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Stage 1, 2 and 3 Archaeological Assessments
Grand River Naval Depot Cemetery Investigation
Part of Lots 15–78, Naval Reserve, Plan 776
Geographic Township of Sherbrooke
Haldimand County, Ontario

Prepared for
Beckley Beach Cottagers' Corporation
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&
Don and Sylvia Weaver
&
The Port Maitland "On the Grand" Historical Association
&
The Ministry of Tourism, Culture and Sport

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Licenced under
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MTCS Licence #P089
Project #P089-020 and #P089-021
PIF #P089-020-2012 and #P089-021-2012

02/04/2014

Original Report

EXECUTIVE SUMMARY

As part of an investigation into the possible location of the Grand River Naval Depot Cemetery, Archaeological Research Associates Ltd. carried out Stage 1, 2 and 3 archaeological assessments of lands located northeast of the mouth of the Grand River in Haldimand County, Ontario. Given that the assessments were conducted in order to test for the presence/absence of the cemetery within the study area, and were not intended for any zoning by-law change, site plan approval or Class Environmental Assessment study, there was no legislative trigger. This report documents the background research and fieldwork involved in the assessments, and presents conclusions and recommendations pertaining to archaeological concerns within the study area.

The Stage 1 and 2 archaeological assessments were conducted in October 2012 under Ministry of Tourism, Culture and Sport licence #P089, PIF #P089-020-2012. The Stage 3 cemetery investigation was conducted in October 2012 under Ministry of Tourism, Culture and Sport licence #P089, PIF #P089-021-2012. Legal permission to enter and conduct all necessary fieldwork activities on project lands was granted by the property owner.

The results of the Stage 1 archaeological assessment indicated that the study area currently comprises a mixture of areas of archaeological potential and areas of no archaeological potential. Although the areas of no archaeological potential within the study area were not recommended for further assessment, the remainder of the study area either 1) had potential for Pre-Contact and Euro-Canadian archaeological materials or 2) required test-pitting to confirm disturbance. The areas of archaeological potential within the subject lands clearly warranted further assessment.

The Stage 2 property assessment encompassed all areas of archaeological potential within the study area. This assessment, completed under optimal conditions, did not result in the discovery of any archaeological materials. Based on the results of the property assessment, the study area appears to be devoid of any significant archaeological remains. Archaeological Research Associates Ltd. recommends that no further archaeological assessment be required within the assessed lands, should they ever be the subject of a future development/construction project. Given that the study area contained no archaeological sites, the Stage 3 cemetery investigation could proceed without concern for previously-undocumented resources.

In order to test for the presence/absence of a cemetery within the study area, Archaeological Research Associates Ltd. conducted a Stage 3 cemetery investigation. Specifically, a series of 2 x 10 m trenches were mechanically excavated to determine whether there were any deeply-buried remains or grave shafts in the eastern part of the study area. No artifacts or cultural features were identified during the assessment. Accordingly, Archaeological Research Associates Ltd. is confident in stating that the Grand River Naval Depot Cemetery is not located within the assessed area, and that these lands contain no features of cultural heritage value or interest whatsoever. Archaeological Research Associates Ltd. reiterates that no further archaeological assessment be required within the assessed lands should they ever be the subject of a future development/construction project.

A *Letter of Review and Entry into the Ontario Public Register of Archaeological Reports* is requested, as provided for in Section 65.1 of the *Ontario Heritage Act*.

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GLOSSARY OF ABBREVIATIONS

ARA – Archaeological Research Associates Ltd.
CHVI – Cultural Heritage Value or Interest
MTC – (Former) Ministry of Tourism and Culture
MTCS – Ministry of Tourism, Culture and Sport
PIF – Project Information Form

PERSONNEL

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1.0 PROJECT CONTEXT

1.1 Development Context

As part of an investigation into the possible location of the Grand River Naval Depot Cemetery, ARA carried out Stage 1, 2 and 3 archaeological assessments of lands located northeast of the mouth of the Grand River in Haldimand County, Ontario. Given that the assessments were conducted in order to test for the presence/absence of the cemetery within the study area, and were not intended for any zoning by-law change, site plan approval or Class Environmental Assessment study, there was no legislative trigger. This report documents the background research and fieldwork involved in the assessments, and presents conclusions and recommendations pertaining to archaeological concerns within the study area.

The study area for these assessments consists of an irregularly-shaped 0.51 ha parcel of land located northeast of Beckley Line at Beckley Beach (see Map 1–Map 2). This parcel is bounded by cottages and sheds to the west and south, a gravel path to the east and a wooded area to the north, and currently consists of trees, bushes and grassed areas. A private fenced enclosure located in the southeastern part of the study area was not assessed. In legal terms, the study area falls on part of Part of Lots 15–78, Naval Reserve, Plan 776 in the Geographic Township of Sherbrooke.

The Stage 1 and 2 archaeological assessments were conducted in October 2012 under MTCS licence #P089, PIF #P089-020-2012. Legal permission to enter and conduct all necessary fieldwork activities on project lands was granted by the property owner. In compliance with the objectives set out in Section 1.0 and Section 2.0 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:13–41), these investigations were carried out in order to:

- Provide information concerning the study area's geography, history and current land condition;
- Determine the presence of known archaeological sites in the study area;
- Evaluate in detail the study area's archaeological potential;
- Empirically document all archaeological resources on the property;
- Determine whether the property contains resources requiring further assessment; and
- Recommend appropriate Stage 3 assessment strategies for identified archaeological sites.

In order to test for the presence/absence of the cemetery within the study area, ARA conducted a Stage 3 cemetery investigation. The cemetery investigation was carried out in October 2012 under MTCS licence #P089, PIF #P089-021-2012. In accordance with the direction set out in Section 2.2 Guideline 4 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:40), this investigation was completed to determine whether there were any deeply-buried remains or grave shafts within the study area.

The assessments were conducted in accordance with the provisions of the *Ontario Heritage Act*, R.S.O. 1990, c. O.18. All notes, photographs and records pertaining to the project are currently housed in ARA's processing facility located at 154 Otonabee Drive, Kitchener. Subsequent long-term storage will occur at ARA's head office located at 97 Gatewood Road, Kitchener.

The MTCS is asked to review the results and recommendations presented in this report and provide their endorsement through a *Letter of Review and Entry into the Ontario Public Register of Archaeological Reports*.

1.2 Historical Context

After a century of archaeological work in southern Ontario, scholarly understanding of the historic usage of lands in Haldimand County has become very well-developed. What follows is a detailed summary of the archaeological cultures that have settled in the vicinity of the study area over the past 11,000 years; from the earliest Palaeo-Indian hunters to the most recent Euro-Canadian farmers.

1.2.1 Pre-Contact

1.2.1.1 Palaeo-Indian Period

The first documented evidence of occupation in southern Ontario dates to around 9000 BC, after the retreat of the Wisconsinan glaciers and the formation of Lake Algonquin, Early Lake Erie and Early Lake Ontario (Karrow and Warner 1990; Jackson et al. 2000:416–419). At that time small Palaeo-Indian bands moved into the region, leading mobile lives based on the communal hunting of large game and the collection of plant-based food resources (Ellis and Deller 1990:38; MCL 1997:34). Current understanding suggests that Palaeo-Indian peoples ranged over very wide territories in order to live sustainably in a post-glacial environment with low biotic productivity. This environment changed considerably during this period, developing from a sub-arctic spruce forest to a boreal forest dominated by pine (Ellis and Deller 1990:52–54, 60).

An Early Palaeo-Indian period (ca. 9000–8400 BC) and a Late Palaeo-Indian period (ca. 8400–7500 BC) are discernable amongst the lithic spear and dart points. Early points are characterized by grooves or 'flutes' near the base while the later examples lack such fluting. All types would have been used to hunt caribou and other 'big game'. Archaeological sites from both time-periods typically served as small campsites or 'way-stations' (occasionally with hearths or fire-pits), where tool manufacture/maintenance and hide processing would have taken place. For the most part, these sites tend to be small (less than 200 sq. m) and ephemeral (Ellis and Deller 1990:51–52, 60–62). Many parts of the Palaeo-Indian lifeway remain unknown.

1.2.1.2 Archaic Period

Beginning in the early 8th millennium BC, the biotic productivity of the environment began to increase as the climate warmed and southern Ontario was colonized by deciduous forests. This caused the fauna of the area to change as well, and ancient peoples developed new forms of tools and alternate hunting practices to better exploit both animal and plant-based food sources. These new archaeological cultures are referred to as 'Archaic'. Thousands of years of gradual change in stone tool styles allows for the recognition of Early (7500–6000 BC), Middle (6000–2500 BC) and Late Archaic periods (2500–900 BC) (MCL 1997:34).

The Early and Middle Archaic periods are characterized by substantial increases in the number of archaeological sites and a growing diversity amongst stone tool types and exploited raw

materials. Notable changes in Archaic assemblages include a shift to notched or stemmed projectile points, a growing prominence of net-sinkers (notched pebbles) and an increased reliance on artifacts like bone fish hooks and harpoons. In addition to these smaller items, archaeologists also begin to find evidence of more massive wood working tools such as ground stone axes and chisels (Ellis et al. 1990:65–67).

Towards the end of the Middle Archaic (ca. 3500 BC), the archaeological evidence suggests that populations were 1) increasing in size, 2) paying more attention to ritual activities, 3) engaging in long distance exchange (e.g. in items such as copper) and 4) becoming less mobile (Ellis et al. 1990:93; MCL 1997:34). Late Archaic peoples typically made use of shoreline/riverine sites located in rich environmental zones during the spring, summer and early fall, and moved further inland to deer hunting and fruit-gathering sites during late fall and winter (Ellis et al. 1990:114).

During the Late Archaic these developments continued, and new types of projectile points appeared along with the first true cemeteries. Excavations of burials from this time-frame indicate that human remains were often cremated and interred with numerous grave goods, including items such as projectile points, stone tools, red ochre, materials for fire-making kits, copper beads, bracelets, beaver incisors, and bear maxilla masks (Ellis et al. 1990:115–117). Interestingly, these true cemeteries may have been established in an attempt to solidify territorial claims, linking a given band or collection of bands to a specific geographic location.

From the tools unearthed at Archaic period sites it is clear that these people had an encyclopaedic understanding of the environment that they inhabited. The number and density of the sites that have been found suggest that the environment was exploited in a successful and sustainable way over a considerable period of time. The success of Archaic lifeways is attested to by clear evidence of steady population increases over time. Eventually, these increases set the stage for the final period of Pre-Contact occupation—the Woodland Period (Ellis et al. 1990:120).

1.2.1.3 Early and Middle Woodland Periods

The beginning of the Woodland period is primarily distinguished from the earlier Archaic by the widespread appearance of pottery. Although this difference stands out prominently amongst the archaeological remains, it is widely believed that hunting and gathering remained the primary subsistence strategy throughout the Early Woodland period (900–400 BC) and well into the Middle Woodland period (400 BC–AD 600). In addition to adopting ceramics, communities also grew in size during this period and participated in developed and widespread trade relations (Spence et al. 1990; MCL 1997:34).

The first peoples to adopt ceramics in the vicinity of the study area are associated with the Meadowood archaeological culture. This culture is characterized by distinctive Meadowood preforms, side-notched Meadowood points and Vinette 1 ceramics (thick and crude handmade pottery with cord-marked decoration). Meadowood peoples are believed to have been organized in bands of roughly 35 people, and some of the best documented sites are fall camps geared towards the hunting of deer and the gathering of nuts (Spence et al. 1990:128–137).

Ceramic traditions continued to develop during the subsequent Middle Woodland period, and three distinct archaeological cultures emerged in southern Ontario: ‘Point Peninsula’ north and

northeast of Lake Ontario, 'Couture' near Lake St. Clair and 'Saugeen' in the rest of southwestern Ontario (see Map 3). These cultures all shared a similar method of decorating pottery, using either dentate or pseudo-scallop shell stamp impressions, but they differed in terms of preferred vessel shape, zones of decoration and surface finish (Spence et al. 1990:142–143).

The local Saugeen complex, which appears to have extended from Lake Huron to as far east as the Humber River and the Niagara Peninsula, is characterized by stamped pottery, distinctive projectile points, cobble spall scrapers and a lifeway geared towards the exploitation of seasonally-available resources such as game, nuts and fish (Spence et al. 1990:147–156). Although quite distant from the study area, the Donaldson site along the Saugeen River may be representative of a typical Saugeen settlement; it was occupied in the spring by multiple bands that came to exploit spawning fish and bury members who had died elsewhere during the year (Finlayson 1977:563–578). The archaeological remains from this site include post-holes, hearth pits, garbage-dumps (middens), cemeteries and even a few identifiable rectangular structures (Finlayson 1977:234–514).

During the Middle to Late Woodland transition (AD 600–900), major developments took place at the western end of Lake Ontario as maize (corn) horticulture was introduced and settled agriculturalists emerged (Fox 1990:171, Figure 6.1). This shift is linked to the development of the Princess Point complex, which is characterized by distinctively decorated ceramic vessels (combining cord roughening, impressed lines and punctuate designs), triangular projectile points, T-based drills, steatite and ceramic pipes and ground stone chisels and adzes (Fox 1990:174–188).

The Grand Banks site near Cayuga is one of the best known Princess Point sites, and a calibrated radiocarbon date of AD 406–586 indicates that it was home to the first maize horticulturalists in northeastern North America (Warrick 2000:427). Generally, Princess Point sites consist of what are called 'incipient' longhouses, circular or square houses and even rudimentary palisades. Excavated evidence suggests that a typical village would have contained upwards of five contemporary houses at any one time, serving a population of roughly 75 people for perhaps 40–50 years. The evidence also indicates that many of these villages were reoccupied repeatedly over the centuries (Warrick 2000:429–434).

Intriguingly, approximately half of the documented Princess Point sites in Ontario have been discovered along the Grand River, but examples have also been found in the vicinity of the Credit and Humber Rivers (see Map 4). The distinctive artifacts and horticultural practices of Princess Point peoples have led to the suggestion that they were the ancestors of the later Iroquoian-speaking populations of southern Ontario (Warrick 2000:427).

1.2.1.4 Late Woodland Period

In the Late Woodland period (ca. AD 900–1600), the practice of maize horticulture spread beyond the western end of Lake Ontario, allowing for population increases which in turn led to larger settlement sizes, higher settlement density and increased social complexity among the peoples involved. These developments are believed to be linked to the spread of Iroquoian-speaking populations in the area; ancestors of the historically-documented Huron, Neutral and Haudenosaunee Nations. Other parts of southern Ontario, including the Georgian Bay littoral, the

Bruce Peninsula and the vicinity of Lake St. Clair, were inhabited by Algonkian-speaking peoples, who were much less agriculturally-oriented.

Late Woodland archaeological remains from the greater vicinity of the study area show three major stages of cultural development prior to European contact: 'Early Iroquoian', 'Middle Iroquoian' and 'Late Iroquoian' (Dodd et al. 1990; Lennox and Fitzgerald 1990; Williamson 1990).

Early Iroquoians (AD 900–1300) lived in small villages (ca. 0.4 ha) of between 75 and 200 people, and each settlement consisted of four or five longhouses up to 15 m in length. The houses contained central hearths and pits for storing maize (which made up 20–30% of their diet), and the people produced distinctive pottery with decorative incised rims (Warrick 2000:434–438). The best documented Early Iroquoian culture in the local area is the Glen Meyer complex, which is characterized by well-made and thin-walled pottery, ceramic pipes, gaming discs, and a variety of stone, bone, shell and copper artifacts (Williamson 1990:295–304).

Over the next century (AD 1300–1400), Middle Iroquoian culture became dominant in southwestern Ontario, and distinct 'Uren' and 'Middleport' stages of development have been identified. Both houses and villages dramatically increased in size during this time: longhouses grew to as much as 33 m in length, settlements expanded to 1.2 ha in size and village populations swelled to as many as 600 people. Middle Iroquoian villages were also better planned, suggesting emerging clan organization, and most seem to have been occupied for perhaps 30 years prior to abandonment (Dodd et al. 1990:356–359; Warrick 2000:439–446).

During the Late Iroquoian period (AD 1400–1600), the phase just prior to widespread European contact, it becomes possible to differentiate between the archaeologically-represented groups that would become the Huron and the Neutral Nations. The study area itself lies within the territorial boundaries of the Pre-Contact Neutral Nation, documented in lands as far west as Chatham and as far east as New York State.

The Neutral Nation is well represented archaeologically: typical artifacts include ceramic vessels and pipes, lithic chipped stone tools, ground stone tools, worked bone, antler and teeth, and exotic goods obtained through trade with other Aboriginal (and later European) groups (Lennox and Fitzgerald 1990:411–437). The population growth so characteristic of earlier Middleport times appears to have slowed considerably during the Late Iroquoian period, and the Pre-Contact Neutral population likely stabilized at around 20,000 by the early 16th century (Warrick 2000:446).

Pre-Contact Neutral villages were much larger than Middleport villages, with average sizes in the neighbourhood of 1.7 ha. Exceptional examples of these could reach 5 ha in size, containing longhouses over 100 m in length and housing 2,500 individuals. This seemingly rapid settlement growth is thought to have been linked to Middleport 'baby boomers' starting their own families and needing additional living space (Warrick 2000:446–449).

It has been suggested that the size of these villages, along with the necessary croplands to sustain them, may have had some enduring impacts on the landscapes that surrounded them. In particular, there has been a correlation postulated between Pre-Contact era corn fields and modern stands of white pine (Janusas 1987:69–70, Figure 7). Aside from these villages, the Pre-Contact Neutral also made use of hamlets, agricultural field cabins, specialized camps (e.g., fishing camps) and cemeteries (MCL 1997:35; Warrick 2000:449).

For the most part, Pre-Contact Neutral archaeological sites occur in isolated clusters defined by some sort of geographic region, usually within a watershed or another well-defined topographic feature (see Map 5). It has been suggested that these clusters represent distinct tribal units, which may have been organized as a larger confederacy akin to the historic Five Nations Iroquois (Lennox and Fitzgerald 1990:410). Nineteen main clusters of villages have been identified, the closest manifestation of which is known as the ‘‘Lower Grand River Cluster’. This cluster, which includes the Parsons, McSorley and Fradenburg sites, appears to have flourished primarily in the 16th and early 17th centuries (Lennox and Fitzgerald 1990:Table 13.1).

The end of the Late Woodland period can be conveniently linked to the arrival and spread of European fur traders in southern Ontario, and a terminus of AD 1600 effectively serves to demarcate some substantial changes in Aboriginal material culture. Prior to the establishment of the fur trade, items of European manufacture are extremely rare on Pre-Contact Neutral sites, save for small quantities of reused metal scrap. With the onset of the fur trade ca. AD 1580, European trade goods appear in ever-increasing numbers, and glass beads, copper kettles, iron axes and iron knives become more common (Lennox and Fitzgerald 1990:425–432).

1.2.2 Early Contact

1.2.2.1 European Explorers

The first European to venture into what would become southern Ontario was Étienne Brûlé, who was sent by Samuel de Champlain in the summer of 1610 to accomplish three goals: 1) to consolidate an emerging friendship between the French and the First Nations, 2) to learn their languages, and 3) to better understand their unfamiliar customs. Other Europeans would subsequently be sent by the French to train as interpreters. These men became c*oureurs de bois*, “living Indian-style ... on the margins of French society” (Gervais 2004:182). Such ‘woodsmen’ played an essential role in all later communications with the First Nations.

Champlain himself made two trips to Ontario: in 1613, he journeyed up the Ottawa River searching for the North Sea, and in 1615/1616, he travelled up the Mattawa River and descended to Lake Nipissing and Lake Huron to explore Huronia (Gervais 2004:182–185). He learned about many First Nations groups during his travels, including prominent Iroquoian-speaking peoples such as the Wendat (Huron), Petun (Tobacco) and ‘*la nation neutre*’ (the Neutrals), and a variety of Algonkian-speaking Anishinabeg bands.

Champlain’s map of *Nouvelle France* from 1632 encapsulates his accumulated knowledge of the area (see Map 6). Although the distribution of the Great Lakes is clearly an abstraction in this early map, important details concerning the terminal Late Woodland occupation of southern

Ontario are discernable. Numerous Aboriginal groups are identified throughout the area, for example, and prolific Neutral village sites can be seen 'west' of *Lac St. Louis* (Lake Ontario).

1.2.2.2 Trading Contacts and Conflict

The first half of the 17th century saw a marked increase in trading contacts between the First Nations and European colonists, especially in southern Ontario. Archaeologically, these burgeoning relations are clearly manifested in the widespread appearance of items of European manufacture by AD 1630, including artifacts such as red and turquoise glass beads, scissors, drinking glasses, keys, coins, firearms, ladles and medallions. During this time, many artifacts such as projectile points and scrapers began to be manufactured from brass, copper and iron scrap, and some European-made implements completely replaced more traditional tools (Lennox and Fitzgerald 1990:432–437).

Nicholas Sanson's *Le Canada, ou Nouvelle France* (1656) provides an excellent representation of southern Ontario at this time of heightened contact. Here the lands of the Neutral Nation are clearly labelled with the French rendering of their Huron name, '*Attawandaron*' (see Map 7). Unfortunately, this increased contact had the disastrous consequence of introducing European diseases into First Nations communities. These progressed from localized outbreaks to much more widespread epidemics (MCL 1997:35; Warrick 2000:457). Archaeological evidence of disease-related population reduction appears in the form of reduced longhouse sizes, the growth of multi-ossuary cemeteries and the loss of traditional craft knowledge and production skills (Lennox and Fitzgerald 1990:432–433).

1.2.2.3 Five Nations Invasion

The importance of European trading contacts eventually led to increasing factionalism and tension between the First Nations, and different groups began to vie for control of the lucrative fur trade (itself a subject of competition between the French and British). In what would become Ontario, the Huron, the Petun, and their Anishinabeg trading partners allied themselves with the French. In what would become New York, the League of the Haudenosaunee (the Five Nations Iroquois at that time) allied themselves with the British. The latter alliance may have stemmed from Champlain's involvement in Anishinabeg and Huron attacks against Iroquoian strongholds in 1609 and 1615, which engendered enmity against the French (Lajeunesse 1960:xxix). Interposed between the belligerents, the members of the Neutral Nation refused to become involved in the conflict.

Numerous military engagements occurred between the two opposing groups during the first half of the 17th century, as competition over territories rich in fur-bearing animals increased. These tensions boiled over in the middle of the 17th century, leading to full-scale regional warfare (MNCFN 2010:5). In a situation likely exacerbated by epidemics brought by the Europeans and the decimation of their population, a party of roughly 1,000 Mohawk and Seneca warriors set upon Huronia in March 1649. The Iroquois desired to remove the Huron Nation altogether, as they were a significant obstacle to controlling the northern fur trade (Hunt 1940:91–92).

The Huron met their defeat in towns such as Saint Ignace and Saint Louis (Sainte-Marie was abandoned and burned by the Jesuits in the spring of 1649). Those that were not killed were

either adopted in the Five Nations as captives or dispersed to neighbouring regions and groups (Ramsden 1990:384). The Petun shared a similar fate, and the remnants of the affected groups formed new communities outside of the disputed area, settling in Quebec (modern-day Wendake), in the area of Michilimackinac and near Lake St. Clair (where they were known as the Wyandot).

Anishinabeg populations from southern Ontario, including the Ojibway, Odawa, and Pottawatomi, fled westward to escape the Iroquois (Schmalz 1977:2). The Neutral were targeted in 1650 and 1651, and the Iroquois took multiple frontier villages (one with over 1,600 men) and numerous captives (Coyne 1895:18). The advance of the Iroquois led to demise of the Neutral Nation as a distinct cultural entity (Lennox and Fitzgerald 1990:456).

For the next four decades, southern Ontario remained an underpopulated wilderness (Coyne 1895:20). This rich hunting ground was exploited by the Haudenosaunee to secure furs for trade with the Dutch and the English, and settlements were established along the north shore of Lake Ontario at places like Teiaiagon on the Humber River and Ganatswekwyagon on the Rouge River (Williamson 2008:51). The Haudenosaunee are also known to have traded with the northern Anishinabeg during the second half of the 17th century (Smith 1987:19).

Due to their mutually violent history, the Haudenosaunee did not permit French explorers and missionaries to travel directly into southern Ontario for much of the 17th century. Instead, they had to journey up the Ottawa River to Lake Nipissing and then paddle down the French River into Georgian Bay (Lajeunesse 1960:xxix). New France was consequently slow to develop in southern Ontario, at least until the fall of several Iroquoian strongholds in 1666 and the opening of the St. Lawrence and Lake Ontario route to the interior (Lajeunesse 1960:xxxii).

In 1669, the Haudenosaunee allowed an expedition of 21 men to pass through their territory. This expedition, which included François Dollier de Casson (a Sulpician priest) and René Bréhant de Galinée, managed to reach and explore the Grand River, which they named *le Rapide* after the swiftness of its current. These men descended the Grand to reach Lake Erie, and they wintered at the future site of Port Dover (Coyne 1895:21). Galinée's map is one of the earliest documented representations of the interior of southwestern Ontario (see Map 8). In it, he notes the locations of several former Neutral villages at the western end of Lake Ontario, likely consisting of abandoned ruins.

1.2.2.4 Anishinabeg Influx

The fortunes of the Five Nations began to change in the 1690s, as disease and casualties from battles with the French took a toll on the formerly-robust group (Smith 1987:19). On July 19, 1701, the Haudenosaunee ceded lands in southern Ontario to King William III with the provision that they could still hunt freely in their former territory (Coyne 1895:28). However, this agreement appears to have lacked any sort of binding formality.

According to the traditions of the Algonkian-speaking Anishinabeg, Ojibway, Odawa and Potawatomi bands began to mount an organized counter-offensive against the Iroquois in the late 17th century (MNCFN 2010:5). Around the turn of the 18th century, the Anishinabeg of the Great Lakes expanded into Haudenosaunee lands, and attempted to trade directly with the French

and the English (Smith 1987:19). This led to a series of battles between the opposing groups, in which the Anishinabeg were more successful (Coyne 1895:28).

Haudenosaunee populations subsequently withdrew into New York State, and Anishinabeg bands established themselves in southern Ontario. Many of these bands were mistakenly grouped together by the immigrating Europeans under the generalized designations of 'Chippewa/ Ojibway' and 'Mississauga'. 'Mississauga', for example, quickly became a term applied to many Algonkian-speaking groups around Lake Erie and Lake Ontario (Smith 1987:19), despite the fact that the Mississaugas were but one part of the larger Ojibway Nation (MNCFN 2010:3).

The Anishinabeg are known to have taken advantage of the competition between the English and French over the fur trade, and they were consequently well-supplied with European goods. The Mississaugas, for example, traded primarily with the French and received "everything from buttons, shirts, ribbons to combs, knives, looking glasses, and axes" (Smith 1987:22). The British, on the other hand, were well-rooted in New York State and enjoyed mutually beneficial relations with the Haudenosaunee.

As part of this influx, many members of the Algonkian-speaking Ojibway, Potawatomi and Odawa First Nations came back to Lake Huron littoral. Collectively, these people came to be known as the Chippewas of Saugeen Ojibway Territory (also Saugeen Ojibway Nation). These Algonkian-speakers established themselves in the Bruce Peninsula, all of Bruce and Grey Counties, and parts of Huron, Dufferin, Wellington, and Simcoe Counties (Schmalz 1977:233).

Throughout the 1700s and into the 1800s, Anishinabeg populations hunted, fished, gardened and camped along the rivers, floodplains and forests of southern Ontario (Warrick 2005:2). However, their 'footprint' was exceedingly light, and associated archaeological sites are both rare and difficult to detect. Historical records often play a pivotal role in reconstructing Anishinabeg lifeways during the timeframe, as the first European colonists often wrote about the locations of Aboriginal camps and hunting grounds.

Historical maps from the 18th century likewise shed valuable light on the contemporary cultural landscape. H. Popple's *A Map of the British Empire in America* (1733), for example, does not show any prominent settlements in the vicinity of the study area, which is a result of the ephemeral environmental impact of the mobile Ojibway (see Map 9). The former territories of the Huron and Petun are shown, however, recalling the First Nations groups documented prior to the Five Nations invasion ca. 1650.

1.2.2.5 Relations and Ambitions

The late 17th and early 18th centuries bore witness to the continued growth and spread of the fur trade across all of what would become the Province of Ontario. The French, for example, established and maintained trading posts along the Upper Great Lakes, offering enticements to attract fur traders from the First Nations. Even further north, Britain's Hudson Bay Company dominated the fur trade. Violence was common between the two parties, and peace was only achieved with the Treaty of Utrecht in 1713 (Ray 2014). Developments such as these resulted in an ever-increasing level of contact between European traders and local Aboriginal communities.

As the number of European men living in Ontario increased, so too did the frequency of their relations with Aboriginal women. Male employees and former employees of French and British companies began to establish families with these women, a process which resulted in the ethnogenesis of a distinct Aboriginal people: the Métis. Comprised of the descendants of those born from such relations (and subsequent intermarriage), the Métis emerged as a distinct Aboriginal people during the 1700s (MNO 2011).

Métis settlements developed along freighting waterways and watersheds, and were tightly linked to the spread and growth of the fur trade. These settlements were part of larger regional communities, connected by "the highly mobile lifestyle of the Métis, the fur trade network, seasonal rounds, extensive kinship connections and a shared collective history and identity" (MNO 2011).

In 1754, hostilities over trade and the territorial ambitions of the French and the British led to the Seven Years' War (often called the French and Indian War in North America), in which many Anishinabeg bands fought on behalf of the French. After the French surrender in 1760, these bands adapted their trading relationships accordingly, and formed a new alliance with the British (Smith 1987:22). In addition to cementing British control over the Province of Quebec, the Crown's victory over the French also proved pivotal in catalyzing the Euro-Canadian settlement process. The resulting population influx caused the demographics of many areas to change considerably.

R. Sayer and J. Bennett's *General Map of the Middle British Colonies in America* (1776) provides an excellent view of the ethnic landscape of southern Ontario prior to the widespread arrival of European settlers. This map clearly depicts the Grand River, the territory of the Ojibway, and the virtually untouched lands of southern Ontario (see Map 10).

1.2.3 The Euro-Canadian Era

1.2.3.1 British Colonialism

With the establishment of absolute British control came a new era of land acquisition and organized settlement. In the *Royal Proclamation* of 1763, which followed the Treaty of Paris, the British government recognized the title of the First Nations to the land they occupied. In essence, the 'right of soil' had to be purchased by the Crown prior to European settlement (Lajeunesse 1960:cix). Numerous treaties and land surrenders were accordingly arranged by the Crown, and great swaths of territory were acquired from the Ojibway and other First Nations. These first purchases established a pattern "for the subsequent extinction of Indian title" (Gentilcore and Head 1984:78).

The first land purchases in Ontario took place along the shores of Lake Ontario and Lake Erie, as well as in the immediate 'back country'. Such acquisitions began in August 1764, when a strip of land along the Niagara River was surrendered by Six Nations, Chippewa and Mississauga chiefs (NRC 2013). Although many similar territories were purchased by the Crown in subsequent years, it was only with the conclusion of the American Revolutionary War (1775–1783) that the British began to feel a pressing need for additional land. In the aftermath of the conflict, waves of United Empire Loyalists came to settle in the Province of Quebec, driving the Crown to seek

out property for those who had been displaced. This influx had the devastating side effect of sparking the slow death of the fur trade, which was a primary source of income for many First Nations groups.

By the mid-1780s, the British recognized the need to 1) secure a military communication route from Lake Ontario to Lake Huron other than the vulnerable passage through Niagara, Lake Erie and Lake St. Clair; 2) acquire additional land for the United Empire Loyalists; and 3) modify the administrative structure of the Province of Quebec to accommodate future growth. The first two concerns were addressed through the negotiation of numerous 'land surrenders' with Anishinabeg groups north and west of Lake Ontario, and the third concern was mitigated by the establishment of the first administrative districts in the Province of Quebec.

In response to the second need, the 'Between the Lakes Purchase' of 1784 (a.k.a. the Haldimand Tract Purchase) was orchestrated by the Governor of the Province of Quebec, Sir Frederick Haldimand. This purchase was completed to obtain land for those members of the Haudenosaunee (now Six Nations) who supported the Loyalist/British cause. In 1779, two years after joining the American Revolutionary War as allies of the British, many Seneca, Onondaga and Cayuga towns were targeted by American forces and destroyed. This caused the Iroquois Confederacy to seek retribution, and under the leadership of the Mohawk captain Joseph Brant, Haudenosaunee forces attacked and burned rebel forts and settlements as far east as Schenectady, New York (Ramsden 2014).

After the war ended, the Haudenosaunee were forced to leave New York State, and Governor Haldimand purchased a tract of land from the Mississaugas in 1784 for the Six Nations Loyalists to settle (Johnston 1964:xxxviii–xli; NRC 2013). Approximately 384,750 ha were discussed in this agreement (see Map 11), extending for 9.6 km on either side of the Grand River from its source to its mouth (Six Nations Council 2010:2).

On July 24, 1788, Sir Guy Carleton, Baron of Dorchester and Governor-General of British North America, divided the Province of Quebec into the administrative districts of Hesse, Nassau, Mecklenburg and Lunenburg (Archives of Ontario 2009). The vicinity of the study area fell within the Nassau District at this time, which consisted of a massive tract of land extending due north from the head of Bay of Quinte in the east and the tip of Long Point on Lake Erie in the west. According to early historians, "this division was purely conventional and nominal, as the country was sparsely inhabited … the necessity for minute and accurate boundary lines had not become pressing" (Mulvany et al. 1885:13).

Further change came in December 1791, when the Parliament of Great Britain's *Constitutional Act* created the Provinces of Upper Canada and Lower Canada from the former Province of Quebec. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada, and he became responsible for governing the new province, directing its settlement and establishing a constitutional government modelled after that of Britain (Coyne 1895:33).

Simcoe initiated several schemes to populate and protect the newly-created province, employing a settlement strategy that relied on the creation of shoreline communities with effective transportation links between them. These communities, inevitably, would be composed of lands

obtained from the First Nations, and many more purchases were subsequently arranged. For example, on December 7, 1792 another 'Between the Lakes Purchase' was conducted to enhance Governor Haldimand's original purchase. In this transaction, the Mississaugas received goods worth 1,180.74 Quebec pounds as compensation for approximately 1,215,000 ha (NRC 2013).

In July 1792, Simcoe divided the province into 19 counties consisting of previously-settled lands, new lands open for settlement and lands not yet acquired by the Crown. These new counties stretched from Essex in the west to Glengarry in the east. Three months later, in October 1792, an Act of Parliament was passed whereby the four districts established by Lord Dorchester were renamed as the Western, Home, Midland and Eastern Districts (Archives of Ontario 2009).

In 1793, the Lieutenant-Governor issued a patent confirming the Six Nations' title to the Haldimand Tract, but at the same time he reduced the size of the grant by 111,292 ha (the 'Source Lands' of the Grand River), arguing that the Crown could not grant lands that they did not own (Cumming 1972:2). Simcoe further specified that 'Tract' land could only be sold to the Crown, as he was concerned that 'land jobbers' (speculators) might take advantage of Six Nations (Johnston 1964:xliv–xlvi). Brant was in favour of such sales, and in 1796 he was granted Power of Attorney to surrender "In Trust" four blocks of the Haldimand Tract (Blocks 1–4) in exchange for 999 annual payments for the "perpetual care and maintenance" of Six Nations. On February 5, 1798, Brant exceeded his Power of Attorney and surrendered Blocks 1–6 (142,845 ha) "In Trust" to the Crown (Six Nations Council 2010:Insert 1).

The vicinity of the study area nominally fell within the boundaries of Lincoln County's Fourth Riding at this time, although it technically remained in the possession of Six Nations as it was never surrendered by Brant. D.W. Smyth's *A Map of the Province of Upper Canada* (1800) clearly shows the extent of Lincoln County and the Haldimand Tract (see Map 12).

1.2.3.2 Haldimand County

Shortly after the creation of Upper Canada, the original arrangement of the province's districts and counties was deemed inadequate. As population levels increased, smaller administrative bodies became desirable, resulting in the division of the largest units into more 'manageable' component parts. The first major changes in the vicinity of the study area took place in 1798, when an Act of Parliament called for the realignment of the Home and Western Districts and the formation of the London and Niagara Districts. Many new counties and townships were subsequently created (Archives of Ontario 2009).

The vicinity of the study area became part of Haldimand County in the Niagara District at this time, and the territorial boundaries of the original Norfolk and Lincoln Counties were completely redefined. Haldimand County was named after Sir Frederick Haldimand, who served as the Governor of the Province of Quebec from 1777 to 1789. The county lands stretched from the mouth of the Grand River to the southern limits of the Township of Dumfries (Block No. 1 of the Haldimand Tract). J. Purdy's *A Map of Cabotia* (1814) provides an excellent view of the vicinity of the study area during these early years (see Map 13).

The boundaries of Haldimand County remained constant until 1816, at which time the northernmost townships were transferred to the newly-formed Wentworth County in the Gore District (see Map 14). In 1826, the county was enlarged through the addition of the Townships of Walpole and Rainham from Norfolk County in the southwest (see Map 15), and in 1841, Haldimand County became part of Canada West in the new United Province of Canada. The county lands were drastically reduced in 1845, when the Townships of Oneida and Seneca were transferred to Wentworth County and the Townships of Walpole and Rainham were returned to Norfolk County (see Map 16).

European settlement began in Haldimand County in 1784 with the arrival of the Nelles and Young families, who established themselves in the Township of Seneca. At that time, Haldimand County was described as an unbroken forest, punctuated by large areas of swampy land with very few roads (Phelps 1972:4). As a result of these factors, initial settlement began only in the areas fronting on Lake Erie, and the interior was only occupied in localities accessible by boat along the banks of the Grand River and Oswego Creek (Phelps 1972:5). The first survey of Haldimand County was completed by Thomas Walsh in 1798, but for many years the inland areas remained sparsely populated (see Map 17).

After the War of 1812, a Naval Depot was established at the mouth of the Grand River, which helped encourage settlement in the surrounding area. Many of the earliest immigrants here were of German descent, and prominent family names included the Hoovers, Nelleses, Dochstaders, Kniseleys, Youngs, Waggoners, Mellicks and Moots. Additional settlers also arrived from England, Ireland and Scotland (Phelps 1972:5).

In 1832, a treaty was concluded between Six Nations and the Crown which allowed for the remaining lands within the Haldimand Tract to be sold. Only the Township of Tuscarora and a small portion of the Township of Oneida were reserved from this surrender, and the newly-acquired territory subsequently became available for Euro-Canadian settlement (Phelps 1972:3). In 1833, the Grand River Navigation Company initiated improvements along the Grand River between Brantford and Indiana; this, too, resulted in local population growth as company employees settled along the river banks (Phelps 1972:5).

Lumbering was a major industry in Haldimand County, and pine and oak were heavily-exploited throughout the early 19th century. Unfortunately, these reserves were quickly depleted and the industry collapsed, leaving a shortage of lumber in the county (Phelps 1972:5). Other natural resources of interest included the gypsum beds along the Grand River and numerous limestone and freestone quarries (Phelps 1972:7).

The further settlement of Haldimand County was facilitated by various infrastructural improvements. The Talbot Road, for example, was cleared under Colonel Thomas Talbot between 1834 and 1840. This road was originally intended to serve as a military road, but it quickly assumed other functions. The Talbot Road was followed by the Hamilton & Port Dover Plank Road, which was built between 1839 and 1843, passing through the Townships of Walpole, Oneida and Seneca (Phelps 1972:5).

Railways also played a major role in the settlement of Haldimand County. The Buffalo, Brantford & Goderich Railway (later part of the Grand Trunk Railway) was completed in 1852, and it passed through the Townships of Seneca, North Cayuga and Moulton before entering Welland County. The completion of the Great Western Loop Line (through the Townships of Walpole, Rainham, North Cayuga, Canborough and Moulton) and the Canada Southern Railway (through the Townships of Walpole, Oneida, North Cayuga, Canborough and Moulton) in 1870 provided further transportation options. The Hamilton & Lake Erie Railway (later amalgamated with the Hamilton & North Western Railway) followed in 1878, linking Haldimand County to Barrie on Lake Simcoe (Phelps 1972:7).

Following the abolition of the district system in 1849, the counties of Canada West were reconfigured once again. Many of the former townships of Haldimand County were restored, and the county emerged as an independent municipality (see Map 18). From this point onwards, the historic Haldimand County consisted of the Townships of Walpole, Oneida, Seneca, North Cayuga, South Cayuga, Rainham, Canborough, Moulton, Dunn and Sherbrooke (see Map 19). In 1974, Norfolk and Haldimand Counties were united to form the Regional Municipality of Haldimand-Norfolk. In 2001, however, these counties were once again separated into two single-tier municipalities.

1.2.3.3 Township of Sherbrooke

The historic Township of Sherbrooke was bounded by the Grand River to the west, Lake Erie to the south and the Township of Moulton to the northeast. As a result of its position along two major waterways, marsh-like conditions existed in many parts of the township. On the whole, however, the township was well-watered by the Grand River and tributaries of Broad Creek. In 1845, the 'Feeder Extension' was built through the northwestern part of the township, which was a southwesterly extension of the original Welland Feeder Canal built between Dunnville and Beverley from 1827–1829. Use of the Feeder declined after 1881, and the last recorded commercial use was in 1908 (Hughes 2007:6–7).

Prior to Euro-Canadian settlement, the Township of Sherbrooke remained in the possession of Six Nations (Phelps 1972:14). The first land purchases were arranged in 1815, at which time the Crown obtained three Naval Reserves located 1) at the mouth of the Grand River in the southwestern corner of the township (94 ha), 2) south of Lots 4–5, Concession 1 at Barb Point (13.4 ha) and 3) on part of Lots 10–11, Concession 1 at Mohawk Bay (12.1 ha). A Naval Depot was established within the southwestern reserve after the War of 1812 (see Section 1.2.3.4). A regiment of Highlanders was subsequently stationed there and a small civilian settlement developed (Nelles 1905:18). By the 1830s, the Naval Depot was in severe decline, but the land remained in government hands (Hughes 2007:8).

The remainder of the Township of Sherbrooke was acquired by the Crown when Joseph Brant surrendered an area of approximately 1,620 ha so that it could be patented to the Honorable William Dickson in 1820. Dickson, who was a lawyer from Niagara, was "to pay for the land in professional services, to be rendered when required" (Nelles 1905:14). This patent excluded the Naval Reserves (Phelps 1972:14). Dickson proceeded to sell off the land in small lots, and the first sales were to James Johnson in 1820 and Mrs. Sarah Bushby in 1822 (Harper 1950:34).

Other early settlers included Jacob Niece and William Furry, both of whom were Pennsylvanians of German descent who purchased land in 1822. David Deamud also arrived ca. 1822, as did Daniel Dickout, John Knisley, John Lapp, Henry Minor and Hay Kinnard (all United Empire Loyalists of German descent). John Root (an American) settled in the eastern part of Sherbrooke ca. 1825, and Squire King (a Scot) settled on the lakeshore in 1834 (Phelps 1972:14). There were no markets in the township at that time, and wheat had to be teamed to Chippawa near Niagara Falls. Only three settlers owned wagons in 1834 (the remainder used sleds drawn by oxen), and the taxes were oppressively high (Phelps 1972:14).

Although Euro-Canadian settlement began in the early 1820s, the area was sparsely populated prior to the completion of the Welland Feeder Canal in 1829. Aside from the Naval Depot established at the mouth of the Grand River, very few recognizable communities existed closer than St. Johns, Canboro, Sugar Loaf Hill and various First Nations villages along the river (Hughes 2007:6). The population of the Township of Sherbrooke was only 198 in 1841. By the mid-19th century, a total of 1,396 ha had been taken up in the township, 597 ha of which were under cultivation (Smith 1846:169). In 1875, Sherbrooke was separated from Mouton for administrative purposes, and the population reached 276 in 1878 (Phelps 1972:14).

Historically, the principal population centre in the Township of Sherbrooke was Stromness, located south of the Welland Feeder Canal (see Map 20). Originally known as Broad Creek, the settlement appears to have begun as a work camp for the excavation of the canal, and a store operated there as early as 1827. The importance of the settlement increased when the Feeder Extension was built to the mouth of the Grand River, and a modest shipbuilding industry developed (Hughes 2007:8). In 1842, there were over 163 shanties at Broad Creek to house labourers and family members, although only 29 of these were single-family homes (MacDonald 2004:75). The name of the community was changed to Stromness when the post office opened in 1859 (Hughes 2007:8).

The community of Port Maitland, which was divided by the Grand River, also developed partly within the Township of Sherbrooke. The main part was located on the west bank, however, and it is unclear as to when the village emerged or what its relationship was to the Naval Depot on the east bank. A settlement may have existed on the east bank when the Feeder Extension was built between 1842 and 1845, but the present community dates to the 20th century. It is widely believed that Port Maitland developed independently, and it contained a tavern, a church and a pier built by the Welland Canal Company (Hughes 2007:8).

1.2.3.4 The Study Area

As discussed in Section 1.1, the study area falls on part of Lots 15 to 78, Naval Reserve SHB Plan 776 in the historic Township of Sherbrooke. This Naval Reserve was acquired in 1815, and was excluded from the purchase of the remainder of the township in 1820. The vicinity of the study area was relatively well-settled during the Euro-Canadian period.

In an attempt to reconstruct the historic land use of the study area, ARA examined a historical map that documented past residents, structures (e.g., homes, businesses and public buildings) and features during the late 19th century. This map, published in H.R. Page & Co.'s *Illustrated Historical Atlas of the County of Haldimand* (1879), was of the most detailed scale available

(50 chains to 1 inch). A georeferenced version of this historical map, showing the approximate location of the study area, appears in Map 21 (McGill University 2001).

The *Illustrated Historical Atlas* (1879) indicates that all of the lots located east of the Naval Reserve were settled by the late 19th century, but the plan of the reserve itself only depicts one structure with an orchard along Siddall Road. No details are provided for the remainder of the reserve, and extensive marshes are shown along the east bank of the Grand River.

As required by Section 3.1 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:46–47), ARA also consulted land registry records and additional historical document sources associated with the Naval Reserve in order to gain a better understanding of the historic land use and occupational history of the area. Unfortunately, the relevant land registry records contribute little to our historical understanding, as the documented transactions are all quite late (post-1897) and are not associated with the use of the Naval Depot. Several transactions involving the Toronto, Hamilton & Buffalo Railway Company (which acquired the majority of the reserve in 1915) are listed, and the subject area was sold to the Beckley Beach Cottagers' Corporation in 1990. The additional historical documents, however, shed considerable light on the early history of the Naval Depot.

Following the War of 1812, during which the American fleet came to control Lake Erie and many settlements along the north shore were raided, the British naval administration decided that secure bases were required in case of another invasion. Two sites were under consideration: a new site at the mouth of the Grand River and the abandoned base at Turkey Point to the west. In 1815, Sir Edward William Campbell Rich Owen (commodore and commander-in-chief of the Royal Navy forces on the Great Lakes) determined that the area at the mouth of the Grand River was unfavourable for ship building due to the shifting sandbar, but decided that it was very advantageous for communication purposes. When the Turkey Point site was also found to be inappropriate for ship building, negotiations between William Claus, Deputy Superintendent of Indian Affairs and Six Nations resulted in the Crown's procurement of three naval reserves in what would become the Township of Sherbrooke (Docker 2007:1–2).

A crew of officers and craftsmen arrived at the mouth of the Grand River in August 1815. A map of this area prepared for Captain William Fitzwilliam Owen, Commodore Owen's brother, shows five log huts behind the sand hills in November 1815 (see Map 22). Although there is no formal record ordering the establishment of a permanent base here, the depot gradually grew (see Map 23). At its greatest extent, the depot contained officers' quarters, barracks and log huts for military guards, a kitchen, a slop room, sanitary facilities, log buildings and sheds for provisions and stores, a smith's shop, a mould loft for ship building, stables, a bell post, a steam kiln, a surgeon's quarters and dispensary, an armoury and a wharf (Docker 2000:14, 26–28). The base was known by several names, including the Sherbrooke Naval Depot, the Lynn Owen Depot, the Grand River Naval Establishment on Lake Erie and the Grand River Naval Depot. In May 1816, there were 187 enlisted men living at the depot (William Bourchier was the commander), and 8 men lived in the civil establishment who worked as storekeepers, clerks, etc. There were four vessels stationed here, which were used mainly for transporting men and stores from port to port (Docker 2007:2).

Following the Rush-Bagot Treaty, which was formally endorsed by the participating governments in October 1818, the Great Lakes were demilitarized and the depot experienced a steady reduction in personnel. Many of the men were paid off, but the depot continued to have a military presence to monitor Lake Erie. A survey of the site in 1820 indicated that the shops, huts, houses, stores and barracks were in poor condition, although the wharf was still in good condition. In 1825, the depot contained 1 large house for the officers and 12 or 14 small log huts used as barracks for 18 or 20 soldiers and sailors. In 1827, there were only 7 men and 1 officer stationed at the depot, and one summer visitor reported horrible conditions, including structural decay and neglect (e.g., the officer's hut was half buried in sand), empty storehouses, a stagnant marsh within 20 paces and hordes of mosquitoes (Docker 2007:5).

Plans were already underway to move the depot up the river to Cayuga when construction started on the Welland Feeder Canal. The Canal Company quickly ran into military objections since any dam near the mouth of the river would cut off the new base from Lake Erie. The plans were then modified, and the dam was built at Dunnville (Docker 2007:6). Port Maitland at the mouth of the river developed at this time, and the Canal Company resolved to build a harbour there in May 1831 to prepare the area for increased traffic should the Welland Canal be rerouted (the Niagara River route proved too difficult to navigate). In June 1831, however, they decided that Gravelly Bay (Port Colborne) was the best termination point, and the rerouting of the canal to Gravelly Bay in 1833 "dealt the death blow to the Grand River Depot" (Docker 2007:7).

In 1834, the British navy withdrew from the depot, but the buildings and blockhouses were manned by enlisted men and volunteers from Upper Canada in case of war. The Lakeshore Volunteers were headquartered at the depot during the Rebellion of 1837, and it appears as if the depot continued to be used in a limited capacity during the 1840s and may have even expanded to the west bank. By 1851, however, references to a Naval Depot in Sherbrooke, Dunn or even Port Maitland are absent (Docker 2000:42–47). By 1900, the old buildings had completely disappeared, but the government still owned the land on both sides of the river. As mentioned above, the eastern reserve was sold to the Toronto, Hamilton & Buffalo Railway in 1915, and it was later subdivided and rented to summer cottagers (Docker 2007:8).

Although the base was never involved in a war with America, there were many casualties from sickness (e.g., dysentery from drinking lake water) and drowning. According to J. Docker, "those who died were buried in a cemetery on the reserve" (2007:5). It is believed that this cemetery was used between 1815 and 1834, based on the dates that started to appear on the tombstones at Highbanks and Christ Church Cemetery after 1835, which are the two earliest cemeteries in the immediate area (Weaver 2012).

According to one of the earliest settlers at the mouth of the Grand River, "in 1836 most of the old log barracks and other buildings erected for service in 1812 were still standing … a place of much interest is the military graveyard, which, from the drifting nature of the sand, and the inroads made by the lake on the bank, the remains of some old veterans is often brought to light … on one occasion in preparing a foundation for a house, an old coffin was turned up with what was left of an old soldier" (Tipton 1880). In an article from *The Parish Almanac* (1918), Rev. P.J. Donovan notes that "up the east side of the river there stood an old military cemetery which, as the years lengthened, was sadly wrecked by the work of the wind on the sand, and

many graves were laid bare … the children of a later generation, while playing about this graveyard, found strange looking buttons, which on close inspection proved to be some of those that had been on the uniforms of the soldiers buried there long ago" (Donovan 1918).

1.2.4 Summary of Past and Present Land Use

During Pre-Contact and Early Contact times, the vicinity of the study area would have comprised a mixture of marshy areas, sand hills, deciduous trees and open areas. It seems clear that the First Nations managed the landscape to some degree, but the extent of such management is unknown. During the early 19th century, British officers arrived in the area to establish a Naval Depot, and Euro-Canadian settlers subsequently arrived and began to clear the forests for agricultural purposes. Over the course of the Euro-Canadian era, this locality would have comprised the Naval Depot and agricultural lands surrounding the historic community of Stromness. Presently, the study area consists of trees, bushes and grassed areas.

1.2.5 Additional Background Information

Given that no other archaeological assessment reports have been prepared for the Grand River Naval Depot Cemetery investigation, and that no other assessments have been documented in the area (see Section 1.3.1), additional relevant background information was not available to inform ARA's fieldwork strategies or recommendations (MTC 2011:125).

1.3 Archaeological Context

1.3.1 Previous Archaeological Work

In order to determine whether any archaeological assessments had been previously conducted within the limits of, or immediately adjacent to the study area, ARA submitted an inquiry to the Archaeology Data Coordinator (MTCS 2012) and conducted extensive independent background research. As a result of these investigations, ARA determined that there are no reports on record documenting past work within 50 m of the subject lands.

1.3.2 Summary of Registered or Known Archaeological Sites

An archival search was conducted using the MTCS's Ontario Archaeological Sites Database in order to determine the presence of any registered archaeological resources which might be located within a 1 km radius of the study area (MTCS 2012). The results of this search indicate that there are nine registered archaeological sites within these limits. The excavation results from these sites are summarized in Table 1.

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

Borden No.	Site Name	Year(s) Assessed	Cultural Affiliation	Site Type	Comments
AfGv-100	—	2001	Late Archaic	Lithic Scatter	A total of 311 debitage flakes, 1 projectile point, 1 core and 1 biface found in a 1.5 ha area; further work recommended
AfGv-101	—	2001	Early Archaic	Lithic Scatter	Numerous flakes and 1 projectile point in a 15 x 30 m area; further work recommended

Borden No.	Site Name	Year(s) Assessed	Cultural Affiliation	Site Type	Comments
AfGv-12	MURKY WATERS	1974	Undetermined Pre-Contact	Unknown	None (Researched by David Stothers)
AfGv-13	KAWEEGHA	1974	Archaic (?)	Unknown	None (Researched by David Stothers)
AfGv-22	DIETTE	1974, 2001	Archaic, Woodland (Iroquoian, Princess Point)	Lithic Scatter	1974: None (Researched by David Stothers) 2001: Several flakes and 1 projectile point (Late Archaic) in 15 x 15 m area; further work recommended
AfGv-5	Port Maitland Heights	1974	Archaic	Unknown	None (Researched by David Stothers)
AfGv-6	OAK GROVE	1974	Undetermined Pre-Contact	Unknown	None (Researched by David Stothers)
AfGv-7	LYONS	1974	Undetermined Pre-Contact	Unknown	None (Researched by David Stothers)
AfGv-8	DIBB	1974	Undetermined Pre-Contact	Unknown	None (Researched by David Stothers)

None of these previously-identified sites are located within or immediately adjacent to the study area, and all are situated west of the Grand River. Regardless, the presence of nine known sites in the vicinity of the study area demonstrates the desirability of this locality for early settlement and resource exploitation.

1.3.3 Natural Environment

Environmental factors played a substantial role in shaping early land-use and site selection processes, particularly in small Pre-Contact societies with non-complex, subsistence-oriented economies. Euro-Canadian settlers also gravitated towards favourable environments, particularly those with agriculturally-suitable soils and a moderate climate. In order to fully comprehend the archaeological context of the study area, the following five features of the local natural environment must be considered: 1) forests; 2) drainage systems; 3) climatic conditions; 4) physiography; and 5) soil types.

The study area lies within the deciduous forest, an ecological zone described as having the most diverse forest life in Ontario. The region is characterized by a wide range of tree and shrub species, including eastern white pine, red pine, eastern hemlock, white cedar, yellow birch, sugar and red maple, basswood, red oak, black walnut, butternut, tulip, magnolia, black gum, and many types of oaks and hickories. A number of rare species of mammals, birds, plants and insects reside in the deciduous forest, including sassafras and tulip trees, southern flying squirrels, and red-bellied woodpeckers. Today, over 90% of Ontario's population lives in this small region (MNR 2014).

Relatively little of the original forest cover remains standing today, however, as early Euro-Canadian agriculturalists conducted large-scale clearing operations to prepare the land for cultivation—only scattered woodlots remain in areas that are otherwise too poor for agriculture (MNR 2014). In Pre-Contact times, however, these dense forests would have been particularly bountiful. It is believed that the First Nations of the Great Lakes region exploited close to 500 plant species for food, beverages, food flavourings, medicines, smoking, building materials, fibres, dyes and basketry (Mason 1981:59–60). Furthermore, this diverse vegetation would have

served as both home and food for a wide range of game animals, including white tailed deer, turkey, passenger pigeon, cottontail rabbit, elk, muskrat and beaver (Mason 1981:60).

In terms of local drainage systems, the study area falls entirely within the Lower Grand major basin, which comprises part of the Grand River watershed (GRCA 2014). Specifically, the subject lands are located 77 m east of the Grand River, 42 m west of an unnamed wetland and 347 m north of Lake Erie.

The local climatic region is that of the Lake Erie Counties, which lies south of the South Slopes. The immediate vicinity of the study area experiences a mean annual temperature of 7.8 ºC, with mean daily maximum temperatures of 26.2 ºC in July and mean daily maximum temperatures of -1.2 ºC in January. The average frost-free period for the vicinity of the study area lasts 149 days, and the growing season is typically 210 days long. The average annual precipitation level is 736 mm, 367 mm of which falls between May and September. The mean annual snowfall level for this region is 127 cm (Presant and Acton 1984:18–21). On the whole, this agriculturally-favourable climate would have been well-suited for the common grain and forage crops grown during the Euro-Canadian period, and would even allow for the growth of less common species such as peanuts and ginseng (Present and Acton 1984:21).

Physiographically, the study area lies within the region known as the Haldimand Clay Plain, which consists of a series of parallel clay belts deposited during the time of glacial Lake Warren. This region occupies most of the Niagara Peninsula above the escarpment, and covers an area of roughly 3,500 sq. km (Chapman and Putnam 1984:156–157). These physiographic elements have accumulated over limestone and dolostone bedrock belonging to Detroit River Group (Davidson 1989:42).

The soils within the study area belong exclusively to the Granby family (GNY1). These soils consist of mainly lacustrine sand and loamy sand parent materials, and are characterized by poor drainage qualities. Interestingly, these soils are mostly commonly found within the Norfolk Sand Plain, rather than the Haldimand Clay Plain. Surface textures are typically loamy sand or sandy loam with Granby soils, and subsoil textures are generally loamy sand, sand, or occasionally, fine sand (Presant and Acton 1984:38, Sheet 7).

In summary, the study area possesses a number of environmental characteristics which would have made it attractive to both Pre-Contact and Euro-Canadian populations. The rich deciduous forest and the nearby waterways would have attracted a wide variety of game animals, and consequently, early hunters. With proper artificial drainage, the Granby soils would have been acceptable for the mixed agriculture practiced by Euro-Canadian populations. Finally, the proximity of the study area to the Grand River and Lake Erie would also have influenced its settlement and land-use history. Such major waterways functioned as principal transportation routes in both Pre- and Post-Contact times.

1.3.4 Archaeological Fieldwork and Property Conditions

1.3.4.1 Stage 1 and 2 Assessments

The Stage 1 and 2 assessments were carried out on October 15, 2012 under MTCS licence #P089, PIF #P089-020-2012. These assessments encompassed the entirety of the study area, and involved 1) the on-site documentation of all areas of no archaeological potential and 2) test pit survey in all areas of archaeological potential. Legal permission to enter and conduct all necessary fieldwork activities on project lands was granted by the property owner.

Key personnel involved during the Stage 1 and 2 assessments were D.H. Knight, Project Director; C.J. Gohm, Deliverables Manager; C. Hanson, Assistant Project Manager; P. Hoskins, Field Director; B. Thomas, Assistant Field Director; R. Tobicoe, Aboriginal Monitor; and two additional crew members.

As discussed in Section 1.2.4, the study area currently consists of trees, bushes and grassed areas (see Image 1–Image 2). Field conditions were ideal during the assessments, with high ground surface visibility and dry soils for screening. The specific weather and lighting conditions are summarized in Section 3.1.

No unusual physical features were encountered during the assessments that affected fieldwork strategy decisions or the identification of artifacts or cultural features (e.g., dense root mats, boulders, rubble, etc.). A private fenced enclosure located in the southeastern part of the study area was not assessed.

1.3.4.2 Stage 3 Cemetery Investigation

The Stage 3 cemetery investigation was carried out on October 15–16, 2012 under MTCS licence #P089, PIF #P089-021-2012. This investigation was conducted to test for the presence/absence of the cemetery, and involved the mechanical excavation of a series of trenches in the eastern part of the study area. Legal permission to enter and conduct all necessary fieldwork activities on project lands was granted by the property owner.

Key personnel involved during the Stage 3 cemetery investigation assessment were D.H Knight, Project Manager and Field Director; C.J. Gohm, Deliverables Manager; C. Hanson, Assistant Project Manager; and R. Tobicoe, Aboriginal Monitor.

As mentioned above, the study area currently consists of trees, bushes and grassed areas. Field conditions were ideal during the Stage 3 cemetery investigation, with high ground surface visibility. The specific weather and lighting conditions for the days of assessment are summarized in Section 4.1.

2.0 STAGE 1 BACKGROUND STUDY

2.1 Summary

The Stage 1 assessment of the study area, conducted under MTCS licence #P007, PIF #P089-020-2012, was accomplished through an examination of the archaeology, history, geography and current land condition of the vicinity of the study area. This background study was carried out using archival sources (e.g., historical publications and records) and current academic and archaeological publications (e.g., archaeological studies and reports). It also included the analysis of modern topographic maps (at a 1:50,000 scale), recent satellite imagery, and historical maps/atlases of the most detailed scale available (50 chains to 1 inch).

With occupation beginning in the Palaeo-Indian period approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Pre-Contact and Euro-Canadian histories (see Section 1.2). Evidence of Archaic period, Woodland period and Early Contact period remains are well-attested in Haldimand County, and Euro-Canadian archaeological sites dating to pre-1900 and post-1900 contexts are likewise common. The presence of nine previously-identified sites in the vicinity of the study area demonstrates the desirability of this locality for early settlement and resource exploitation (see Section 1.3.2).

As mentioned in Section 1.3.3, the natural environment of the study area would have been attractive to both Pre-Contact and Euro-Canadian populations as a result of proximity to the Grand River and Lake Erie, and the diverse local vegetation would also have encouraged settlement throughout Ontario's lengthy history. With proper drainage, the soils would also have been suitable for agricultural purposes. Euro-Canadian populations would have been particularly drawn to the Naval Depot, which was an area of early settlement (see Section 2.3).

In summary, the Stage 1 background study included an up-to-date listing of sites from the MTCS's archaeological sites database (in a 1 km radius around the study area), the consideration of previous archaeological field work in the area (in a 50 m radius around the study area), the analysis of topographic maps and historic settlement maps (at the most detailed scale available), and the study of aerial photographs/satellite imagery. In this manner, the standards for background research set out in Section 1.1 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:14–15) were met.

2.2 Field Methods (Property Inspection)

A Stage 1 property inspection was not conducted for this background study. Instead, all on-site documentation was carried out over the course of the Stage 2 property survey, in keeping with Standards 2a–b in Section 2.1 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:28). As mentioned in Section 1.3.4, legal permission to enter and conduct all necessary fieldwork activities on project lands was granted by the property owner.

All areas subject to visual inspection were assessed in accordance with the requirements set out in Section 1.2 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:15–16). Specifically, the visually inspected areas were examined systematically (at a 5 m interval)

under ideal weather and lighting conditions with excellent ground surface visibility. The results of ARA's archaeological potential modelling are discussed below.

2.3 Analysis and Conclusions

In addition to the relevant historical sources and the results of past excavations and surveys (see Section 1.2–Section 1.3), the archaeological potential of a property can be assessed using its soils, hydrology and landforms as considerations. What follows is an in-depth analysis of the archaeological potential of the study area, which incorporates the results of the on-site documentation conducted in October 2012.

Throughout southern Ontario, scholars have noted a strong association between site locations and waterways. Young, Horne, Varley, Racher and Clish, for example, state that "either the number of streams and/or stream order is always a significant factor in the positive prediction of site presence" (1995:23). They further note that certain types of landforms, such as moraines, seem to have been favoured by different groups throughout prehistory (Young et al. 1995:33). According to Janusas (1988:1), "the location of early settlements tended to be dominated by the proximity to reliable and potable water resources." Site potential modeling studies (Peters 1986; Pihl 1986) have found that most prehistoric archaeological sites are located within 300 m of either extant water sources or former bodies of water, such as post-glacial lakes.

While many of these studies do not go into detail as to the basis for this pattern, Young, Horne, Varley, Racher and Clish (1995) suggest that the presence of streams would have been a significant attractor for a host of plant, game and fish species, encouraging localized human exploitation and settlement. Additionally, lands in close proximity to streams and other water courses were highly valued for the access they provided to transportation and communication routes. Primary water sources (e.g., lakes, rivers, streams and creeks) and secondary water sources (e.g., intermittent streams and creeks, springs, marshes and swamps) are therefore of pivotal importance for identifying archaeological potential (MTC 2011:17).

Section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* emphasizes the following six features/characteristics as being additional indicators of positive potential for Pre-Contact archaeological materials: 1) features associated with extinct water sources (glacial lake shorelines, relic river channels, shorelines of drained lakes, etc.); 2) the presence of pockets of well-drained soils (for habitation and agriculture); 3) elevated topography (e.g. drumlins, eskers, moraines, knolls, etc.); 4) distinctive landforms that may have been utilized as spiritual sites (waterfalls, rocky outcrops, caverns, promontories, etc.); 5) proximity to valued raw materials (quartz, ochre, copper, chert outcrops, medicinal flora, etc.); and 6) accessibility of plant and animal food sources (spawning areas, migratory routes, prairie lands, etc.) (MTC 2011:17–18).

Conversely, it must be understood that non-habitational sites (e.g., burials, lithic quarries, kill sites, etc.) may be located anywhere. Potential modeling appears to break down when it comes to these idiosyncratic sites, many of which have more significance than their habitational counterparts due to their relative rarity. The Stage 1 archaeological assessment practices outlined in Section 1.4.1 of the *Standards and Guidelines for Consultant Archaeologists* ensure that these important sites are not missed in Ontario, as no area can be exempted from further archaeological

work unless it has been subjected to a Stage 1 property inspection or Stage 2 on-site documentation (MTC 2011:20–21).

With the development of integrated 'complex' economies in the Euro-Canadian era, settlement tended to become less dependent upon local resource procurement/production and more tied to wider economic networks. As such, proximity to transportation routes (roads, canals, etc.) became the most significant predictor of site location, especially for Euro-Canadian populations. In the early Euro-Canadian era (pre-1850), when transport by water was the norm, sites tended to be situated along major rivers and creeks—the 'highways' of their day. With the opening of the interior of the Province of Ontario to settlement after about 1850, sites tended to be more commonly located along historically-surveyed roads. Section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* recognizes trails, passes, roads, railways and portage routes as examples of such early historical transportation routes (MTC 2011:18).

In addition to transportation routes, Section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* emphasizes three other indicators of positive potential for Euro-Canadian archaeological materials: 1) areas of early settlement (military outposts, pioneer homesteads or cabins, early wharfs or dock complexes, pioneer churches, early cemeteries, etc.); 2) properties listed on a municipal register, designated under the *Ontario Heritage Act* or otherwise categorized as a federal, provincial or municipal historic landmark/site; and 3) properties identified with possible archaeological sites, historical events, activities or occupations, as identified by local histories or informants (MTC 2011:18).

Based on the location, drainage and topography of the subject lands and the application of land-use modelling, it seems clear that the study area, in general, would have potential for both Pre-Contact and Euro-Canadian archaeological sites. Local indicators of archaeological potential include two primary water sources (the Grand River and Lake Erie) and one area of early settlement (the Naval Depot). Section 2.1 of the *Standards and Guidelines for Consultant Archaeologists* states that only those areas that are permanently wet, consist of exposed bedrock, have steep slopes greater than 20°, or have been subjected to deep land alterations that have severely damaged the integrity of archaeological resources can be considered exempt from requiring Stage 2 archaeological assessment (MTC 2011:28). These guidelines serve as effective criteria for identifying specific areas of no archaeological potential.

The results of the on-site documentation, coupled with modern satellite imagery and topographic mapping, indicate that the study area currently consists of a mixture of areas of archaeological potential and areas of no archaeological potential. Specifically, the assessment determined that the western and southern limits of the study area consist of lands sloped greater than 20° (see Image 3–Image 5). The remainder of the study area retains its archaeological potential, or otherwise requires test-pitting to confirm disturbance. In total, 90.28% (0.46 ha) of the study area was found to have archaeological potential and 9.72% (0.05 ha) was found to be sloped greater than 20°. The identified areas of no archaeological potential are depicted in Map 24.

2.4 Recommendations

The results of the Stage 1 archaeological assessment indicated that the study area currently comprises a mixture of areas of archaeological potential and areas of no archaeological potential. Although the areas of no archaeological potential within the study area were not recommended for further assessment, the remainder of the study area either 1) had potential for Pre-Contact and Euro-Canadian archaeological materials or 2) required test-pitting to confirm disturbance. The areas of archaeological potential within the subject lands clearly warranted further assessment.

3.0 STAGE 2 PROPERTY ASSESSMENT

3.1 Field Methods

Given that the study area consisted of lands where ploughing was not possible or viable (i.e., non-agricultural lands and wooded areas), it was necessary to utilize the test pit survey method to complete the Stage 2 property assessment. Weather and lighting conditions were ideal during the assessment, with partly cloudy skies, a high of 19 °C and very good visibility on October 15, 2012. ARA therefore confirms that fieldwork was carried out under weather and lighting conditions that met the requirements set out in Section 2.1 Standard 3 of the *Standards and Guidelines for Consultant Archeologists* (MTC 2011:29).

Using the test pit survey method, ARA crewmembers hand-excavated small regular test pits with a minimum diameter of 30 cm at prescribed intervals across the study area. Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists* stipulates that lands within 300 m of any feature of archaeological potential be examined at a maximum interval of 5 m, and any lands more than 300 m from such features be examined at a maximum interval of 10 m (MTC 2011:31–32). Given the presence of multiple indicators of archaeological potential in the vicinity of the study area, a maximum interval of 5 m was adopted for the property assessment (see Image 6–Image 8).

In accordance with Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists*, each test pit was excavated into the first 5 cm of subsoil (MTC 2011:32). The resultant pits were then examined for stratigraphy, cultural features and/or evidence of fill (see Image 9–Image 10). The soil from each test pit was screened through 6 mm mesh and examined for archaeological materials (see Image 11–Image 12). If archaeological materials were encountered over the course of the test pitting survey, each Positive Test Pit would be documented and all artifacts would be collected according to their associated test pit. All test pits were backfilled upon completion, as per the property owners' instruction (MTC 2011:32).

Artifacts that may indicate the presence of significant cultural deposits include bone, charcoal, lithics (stone tools and refuse generated by their production and use), ceramics, glass and metal. Archaeological features such as pits, foundations and other non-portable remains may also be detected during a Stage 2 property assessment. All archaeological materials with potential CHVI are documented, whether associated with Pre-Contact Aboriginal groups or Post-Contact First Nations, Métis and Euro-Canadian populations. Artifact locations are recorded on topographic maps, in field notes and on a GPS handheld unit. Specifically, ARA utilized a Topcon GRS-1 Dual Frequency RTK GNSS Receiver and Field Controller capable of network-corrected measurements to 1 cm accuracy (using the UTM17 NAD83 coordinate system) during the assessment.

All areas of archaeological potential within the study area were assessed according to these methods, and the results of the Stage 2 assessment are summarized in Map 24. In fulfillment of the requirements set out in Section 7.8 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:137), the field methods utilized during the assessment are summarized in Table 2. This summary includes the areas of no archaeological potential identified during the Stage 1 assessment in accordance with Section 7.8.1 Standard 3b (MTC 2011:137).

Table 2: Summary of Utilized Field Methods

Category	Study Area
Property assessed by test pit survey at a maximum interval of 5 m	90.28% (0.46 ha)
Property assessed by pedestrian survey at a maximum interval of 5 m	0.00% (0.00 ha)
Property assessed by test pit survey and visual inspection to confirm disturbance	0.00% (0.00 ha)
Property not assessed because of disturbed areas	0.00% (0.00 ha)
Property not assessed because of permanently wet areas	0.00% (0.00 ha)
Property not assessed because of sloped areas	9.72% (0.05 ha)
Property not assessed because of exposed bedrock	0.00% (0.00 ha)
Property assessed where standard survey intervals could not be maintained	0.00% (0.00 ha)
Total	**100% (0.51 ha)**

In keeping with the requirements set out in Section 2.1 Standard 4 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:29), GPS coordinates were recorded for at least one fixed reference landmark (e.g., an Ontario Land Surveyor benchmark, Hydro pole, standard iron bar, etc.) located in the vicinity of the study area. The GPS co-ordinates for the documented fixed reference landmark appears in Table 3, and the location of this landmark is presented in Map 25.

Table 3: GPS Co-ordinates for the Fixed Reference Landmark

Fixed Reference Landmark	UTM Zone	Easting (m)	Northing (m)
FRL1 (Utility Pole)	17	607,851	4,781,353

3.2 Record of Finds

The assessment, conducted under optimal conditions, did not result in the discovery of any archaeological materials. The inventory of the documentary record for the assessment is summarized in Table 4. This inventory includes a quantitative summary of the field notes, photographs and mapping materials involved in the project, all of which are stored at ARA's processing facility located at 154 Otonabee Drive, Kitchener, Ontario.

Table 4: Inventory of the Documentary Record

Field Documents	Total	Nature	Location
Photographs	45	Digital	On server at 154 Otonabee Drive, Kitchener; Folder P089-020-2012
Field Notes	3	Digital	Filed and on server at 154 Otonabee Drive, Kitchener; Folder P089-020-2012
Field Maps	2	Hard copy	Filed and on server at 154 Otonabee Drive, Kitchener; Folder P089-020-2012

3.3 Analysis and Conclusions

No archaeological sites were identified within the study area.

3.4 Recommendations

Based on the results of the property assessment, the study area appears to be devoid of any significant archaeological remains. ARA recommends that no further archaeological assessment be required within the assessed lands, should they ever be the subject of a future development/construction project. Given that the study area contained no archaeological sites, the Stage 3 cemetery investigation could proceed without concern for previously-undocumented resources.

4.0 STAGE 3 CEMETERY INVESTIGATION

4.1 Field Methods

The field methods for this Stage 3 cemetery investigation were developed to determine 1) whether there were any deeply-buried remains or grave shafts along the eastern limits of the study area, and 2) the extent of the cemetery, if identified. Given that the Stage 1 and 2 archaeological assessments did not result in the identification of any archaeological materials in this part of the property, traditional Stage 3 site-specific assessment methods (i.e., Controlled Surface Pickup and test unit excavation) were not warranted (MTC 2011:47–53).

In accordance with the requirements set out in Section 3.2 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:47), the investigation began with the recording of a permanent datum point and the establishment of a grid based on this datum. This datum is tied to a fixed reference landmark (a permanent stake) and the grid was established at a +/- 1.0 cm accuracy. The location of the datum point is shown in Map 24, and the associated GPS co-ordinates appear in Table 5 (these data do not reveal any detailed site location information and therefore can be included in the main report).

Table 5: GPS Co-ordinates for Permanent Datum Point

Location	UTM Zone	Easting (m)	Northing (m)
Datum Point (D1)	17	616,613	4,746,103

Weather and lighting conditions were ideal during the assessment, with partly cloudy skies, a high of 19 °C and very good visibility on October 15, 2012, and partly cloudy skies, a high of 10 °C and very good visibility on October 16, 2012. ARA therefore confirms that fieldwork was carried out under weather and lighting conditions that met or exceeded the requirements set out in Section 3.2 Standard 2 and Section 7.9.1 Standard 1 of the *Standards and Guidelines for Consultant Archeologists* (MTC 2011:47, 143).

Given that the investigation was focused on determining whether there were any grave shafts in the eastern part of the study area, the field methods for this Stage 3 cemetery investigation were developed in accordance with the directions set out in Section 3.3.3 (Assessment of Sites in Deeply Buried Conditions) and Section 4.2.3 (Excavation by Mechanical Topsoil Removal) of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:55–56, 78–79). Specifically, a series of 2 x 10 m trenches were mechanically excavated to test for the presence of subsurface cultural features. To avoid damage to potential features, a Case 580N backhoe with an articulated wrist and straight-bladed bucket was employed to remove the topsoil. This equipment was used to pull sections of soil away from the trenches (see Image 13–Image 14).

In accordance with Section 3.3.3 Standard 4a of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:56), on-site monitoring was conducted during mechanical topsoil removal. Topsoil removal continued until the topsoil/subsoil interface was reached; this interface was then immediately subjected to a close examination for potential colour and texture changes

that could be indicative of grave shafts. If any such cultural features were recognized, these deposits would be recorded and mapped. Overall, an area of 80 m^2 was mechanically excavated, and the general depth over the area excavated ranged between 1.0 m and 2.5 m (the excavations were extended deeply into the gravelly subsoil to test for the presence of grave shafts).

The areas subjected to mechanical topsoil removal were recorded on a topographic map, in field notes and on a GPS handheld unit (see Map 24). Specifically, ARA utilized a Topcon GRS-1 Dual Frequency RTK GNSS Receiver and Field Controller capable of network-corrected measurements to 1 cm accuracy (using the UTM17 NAD83 coordinate system) during the assessment. The stripped areas were backfilled upon the completion of mechanical excavation, as per the property owner's instruction.

In keeping with the requirements set out in Sections 7.9.2–7.9.5 of the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011:144–147), the comprehensive documentation of the results of the Stage 3 cemetery investigation is presented in Section 4.2–Section 4.4. These sections comprise a comprehensive record of finds, a discussion of ARA's analysis and conclusions, and the presentation of a recommendation for the subject lands.

4.2 Record of Finds

4.2.1 Overview

Location: Eastern edge of study area
Total Number of Test Units: 0
Total Area Mechanically Stripped: 80 m^2
Total Number of Artifacts: 0
***No. of Diagnostic Artifacts*:** 0
Materials Identified: None

4.2.2 Soil Composition and Stratigraphy

The assessment resulted in the identification of two unique lots within the study area: a thin layer of sod/humus (Lot 1) and gravelly subsoil (Lot 2).

4.2.3 Cultural Features

Mechanical topsoil removal and subsequent inspection did not reveal any cultural features within the assessed area.

4.2.4 Artifact Assemblage

The Stage 3 assessment did not result in the identification of any archaeological materials.

4.2.5 Settlement and Site Function Patterns

No data pertaining to settlement patterns or site function were obtained during the Stage 3 assessment.

4.2.6 Inventory of the Documentary Record

The inventory of the documentary record for the Stage 3 cemetery investigation is summarized in Table 6. This inventory includes a quantitative summary of the field notes, photographs and mapping materials involved in the assessment, all of which are stored at ARA's processing facility located at 154 Otonabee Drive, Kitchener, Ontario.

Table 6: Inventory of the Documentary Record

Field Documents	Total	Nature	Location
Photographs	19	Digital	On server at 154 Otonabee Drive, Kitchener; Folder P089-021-2012
Field Notes	1	Digital	Filed and on server at 154 Otonabee Drive, Kitchener; Folder P089-021-2012
Field Maps	1	Hard copy	Filed and on server at 154 Otonabee Drive, Kitchener; Folder P089-021-2012

4.3 Analysis and Conclusions

No artifacts or cultural features were identified during the mechanical topsoil removal. Accordingly, ARA is confident in stating that the Grand River Naval Depot Cemetery is not located in this area. The study area contains no features of CHVI whatsoever.

4.4 Recommendations

No artifacts or cultural features were identified during the Stage 3 cemetery investigation. Accordingly, ARA is confident in stating that the Grand River Naval Depot Cemetery is not located within the assessed area, and that these lands contain no features of CHVI whatsoever. ARA reiterates that no further archaeological assessment be required within the assessed lands should they ever be the subject of a future development/construction project.

5.0 SYNTHESIS OF CONCLUSIONS AND RECOMMENDATIONS

The results of the Stage 1 archaeological assessment indicated that the study area currently comprises a mixture of areas of archaeological potential and areas of no archaeological potential. The areas of archaeological potential within the subject lands clearly warranted further assessment.

The Stage 2 property assessment did not result in the discovery of any archaeological materials. Based on the results of the property assessment, ARA recommends that no further archaeological assessment be required within the assessed lands, should they ever be the subject of a future development/construction project. Given that the study area contained no archaeological sites, the Stage 3 cemetery investigation could proceed without concern for previously-undocumented resources.

No artifacts or cultural features were identified during the Stage 3 cemetery investigation. Accordingly, ARA is confident in stating that the Grand River Naval Depot Cemetery is not located within the assessed area, and that these lands contain no features of CHVI whatsoever. ARA reiterates that no further archaeological assessment be required within the assessed lands should they ever be the subject of a future development/construction project.

A *Letter of Review and Entry into the Ontario Public Register of Archaeological Reports* is requested, as provided for in Section 65.1 of the *Ontario Heritage Act*.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9 of the *Standards and Guidelines for Consultant Archaeologists* requires that the following information be provided for the benefit of the proponent and approval authority in the land use planning and development process (MTC 2011:126–127):

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed 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 archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

7.0 IMAGES

Image 1: View of Field Conditions
(Photo Taken on October 15, 2012; Facing Northwest)

Image 2: View of Field Conditions
(Photo Taken on October 15, 2012; Facing North)

Image 3: Area of No Archaeological Potential – Lands Sloped Greater than 20°
(Photo Taken on October 15, 2012; Facing Northwest)

Image 4: Area of No Archaeological Potential – Lands Sloped Greater than 20° in Background
(Photo Taken on October 15, 2012; Facing Southwest)

Image 5: Area of No Archaeological Potential – Lands Sloped Greater than 20°
(Photo Taken on October 15, 2012; Facing South)

Image 6: View of Crewmembers Test Pitting at a Maximum Interval of 5 m
(Photo Taken on October 15, 2012; Facing East)

Image 7: View of Crewmember Test Pitting at a Maximum Interval of 5 m
(Photo Taken on October 15, 2012; Facing Southeast)

Image 8: View of Crewmembers Test Pitting at a Maximum Interval of 5 m
(Photo Taken on October 15, 2012; Facing Northeast)

Image 9: View of Typical Test Pit Excavated into Subsoil
(Photo Taken on October 15, 2012; Facing North)

Image 10: View of Typical Test Pit Excavated into Subsoil
(Photo Taken on October 15, 2012; Facing North)

Image 11: View of Crewmember Screening Soil through 6 mm Mesh
(Photo Taken on October 15, 2012; Facing Southwest)

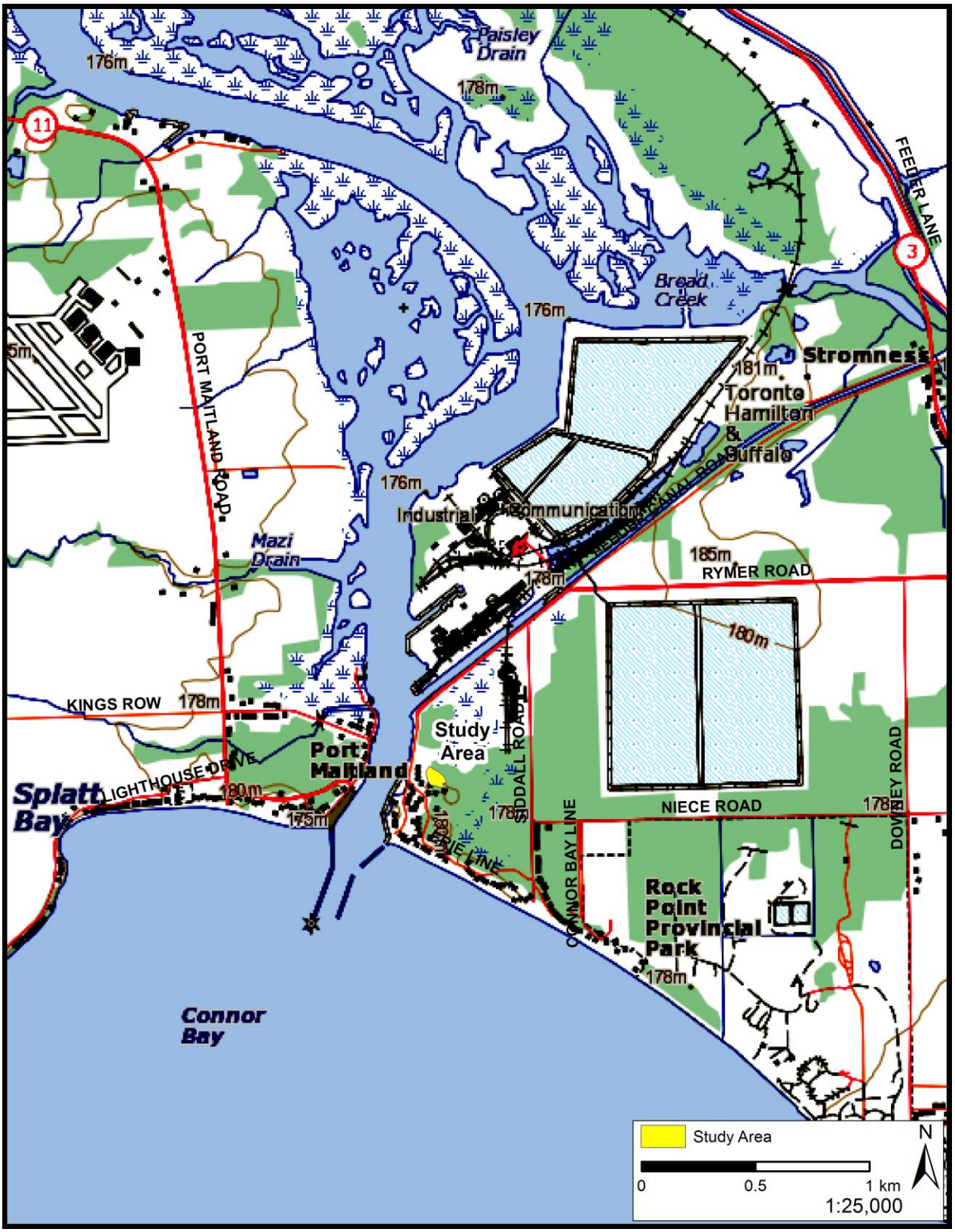
Image 12: View of Crewmember Screening Soil through 6 mm Mesh
(Photo Taken on October 15, 2012; Facing West)

Image 13: View of Mechanical Excavation
(Photo Taken on October 15, 2012; Facing Southeast)

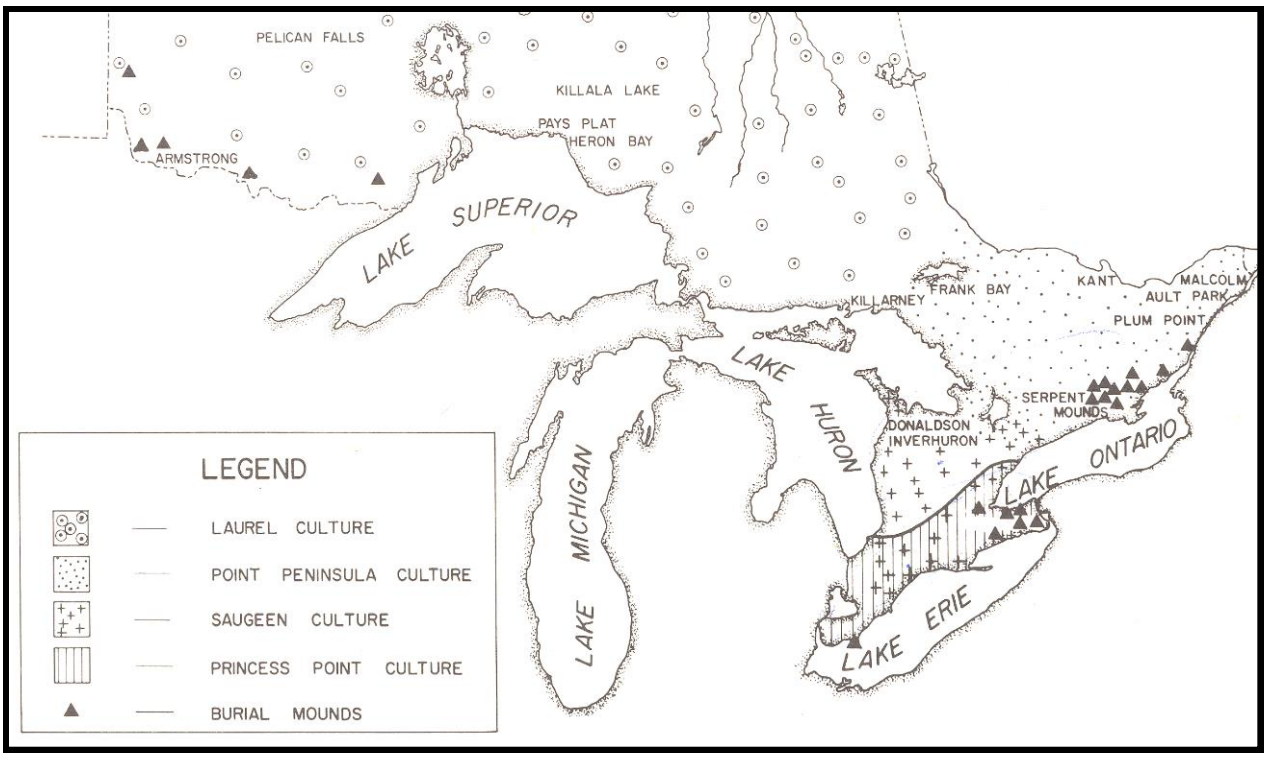
Image 14: View of Mechanical Excavation
(Photo Taken on October 15, 2012; Facing Southeast)

8.0 MAPS

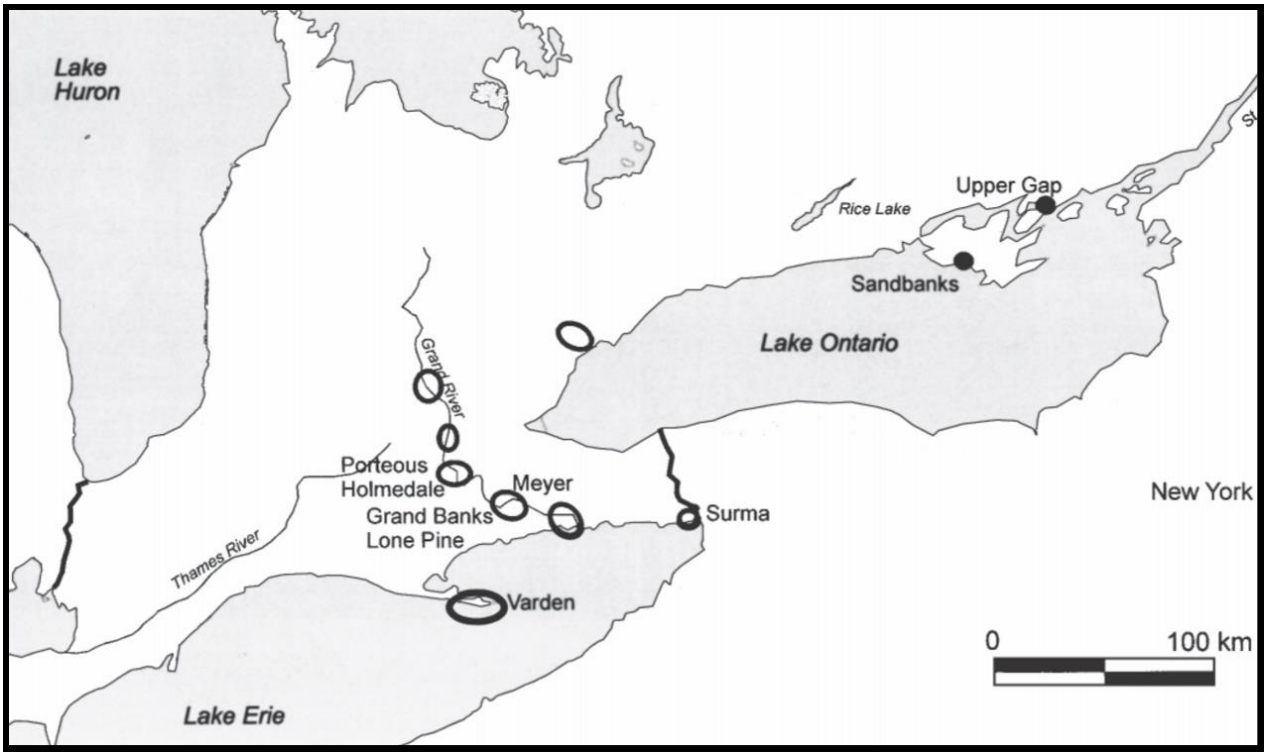
Map 1: Location of the Study Area in the Province of Ontario
(NRC 2004)



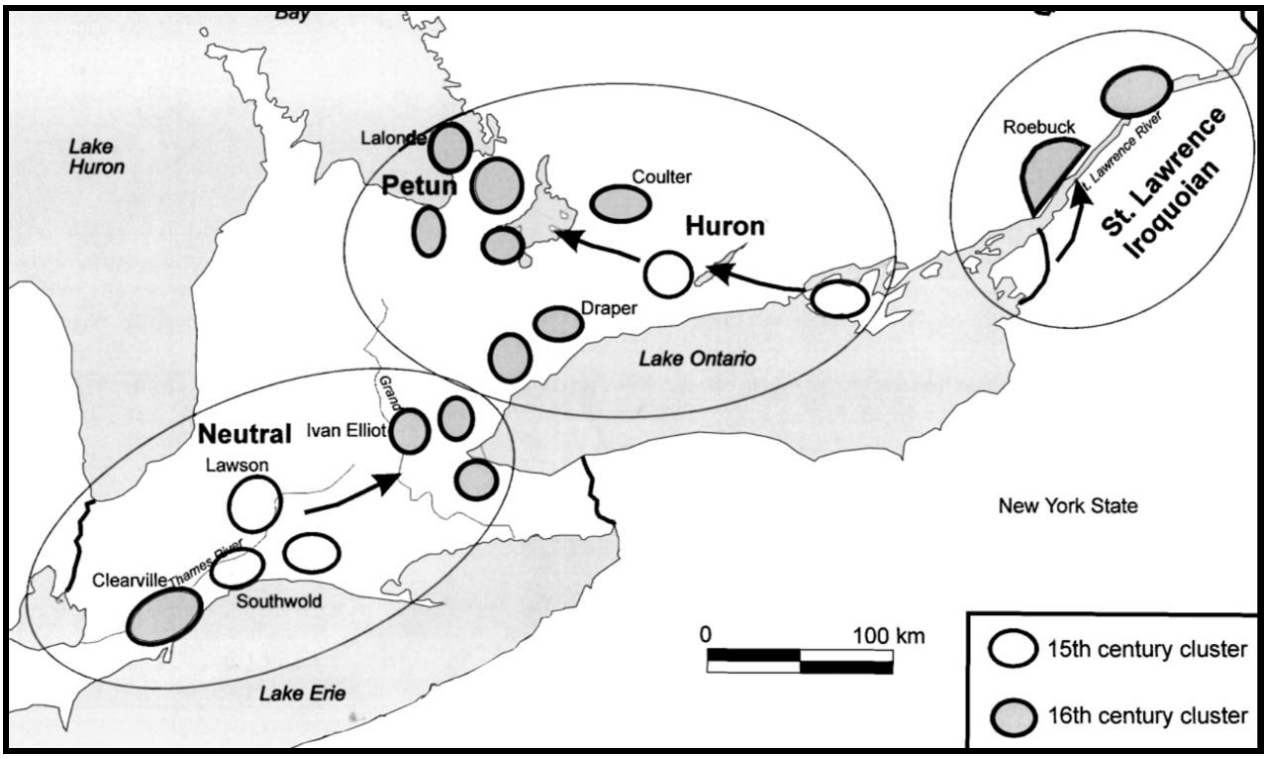
Map 2: Location of the Study Area in Haldimand County
(NRC 2014)



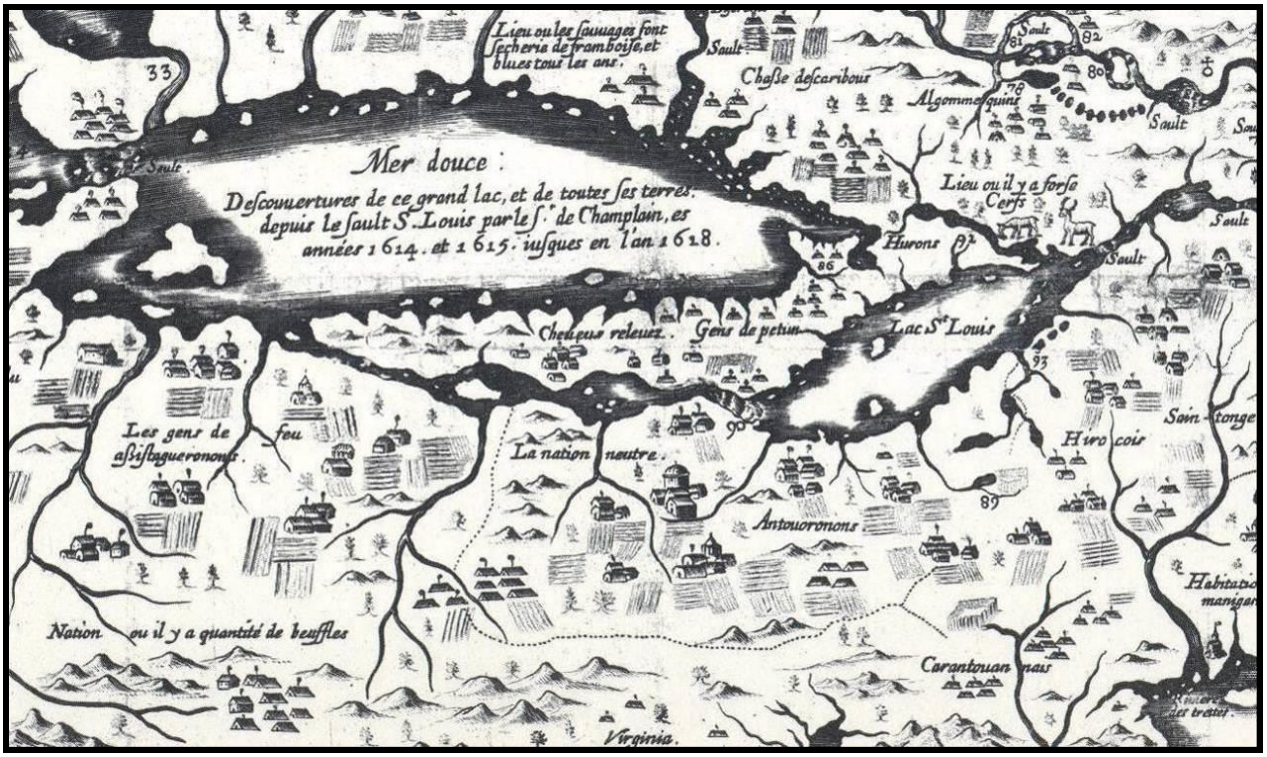
Map 3: Map of Middle Woodland Period Complexes
(Wright 1972:Map 4)



Map 4: Princess Point Site Clusters in Southern Ontario
(Warrick 2000:Figure 3)

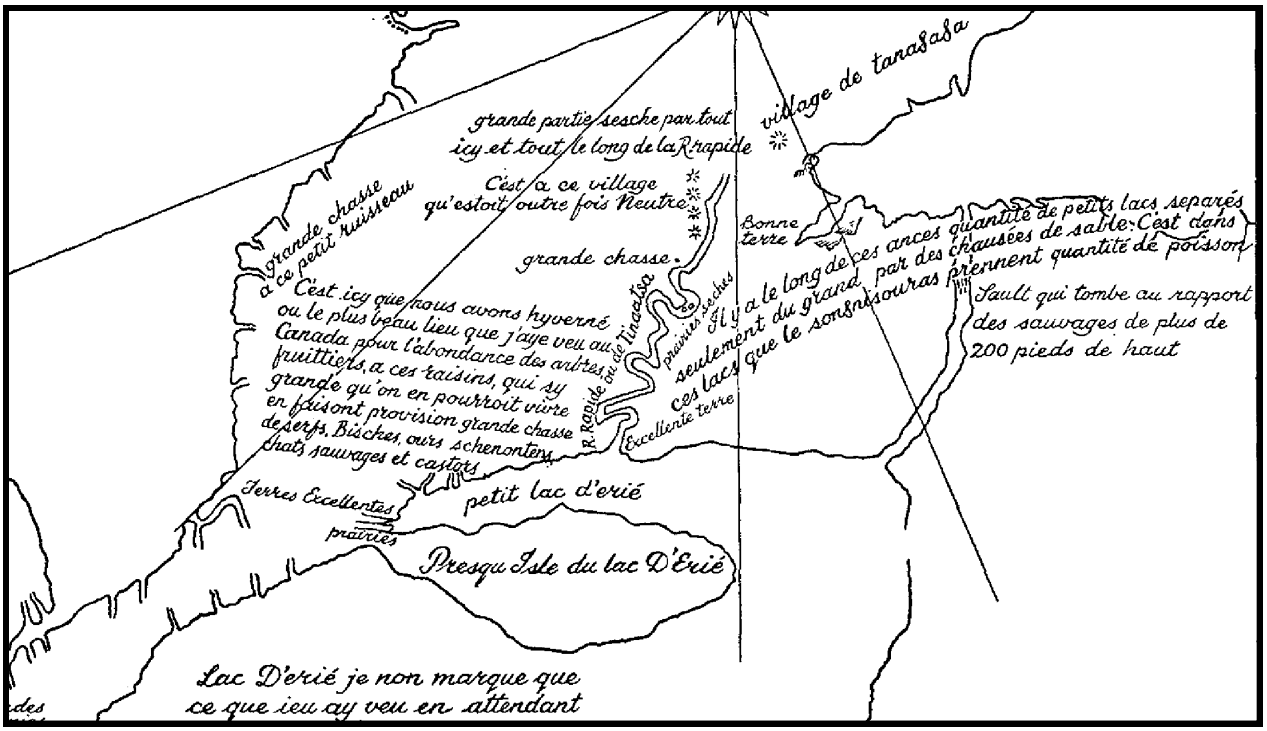


Map 5: Pre-Contact Iroquoian Site Clusters
(Warrick 2000:Figure 10)



Map 6: Detail from S. de Champlain's *Carte de la Nouvelle France* (1632)
(Gentilcore and Head 1984: Map 1.2)

Map 7: Detail from N. Sanson's *Le Canada, ou Nouvelle France* (1656)
(Gentilcore and Head 1984: Map 1.10)

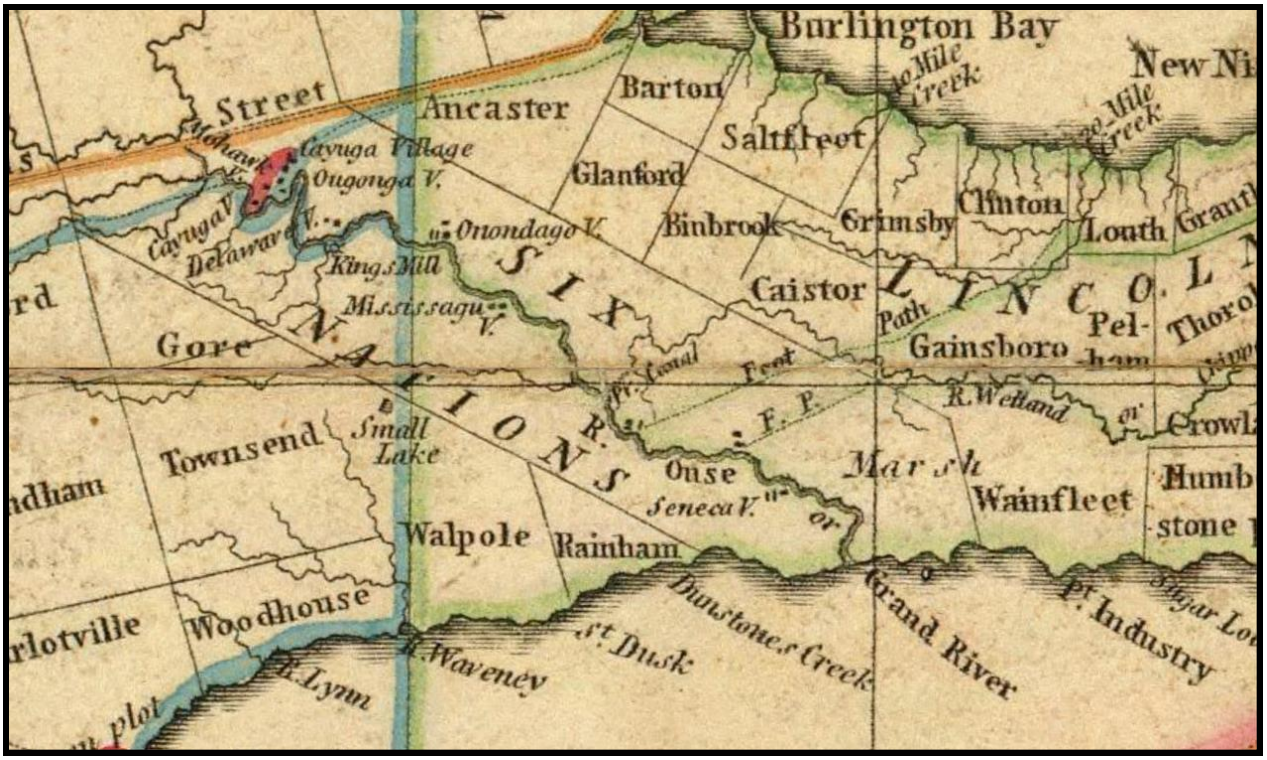


Map 8: Detail from the Map of Galinée's Voyage (1670)
(Lajeunesse 1960:Map 2)

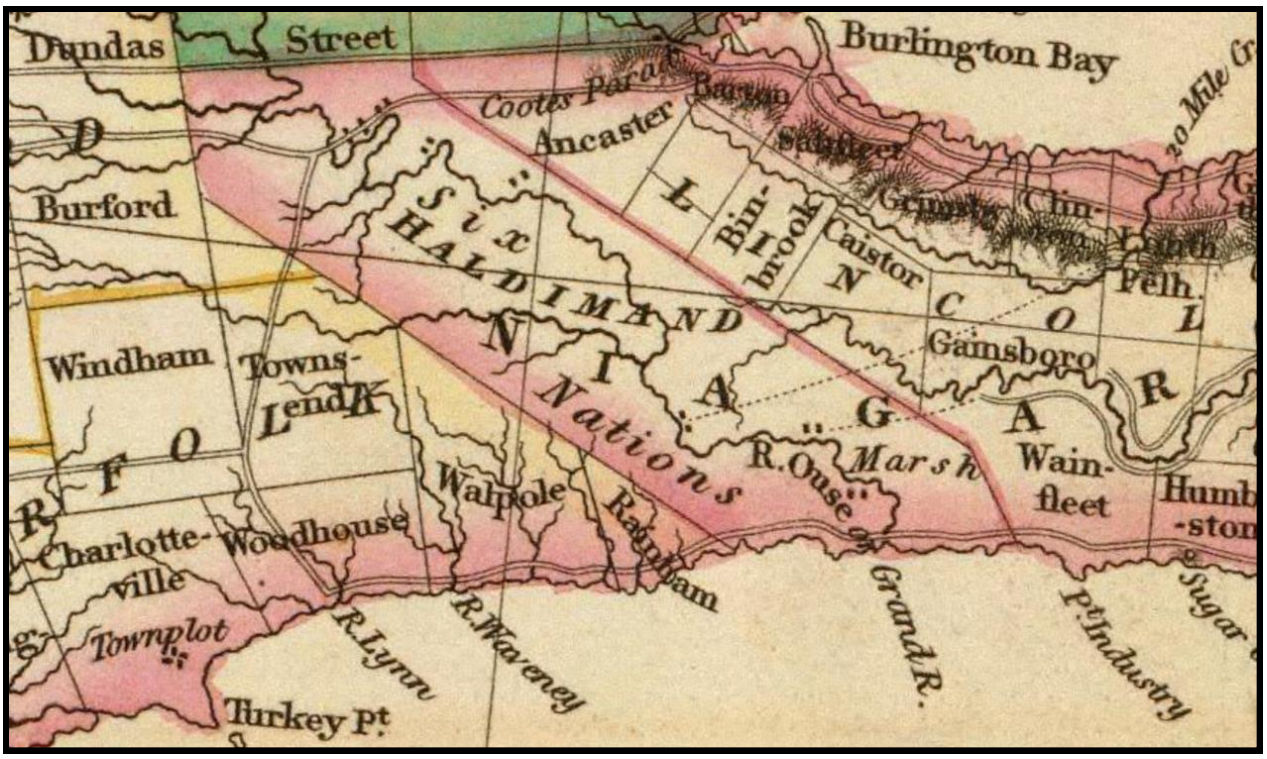
Map 9: Detail from H. Popple's *A Map of the British Empire in America* (1733)
(Cartography Associates 2009)

Map 10: Detail from R. Sayer and J. Bennett's *General Map of the Middle British Colonies in America* (1776)
(Cartography Associates 2009)

Map 11: The Haldimand Tract (Left) and the Haldimand Proclamation (Right)
(Six Nations Council 2010:2)

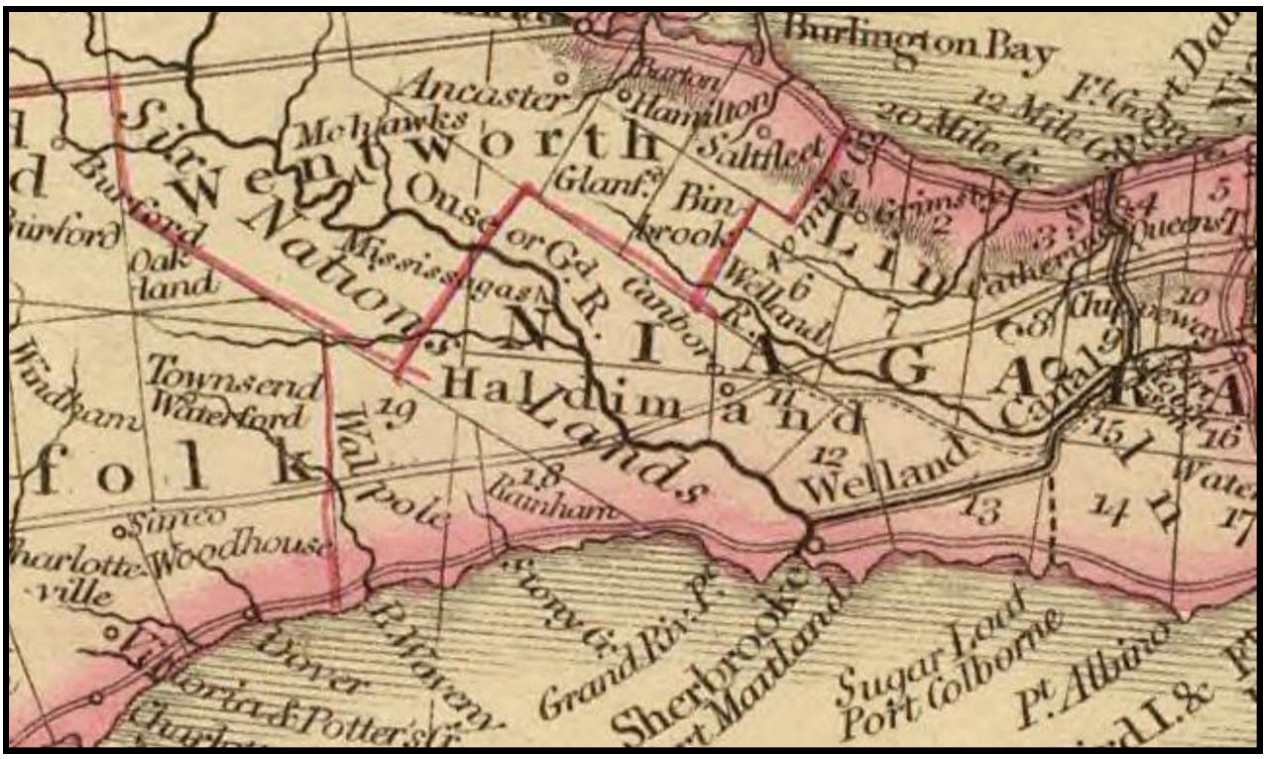


Map 12: Detail from D.W. Smyth's *A Map of the Province of Upper Canada* (1800)
(Cartography Associates 2009)

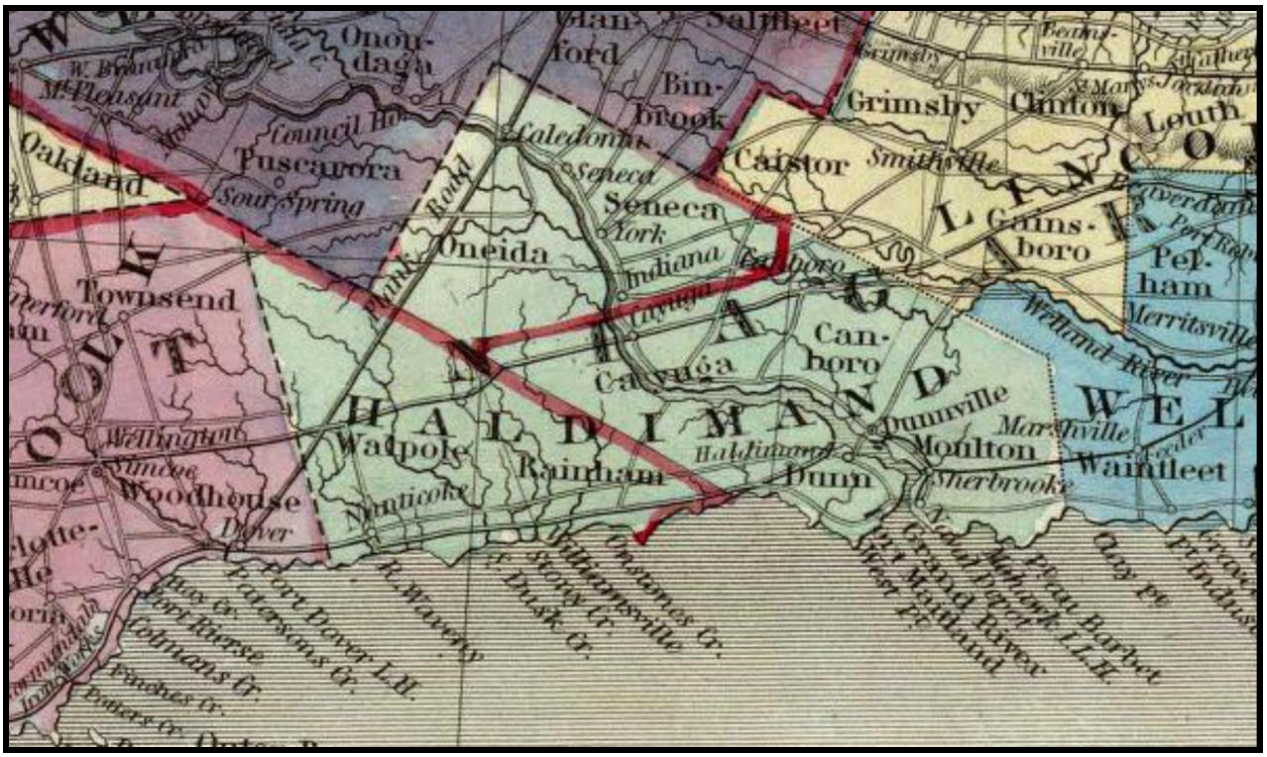


Map 13: Detail from J. Purdy's *A Map of Cabotia* (1814)
(Cartography Associates 2009)

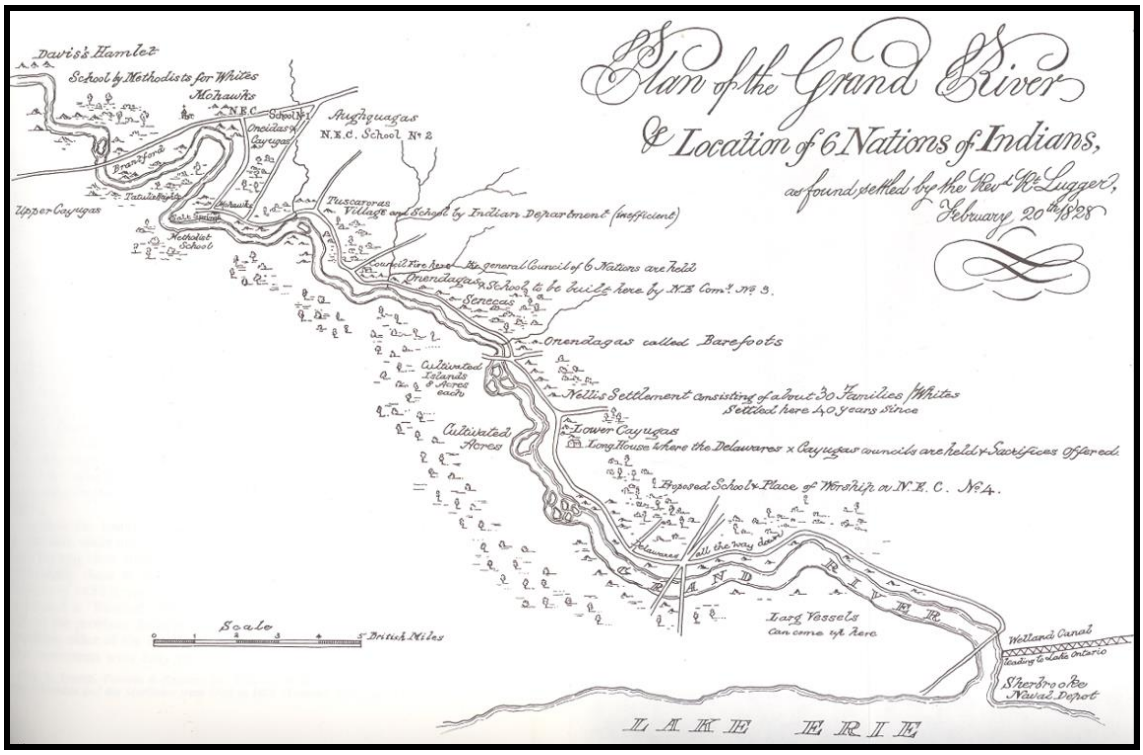
Map 14: Detail from D.W. Smyth's *A Map of the Province of Upper Canada, 2nd Edition* (1818)
(Cartography Associates 2009)



Map 15: Detail from J. Arrowsmith's *Upper Canada* (1837)
(Cartography Associates 2009)

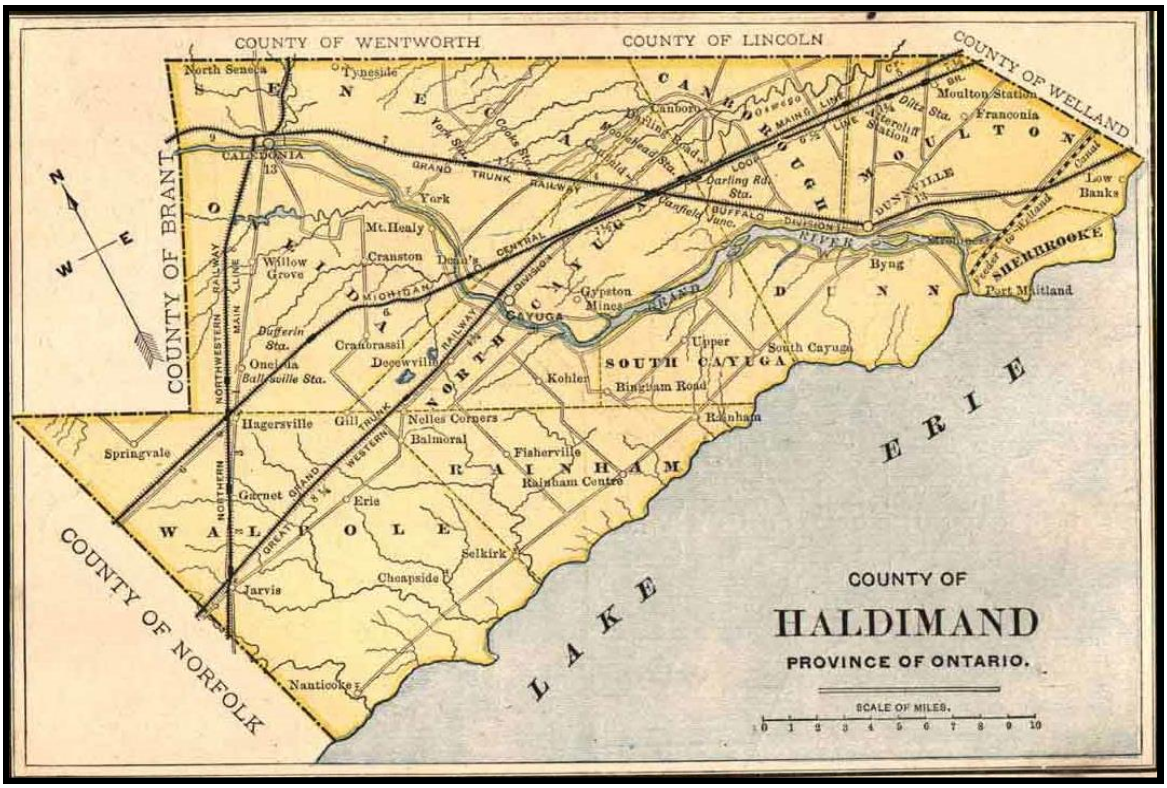


Map 16: Detail from J. Bouchette's *Map of the Provinces of Canada* (1846)
(Cartography Associates 2009)



Map 17: G. Matthew's Reproduction of Rev. R. Lugger's *Plan of the Grand River & Location of 6 Nations of Indians* (1828)
(Johnston 1964:Figure 2)

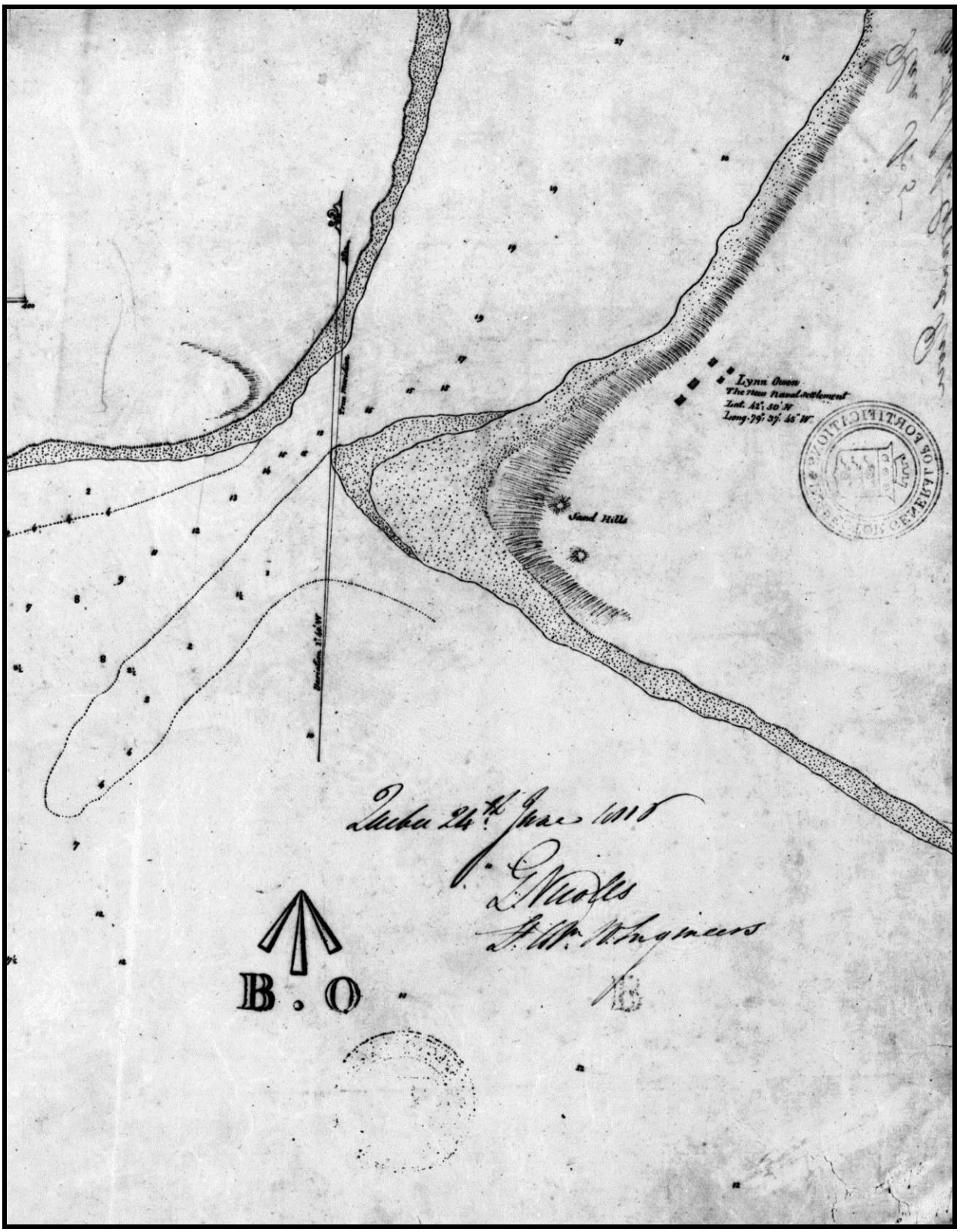
Map 18: Detail from G.W. Colton's *Canada West* (1856)
(Cartography Associates 2009)



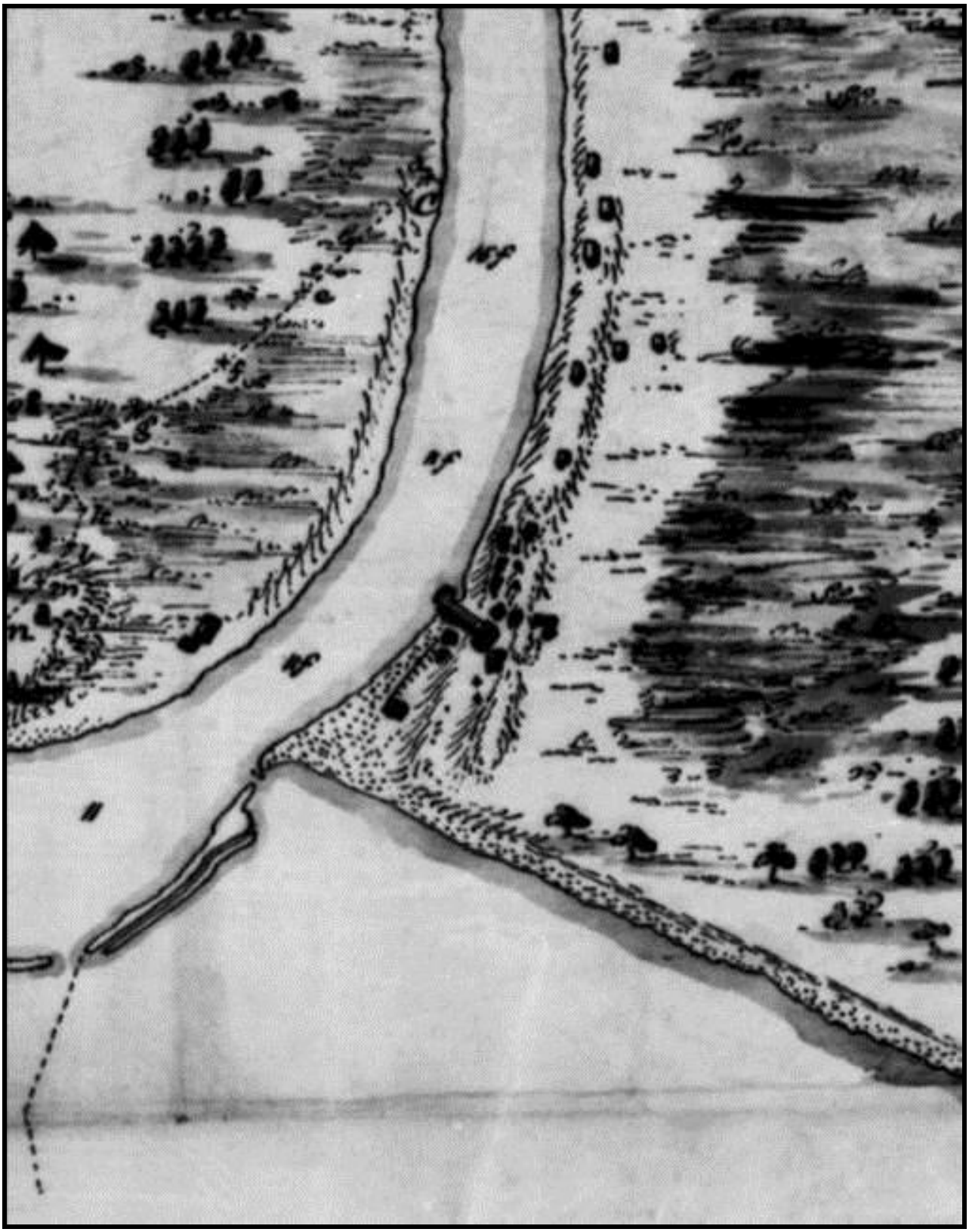
Map 19: Haldimand County from W.J. Gage and Co.'s *Gage's County Atlas* (1886)
(W.J. Gage and Co. 1886)

Map 20: The Townships of Moulton and Sherbrooke from H.R. Page & Co.'s *Illustrated Historical Atlas of the County of Haldimand* (1879) (McGill University 2001)

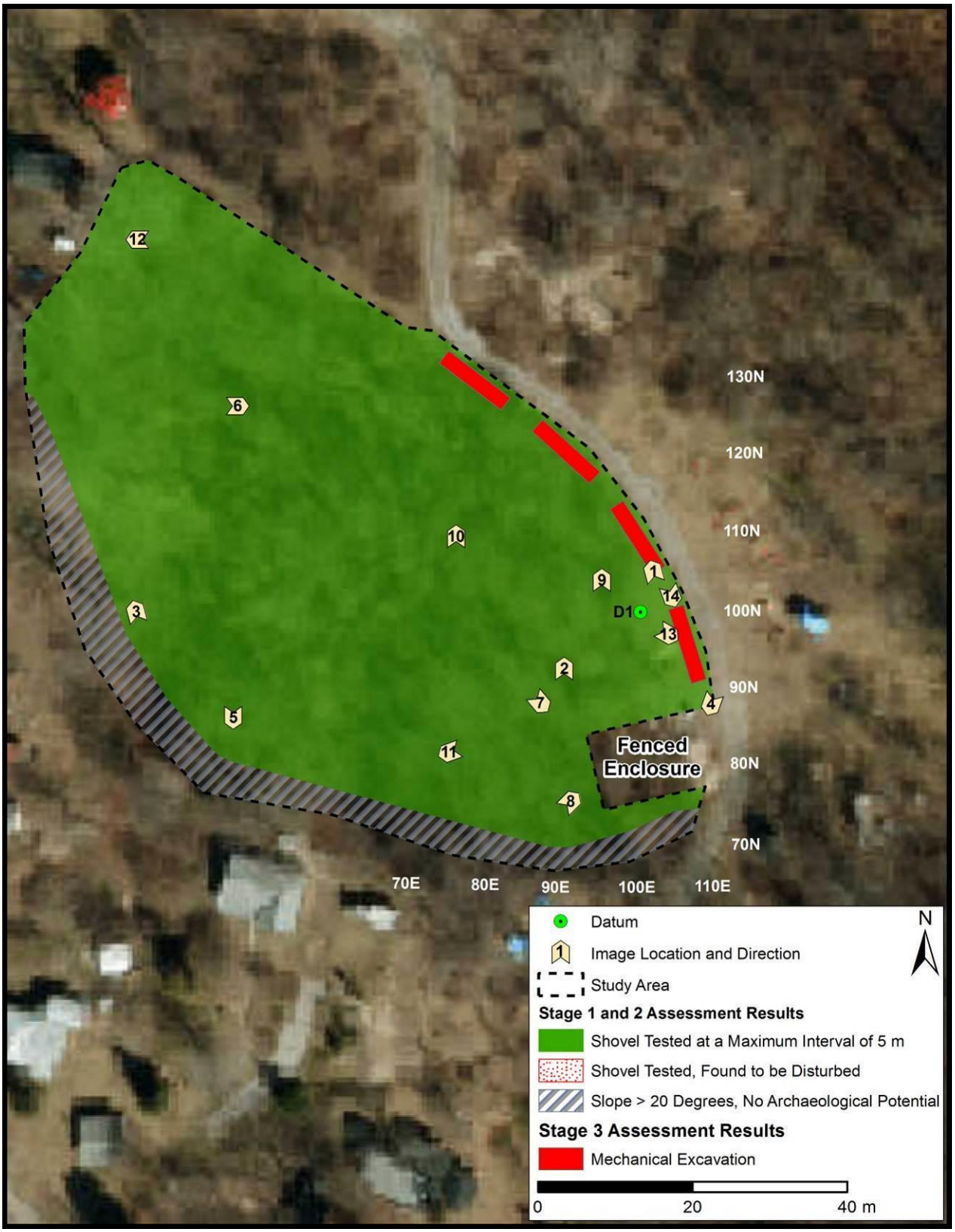
Map 21: Detail of the Townships of Moulton and Sherbrooke from H.R. Page & Co.'s *Illustrated Historical Atlas of the County of Haldimand* (1879), Showing the Study Area
(McGill University 2001: N.B.: Georeferencing is approximate due to Shorelines and Marshes)



Map 22: Detail from Captain W.F.W. Owen's *Grand River Entrance* (1815), Showing the Location of Five Huts at 'Lynn Owen, the New Naval Establishment'
(Docker 2000:9)



Map 23: Detail from J.E. Portlock's *Mouth of the Grand River* (1820), Showing the Layout of the Naval Depot
(Brock University 2009)



Map 24: Stage 1, 2 and 3 Assessment Results – Field Methods and Image Locations
(GRCA 2014)

Map 25: Location of Fixed Reference Landmark
(GRCA 2014)

9.0 BIBLIOGRAPHY AND SOURCES

Archives of Ontario
2009 **The Evolution of the District and County System, 1788-1899**. Accessed online at: http://www.archives.gov.on.ca/english/on-line-exhibits/maps/ontario-district-maps.aspx.

Brock University
2009 **Historical Maps of Niagara – Title Listing**. Accessed online at: http://www.brocku.ca/maplibrary/digital/MAPzoom/maplist.php.

Cartography Associates
2009 **David Rumsey Map Collection**. Accessed online at: http://www.davidrumsey.com/.

Chapman, L.J. and D.F. Putnam
1984 **The Physiography of Southern Ontario, 3rd Edition**. Toronto: Ontario Geological Survey, Special Volume 2.

Coyne, J. H.
1895 **The Country of the Neutrals (As Far as Comprised in the County of Elgin): From Champlain to Talbot**. St. Thomas: Times Print.

Davidson, R.J.
1989 *Foundations of the Land Bedrock Geology.* In **The Natural History of Ontario,** edited by J.B. Theberge, pp. 36–47. Toronto: McClelland and Stewart Inc.

Docker, J.T.
2000 **Grand River Naval Depot**. Dunnville: Dunnville District Heritage Association.
2007 **The Grand River Naval Depot**. Paper Presented at *History of the Grand: 1st Annual Local History Symposium in Cambridge, Ontario.* October 27, 2007, Cambridge, ON. Accessed online at: http://www.cambridge.ca/relatedDocs/docker_The%20Grand%20River%20Naval%20Depot.pdf.

Dodd, Christine F., D.R. Poulton, P.A. Lennox, D.G. Smith and G.A. Warrick
1990 *The Middle Ontario Iroquoian Stage*. In **The Archaeology of Southern Ontario to A.D. 1650,** edited by Chris J. Ellis and Neal Ferris, pp. 321–359. Occasional Publications of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Donovan, P.J.
1918 *The Early Days in Dunnville and its Vicinity*. **The Parish Almanac.** Church of St. Michael, the Archangel, Dunnville.

Ellis, C.J. and Deller, D.B.
1990 *Paleo-Indians***.** In **The Archaeology of Southern Ontario to A.D. 1650**, edited by Chris J. Ellis and Neal Ferris, pp. 37–74. Occasional Publications of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Ellis, C.J., I.T. Kenyon, and M.W. Spence
1990 *The Archaic.* In **The Archaeology of Southern Ontario to A.D. 1650,** edited by Chris J. Ellis and Neal Ferris, pp. 65–124. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Finlayson, W.D.
1977 **The Saugeen Culture: A Middle Woodland Manifestation in Southwestern Ontario**. National Museum of Man Mercury Series, Archaeological Survey of Canada Paper No. 61. Ottawa: National Museums of Canada.

Fox, W.
1990 *The Middle Woodland to Late Woodland Transition.* In **The Archaeology of Southern Ontario to A.D. 1650,** edited by Chris J. Ellis and Neal Ferris, pp. 171–188. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Gentilcore, R.L. and C.G. Head
1984 **Ontario's History in Maps**. Toronto: University of Toronto Press.

Gervais, G.
2004 *Champlain and Ontario (1603-35).* In **Champlain: The Birth of French America**, edited by R. Litalien and D. Vaugeois, pp. 180–190. Montreal: McGill-Queen's Press.

Grand River Conservation Authority (GRCA)
2014 **Grand River Information Network (GRIN)**. Accessed online at: http://www.grandriver.ca/index/document.cfm?sec=63&sub1=0&sub2=0.

H.R. Page & Co.
1879 **Illustrated Historical Atlas of the County of Haldimand**. Toronto: H.R. Page & Co.

Harper, R.
1950 **The Early History of Haldimand County**. N.P.: The Grand River Sachem / Harrison & Arrell Martindale.

Hughes, A.
2007 **The Feeder Canal and its Communities**. Newsletter of the Historical Society of St. Catharines, September 2007.

Hunt, G.T.
1940 **The Wars of the Iroquois: A Study in Intertribal Trade Relations**. Madison,

Irwin & Burnham
1867 **Gazetteer and Directory of the Counties of Haldimand and Brant**. Toronto: Irwin & Burnham Publishers.

Jackson, L. J., C. Ellis, A. V. Morgan and J. H. McAndrews
2000 *Glacial Lake Levels and Eastern Great Lakes Palaeo-Indians.* In **Geoarchaeology: An International Journal**, Volume 15, Number 5, pp. 415–440.

Janusas, S.
1987 **An Analysis of the Historic Vegetation of the Regional Municipality of Waterloo**. Kitchener: Regional Municipality of Waterloo.
1988 **An Archaeological Perspective of an Historical Overview of the Regional Municipality of Waterloo**. Kitchener: Regional Municipality of Waterloo.

Johnston, C.M.
1964 **The Valley of the Six Nations: A Collection of Documents on the Indian Lands of the Grand River.** Toronto: University of Toronto Press.

Karrow, P.F. and B.G. Warner
1990 *The Geological and Biological Environment for Human Occupation in Southern Ontario.* In **The Archaeology of Southern Ontario to A.D. 1650,** edited by Chris J. Ellis and Neal Ferris, pp. 5–35. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Lajeunesse, E.J.
1960 **The Windsor Border Region: Canada's Southernmost Frontier**. Toronto: The Champlain Society.

Lennox, P.A. and W.R. Fitzgerald.
1990 *The Culture History and Archaeology of the Neutral Iroquoians.* In **The Archaeology of Southern Ontario to A.D. 1650,** edited by Chris J. Ellis and Neal Ferris, pp. 405–456. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Mason, R.J.
1981 **Great Lakes Archaeology.** New York: Academic Press.

McGill University
2001 **The Canadian County Atlas Digital Project.** Accessed online at: http://digital.library.mcgill.ca/countyatlas/default.htm.

Métis Nation of Ontario (MNO)
2011 **Culture & Heritage: Who are the Métis**. Accessed online at: http://www.metisnation.org/culture--heritage/who-are-the-metis.aspx.

Ministry of Culture (MCL)
1997 **Conserving a Future for Our Past: Archaeology, Land Use Planning & Development in Ontario. An Educational Primer and Comprehensive Guide for Non-Specialists.** Toronto: Ministry of Culture.

Ministry of Natural Resources (MNR)
2014 **About Ontario's Forests.** Accessed online at: http://www.mnr.gov.on.ca/en/Business/Forests/%202ColumnSubPage/STEL02_163390.html.

Ministry of Tourism and Culture (MTC)
2011 **Standards and Guidelines for Consultant Archaeologists**. Toronto: Ministry of Tourism and Culture.

Ministry of Tourism, Culture and Sport (MTCS)
2012 **Inquiry Concerning Sites within a One Kilometre Radius of the Project Area (Ontario Archaeological Sites Database) and Past Archaeological Work within 50 m of the Project Area.** Submitted via PastPort, email response provided on November 11, 2012. R. Von Bitter, Archaeology Data Coordinator, Ministry of Tourism, Culture and Sport.

Mississaugas of the New Credit First Nation (MNCFN)
2010 **The History of the Mississaugas of the New Credit First Nation**. Hagersville: Mississaugas of the New Credit First Nation.

Mulvany, C.P., G.M. Adam and C.B. Robinson
1885 **History of Toronto and the County of York, Ontario, Volume 1**. Toronto: C. Blackett Robinson.

Natural Resources Canada (NRC)
2004 **The Atlas of Canada: Ontario Relief**. Accessed online at: http://atlas.nrcan.gc.ca/auth/english/maps/reference/provincesterritoriesrelief/ontario_relief.
2013 **The Atlas of Canada: Historical Indian Treaties Time Line**. Accessed online at: http://geogratis.gc.ca/api/en/nrcan-rncan/ess-sst/cb216b8f-8893-11e0-8ed0-6cf049291510.html.
2014 **GeoGratis**. Accessed online at: http://geogratis.gc.ca/geogratis/search?lang=en.

Nelles, R.B.
1905 **County of Haldimand in the Days of Auld Lang Syne.** Port Hope: Hamly Press Book Printers.

Peters, J.H.
1986 *Transmission Line Planning and Archaeological Resources: A Model of Archaeological Potential for Southwestern Ontario*. In **Archaeological Consulting in Ontario: Papers of the London Conference 1985,** ed. W.A. Fox, pp. 19–27. Occasional Papers of the London Chapter, OAS Inc., No. 2. London: OAS.

Phelps, E. (ed.)
1972 **Historical Atlas of Haldimand and Norfolk Counties, Ontario.** Reprint of 1877 and 1879 Editions. Toronto: H.R. Page & Co.

Pihl, R.H.
1986 *Site Potential Modeling in Archaeological Consulting*. In **Archaeological Consulting in Ontario: Papers of the London Conference 1985,** ed. W.A. Fox, pp. 29–40. Occasional Papers of the London Chapter, OAS Inc., No. 2. London: OAS.

Presant, E.W. and C.J. Acton
1984 **The Soils of the Regional Municipality of Haldimand-Norfolk.** Report No. 57 of the Ontario Soil Survey. Guelph: Research Branch, Canada Dept. of Agriculture.

Ramsden, P.G.
1990 *The Hurons: Archaeology and Culture History*. In **The Archaeology of Southern Ontario to AD 1650**, edited by Chris J. Ellis and Neal Ferris, pp. 361–384. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.
2014 *Iroquois*. In **The Canadian Encyclopedia**. Accessed online at: http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1ARTA0004060.

Ray, A.J.
2014 **Hudson's Bay Company**. Accessed online at: http://www.thecanadianencyclopedia.com/articles/hudsons-bay-company.

Schmalz, P.S.
1977 **The History of the Saugeen Indians**. Ottawa: Ontario Historical Society.

Six Nations Council
2010 **Land Rights: A Global Solution for the Six Nations of the Grand River**. Ohsweken: Six Nations Lands & Resources Department.

Smith, D.B.
1987 **Sacred Feathers: The Reverend Peter Jones (Kahkewaquonaby) and the Mississauga Indians**. Toronto: University of Toronto Press.

Smith, W.H.
1846 **Smith's Canadian Gazetteer: Comprising Statistical and General Information Respecting all Parts of the Upper Province, or Canada West**. Toronto: H. & W. Rowsell.

Spence, M.W., R.H. Pihl and C. Murphy
1990 *Cultural Complexes of the Early and Middle Woodland Periods.* In **The Archaeology of Southern Ontario to A.D. 1650**, edited by Chris J. Ellis and Neal Ferris, pp. 125–170. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Tipton, T.
1880 *The Mouth of the Grand*. **The Dunnville Weekly Chronicle**.

W.J. Gage and Co.
1886 **Gage's County Atlas**. Toronto: W.J. Gage and Co.

Warrick, G.
2000 *The Precontact Iroquoian Occupation of Southern Ontario.* **Journal of World Prehistory** 14(4):415–456.
2005 *Finding the Invisible Mississaugas of Davisville*. **Grand Actions** 10(4):1–2.

Weaver, S.
2012 **Presentation on the Possible Discovery of the Military Cemetery at Beckley Beach.** March 31, 2012.

Williamson, R.F.
1990 *The Early Iroquoian Period of Southern Ontario.* In **The Archaeology of Southern Ontario to A.D. 1650,** edited by Chris J. Ellis and Neal Ferris, pp. 291–320. Occasional Publications of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Williamson, R.F. (ed.)
2008 **Toronto: A Short Illustrated History of its First 12,000 Years.** Toronto: James Lorimer & Company Ltd.

Wright, J.V.
1972 **Ontario Prehistory: An Eleven-Thousand-Year Archaeological Outline**. Archaeological Survey of Canada, National Museum of Man. Ottawa: National Museums of Canada.

Young, P.M., M.R. Horne, C.D. Varley, P.J. Racher and A.J. Clish
1995 **A Biophysical Model for Prehistoric Archaeological Sites in Southern Ontario**. Toronto: Research and Development Branch, Ministry of Transportation.