadere Avenue, Neva Road, Shirley Road, Bethune Avenue, and Centralia Avenue, approximately 50 m north of Thunder Bay Road. The lands in this section largely consist of residential properties with manicured lawns (Images 1-3) to the west and north, and woodlot to the east and south (Image 4). Disturbed areas in this section include residential structures (Images 5 and 6), a fenced sewage pumping station east of Shirley Road (Image 7), as well as each roadway's alignment and the drainage improvements found alongside the roads, such as ditching and culverts (Images 8-13). A channelized tributary was also found east of Poplar Avenue, running between Neva Road and Shirley Road, and continuing east beyond Shirley Road (Images 14 and 15). The tributary drains into Six Mile Creek to the east.

3.1.2 Section 2 – South of Thunder Bay Road

Images 16-28; Map 12

This section encompasses the project lands from 50 m north of Thunder Bay Road to Lake Erie. The manicured lawns within residential properties (Images 16 and 17), as well as the dense woodlot that comprises the majority of the area (Images 18-23), are not obviously disturbed. Branching off of Thunder Bay Road, to the west of Colony Road (Image 22) is a paved driveway through woodlot (Image 23) that leads to a residential property on the Lake Erie shoreline. Although paved, both the driveway and Colony Road have not been labelled as disturbed during this phase of assessment, as the narrow width would not affect survey intervals. At the southern end of the project area, where the creek flows into Lake Erie, is a beach that also requires further assessment (Image 24). Disturbed areas in this section include residential structures (Image 25), as well as paved roadways (Thunder Bay Road and Shirley Road) and ditching along both sides of the roadways (Images 16-18).

Wetlands within the vicinity of Six Mile Creek, north and south of Thunder Bay Road, are considered permanently low-lying and wet (Image 26). These wetlands are likely remnants of the creek's previous alignment before its channelization, as evidenced in historic imagery (Map 9). The main branch of Six Mile



Creek that bisects the project area, however, may require a marine assessment should impacts be planned within the creek (Images 27 and 28).

3.2 Summary

In summary, the project area is predominantly forested lands, grassed lands within residential properties, and beach areas which are not obviously disturbed and retain archaeological potential. Confirmed disturbances throughout the project area include the paved roadways within the project area and drainage efforts including ditching and culverts. Several low-lying and wet areas are found within the vicinity of Six Mile Creek.

As the assessment was undertaken from public ROWs, and covered a large area, detailed mapping of disturbances and other areas of low archaeological potential was limited. Further visual confirmation will be required during the Stage 2 survey once detail design plans have been obtained.

The results of the Stage I archaeological assessment, as well as the location and orientation of report photographs, are presented on Maps 11 and 12. Due to the fact that the proponent map was supplied in a KMZ file format, no separate map of Stage I assessment results overlaid on the proponent map or proponent mapping is provided. Map 2 can be viewed as the layout that was provided.

Table 5 provides an inventory of the documentary records generated during this project. All files are currently being stored at the TMHC corporate office located at 1108 Dundas Street East, London, ON, N5W 3A7.

Table 5: Documentary Records

Date	Field Notes	Field Maps	Digital Images
November 29, 2024	Digital and hard copies	Digital and hard copies	77 Images

4 ANALYSIS AND CONCLUSIONS

As noted in Section 2.1, the Province of Ontario has identified numerous factors that signal the potential of a property to contain archaeological resources. The Stage I background study included a review of current land use, historic and modern maps, registered archaeological sites and previous archaeological studies, past settlement history for the area and a consideration of topographic and physiographic features, soils and drainage. According to the map-based review and background research, potential for the discovery of archaeological sites is indicated by the presence of or proximity (within 300 m) of features that signal archaeological potential, namely:

- water sources (Lake Erie, Six Mile Creek and its tributaries);
- mapped 19th-century thoroughfares (Thunder Bay Road, Centralia Avenue North, and Bernard Avenue);
- mapped 19th-century transportation routes (Buffalo and Lake Huron Railway/Grand Trunk Railway); and
- mapped 19th-century structures (homesteads near and within the project area).

In addition, the Town of Fort Erie's *Archaeological Master Plan* identifies portions of the project area as having archaeological potential.

As the project area contained several features signaling archaeological potential, as well as imagery indicating that disturbance had occurred within portions of the project area, a Stage I property inspection was conducted to evaluate the current conditions of the project area and determine if any areas of archaeological potential remained intact. The Stage I property inspection has visually confirmed that portions of the project area have witnessed prior disturbance and lack integrity (12.6%; 3.36 ha). This disturbance primarily relates to residential structures, the paved road alignments of Poplar Avenue, Evadere Avenue, Neva Road, Shirley Road, Bethune Avenue, Centralia Avenue, Thunder Bay Road, and Colony Road, as well associated drainage efforts, including culverts, ditching, and channelized portions of a Six Mile Creek tributary. Several areas near Six Mile Creek are considered low-lying and wet (0.9%; 0.23 ha). These areas have low or no potential for land-based archaeological resources. However, should future works require in-water impacts within the creek, then the Marine Archaeological Potential Checklist should be reviewed and filled out to determine whether a marine archaeological assessment is required (4.6%; 1.21 ha).

Portions of the project area that are grassed, treed, and sandy beach are not obviously disturbed and retain archaeological potential (81.9%; 21.79 ha). These areas will require Stage 2 assessment in the form of a test pit survey at 5 m interval if impacts are planned.



5 RECOMMENDATIONS

A Stage I archaeological assessment was conducted for the Six Mile Creek Flooding Project, in the Town of Fort Erie, Regional Municipality of Niagara, Ontario. Based on the background research and property inspection, the following recommendations made:

- All portions of the project area identified as extensively disturbed (3.36 ha; 12.6%) or low-lying and wet (0.23 ha; 0.9%), do not retain land-based archaeological potential and do not require further assessment.
- All portions of the project area identified as retaining archaeological potential will require a Stage 2 archaeological assessment prior to ground disturbing activities (21.79 ha; 81.9%). Manicured grasslands, woodlot, and the sandy beach within the project area must be subject to a test pit survey as per Section 2.1.2 of the *Standards and Guidelines*.
- If impacts are planned within Six Mile Creek, a Marine Archaeological Checklist should be completed, and further archaeological assessment may be required (1.21 ha; 4.6%).

These recommendations are subject to the conditions laid out in Section 7.0 of this report and to the MCM's review and acceptance of this report into the provincial register of archaeological reports.



6 SUMMARY

A Stage I archaeological assessment was conducted for the Six Mile Creek Flooding Project, in the Town of Fort Erie, Regional Municipality of Niagara, Ontario. The project area is roughly 26.59 ha (65.71 ac) in size and is located within Lots 16-18 of Concessions 1 and Broken Front, in the Geographic Township of Bertie, formerly Welland County, now Niagara South County. The Stage I background research indicated that the project area was in proximity to features signaling archaeological potential, and the property inspection visually confirmed areas of disturbance related to residential properties, paved roads and their associated ditches, and low-lying and wet areas found near Six Mile Creek. The remainder of the project area consists of grassed, treed, and beach areas that retain archaeological potential and are recommended for Stage 2 assessment. A Marine Archaeological Checklist should be completed if impacts are planned within Six Mile Creek.



7 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the MCM 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 MCM, 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 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 Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented (i.e., unknown or deeply buried) 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 *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and Registrar of Burial Sites, Ontario Ministry of Public and Business Service Delivery at 416-212-7499 and FBCSARegistrar@ontario.ca.



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9 IMAGES

Image 1: Manicured Grass within Vacant Lot Along Shirley Road

Looking West



Image 2: Grassed Lands Along Bethune Avenue

Looking West



Image 3: Manicured Lawn Along Shirley Road

Looking Northeast



Image 4: Woodlot South of Bethune Avenue

Looking Southeast



Image 5: Residential Properties between Poplar and Evadere Avenues

Looking Northeast



Image 6: Residential Properties on Evadere Avenue

Looking East



Image 7: Sewage Pumping Station on Shirley Road

Looking Northeast



Image 8: Ditch Along Neva Road

Looking South



Image 9: Ditch Along Poplar Road

Looking West



Image 10: Ditch Along Bethune Avenue

Looking East



Image 11: Ditch Along Bethune Avenue

Looking West



Image 12: Ditch and Culvert Along Shirley Road

Looking North



Image 13: Ditch Along Shirley Road

Looking South



Image 14: Channelized Tributary East of Shirley Road

Looking Southeast



Image 15: Channelized Tributary East of Shirley Road

Looking East



Image 16: Manicured Lawn Along Shirley Road

Looking North



Image I7: Manicured Lawn and Ditch Along Thunder Bay Road

Looking Northwest



Image I8: Woodlot and Ditching South of Thunder Bay Road

Looking East



Image 19: Woodlot South of Thunder Bay Road

Looking East



Image 20: Woodlot North of Thunder Bay Road

Looking Northwest



Image 21: Woodlot West of Colony Road

Looking Southwest



Image 22: Woodlot and Colony Road

Looking South



Image 23: Woodlot Surrounding Residential Property

Looking South



Image 24: Landscaped Beach at Six Mile Creek River Mouth

Looking Northeast



Image 25: Residential Properties Along Lake Erie Shoreline

Looking Northeast



Image 26: Wetlands North of Thunder Bay Road, East of Six Mile Creek

Looking North



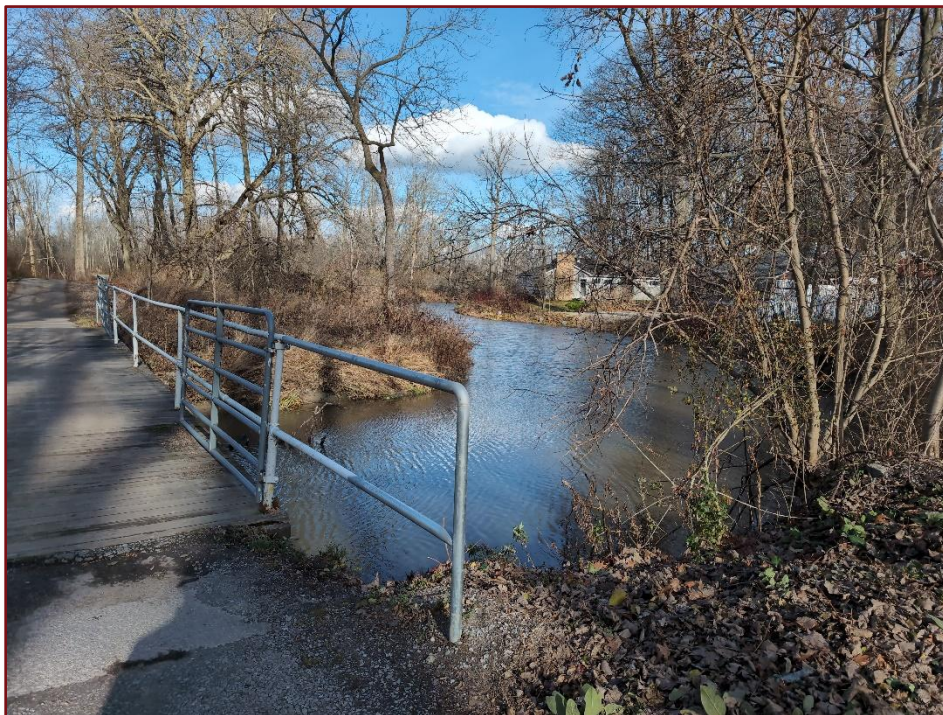
Image 27: Six Mile Creek South of Thunder Bay Road

Looking South



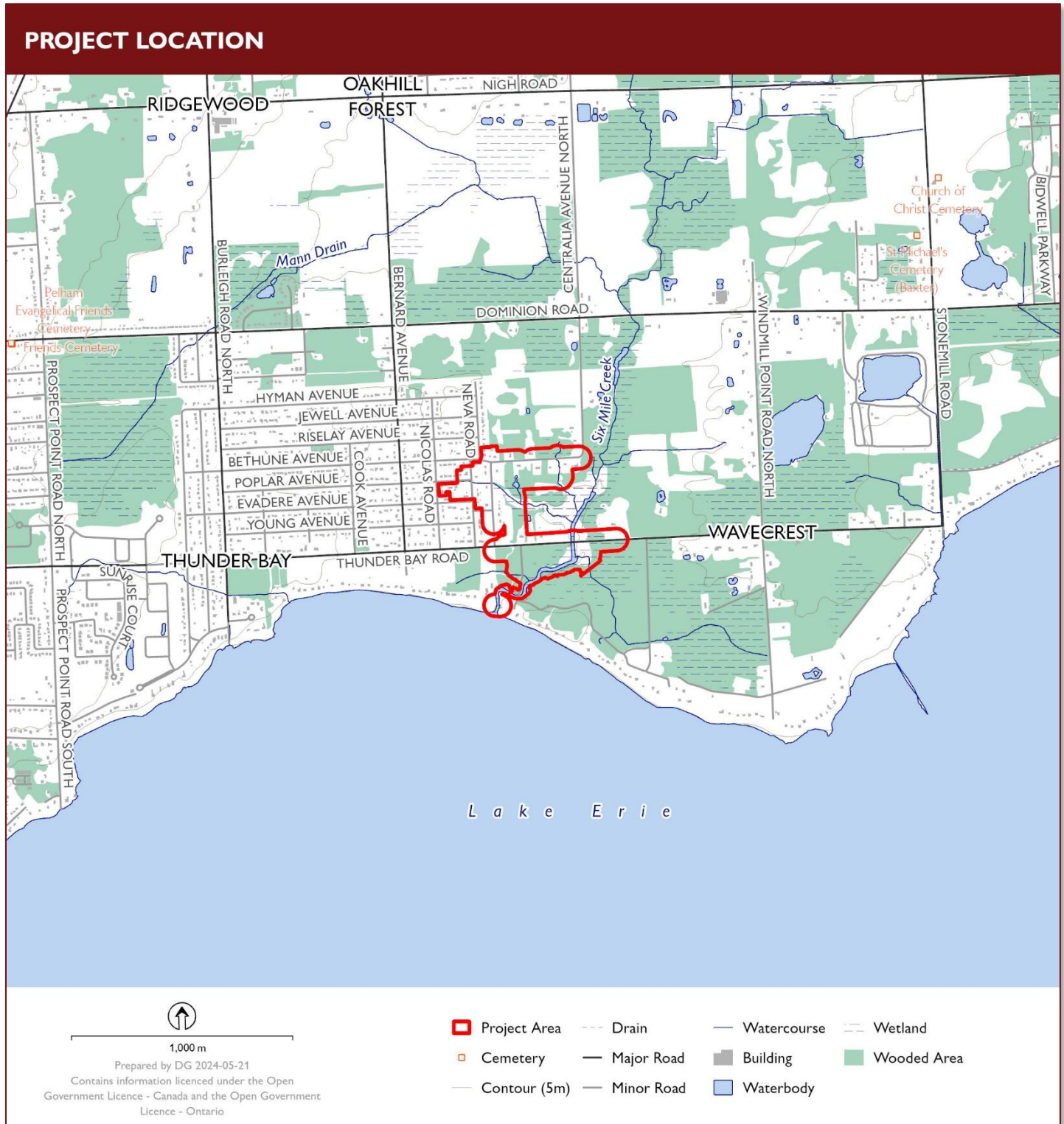
Image 28: Six Mile Creek Bisecting Colony Road

Looking Northeast





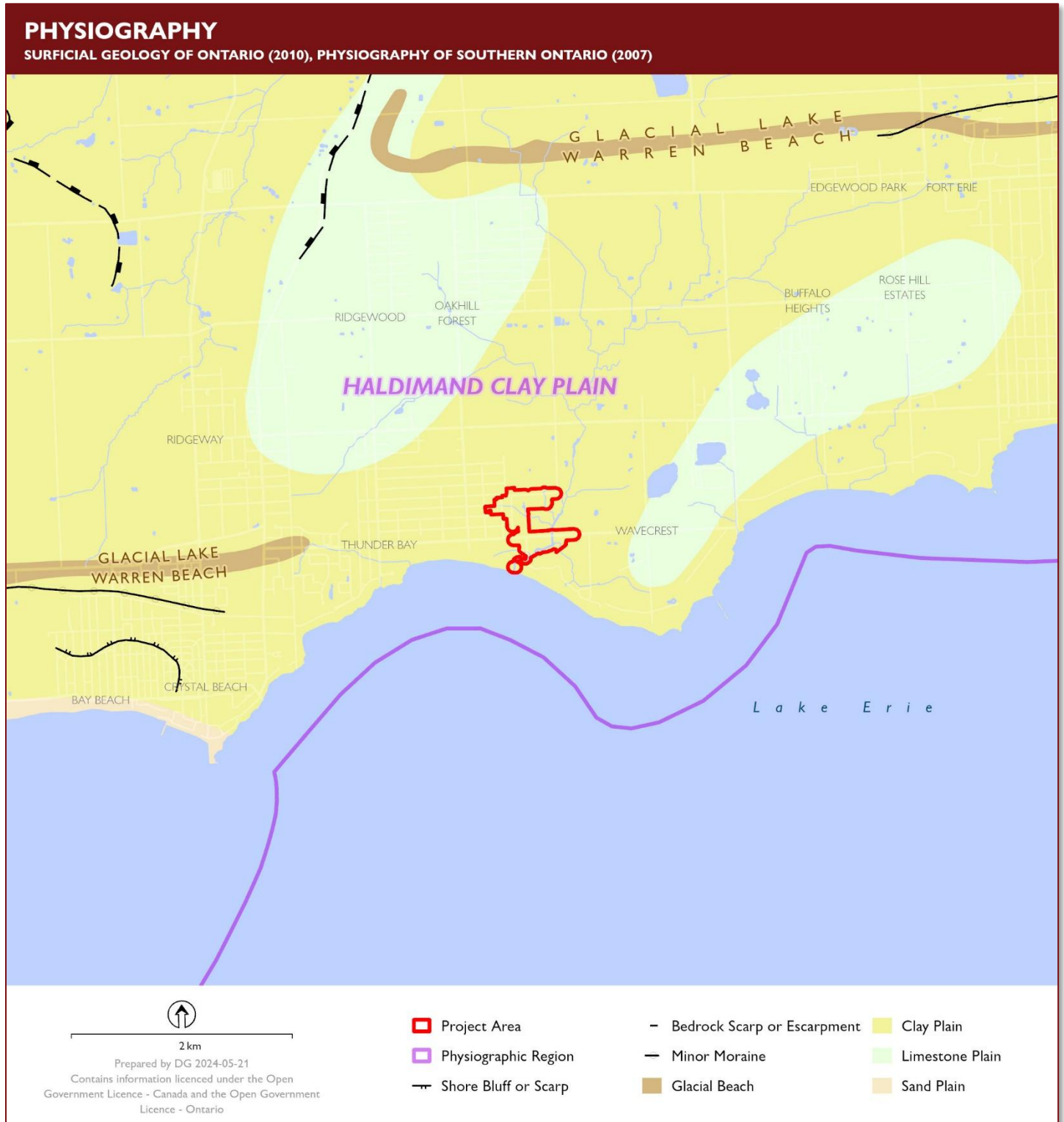
10 MAPS



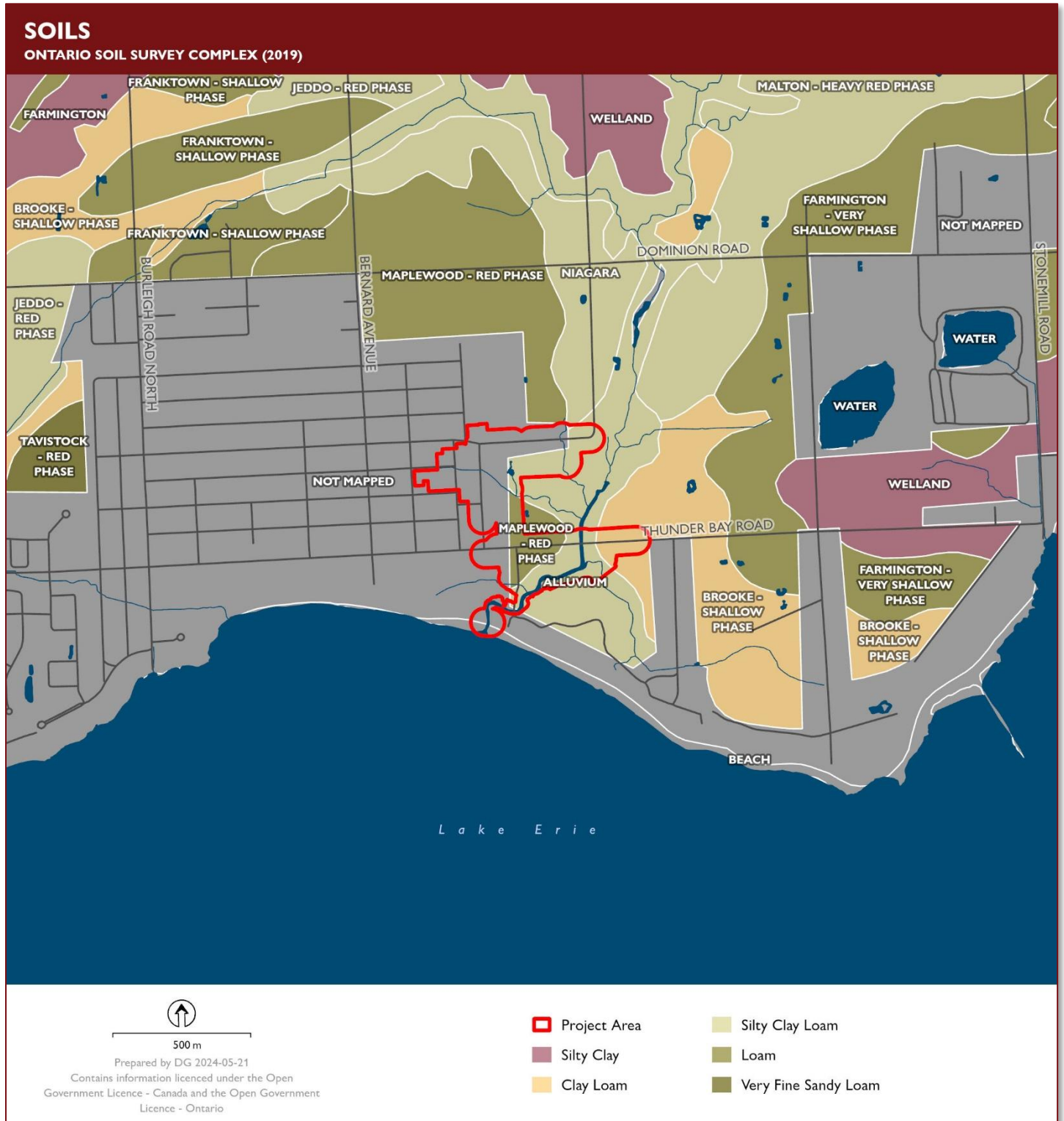
Map I: Location of the Project Area in Town of Fort Erie, ON



Map 2: Aerial Photograph Showing the Location of the Project Area



Map 3: Physiography Within the Vicinity of the Project Area

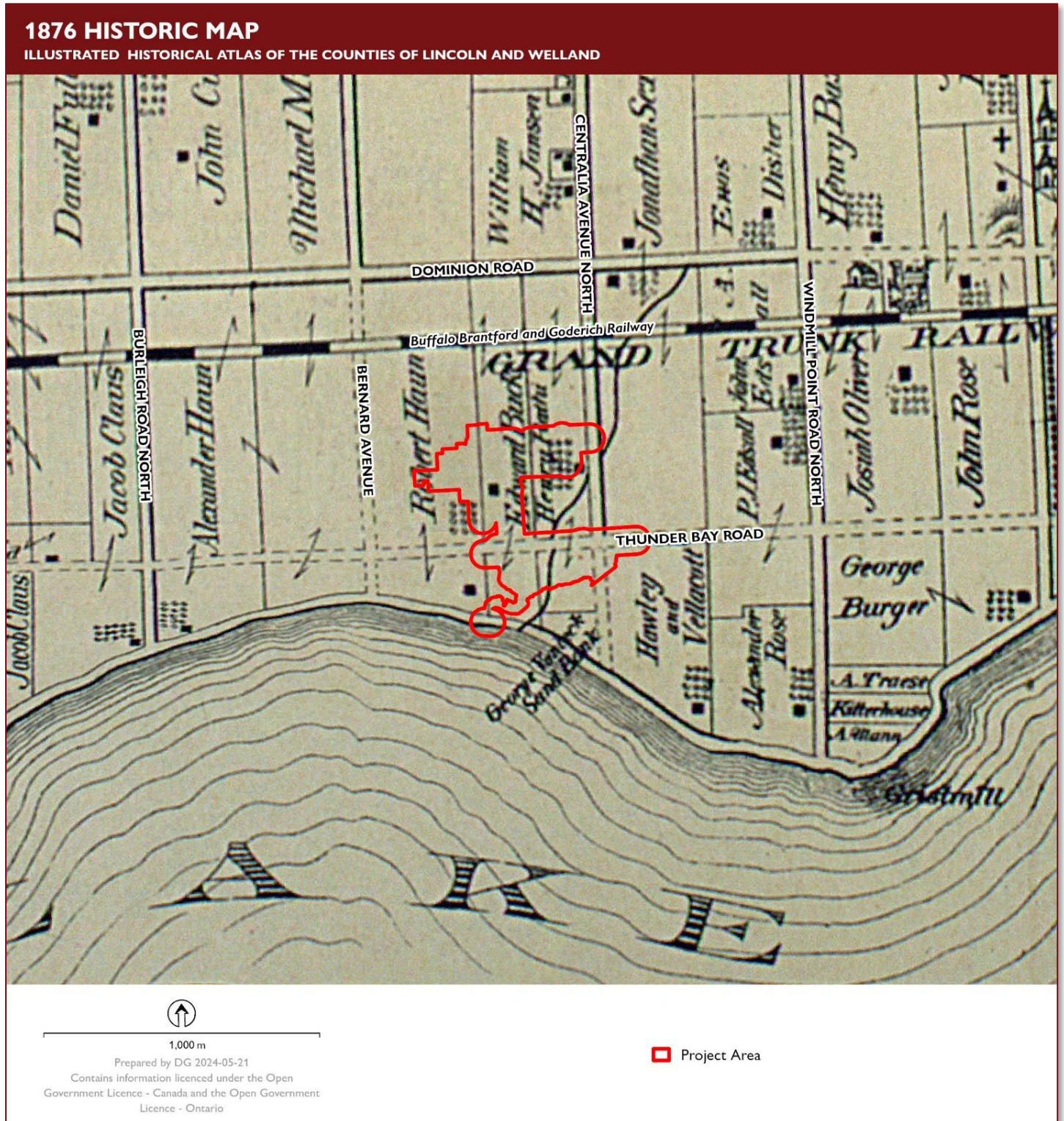


Map 4: Soils Within the Vicinity of the Project Area



TREMAINE'S MAP OF THE COUNTIES OF LINCOLN AND WELLAND

Map 5: Location of the Project Area Shown on the 1862 Tremaine's Map of the Counties of Lincoln and Welland



Map 6: Location of the Project Area Shown on the 1876 Map of Lincoln and Welland Counties



Map 7: Location of the Project Area Shown on a 1907 Topographic Map



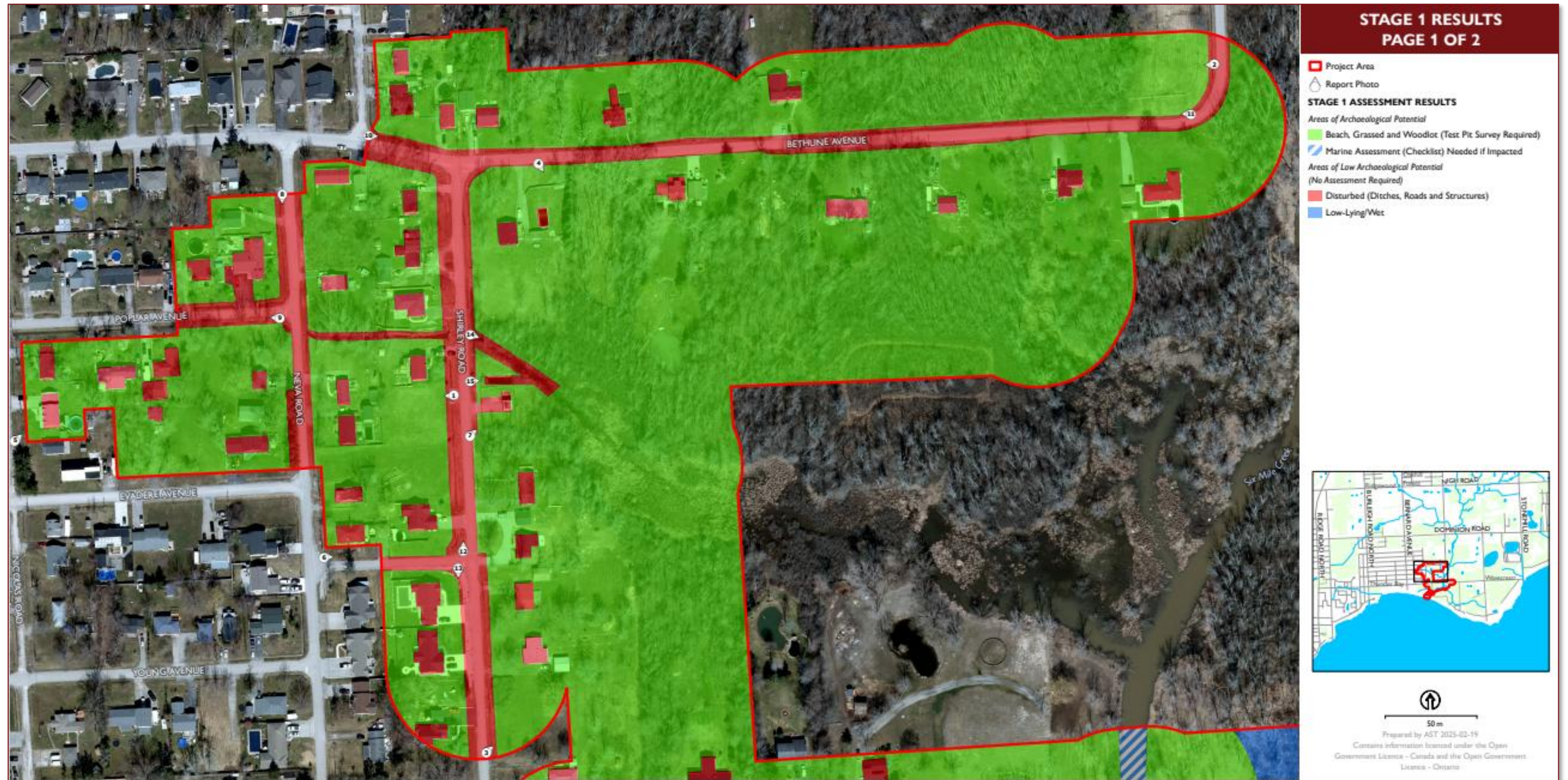
Map 8: Location of the Project Area Shown on 1934 Aerial Imagery



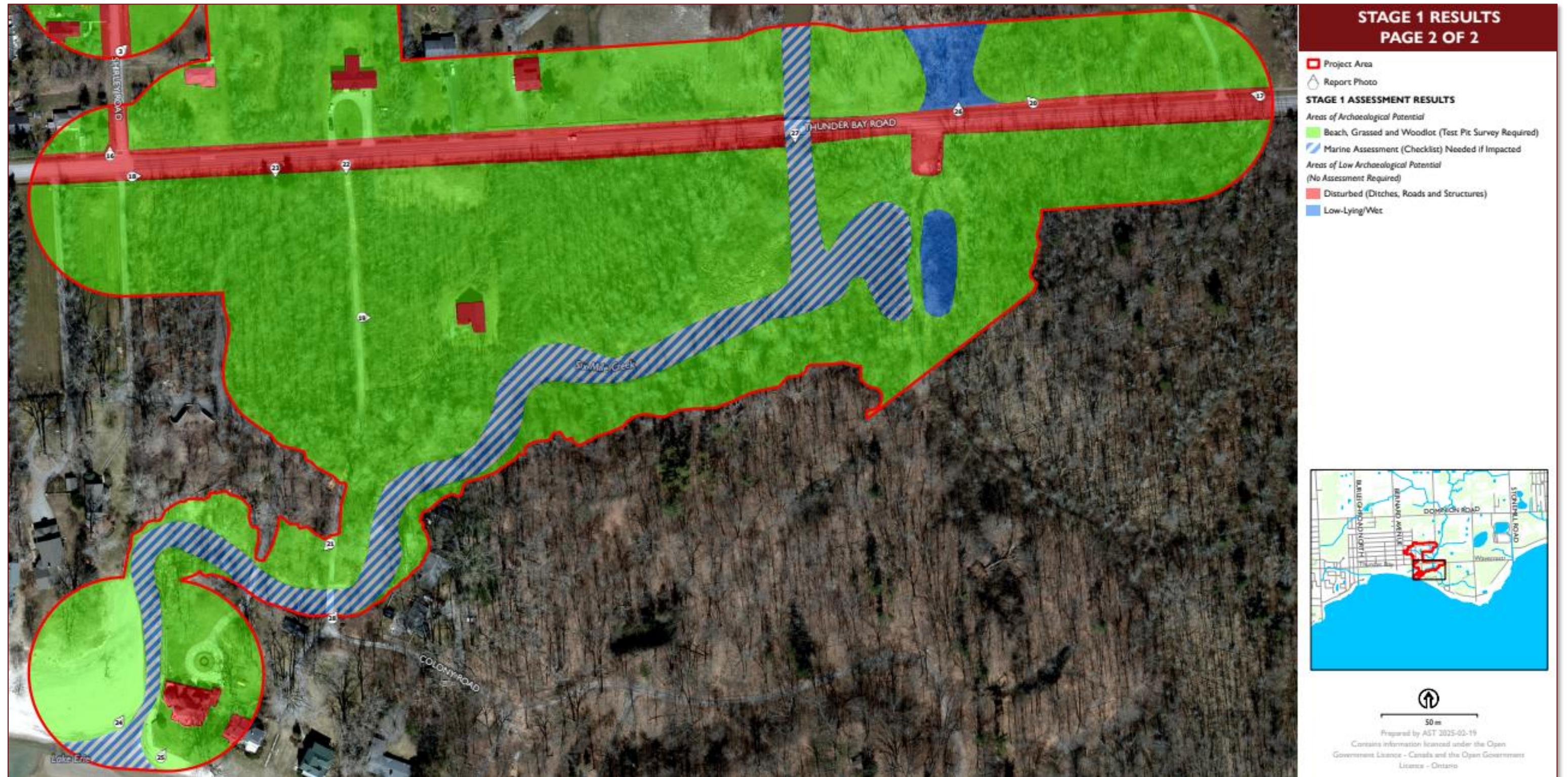
Map 9: Location of the Project Area Shown on 1960 Aerial Imagery



Map 10: Location of the Project Area Shown on 2000 Aerial Imagery



Map 11: Stage I Results and Recommendations, Section I – North of Thunder Bay Road, Map 1 of 2



Map 12: Stage I Results and Recommendations, Section 2 – South of Thunder Bay Road, Map 2 of 2