ARCHAEOLOGY | HERITAGE | OUTREACH | EDUCATION

Stage 1 and 2 Archaeological Assessments
Proposed Development on Poplar Sideroad
Town of Collingwood
Lot 40, Concession 10
Geographic Township of Nottawasaga
Simcoe County, Ontario

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Original Report

EXECUTIVE SUMMARY

Under a contract awarded in October 2014, Archaeological Research Associates Ltd. carried out Stage 1 and 2 archaeological assessments of lands with the potential to be impacted by proposed development on Poplar Sideroad in the Town of Collingwood, Simcoe County, Ontario. 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 assessments were completed in advance of a Draft Plan Application and were triggered by the requirements set out in Section 2.6 of the Provincial Policy Statement, 2014 issued under Section 3 of the *Planning Act* (MMAH 2014).

The Stage 1 and 2 assessments were conducted concurrently in November 2014 and May 2015 under licence #P089, PIF #P089-0069-2014. The assessment encompassed the subject area for the Draft Plan Application (7972 and 8004 Poplar Sideroad) and additional lands to the southeast that were part of a joint approach that is no longer being pursued (7896 and 7914 Poplar Sideroad). Although they are not part of the Draft Plan Application, the assessment results for the additional lands are included in the subject report in fulfillment of archaeological licensing requirements. At the time of assessment, the study area comprised primarily agricultural lands, although there was also a maintained lawn around an extant barn in the south and two grassed lowland areas near a tributary of Black Ash Creek in the northwest and northeast, respectively. The portion of the property located northwest of the developable boundary was not assessed. Legal permission to enter and conduct all necessary fieldwork activities within the assessed lands was granted by the property owners.

The Stage 1 assessment determined that the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. The Stage 2 assessment of the identified areas of archaeological potential did not result in the identification of any archaeological materials.

Regarding the subject area for the Draft Plan Application (7972 and 8004 Poplar Sideroad), Archaeological Research Associates Ltd. recommends that no further assessment be required within the assessed lands. The unassessed lands located northwest of the developable boundary are proposed to be placed in a restrictive, non-development zone and so were not subject to archaeological assessment. Should these lands instead be proposed for development, then they must be subject to archaeological assessment. Regarding the additionally assessed lands to the southeast that were part of a joint approach that is no longer being pursued (7896 and 7914 Poplar Sideroad), Archaeological Research Associates Ltd. recommends that no further assessment be required. It is requested that this report be entered into the *Ontario Public Register of Archaeological Reports*, 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
CSP – Controlled Surface Pickup
MTC – (Former) Ministry of Tourism and Culture
MTCS – Ministry of Tourism, Culture and Sport
PIF – Project Information Form
PTP – Positive Test Pit
ROW – Right-of-Way
S&Gs – Standards and Guidelines for Consultant Archaeologists

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1.0 PROJECT CONTEXT

1.1 Development Context

Under a contract awarded in October 2014, ARA carried out Stage 1 and 2 archaeological assessments of lands with the potential to be impacted by proposed development on Poplar Sideroad in the Town of Collingwood, Simcoe County, Ontario. This report documents the background research and fieldwork involved in the assessments, and presents conclusions and recommendations pertaining to archaeological concerns within the project lands. The assessments were completed in advance of a Draft Plan Application and were triggered by the requirements set out in Section 2.6 of the Provincial Policy Statement, 2014 issued under Section 3 of the *Planning Act* (MMAH 2014).

The subject study area consisted of an irregularly-shaped 37.43 ha parcel of land located in the southern part of the Town of Collingwood (see Map 1–Map 2). The assessment encompassed the subject area for the Draft Plan Application (7972 and 8004 Poplar Sideroad) and additional lands to the southeast that were part of a joint approach that is no longer being pursued (7896 and 7914 Poplar Sideroad). Although they are not part of the Draft Plan Application, the assessment results for the additional lands are included in the subject report in fulfillment of archaeological licensing requirements. The study area is generally bounded by High Street to the east, residential properties and Poplar Sideroad to the south, a residential property to the west and wooded areas to the northwest and north. At the time of assessment, the study area comprised primarily agricultural lands, although there was also a maintained lawn around an extant barn in the south and two grassed lowland areas near a tributary of Black Ash Creek in the northwest and northeast, respectively. The portion of the property located northwest of the developable boundary was not assessed. In legal terms, the study area falls on part of Lot 40, Concession 10 in the Geographic Township of Nottawasaga (Simcoe County).

The Stage 1 and 2 assessments were conducted concurrently in November 2014 and May 2015 under licence #P089, PIF #P089-0069-2014. Legal permission to enter and conduct all necessary fieldwork activities within the assessed lands was granted by the property owners. In compliance with the objectives set out in Section 1.0 and Section 2.0 of the *S&Gs* (MTC 2011:13–41), these investigations were carried out in order to:

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

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 stored at ARA's processing facility located at 154 Otonabee Drive, Kitchener.

The MTCS is asked to review the results and recommendations presented in this report and express their satisfaction with the fieldwork and reporting 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 Simcoe 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 (or perhaps even earlier) 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 (400 BC–AD 600) and Middle to Late Woodland transition (AD 600–900). 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. 1990:142–43).

The Point Peninsula complex (400 BC–AD 900) extended through south-central and eastern Ontario, southern Quebec, western and northern New York and north-western Vermont. It is characterized mainly by small camp sites and seasonal village sites that would have been repeatedly used over the years. Point Peninsula material culture is characterized by the use of Vinette 2 ceramics (coil-built pottery with dentate or pseudo-scallop decoration), a wide variety of chipped stone tools, and influences from northern Ontario and the Hopewell area to the south (Spence et al. 1990:157–158). Hopewellian influence, for example, can be seen in the continued use of burial mounds (e.g. the Serpent Mounds near Peterborough) until ca. AD 400 (Wright 1972:44–51).

During the Middle to Late Woodland transition (AD 600–900), the first rudimentary evidence of maize (corn) horticulture appears in southern Ontario. Based on the available archaeological evidence, which comes primarily from the vicinity of the Grand and Credit Rivers, this pivotal development was not particularly widespread (Fox 1990:171, Figure 6.1). The adoption of maize horticulture instead appears to be linked to the emergence of the Princess Point complex, whose material remains include decorated ceramics (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 distinctive artifacts and horticultural practices of Princess Point peoples have led to the suggestion that they were directly ancestral to the later Iroquoian-speaking populations of southern Ontario (Warrick 2000:427). These artifacts have not been found in the vicinity of the study area, however, suggesting that a gradual transition between Point Peninsula and Early Iroquoian lifeways took place here instead.

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, Petun, 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 southern 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, Petun and the Neutral Nations. In the opinion of many scholars, the Huron and Petun likely belonged to the same cultural tradition prior to the 17th century (Ramsden 1990:361; Warrick 2000:446); accordingly, the study area is perhaps best described as falling within the territory of the Huron-Petun (see Map 4).

Prior to European contact, Huron-Petun material culture is characterized by globular-shaped ceramic vessels, ceramic pipes, bone/antler awls and beads, ground stone celts and adzes, chipped stone tools, and even rare copper objects (Ramsden 1990:363–373). The Huron-Petun lived in large villages, often with palisades, and also made use of temporary hunting and fishing camps, cabin sites and small hamlets (Ramsden 1990:373–378). The Huron-Petun population peaked and stabilized at approximately 30,000 people during the late 15th century, and villages were 1.7 ha in size on average. By the early 16th century, however, there was a contraction of earlier territories, and the Huron-Petun had almost abandoned the north shore of Lake Ontario (Warrick 2000:446–454). The best documented Huron-Petun sites south of Georgian Bay include the Petun Cluster and the Sidey-Mackay site west of Creemore (Ramsden 1990:Figure 11.1).

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 at Huron-Petun sites, save for small quantities of reused metal scrap. With the onset of the fur trade ca. AD 1580, European trade goods such as kettles, iron axes and knives, and glass beads become much more plentiful. Interestingly, a general deterioration in the quality of these metal goods is discernable over time, which may have been related to European cost-cutting efforts (Ramsden 1990:373).

1.2.2 Early Contact

1.2.2.1 European Explorers

One of the first Europeans to venture into what would become Ontario was Étienne Brûlé, who was sent by Samuel de Champlain in Summer 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 *coureurs 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 *Carte de la Nouvelle France* (1632) encapsulates his accumulated knowledge of the area (see Map 5). 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 Petun lands are shown south *La Mer Douce* (Georgian Bay) whereas Huron lands are shown in the vicinity of Lake Simcoe. The absence of Huron-Petun sites along *Lac St. Louis* (Lake Ontario) reflects the settlement pattern shift towards Huronia (Ramsden 1990:383).

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. For the Huron in particular, this time was marked by intensive contact with French explorers and missionaries. The Jesuits established their first permanent mission among the Huron in 1634, and in 1639, under the guidance of Father Jerome Lalemant, Sainte-Marie was built as a central mission to the Huron (Heidenreich 1990:487). This fenced community, situated on the eastern bank of the Wye River, consisted of barracks, a church, workshops, residences, and a sheltered area for Aboriginal visitors. By 1648, 66 Frenchmen had come to reside at Sainte-Marie (SMATH 2015).

Initially, the missionaries from Sainte-Marie were assigned as parish priests to the major Huron villages in the area, but as the Jesuits grew more numerous, non-Huron groups were similarly engaged (Heidenreich 1990:487). During this period, pottery and pipe styles became more homogeneous amongst the Huron, and many of their lithic and bone tools began to be replaced by imported European items (Ramsden 1990:383).

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 Huron and Petun Nations are clearly labelled, and the settlement pattern shift away from Lake Ontario is apparent

(see Map 6). Unfortunately, the increased contact between the First Nations and the Europeans had the disastrous consequence of introducing foreign diseases into many communities. Over the course of the 17th century, these diseases progressed from localized outbreaks to much more widespread epidemics (MCL 1997:35; Warrick 2000:457).

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 (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).

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, judging from the land cessions to follow, 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. As an example, a French 'survey' of the Aboriginal population in the vicinity of Lake Simcoe conducted in 1736 indicates that Matchedash Bay was a principal area of Ojibway settlement, a situation that would not have been apparent based on excavated evidence alone (Innisfil Library 2012).

Historical maps from the 18th century likewise shed valuable light on the cultural landscape of what would become southern Ontario. H. Popple's *A Map of the British Empire in America* (1733), for example, shows the Neutral, Huron and Petun Nations destroyed by the Haudenosaunee ca. 1650, and also demonstrates the ephemeral environmental impact of the mobile Anishinabeg (see Map 7). Interestingly, this map also depicts the '*Toronto'* and '*Tanaovate'* waterways, which are widely held to represent the Severn and Humber Rivers, respectively. J.B. D'Anville's *Canada Louisiane et Terres Angloises* (1755) shows the approximate location of the ruin of Sainte-Marie, and proclaims that it was 'destroyed by the Iroquois*'* over a century after the event (see Map 8).

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 2015). 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. Comprising the descendants of those born from such relations (and subsequent intermarriage), the Métis emerged as a distinct Aboriginal people during the 1700s. 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 2015).

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. Bonne's *Partie de l'Amérique Septentrionale* (1783) provides an excellent view of the ethnic landscape of southern Ontario prior to the widespread arrival of European settlers (see Map 9). This map depicts Fort Toronto on the north shore of Lake Ontario, for example, which was abandoned and burned by the French garrison during their retreat from the British in 1759 (Williamson 2008:56). The remainder of what would become southern Ontario appears to have been largely untouched by British colonialism at this time.

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 3.0 km strip of land on the west side of the Niagara River was surrendered by the Seneca First Nation (Surtees 1994:97; NRC 2010). 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.

The alternate military communication route was the Toronto Carrying Place, which was an important overland trade and transit route linking Lake Ontario to Georgian Bay. In August 1785, Deputy Surveyor General John Collins was sent to acquire the northern part of this trail from the Ojibway of *Lac La Clie* (Lake Simcoe), and he negotiated for the purchase of "one mile on each side of the foot path from the Narrows at Lake Simcoe to Matchedash Bay with three miles and a half square at each end of the road, as well as one mile on each side of the Severn River" (Surtees 1994:106).

The 'Collins Purchase' was very problematic, however, as no copy of the actual treaty was ever found and the content of the agreement was based entirely on the accounts of Collins and his interpreter (see Map 10). No payment was made to the Ojibway, and Collins noted that "they left it to 'their good father' to determine the amount to be paid" (Surtees 1994:106). Two years later, in September 1787, Collins would negotiate for the purchase of the southern part of the Toronto Carrying Place. This 'Toronto Purchase' was also poorly documented, and had to be renegotiated in August 1805 (NRC 2010).

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 (AO 2011). The vicinity of the study area fell within the Hesse District at this time, which consisted of a massive tract of land encompassing all of the western and inland parts of the province extending due north from the tip of Long Point on Lake Erie in the east. 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.

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 (AO 2011).

The vicinity of the study area fell nominally within the boundaries of Kent County in the Western District at this time, which comprised all of the territory of Upper Canada that what not included in the other 18 counties (AO 2011). In essence, Kent was the largest county ever created, stretching from Lake Erie to Hudson's Bay (McGeorge 1939:36). This arrangement would not last, however, and the 'northern' parts of Kent County would soon be removed to form separate counties. The study area comprised part of the 'Great Tract of Wood Land' that stretched from the St. Clair River to Lake Simcoe and beyond, and remained in the possession of the First Nations.

In 1793, Simcoe visited the Lake Simcoe area in order to discern the ideal location for a new naval harbour. He quickly settled on the site of Penetanguishene, and subsequently began planning for the fort that would secure British control over Georgian Bay and Lake Huron.

During negotiations on May 19, 1795, the Chippewas agreed to relinquish the northern tip of the Penetanguishene Peninsula to the British (see Map 10), and the lands were formally acquired on May 22, 1798 (NRC 2010). The surrender was arranged by William Claus for a sum of 101 Quebec pounds, and the Ojibway assured Simcoe that the price included the lands discussed in the Collins Purchase (Hunter 1909a:12; Surtees 1994:107).

1.2.3.2 Simcoe 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 (AO 2011). Simcoe County came into existence at this time, although its status as a 'county' existed only on paper for military and enlistment purposes (Hunter 1909a:16).

The vicinity of the study area became part of Simcoe County in the Home District at this time. D.W. Smyth's *A Map of the Province of Upper Canada* (1800) and J. Purdy's *A Map of Cabotia* (1814) clearly show the layout of the earliest townships between Lake Ontario and Lake Simcoe, and demonstrates that the vicinity of the study area remained largely untouched by early British colonialism (see Map 11–Map 12). The only settlement indicated is the town plot for the military base at Penetanguishene.

When the Euro-Canadian settlement process accelerated in the early 19th century, the Crown moved to acquire additional lands in Simcoe County. S.S. Wilmot was sent to explore the territory between Kempenfelt Bay and the Penetanguishene Peninsula in March 1808, and an 'agreement to purchase' was made for a substantial tract of land in the same year. In 1811, Wilmot surveyed the Penetanguishene Road so that the Northwest Company could transport their furs from Lake Huron to the Town of York (Hunter 1909a:13). The treaty was not formally ratified until November 18, 1815, as the War of 1812 disrupted the Crown's plans. With the completion of the 'Lake Simcoe Land Purchase' (see Map 10), the government acquired 101,250 ha in exchange for 4,000 Quebec pounds worth of goods (NRC 2010).

The remainder of Simcoe County was formally obtained on October 17, 1818, when the 'Lake Simcoe-Nottawasaga Purchase' was completed with the Ojibway (Hunter 1909a:12–15). This purchase, also arranged by William Claus, involved the acquisition of approximately 644,760 ha of land to the west of Lake Simcoe (see Map 10). Chief Yellowhead, the leader of the Ojibway delegates, agreed to sell this massive tract for an annuity of 1,200 pounds of currency in goods, although there was no mention of how the annuity was to be distributed (NRC 2010). Unlike the earlier land purchases in the area, which were geared towards military or trade-related goals, the 1818 purchase was carried out for the purpose of acquiring lands for Euro-Canadian settlement (Innisfil Library 2012). These lands would eventually be divided amongst Simcoe, Grey, Wellington and Dufferin Counties.

After the cession of this large tract of land, the government moved swiftly to establish townships for settlement (Hunter 1909a:39). By 1821, the majority of the surveys were complete, and the boundaries of Simcoe County were formally set out in an Act of Parliament (AO 2011). All of

the lands were fully surveyed by the mid-1830s, at which time Simcoe County comprised 30 townships (see Map 13).

The first Euro-Canadian settlers in Simcoe County consisted of a band of six fugitive Scottish families from Lord Selkirk's Red River Settlement. In 1819, these families settled southwest of Bradford, in what was known as the Scotch Settlement. That same year, three Irish families settled near the Holland River, two families settled along the edge of the Township of Tecumseth, and one family settled at Big Bay Point. A dozen families also settled along the Penetanguishene Road in the Townships of Oro and Vespra in 1819. Other families homesteaded in Penetanguishene after the garrison was transferred from Nottawasaga in 1818. Growth in the area was slow, however, mainly due to a lack of good roads (Smith 1846:171). Settlers did not arrive quickly or in great numbers until 1831, when the Reform Bill riots in Britain caused many people to emigrate to more peaceful areas (Hunter 1909a:62–63).

In the late 1830s and early 1840s, the layout of what would become southern Ontario was significantly altered through the creation of the Huron, Brock, Wellington, Talbot and Simcoe Districts (AO 2011). An Act of Parliament provided for the issue of a Proclamation to declare Simcoe as a separate and distinct district in 1837 (Hunter 1909a:236). In that same year, the southwestern Townships of Proton, Melancthon, Luther and Amaranth were added to Waterloo County prior to the incorporation of the Wellington District. In 1838, the easternmost Townships of Rama, Mara and Thorah were ceded to York County (see Map 14). In February 1841, Simcoe became part of Canada West in the new United Province of Canada.

The best-settled areas in the mid-19th century included West Gwillimbury and Tecumseth, and good farms were also established on the road from Barrie to Penetanguishene (Smith 1846:171). The District Town was Barrie, and other significant early villages developed at Bradford, Bond Head, Middleton, Penetanguishene, Orillia and Coldwater. Simcoe County boasted a population of 12,592 by 1842. A total of 18,079 ha were under cultivation at that time, and 10 grist mills and 23 saw mills were in operation. By 1844, the cultivated lands increased to 20,931 ha, and there were 12 grist mills and 29 saw mills in operation (Smith 1846:171).

Following the abolition of the district system in 1849, the counties of Canada West were reconfigured once again. The boundaries of Simcoe County were redefined, and the western Townships of St. Vincent, Euphrasia, Artemesia, Collingwood and Osprey were transferred to the newly-formed Grey County in 1851 (see Map 15). Reasons behind this change were linked to the construction of the Ontario, Simcoe & Huron Union Railway (the Northern Railway) between Toronto and Georgian Bay (approved by Acts of Parliament in 1849 and 1851). Simcoe agreed to take on a debt of 50,000 pounds for this project, which the distant Townships of St. Vincent, Collingwood, Euphrasia, Artemisia and Osprey strongly opposed (Hunter 1909a:163–165).

Simcoe County acquired a large tract of land extending from the Severn River to the French River in 1851 following the completion of the 'Robinson Purchase'. These lands would later be incorporated into the Muskoka and Parry Sound Districts, however (Hunter 1909a:243). Simcoe was reduced in size when the Townships of Mulmer and Mono were transferred to the newly-formed Dufferin County (see Map 16). The Act of Parliament to create Dufferin County was passed in 1874, and it was officially proclaimed in 1881 (AO 2011). Simcoe County came to

consist of the Townships of Adjala, Tecumseth, West Gwillimbury, Tosorontio, Essa, Innisfil, Nottawasaga, Sunnidale, Flos, Vespra, Oro, Medonte, Tiny, Tay, South Orillia, North Orillia and Matchedash (see Map 17).

1.2.3.3 Township of Nottawasaga

In historic times, the Township of Nottawasaga was bordered by Nottawasaga Bay to the north, the Townships of Sunnidale and Tosorontio to the east, the Townships of Mulmur and Melancthon to the south, and the Townships of Collingwood and Osprey to the west. The township was well watered by Silver Creek, Black Ash Creek, the Pretty River, Batteaux Creek, Warrington Creek and the Mad River. One early historical source states that "throughout its area there is a pretty rapid succession of hill and dale, and probably less than a third of the surface can be classed as level … the principal elevation consists of a range of hills, extending from near Collingwood, at the north-west, into the township in a south-easterly direction, and through its western part to and beyond the southern boundary" (Cumming 1970:15).

The Township of Nottawasaga was surveyed by Thomas Kelly in 1832 and Charles Rankin in 1833, and the first settlers arrived in 1834. Settlement was initially facilitated by Crown Lands Agent H.C. Young, and four communities were founded: 1) a Highland Scottish settlement at Bowmore (Duntroon), 2) a Highland Scottish 'Back Settlement', 3) an Irish Catholic settlement on the Fourth Line and 4) a German settlement near Batteaux Creek (Hunter 1909b:232). The first road was cleared from Sunnidale Corners to Bowmore, and the first pioneers included the Condlons, Duggans, Rosses, Taylors, Hills, Bowermans, Sullivans, Smiths, McGregors, Doulins, McArthurs, McLeans and McCallums (Hunter 1909b:241; Cumming 1970:15).

In Fall 1834, 2.0 ha (5.0 acre) lots were laid out at Bowmore and given as free grants, and a total of 21 families settled here. Additional settlers arrived in 1835 and 1836, and many were paid in provisions for cutting trees for the government. The provisions were originally distributed in Barrie, but H.C. Young later ran a shanty store in Nottawasaga for this purpose. The Bowmore properties fared badly from 1835–1840, and most of the settlers took up farms to the south and west. William Ross was granted land on Lot 23, Concession 8 for the erection of a mill in 1840, and it was the first grist mill in the area (Hunter 1909b:237; Cumming 1970:15).

Soon after the settlement formed at Bowmore, the 'Back Settlement' developed on the Tenth Line west of Nottawa. Donald Currie was the first settler here, moving from Bowmore to Lot 35, Concession 11 ca. 1838, whereas Archibald McEwan was another early pioneer on Lot 31, Concession 10 (Hunter 1909b:238–241). 'Fourth Line Corners' or 'Ballygrant' developed just west of Stayner, and McEachren's tavern was built at the crossroads ca. 1834. The settlement continued to the south, and many Irish Catholics settled here, including the Bertleses, Duggans, Doolings (Dolans) and Fenelons (Hunter 1909b:241). The German Settlement at Sixth Line was settled by the Swalm, Mattz, Kinder, Bulmer (Boomer), Knuff, Klippert, Moyer and Stoutenburg families from Hesse-Cassel. These pioneers initially settled in Bowmore in October 1834, but moved three years later to the Sixth Line and Batteaux Creek area (Hunter 1909b:243).

The residents of Bowmore were largely responsible for opening the 'Centre Road' (Hurontario Street) between Nottawa and Glen Huron in the 1830s (Hunter 1909b:235). In 1847, Joseph F. Bowerman and others petitioned the District Council to extend the road further south

into Mulmer, but they were denied assistance. Regardless, the road was opened in 1848 and formally recognized in 1849. In 1854, Hurontario Street was extended north from Nottawa into the Town of Collingwood (Hunter 1909a:104). Another important early thoroughfare was the Owen Sound Mail Road (also known as the Mountain Road or the Barrie & Owen Sound Road), which was cut from Barrie to Bowmore ca. 1840 and extended from Nottawasaga through the Townships of Osprey, Collingwood, Euphrasia and St. Vincent in 1846 (Hunter 1909a:103; Cumming 1970:15).

The population the Township of Nottawasaga reached 420 in 1842, and the majority of the pioneers were Scottish. By the mid-19th century, a total of 7,628 ha had been taken up in the township, 623 ha of which were under cultivation. At that time, there were three grist mills and three saw mills in operation (Smith 1846:132). The population reached 1,411 in 1850 (Cumming 1970:16). The development of the township was closely tied to the arrival of the Ontario, Simcoe & Huron Railway (the Northern Railway) in 1855, which traversed the northeastern part of the township, and a branch of the Hamilton & North Western Railway in 1879, which traversed the length of the township from southeast to northwest (see Map 18). The population reached 2,374 in 1881 (Cumming 1970:16).

The largest settlement in the township was Collingwood, which developed along the shore of Nottawasaga Bay. Originally called Hen and Chicken's Harbour (from the group of islands of the shore), this locality was chosen as the northern terminus of the Ontario, Simcoe & Huron Railway, and the arrival of the railway provided the impetus for settlement (Cumming 1970:9). Prior to this, the community of Hurontario Mills developed at the mouth of the Pretty River in the 1840s. Francis Baxter obtained the patent for parts of Lots 43–44, Concession 7 in 1843, and he built the first saw mill there. James Connell completed the project, and was granted the patent to parts of Lots 43–44, Concession 8 in 1844. The business was then conducted by James D. Stephens and M.N. Stephens, who also built a mill in 1845 (Hunter 1909b:255). In 1852–1853, Joel Underwood, the nominal landowner of 135.6 ha of the future site of Collingwood, entered into a partnership with Sheriff Smith, David Morrow and Rev. Lewis Warner to erect a steam saw mill and associated dwellings at the new railway terminus. Smith patented Lot 43–44, Concession 9 at that time, and William Gibbard surveyed them into building lots (Hunter 1909b:256–258).

In December 1853, the only residents in Collingwood were William Watts (fisherman), a few men employed by Watts, Mr. Underwood (saw miller), Mr. Loomis (railway construction agent), Mr. Cosgrove (boarding house keeper), Mr. Collins (tavern keeper) and their families. More workers arrived in 1854, when work began on the pier and breakwater as well as the railway, and additional taverns, boarding houses and stores were opened. The post office opened in 1854, the railway formally opened in January 1855, and "business flourished, population increased, and buildings went up with almost magic celerity" (Cumming 1970:9). Collingwood was incorporated as a 'town' in 1858, skipping the 'village' stage entirely (Hunter 1909b:260). The population increased from 1,500 in 1866 to 2,829 in 1871, and reached approximately 4,000 in 1881. By 1881, it contained two saw mills, a water and steam powered flouring mill, two tanneries, sash and door factories, shingle and stave factories, a foundry and boiler shop, several shipyards, three printing offices, two banks and eight hotels (Cumming 1970:9).

Stayner was the second largest community in the township, and its origins were tied to the construction of the railway. The first settlers here included Gideon Philips, who built a saw mill, and Mrs. Coleman, the wife of a railway worker who maintained a boarding house for other railway workers ca. 1854 (Hunter 1909b:251–252). After the railway was completed, Nottawasaga Station was established and village lots were laid out by Edward Shortis and Charles Lount (the village was initially known as Dingwall). As a shipping point for both Nottawasaga and Sunnidale, Stayer developed rapidly (Cumming 1970:13). Stayner was incorporated as a village in 1873, and by 1881, it contained a woollen factory, two steam flouring mills, a sash and door factory, a foundry and machine shop, four hotels and a private bank (Cumming 1970:13).

Other significant communities in Nottawasaga included Nottawa, Batteaux, Duntroon, Singhampton, Glen Huron, Dunedin, Creemore and Avening (see Map 18). Historical summaries of these communities are as follows:

- Nottawa – The first tree was felled in the Nottawa area in 1851, when D.E. Buist began to clear the forest where the Pretty River traversed Hurontario Street. In 1852, only the Melvilles and Rowlands had settled here, and saw and grist mills were built by Buist & Melville ca. 1853 (they also ran a store). Isaiah Winters built a hotel there, but the village was all but deserted when Collingwood was founded. James Cooper also owned an early store in the area, after selling his mill at Batteaux (Hunter 1909b:252; Cumming 1970:16). By 1881, Nottawa contained mills, machine shops, two churches, half a dozen stores, a school, a telegraph office, three taverns and a number of mechanics' shops (Cumming 1970:16).
- Batteaux – James Cooper built a mill on Batteaux Creek in 1852 where the railway was projected to cross, and a small community subsequently developed. James D. Stephens also built a mill at Batteaux, and the community was known as 'Warrington' for a short time (Hunter 1909b:255). Batteaux became the first station from Collingwood on the Northern Railway, and it contained a saw mill, cheese factory, church and school by 1881 (Cumming 1970:16).
- Duntroon – As mentioned above, Duntroon was settled mainly by Scottish immigrants, and the post office opened in 1836 (Hunter 1909b:235). By 1881, Duntroon contained a railway station, a stage office, two telegraph offices, a school house, two churches, a drill shed, the Town Hall, an Orange Hall, two taverns, two general stores and a variety of mechanics' shops (Cumming 1970:16).
- Singhampton – Singhampton was initially settled by Richard Richmond in 1840, when he built a saw mill on the Mad River. In 1856, the village plot was surveyed by Cyrus and Josiah Sing, originally from Prince Edward County (Hunter 1909b:251). Over the course of the 19th century, the community made excellent use of the Mad River's water power for milling and cloth manufacturing (Cumming 1970:16).
- Glen Huron – James Cooper built a saw mill at Glen Huron prior to 1852, but at that time he abandoned or sold it and moved to Batteaux Creek in anticipation of the arrival of the railway. Another notable settler was James D. Stephens, who arrived ca. 1845 and built a carding mill at Glen Huron as well as the first grist and saw mills at Hurontario (Hunter 1909b:248–251). By 1881, Glen Huron contained grist and saw mills and a nearby railway station (Cumming 1970:16).

- Dunedin – Dunedin was first settled by the Bowermans, Clarks, Coopers, Hills and Sings from Prince Edward County in Summer 1834, making it the earliest settlement in the township (Hunter 1909b:244). By 1881, Dunedin contained a grist and saw mill as well as a church (Cumming 1970:16).
- Creemore – Edward Webster and William Maulty built a saw and grist mill (the Creemore Mills) on the Mad River in 1845, and a small store was also opened. A post office opened in 1849 (Hunter 1909b:244), and Creemore developed even further with the arrival of the Hamilton & North Western Railway. By 1881, Creemore contained a woollen factory, several mechanics' shops, half a dozen stores, a railway station, two telegraph agencies, three hotels and four churches (Cumming 1970:16).
- Avening – George Carruthers began to clear land at Avening in 1849, and he moved his family to his property in 1851. Frederick C. Thornbury built saw and grist mills there ca. 1860, and the mills later passed to his son, W.H. Thornbury, who became the first postmaster in 1864. Like Creemore, Avening profited from its position on the Mad River and the Hamilton & North Western Railway, and it contained two saw mills, a shingle, planning and grist mill, several general stores, mechanics' shops, two hotels, a church, a school and a railway station in 1881 (Cumming 1970:160).

1.2.3.4 Lot 40, Concession 10

As discussed in Section 1.1, the study area for the subject assessments falls on part of Lot 40, Concession 11 in the Geographic Township of Nottawasaga. The lots in this area were laid out in the early 19th century, and the vicinity of the study area was relatively well-settled for the remainder of the Euro-Canadian period.

In an attempt to reconstruct the historic land use of the study area, ARA examined two historical maps that documented past residents, structures (e.g., homes, businesses and public buildings) and features during the mid- and late 19th century. Specifically, J. Hogg's *Hogg's Map of the County of Simcoe* (1871) at a scale of 80 chains to 1 inch (OHCMP 2015) and the *Map of Nottawasaga Township* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Simcoe Supplement* (1881) at a scale of 100 chains to 1 inch (McGill University 2001) were consulted. These historical maps were georeferenced and integrated into ARA's GIS database, and the limits of the study area are illustrated in Map 19–Map 20.

J. Hogg's *Hogg's Map of the County of Simcoe* (1871) indicates that Lot 40, Concession 10 was owned by L. Winter, and it appears as if the lot comprised an agricultural property along Poplar Sideroad. No structures or other cultural features are depicted within the study area (see Map 19). This map also demonstrates that all of the lots in the area were occupied ca. 1871. The *Map of Nottawasaga Township* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Simcoe Supplement* (1881), on the other hand, does not indicate any singular owner for Lot 40, Concession 10, and instead illustrates a planned subdivision that never materialized. A tributary of Black Ash Creek is shown west of the study area, and the communities of Collingwood and Nottawa appear to the northeast and southeast, respectively (see Map 20).

ARA also consulted a historic aerial image from 1954 to gain a better understanding of the study area's more recent land use (see Map 21). The subject lands comprised a variety of agricultural fields at this time, and the associated farmstead appears in the south-central part of the lot along Poplar Sideroad (outside of the study area). No other structural or land use details could be gleaned from the aerial photograph, although it is clear that High Street did not extend as far south as the study area in 1954 (University of Toronto 2009).

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 deciduous trees, coniferous 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 mid-19th century, Euro-Canadian settlers arrived in the area and began to clear the forests for agricultural purposes. Over the course of the Euro-Canadian era, this locality would have comprised primarily agricultural lands southwest of the community of Collingwood. At the time of assessment, the study area comprised primarily agricultural lands, although there was also a maintained lawn around an extant barn in the south and two grassed lowland areas near a tributary of Black Ash Creek in the northwest and northeast, respectively.

1.2.5 Additional Background Information

Given that no other archaeological assessment reports have been prepared for the project, and that no other assessments have been documented in the immediate 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 2014) 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 2014). The results of this search indicate that there are no previously-identified archaeological sites within these limits. The lack of documented archaeological sites in the vicinity of the study area should not be taken as an indicator that the area was unattractive or undesirable for human occupation. Instead, this absence of sites is likely related to a lack of local archaeological exploration.

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. In order to fully comprehend the archaeological context of the study area, the following four features of the local natural environment must be considered: 1) forests; 2) drainage systems; 3) physiography; and 4) soil types.

The study area lies within the Great Lakes–St. Lawrence forest, which is a transitional zone between the southern deciduous forest and the northern boreal forest covering approximately 20,000,000 ha. This forest extends along the St. Lawrence River across central Ontario to Lake Huron and west of Lake Superior along the border with Minnesota, and its southern portion extends into the more populated areas of Ontario. This forest is dominated by hardwoods, featuring species such as maple, oak, yellow birch, white and red pine. Coniferous trees such as white pine, red pine, hemlock and white cedar commonly mix with deciduous broad-leaved species, such as yellow birch, sugar and red maples, basswood and red oak. Much of the Great Lakes–St. Lawrence forest is unevenly aged, meaning that young and old trees can be found within the same group of trees (MNRF 2014).

Only part 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. In Pre-Contact times, however, this dense forest 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 lies entirely within the Blue Mountains subwatersheds, which forms part of the Nottawasaga Valley Conservation Authority (NVCA 2015). The Blue Mountains subwatersheds consist of four main creek systems—Silver Creek, Black Ash Creek, Pretty River and Batteaux Creek—that discharge into Nottawasaga Bay at Collingwood. All four of the systems originate on the Niagara Escarpment. Specifically, the study area is situated immediately southeast of a tributary of Black Ash Creek and 8.4 km southwest of Nottawasaga Bay.

Physiographically, the study area is located in the region known as the Simcoe Lowlands, which consists of an approximately 284,899 ha area bordering Georgian Bay and Lake Simcoe. Specifically, the study area lies within western part of the region (the Nottawasaga basin), which was once flooded by glacial Lake Algonquin and is bordered by shorecliffs, beaches and bouldery terraces. The Nottawasaga basin is limited to the broad flats bordering the river, and its surface beds comprise deposits of deltaic and lacustrine origin rather than glacial outwash (Chapman and Putnam 1984:177–180). These physiographic elements have accumulated over limestone bedrock belonging to the Middle Ordovician Simcoe Group (Trenton-Black River) formation (Davidson 1989:42).

The soils within the study area consist entirely of Tioga sandy loam (Tisl), which is a Podzol made up of grey, calcareous outwash sand. Tioga sandy loam is characterized by good drainage qualities, a smooth, gently to irregular steeply sloping topography, and a stonefree to moderately stony matrix (Hoffman et al. 1962:Soil Map North Sheet).

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 Great Lakes–St. Lawrence forest and the nearby water sources would have attracted a wide variety of game animals, and consequently, early hunters. The areas of well-drained soils would have been ideal for the maize horticulture of Middle to Late Woodland peoples and the mixed agriculture practiced by later Euro-Canadian populations. The proximity of the study area to Nottawasaga Bay—a principal transportation route in both Pre-Contact and Euro-Canadian times—would also have influenced its settlement and land-use history.

1.3.4 Archaeological Fieldwork and Property Conditions

The Stage 1 and 2 assessments were carried out concurrently on November 11, 2014 and May 1, 2015 under licence #P089, PIF #P089-0069-2014. These assessments involved 1) visual inspection to evaluate archaeological potential and 2) pedestrian survey and test pit survey in all identified areas of archaeological potential. Legal permission to enter and conduct all necessary fieldwork activities within the assessed lands was granted by the property owners.

Key personnel involved during the Stage 1 and 2 assessments were D.H. Knight, Project Director; P.J. Racher, Project Manager; C.E. Gohm, Operations Manager; C.J. Gohm, Deliverables Manager; V. Cafik, Assistant Project Manager; H. Mooser (Buckton) and P. Epler, Field Directors; and eight additional field crewmembers.

At the time of assessment, the study area comprised primarily agricultural lands, although there was also a maintained lawn around an extant barn in the south and two grassed lowland areas near a tributary of Black Ash Creek in the northwest and northeast, respectively. The portion of the property located northwest of the developable boundary was not assessed. Field conditions were ideal during the assessments, with well-weathered soils in the ploughed lands, high ground surface visibility and dry soils for screening. The specific weather and lighting conditions for the days of assessment are summarized in Section 3.1 (Stage 2).

No unusual physical features were encountered during the Stage 1 and 2 assessments that affected fieldwork strategy decisions or the identification of artifacts or cultural features (e.g., dense root mats, boulders, rubble, etc.).

2.0 STAGE 1 BACKGROUND STUDY

2.1 Summary

The Stage 1 assessment involved 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 (i.e., 80 chains to 1 inch and 100 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 Simcoe County, and Euro-Canadian archaeological sites dating to pre-1900 and post-1900 contexts are likewise common. The lack of documented archaeological sites in the vicinity of the study area should not be taken as an indicator that the area was unattractive or undesirable for human occupation. Instead, this absence of sites is likely related to a lack of local archaeological exploration (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 a primary water source (i.e., a tributary of Black Ash Creek). The areas of well-drained soils and the diverse local vegetation would also have encouraged settlement throughout Ontario's lengthy history. Euro-Canadian populations would have been particularly drawn to Poplar Sideroad and Nottawasaga Concession 10, both of which were historically-surveyed thoroughfares, as well as the early settlement of Collingwood.

In summary, the Stage 1 assessment included an up-to-date listing of sites from the MTCS's Ontario Archaeological Sites Database (within at least a 1 km radius), the consideration of previous local archaeological fieldwork (within at least a 50 m radius), the analysis of topographic and historic 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 *S&Gs* (MTC 2011:14–15) were met.

2.2 Field Methods (Property Inspection)

Since the Stage 1 and 2 archaeological assessments were carried out concurrently, a separate property inspection was not completed as part of the Stage 1 background study. Instead, the visual inspection was conducted over the course of the Stage 2 property survey, in keeping with Standards 2a–b in Section 2.1 of the *S&Gs* (MTC 2011:28). As mentioned in Section 1.3.4, legal permission to enter and conduct all necessary fieldwork activities within the assessed lands was granted by the property owners.

In accordance with the requirements set out in Section 1.2 of the *S&Gs* (MTC 2011:15–17), the visually inspected areas were examined systematically (at an interval of ≤ 5 m) under ideal weather and lighting conditions with high 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 November 2014 and May 2015.

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 *S&Gs* (MTC 2011:17–18) emphasizes the following six features and 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, 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.).

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 *S&Gs* (MTC 2011:20–21) ensure that these important sites are not missed,

as no areas can be exempt from test pit survey unless both a background study and property inspection have been completed (unless the lands are already exempt due to disturbance, etc.).

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 to settlement after about 1850, sites tended to be more commonly located along historically-surveyed roads. Section 1.3.1 of the *S&Gs* (MTC 2011:18) recognizes trails, passes, roads, railways and portage routes as examples of such early transportation routes.

In addition to transportation routes, Section 1.3.1 of the *S&Gs* (MTC 2011:18) 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.

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 its pristine state, would have potential for both Pre-Contact and Euro-Canadian archaeological sites. Local indicators of archaeological potential include one primary water source (a tributary of Black Ash Creek), two historically-surveyed roadways (Poplar Sideroad and Nottawasaga Concession 10) and one area of early settlement (Collingwood).

In its current state, however, the study area retains only part of this archaeological potential. Section 2.1 of the *S&Gs* (MTC 2011:28) states that lands that 1) are sloped > 20°, 2) are permanently wet, 3) consist of exposed bedrock or 4) have been subject to extensive and deep land alterations can be considered exempt from requiring Stage 2 assessment. These guidelines serve as effective criteria for identifying areas of no archaeological potential.

ARA's on-site documentation, coupled with the analysis of modern satellite imagery and topographic mapping, resulted in the identification of one area of disturbance within the assessed lands. Specifically, deep land alterations have resulted in the removal of archaeological potential from the building footprint for a large barn in the southern part of the study area (see Image 1). Two small permanently wet areas (as defined within MTC 2011:28) were also encountered in the northwestern and northeastern parts of the study area, apparently associated with the conveyance of overland drainage (see Image 2–Image 3). The remainder of the assessed area either had potential for Pre-Contact and Euro-Canadian archaeological materials or required test-pitting to confirm disturbance.

Based on the results of the visual inspection, the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. In total, 99.81% (33.00 ha) of the study area was found to have archaeological potential, 0.08% (0.03 ha) was identified as disturbed and 0.11% (0.03 ha) was found to be permanently wet (as defined within MTC 2011:28). The identified areas of no archaeological potential (separated by class or category) are depicted in Map 22. A Stage 2 assessment of the identified areas of archaeological potential was required. The portion of the property located northwest of the developable boundary was not assessed.

3.0 STAGE 2 PROPERTY ASSESSMENT

3.1 Field Methods

The Stage 2 assessment involved pedestrian survey and test pit survey in all identified areas of archaeological potential. The limits of the study area were confirmed by ARA using project-specific GIS data translated into GPS routes and communicated to handheld units, in combination with georeferenced aerial imagery showing natural formations in relation to the project lands. Specifically, ARA utilized a Garmin eTrex Legend HCx high-sensitivity WAAS-enabled GPS receiver with an accuracy of +/- 5 m (using the UTM17 NAD83 coordinate system) and a Magellan eXplorist 510 high-sensitivity WAAS-enabled GPS receiver with an accuracy of +/- 5 m (using the UTM17 NAD83 coordinate system) during the assessment.

Environmental conditions were ideal during the assessment, and a day-by-day breakdown of the specific fieldwork activities, weather and lighting conditions appears in Table 1. 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 *S&Gs* (MTC 2011:29).

Table 1: Summary of Fieldwork Activities, Weather and Lighting Conditions

Date	Survey Method(s)	Field Conditions	Weather Conditions	Temperature (°C)	Lighting Conditions
11/11/2014	Test Pit	Slightly Damp	Sunny	17	Excellent
01/05/2015	Test Pit; Pedestrian	Dry	Sunny	17	Excellent

The pedestrian survey method was utilized to complete the property assessment within the agricultural fields. Section 2.1.1 of the *S&Gs* (MTC 2011:30) provides clear requirements for the condition of such lands prior to the commencement of fieldwork: all fields must be recently ploughed; all soils must be well-weathered; and at least 80% of the ploughed ground surface must be visible. These conditions were met during the pedestrian survey.

Following the standard strategy for pedestrian survey outlined in Section 2.1.1 of the *S&Gs* (MTC 2011:30–31), ARA crewmembers traversed the fields along parallel transects established at an interval of ≤ 5 m, yielding at least 20 survey transects per hectare (see Image 4–Image 6). If archaeological materials were encountered in the course of the pedestrian survey, the transect interval would be closed to 1 m and a close inspection of the ground would be conducted for 20 m in all directions. For sites appearing to be of further CHVI at the time of fieldwork, all formal artifact types, all diagnostic artifacts and a representative sample of non-diagnostic artifacts would be collected for analysis. The remaining artifacts would be left *in situ* until a proper Stage 3 CSP could be carried out. For small sites with no potential for further CHVI, all artifacts would be collected in order to fully document the deposit prior to development impacts.

The test pit survey method was utilized to complete the assessment within the maintained lawn and lowland areas because ploughing was not possible (i.e., the lawn will continue to be used for some time and the lowland areas were not plough-accessible). Using this method, ARA crewmembers hand-excavated small regular test pits with a minimum diameter of 30 cm at

prescribed intervals. In accordance with Section 2.1.2 of the *S&Gs* (MTC 2011:31–32), all lands within 300 m of any feature of archaeological potential were assessed at an interval of ≤ 5 m (see Image 7–Image 10). Given the proximity of the study area to multiple features of archaeological potential, test pit survey at an interval of ≤ 10 m was not conducted.

In accordance with Section 2.1.2 of the *S&Gs* (MTC 2011:32), each test pit was excavated into the first 5 cm of subsoil and the resultant pits were evaluated for stratigraphy, cultural features and/or evidence of fill (see Image 11–Image 13). Gravelly fill was identified over sterile subsoil (i.e., subsurface disturbance) in the immediate vicinity of the barn in the southern part of the study area, indicative of past construction disturbance. The soils from each test pit were screened through mesh with an aperture of no greater than 6 mm and examined for archaeological materials (see Image 14). If archaeological materials were encountered, each PTP would be documented and all artifacts would be collected according to their associated test pit. All test pits were backfilled upon completion.

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 encountered during a Stage 2 assessment. All archaeological materials with potential CHVI are documented (i.e., recorded on georeferenced field maps with aerial imagery, in field notes and with a GPS handheld unit where practicable), whether associated with Pre-Contact Aboriginal groups or Post-Contact First Nations, Métis and Euro-Canadian populations.

All identified areas of archaeological potential were assessed according to these methods, and the combined results of the Stage 1 and 2 assessments are presented in Map 22. In fulfillment of the requirements set out in Section 7.8 of the *S&Gs* (MTC 2011:137), the field methods utilized during the assessments are summarized in Table 2. This summary includes the areas of no archaeological potential discussed in the Stage 1 component in accordance with Section 7.8.1 Standard 3b (MTC 2011:137). The portion of the property located northwest of the developable boundary was not assessed.

Table 2: Summary of Utilized Field Methods

Category	Study Area
Property assessed by pedestrian survey at an interval of ≤ 5 m	86.86% (32.51 ha)
Property assessed by test pit survey at an interval of ≤ 5 m	1.31% (0.49 ha)
Property assessed by a combination of visual inspection and test pit survey to confirm disturbance	0.00% (0.00 ha)
Property not assessed because of disturbed areas	0.07% (0.03 ha)
Property not assessed because of permanently wet areas (as defined within MTC 2011:28)	0.09% (0.03 ha)
Property not assessed because of sloped areas	0.00% (0.00 ha)
Property not assessed because of exposed bedrock	0.00% (0.00 ha)
Property to be placed in restrictive, non-development zone	11.67% (4.37 ha)
Total	**100% (37.43 ha)**

As required by Section 2.1 Standard 4 of the *S&Gs* (MTC 2011:29), GPS coordinates were recorded for at least one local fixed reference landmark (e.g., a Land Surveyor benchmark, Hydro pole, standard iron bar, etc.). The GPS co-ordinates for the documented landmarks appear in Table 3, and the fixed reference landmark locations are shown in Map 22.

Table 3: GPS Co-ordinates for Fixed Reference Landmarks

Fixed Reference Landmark ID	Landmark Type	UTM Zone	Easting (m)	Northing (m)
FRL1	Utility Pole	17	560,858	4,924,858
FRL2	Utility Pole	17	560,733	4,924,824

3.2 Record of Finds

The assessment did not result in the discovery of any archaeological materials. The inventory of the documentary record, which includes a quantitative summary of the field notes, photographs and mapping materials associated with the project, appears in Table 4. These materials are stored at ARA's processing facility located at 154 Otonabee Drive, Kitchener.

Table 4: Inventory of the Documentary Record

Field Documents	Total	Nature	Location
Photographs	80	Digital	On server at 154 Otonabee Drive, Kitchener; Folder P089-0069-2014
Notes	3	Digital and hard copy	On server at 154 Otonabee Drive, Kitchener; Folder P089-0069-2014
Maps	3	Digital and hard copy	On server at 154 Otonabee Drive, Kitchener; Folder P089-0069-2014

3.3 Analysis and Conclusions

No archaeological sites were identified within the assessed lands.

4.0 RECOMMENDATIONS

The Stage 1 assessment determined that the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. The Stage 2 assessment of the identified areas of archaeological potential did not result in the identification of any archaeological materials.

Regarding the subject area for the Draft Plan Application (7972 and 8004 Poplar Sideroad), ARA recommends that no further assessment be required within the assessed lands. The unassessed lands located northwest of the developable boundary are proposed to be placed in a restrictive, non-development zone and so were not subject to archaeological assessment. Should these lands instead be proposed for development, then they must be subject to archaeological assessment. Regarding the additionally assessed lands to the southeast that were part of a joint approach that is no longer being pursued (7896 and 7914 Poplar Sideroad), ARA recommends that no further assessment be required. It is requested that this report be entered into the *Ontario Public Register of Archaeological Reports*, as provided for in Section 65.1 of the *Ontario Heritage Act*.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9 of the *S&Gs* 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.

6.0 IMAGES

Image 1: Area of No Archaeological Potential – Disturbed (at Rear)
(Photo Taken on May 1, 2015; Facing Southwest)

Image 2: Area of No Archaeological Potential – Permanently Wet (MTC 2011:28)
(Photo Taken on May 1, 2015; Facing Northeast)

Image 3: Area of No Archaeological Potential – Permanently Wet (MTC 2011:28)
(Photo Taken on May 1, 2015; Facing Northwest)

Image 4: Pedestrian Survey at an Interval of ≤ 5 m
(Photo Taken on May 1, 2015; Facing Southwest)

Image 5: Pedestrian Survey at an Interval of ≤ 5 m
(Photo Taken on May 1, 2015; Facing Northeast)

Image 6: Pedestrian Survey at an Interval of ≤ 5 m
(Photo Taken on May 1, 2015; Facing Northeast)

Image 7: Test Pit Survey at an Interval of ≤ 5 m
(Photo Taken on November 11, 2014; Facing Southeast)

Image 8: Test Pit Survey at an Interval of ≤ 5 m
(Photo Taken on November 11, 2014; Facing Northeast)

Image 9: Test Pit Survey at an Interval of ≤ 5 m
(Photo Taken on May 1, 2015; Facing Southeast)

Image 10: Test Pit Survey at an Interval of ≤ 5 m
(Photo Taken on May 1, 2015; Facing East)

Image 11: Typical Test Pit
(Photo Taken on May 1, 2015; Facing North)

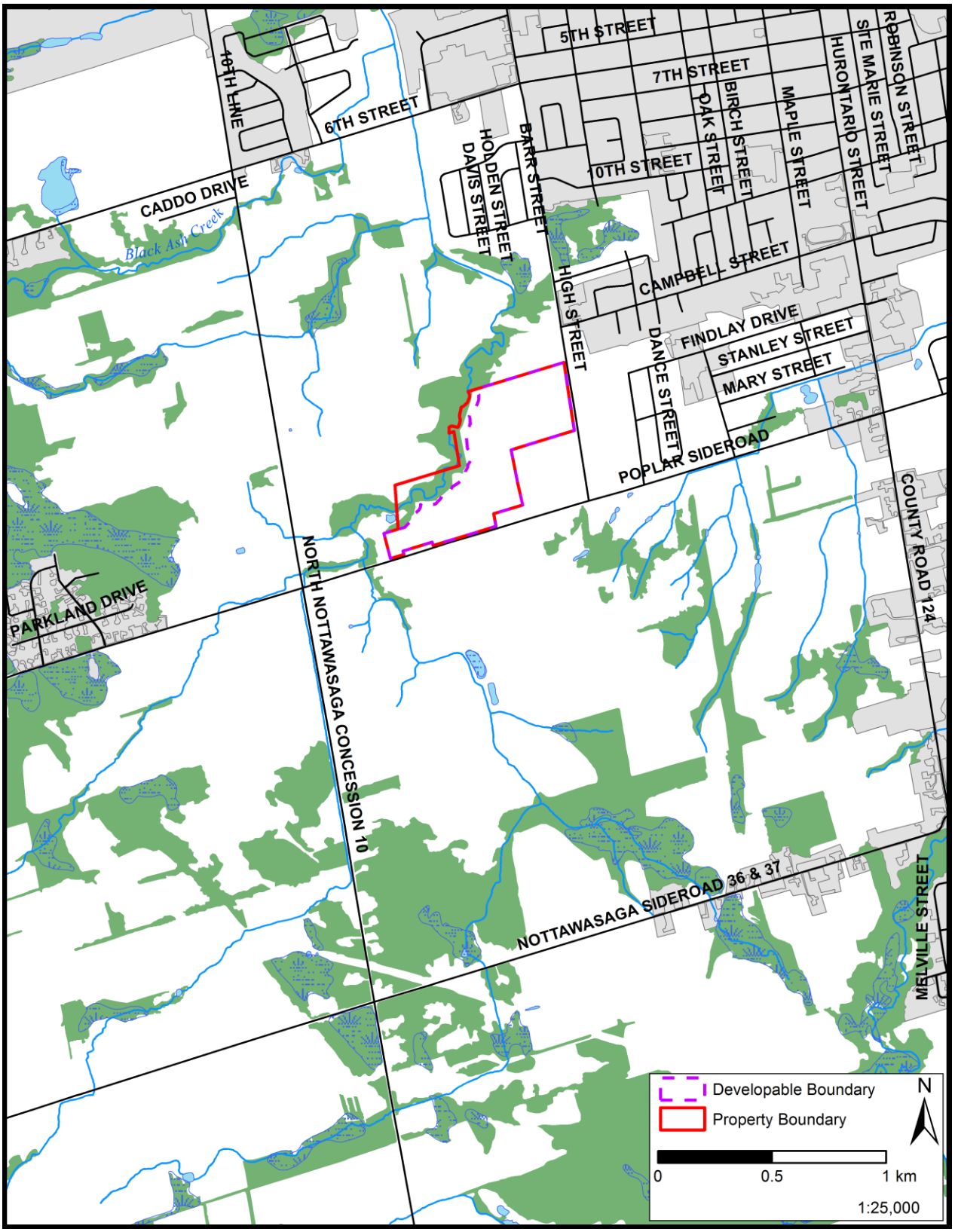
Image 12: Typical Test Pit
(Photo Taken on May 1, 2015; Facing North)

Image 13: Typical Test Pit
(Photo Taken on May 1, 2015; Facing North)

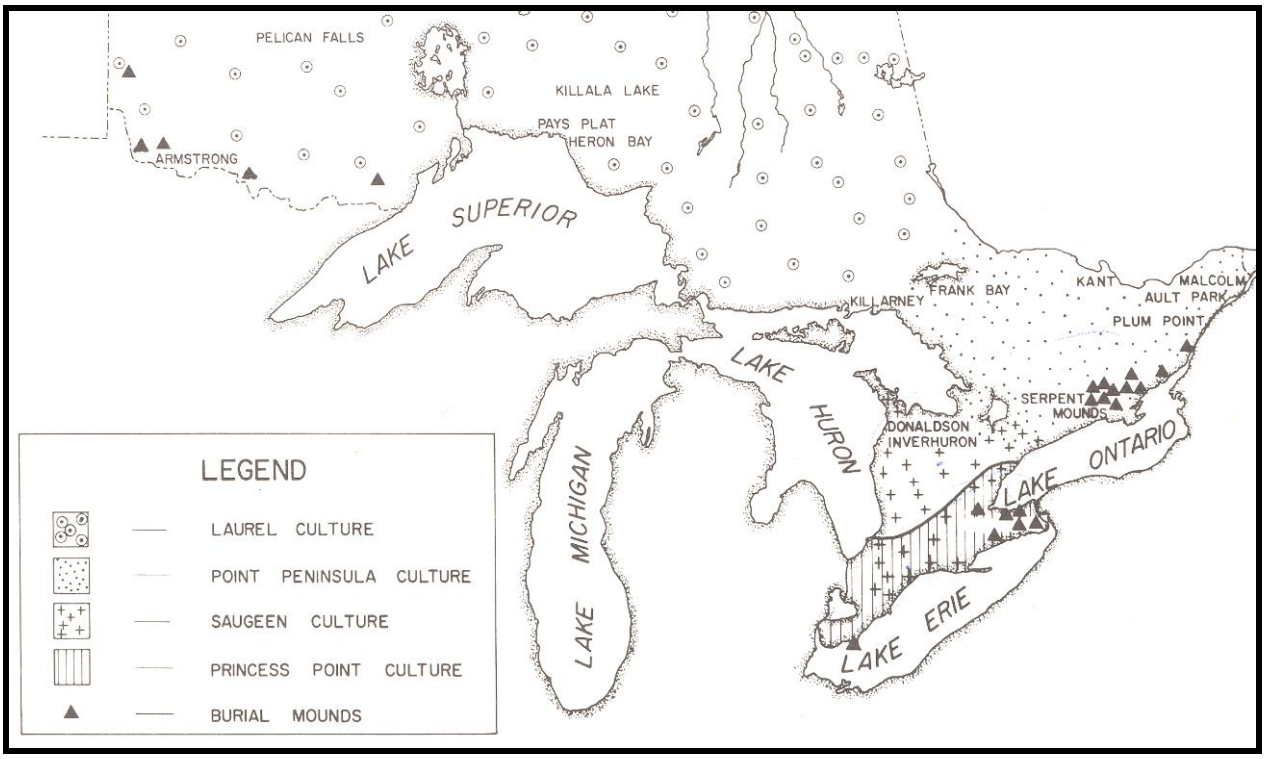
Image 14: Screening Soil through 6 mm Mesh
(Photo Taken on May 1, 2015; Facing West)

7.0 MAPS

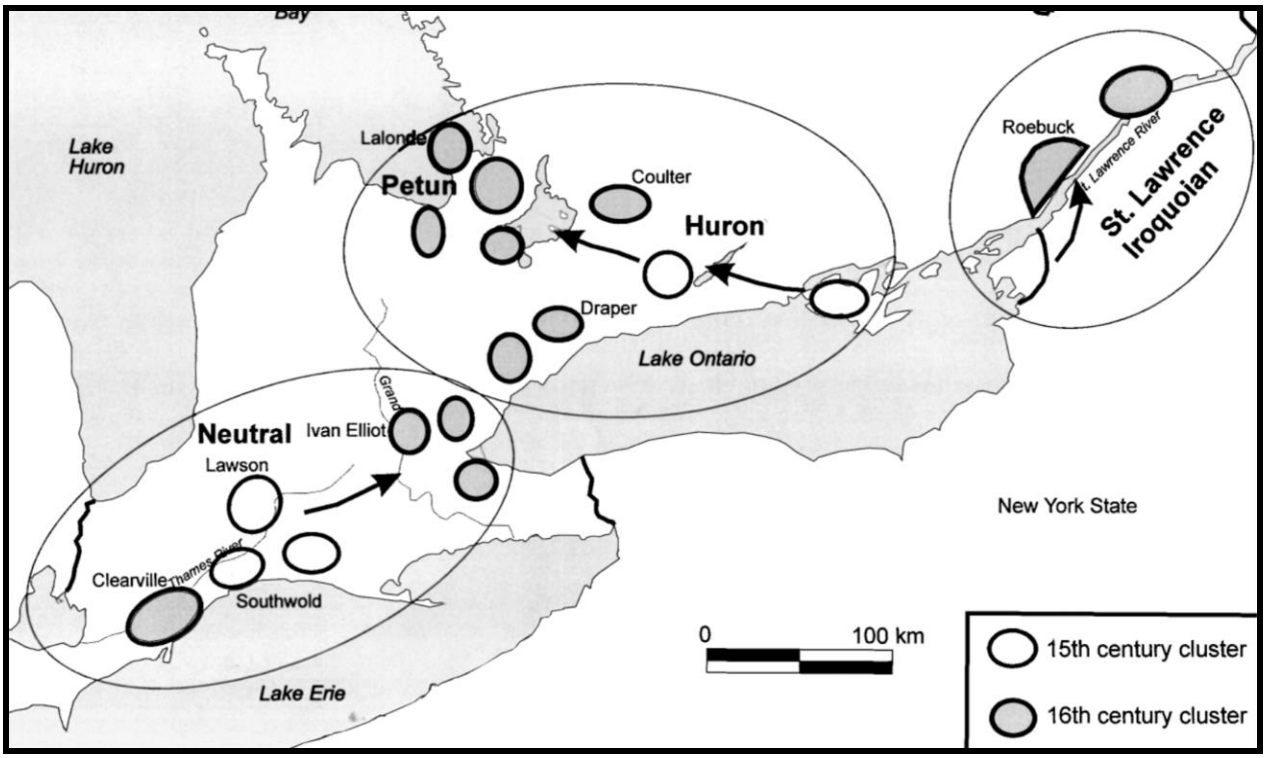
Map 1: Location of the Study Area in the Province of Ontario
(NRC 2002)



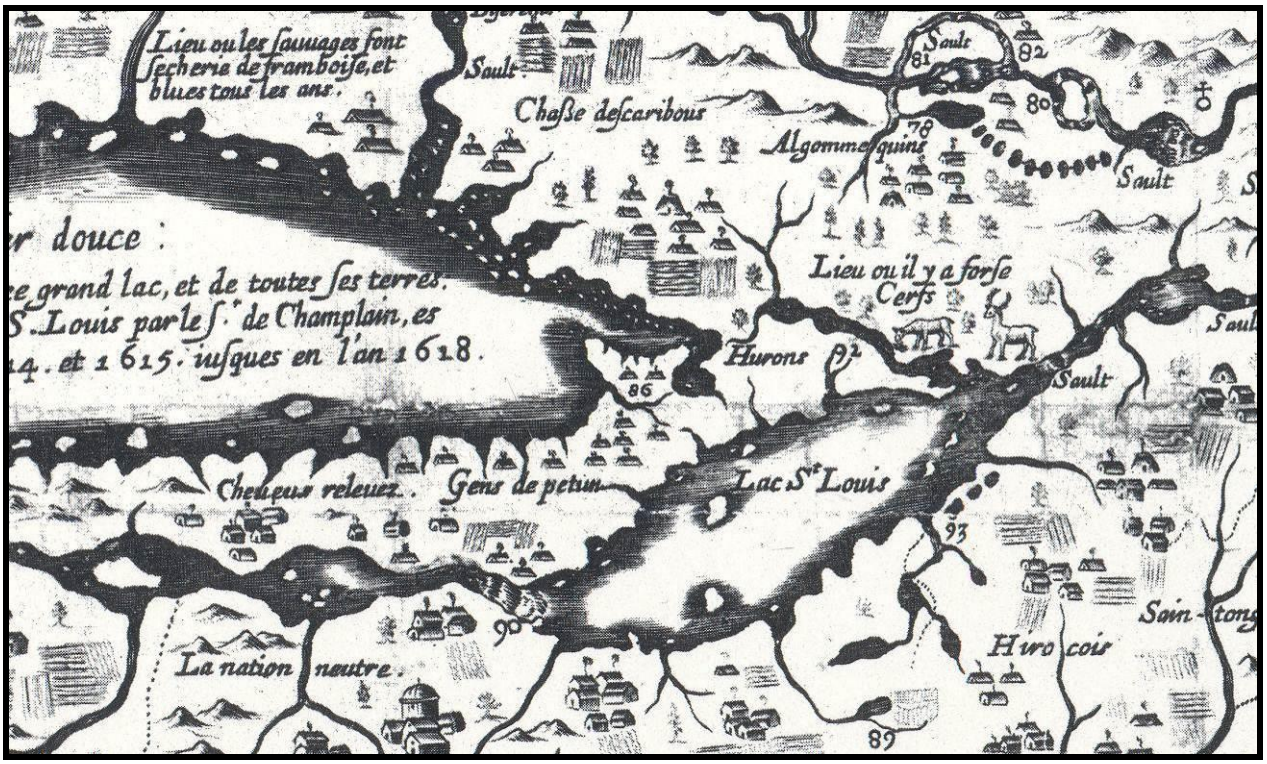
Map 2: Location of the Study Area in the Town of Collingwood
(Produced by ARA under licence from Ontario MNRF, © Queen's Printer 2015)



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



Map 4: Pre-Contact Iroquoian Site Clusters
(Warrick 2000:Figure 10)



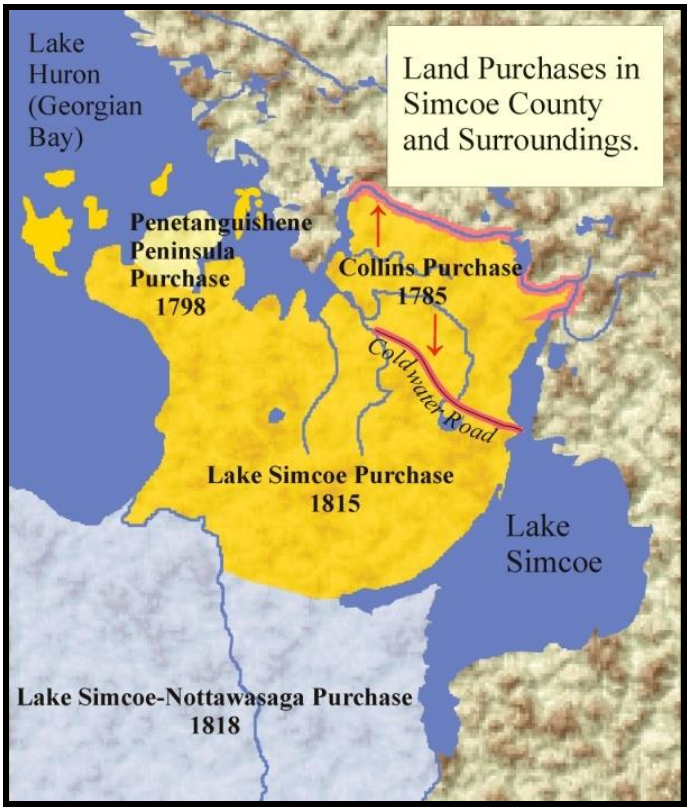
Map 5: Detail from S. de Champlain's *Carte de la Nouvelle France* (1632)
(Gentilcore and Head 1984:Map 1.2)

Map 6: Detail from N. Sanson's *Le Canada, ou Nouvelle France* (1656)
(Gentilcore and Head 1984:Map 1.10)

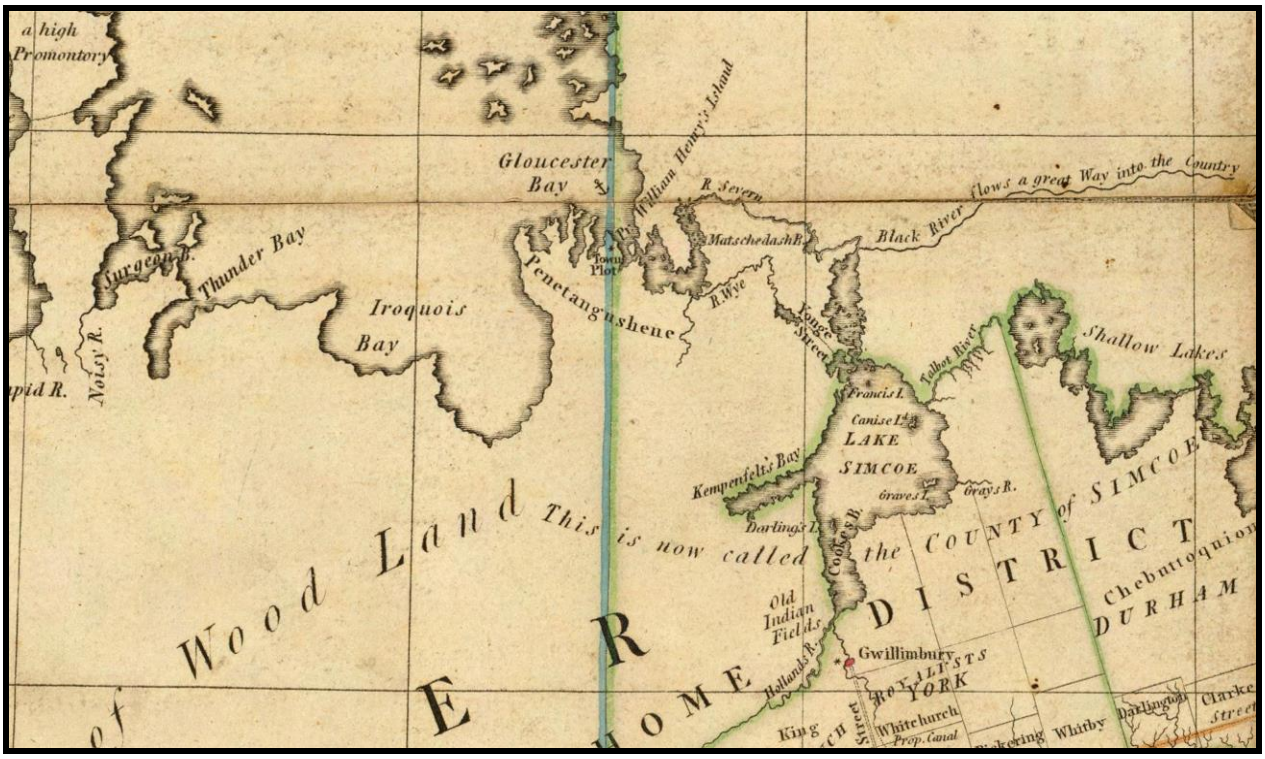
Map 7: Detail from H. Popple's *A Map of the British Empire in America* (1733)
(Cartography Associates 2009)

Map 8: Detail from J.B. D'Anville's *Canada Louisiane et Terres Angloises* (1755)
(Cartography Associates 2009)

Map 9: Detail from R. Bonne's *Partie de l'Amérique Septentrionale* (1783)
(Cartography Associates 2009)



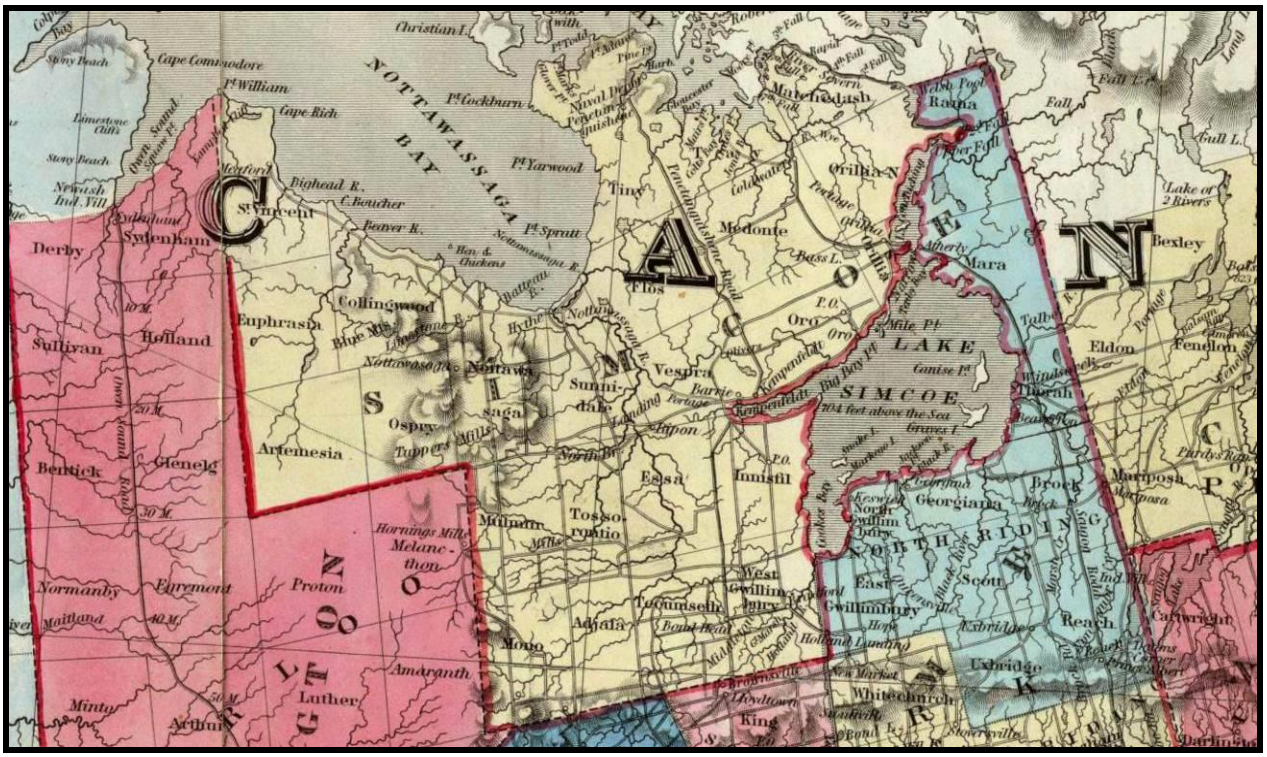
Map 10: Land Purchases in Simcoe County
(Innisfil Library 2012)



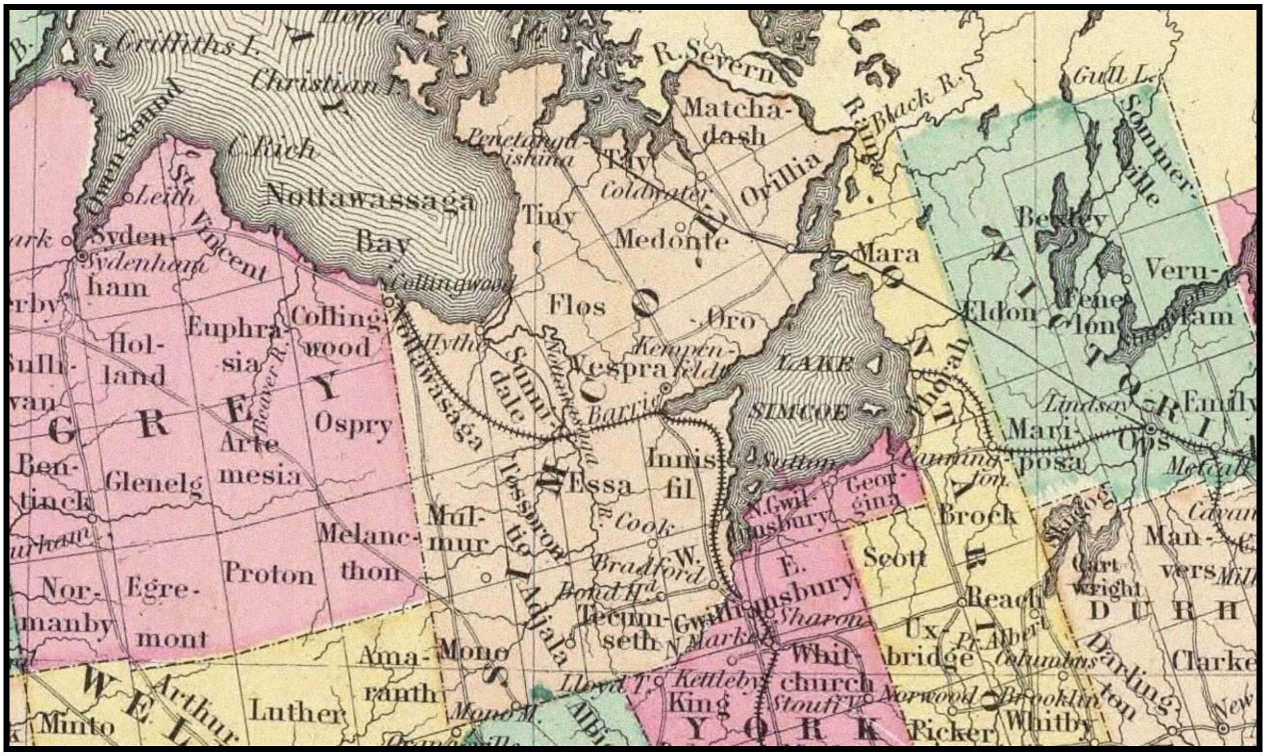
Map 11: Detail from D.W. Smyth's *A Map of the Province of Upper Canada* (1800)
(Cartography Associates 2009)

Map 12: Detail from J. Purdy's *A Map of Cabotia* (1814)
(Cartography Associates 2009)

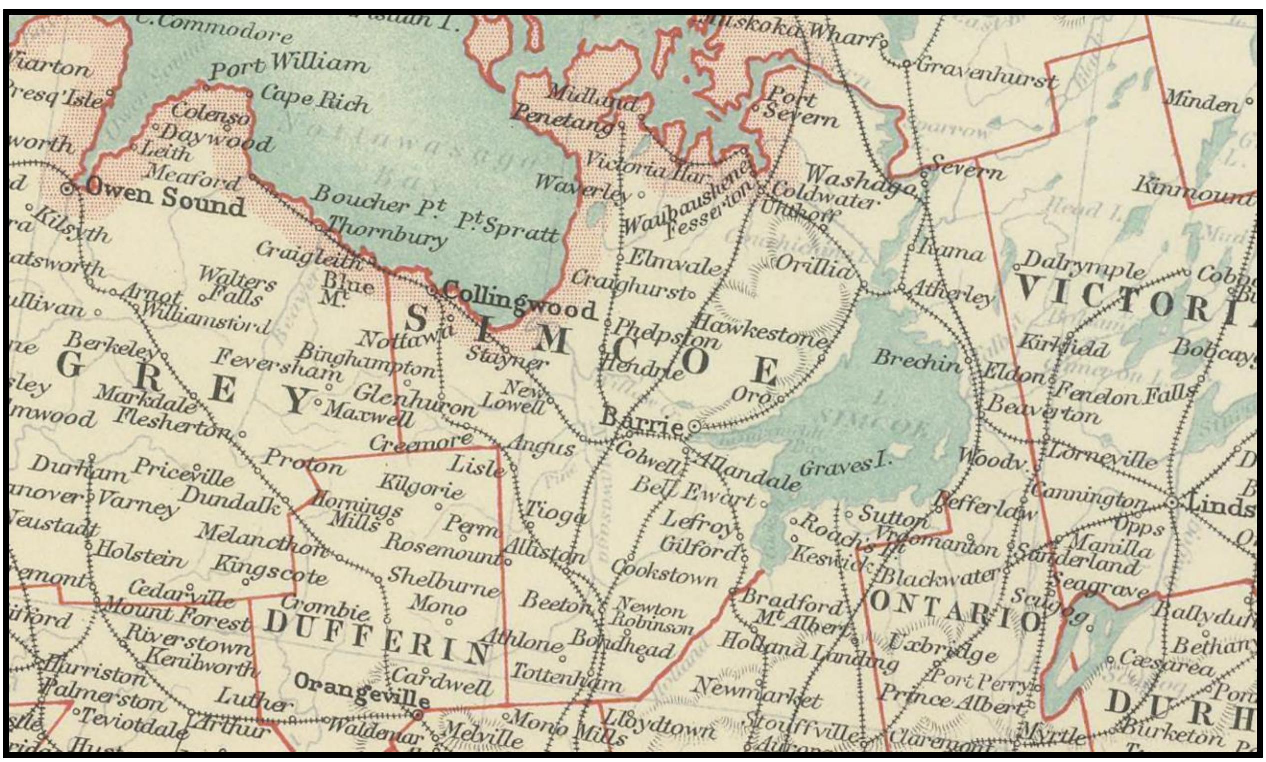
Map 13: Detail from J. Arrowsmith's *Upper Canada* (1837)
(Cartography Associates 2009)



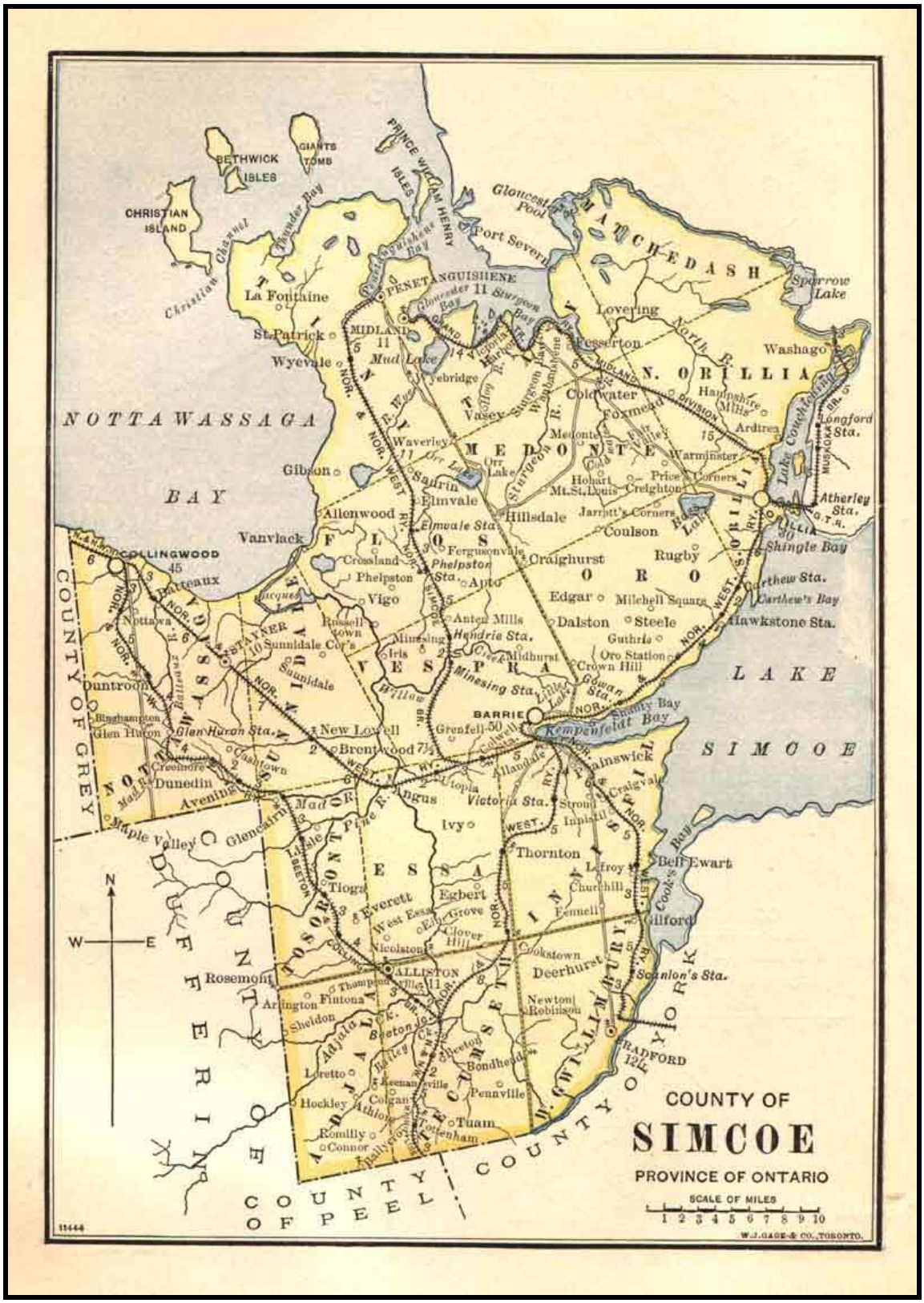
Map 14: Detail from J. Bouchette's *Map of the Provinces of Canada* (1846)
(Cartography Associates 2009)



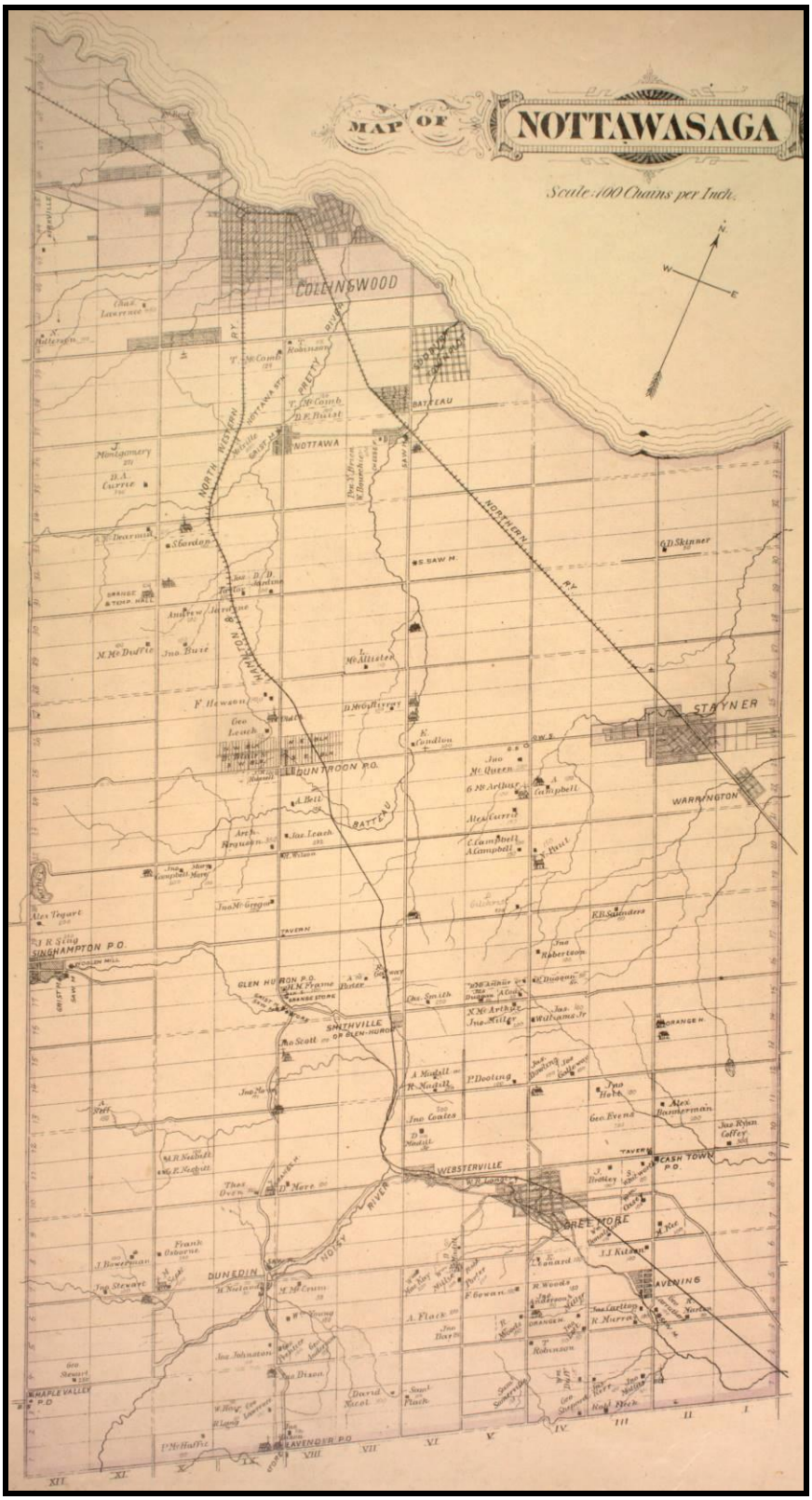
Map 15: Detail from G.W. Colton's *Canada West* (1856)
(Cartography Associates 2009)



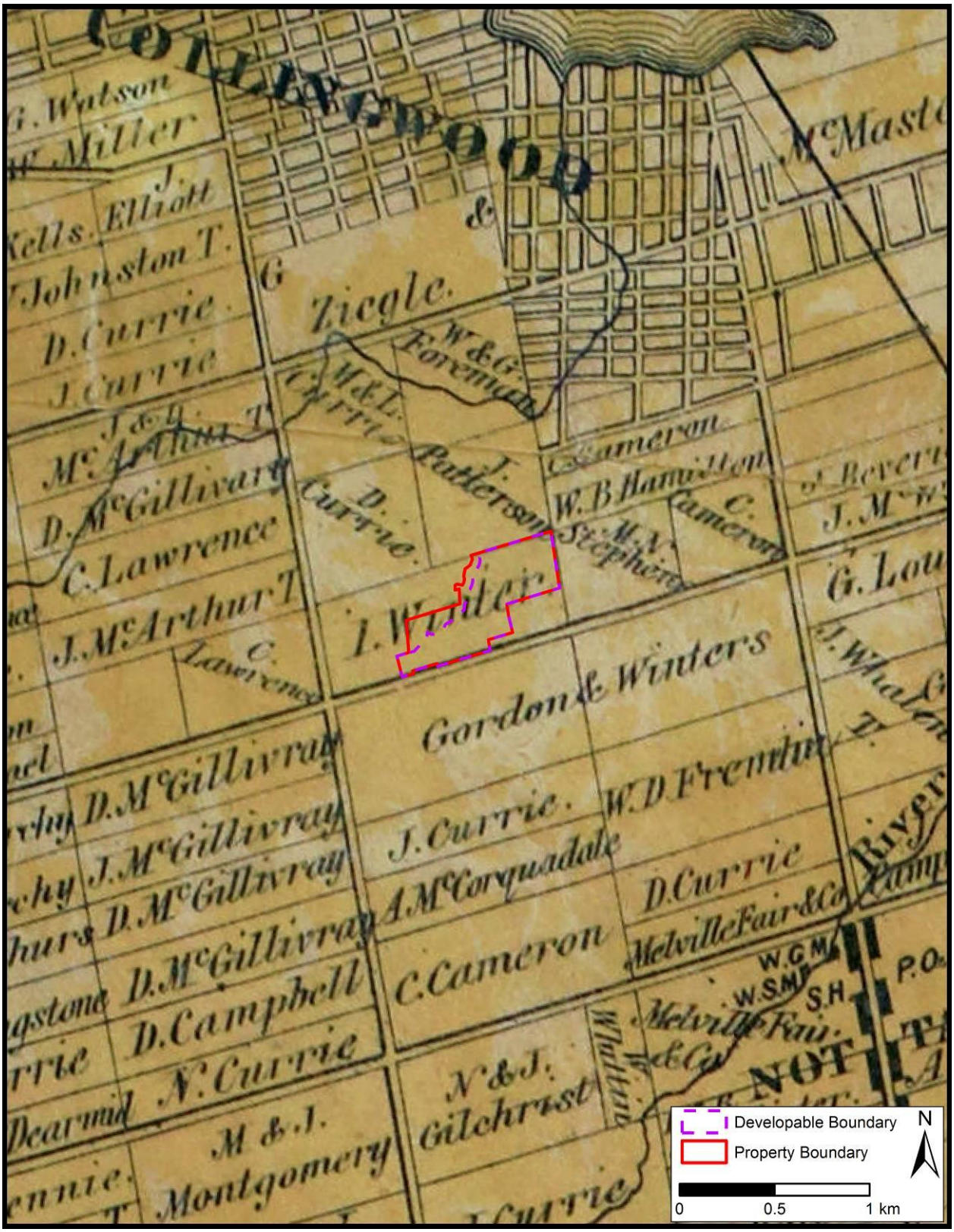
Map 16: Detail from W. & A.K. Johnston's *Dominion of Canada* (1912)
(Cartography Associates 2009)



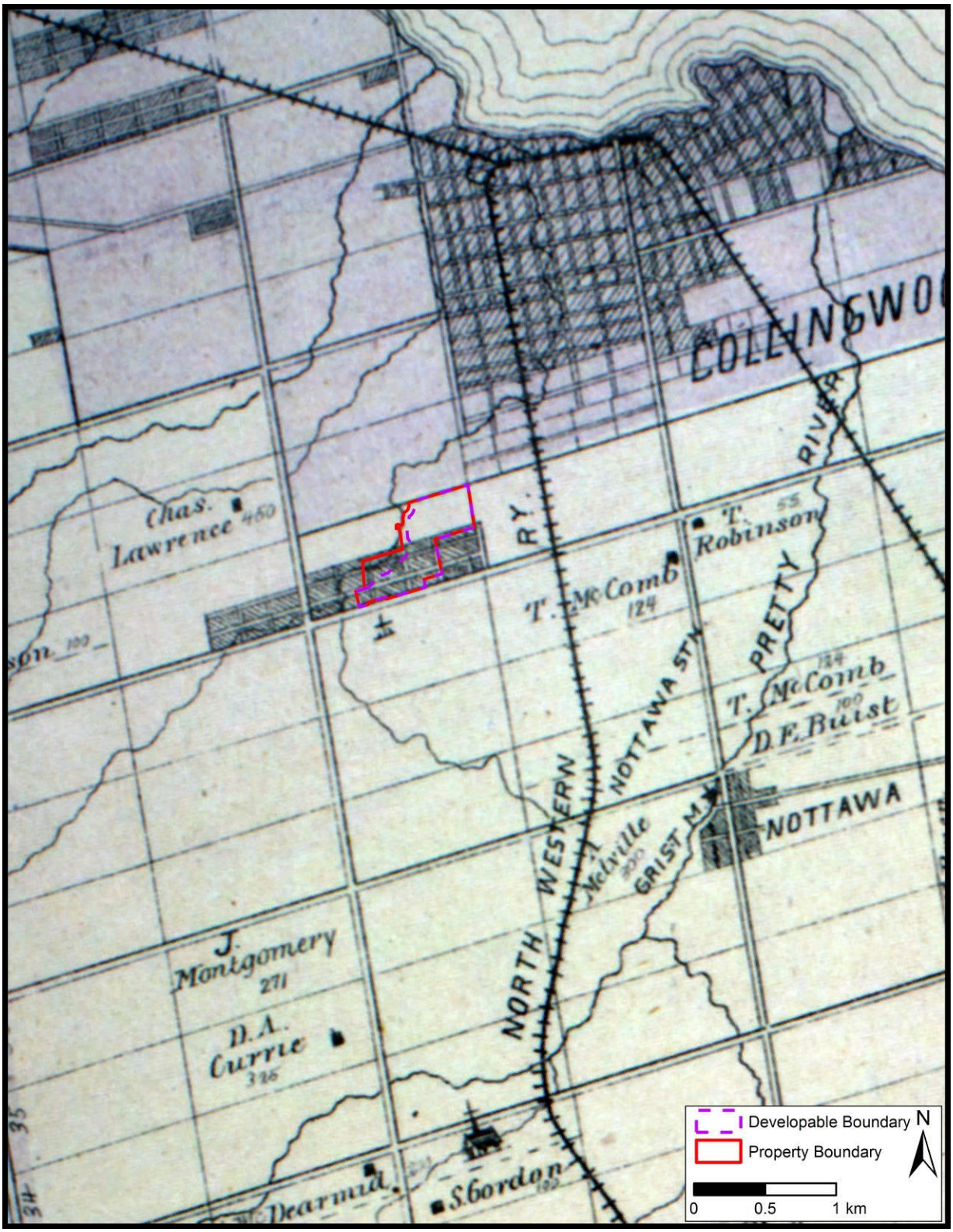
Map 17: The *County of Simcoe* from W.J. Gage and Co.'s *Gage's County Atlas* (1886)
(W.J. Gage and Co. 1886)



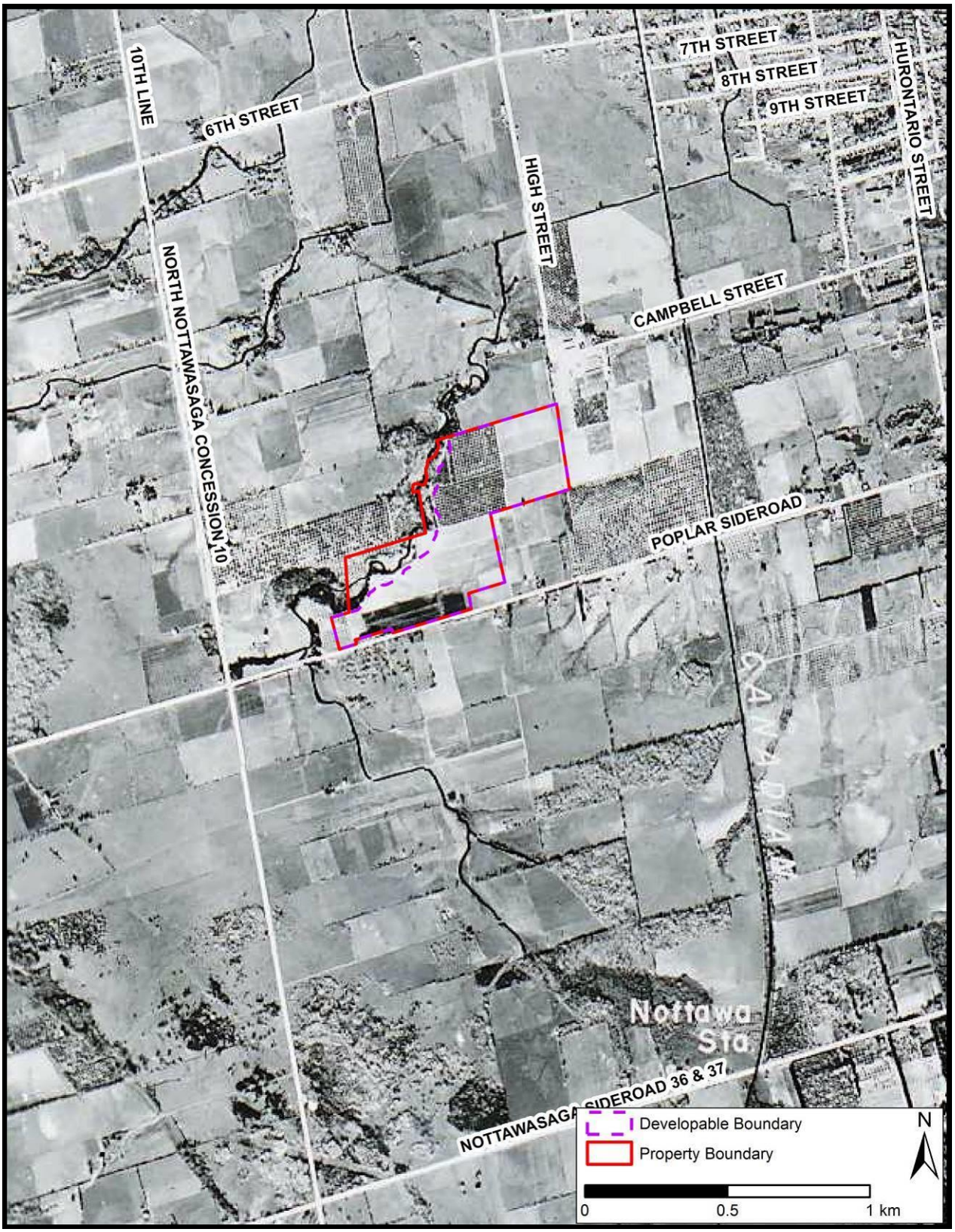
Map 18: The *Map of Nottawasaga Township* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Simcoe Supplement* (1881)
(McGill University 2001)



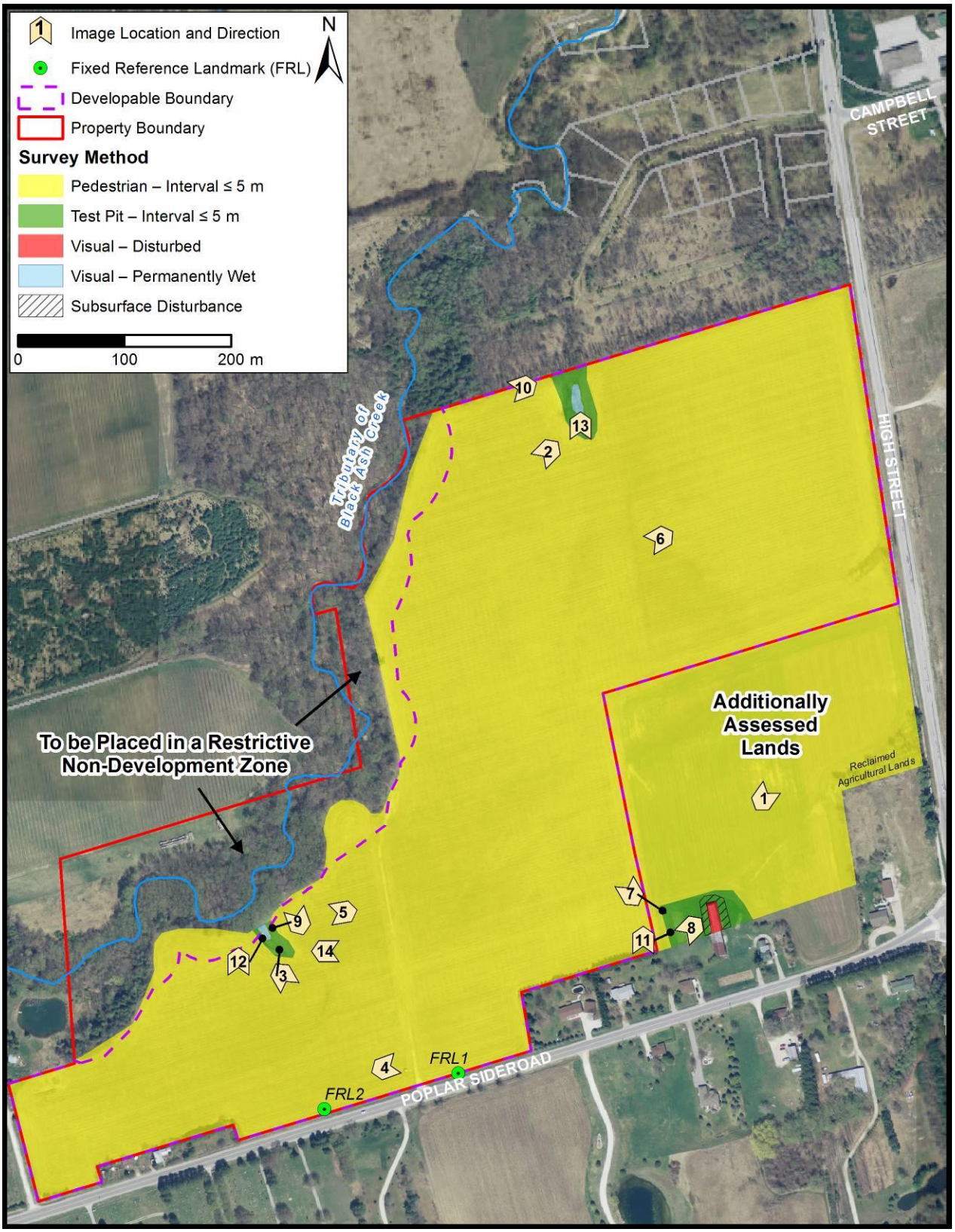
Map 19: Detail of J. Hogg's *Hogg's Map of the County of Simcoe* (1871), Showing the Study Area
(OHCMP 2015)



Map 20: Detail of the *Map of Nottawasaga Township* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Simcoe Supplement* (1881), Showing the Study Area
(McGill University 2001)



Map 21: Historic Aerial Image (1954), Showing the Study Area
(University of Toronto 2009)



Map 22: Assessment Results – Field Methods and Image Locations
(County of Simcoe 2014)

8.0 BIBLIOGRAPHY AND SOURCES

Archives of Ontario (AO)
2011 **The Changing Shape of Ontario: Early Districts and Counties 1788–1899**. Accessed online at: http://www.archives.gov.on.ca/en/maps/ontario-districts.aspx.

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.

County of Simcoe
2014 **Geographical Information Systems – Maps**. Accessed online at: http://www.simcoe.ca/InformationTechnology/Pages/gis.aspx.

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.

Cumming, R. (ed.)
1970 **Illustrated Atlas of the County of Simcoe**. Offset Edition, originally published by H. Belden & Co. (1881). Port Elgin: N.P.

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.

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.

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.

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.

H. Belden & Co.
1881 ***Illustrated Atlas of the Dominion of Canada: Simcoe Supplement*.** Toronto: H. Belden & Co.

Heidenreich, C.E.
1990 *History of the St. Lawrence-Great Lakes Area to A.D. 1650.* In **The Archaeology of Southern Ontario to A.D. 1650,** edited by Chris J. Ellis and Neal Ferris, pp. 475–492. Occasional Publications of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Hoffman, D.W., Wicklund R.E. and N.R. Richards
1962 **Soil Survey of Simcoe County.** Report No. 29 of the Ontario Soil Survey. Guelph: Research Branch, Department of Agriculture and the Ontario Agriculture College.

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

Hunter, A.F.
1909a **A History of Simcoe County: Volume 1 – Its Public Affairs**. Barrie: The County Council.
1909b **A History of Simcoe County: Volume 2 – The Pioneers**. Barrie: The County Council.

Innisfil Library
2012 **The Decline of the Fur Trade and the Arrival of White Settlement**. Accessed online at: http://www.innisfil.library.on.ca/natives/natives/chp13.htm.

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

Janusas, S.
1988 **The Cultural Implication of Drainage in the Municipality of Waterloo.** Kitchener: Regional Municipality of Waterloo.

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.

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.

McGeorge, W.G.
1939 *Early Settlement and Surveys along the River Thames in Kent County*. In **Kentiana: The Story of the Settlement and Development of the County of Kent**, pp. 25–36. Chatham: The Kent Historical Society.

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)
2015 **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 Municipal Affairs and Housing (MMAH)
2014 **Provincial Policy Statement, 2014**. Toronto: Ministry of Municipal Affairs and Housing.

Ministry of Natural Resources and Forestry (MNRF)
2014 **Ontario's Forest Regions**. Accessed online at: http://www.ontario.ca/environment-and-energy/forest-regions.

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)
2014 **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.** Via PastPort, response provided by R. Von Bitter (December 4, 2014). MTCS.

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)
2002 **Ontario Relief.** Atlas of Canada, 6th Edition. Accessed online at: http://geogratis.gc.ca/api/en/nrcan-rncan/ess-sst/632e8f7c-403a-57fe-849f-7cce3591d611.html.
2010 **Historical Indian Treaties**. Atlas of Canada, 6th Edition. Accessed online at: http://geogratis.gc.ca/api/en/nrcan-rncan/ess-sst/cb216b8f-8893-11e0-8ed0-6cf049291510.html.

Nottawasaga Valley Conversation Authority (NVCA)
2015 **Watershed Report Cards**. Accessed online at: http://www.nvca.on.ca/watershed-science/watershed-report-cards.

Ontario Historical County Maps Project (OHCMP)
2015 **Ontario Historical County Maps Project**. Accessed online at: http://maps.library.utoronto.ca/hgis/countymaps/maps.html.

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.

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.

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.

Ray, A.J.
2015 **Hudson's Bay Company**. Accessed online at: http://www.thecanadianencyclopedia.com/en/article/hudsons-bay-company.

Sainte-Marie among the Hurons (SMATH)
2015 **About Sainte-Marie among the Hurons**. Accessed online at: http://www.saintemarieamongthehurons.on.ca/sm/en/Home/index.htm.

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

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.

Surtees, R.J.
1994 *Land Cessions, 1763–1830*. In **Aboriginal Ontario: Historical Perspectives on the First Nations**, edited by E.S. Rogers and D.B. Smith, pp. 92–121. Toronto: Dundurn Press.

University of Toronto
2009 **Digital Aerial Photographs, Southern Ontario 1954 – West Index**. Accessed online at: http://maps.library.utoronto.ca/data/on/AP_1954/ indexwest.html.

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.

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.