

Planning for the Conservation of
Archaeological
Resources in York Region



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York Region



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PLANNING FOR THE CONSERVATION OF ARCHAEOLOGICAL RESOURCES IN YORK REGION

EXECUTIVE SUMMARY

York Region has a long cultural history which began approximately 11,000 years ago. *Archaeological sites*, which are the physical remains of this lengthy settlement history, represent fragile and non-renewable cultural heritage resources that need to be protected. The York Region Archaeological Management Plan comprehensively models archaeological potential to assist in their protection.

Provincial legislation including the *Planning Act*, the *Ontario Heritage Act*, as well as policy such as the Provincial Policy Statement 2005, requires municipalities to plan for the *conservation* of archaeological and heritage resources.

There are several initiatives that support the development of municipal archaeological management plans. Specifically, the Ipperwash Inquiry Report recommends that every municipality in Ontario adopt a Management Plan for Archaeological Resources to predict where *archaeological resources* are most likely to be located and to establish a process for requiring appropriate *archaeological assessment* in those areas before development takes place.

Municipalities can demonstrate leadership and address *archaeological resource* management through the preparation of an Archaeological Management Plan, which will:

1. Document and evaluate an inventory of known *archaeological resources*,
2. Identify areas of *archaeological resource* potential, where undiscovered *archaeological resources* are most likely to be,
3. Detail a process for proceeding with land development in areas of *archaeological resource* potential and identify circumstances when land development is not appropriate, or needs to be modified, and
4. Structure this process within a clear, logical framework.

Archaeological Management Plans:

- Reduce the risk of unforeseen discoveries during development (such as disturbing a burial site),
- Increase public awareness of *archaeological resources*,
- Warn property owners and prospective buyers that archaeological investigations will be required in order to develop or redevelop a site,
- Give citizens greater insight into their community's history and the opportunity to

- appreciate its heritage more fully, and
- Allow for the identification and interpretation of greater numbers of cultural heritage resources, which may offer opportunities for increased tourism.

The preparation of an Archaeological Management Plan is particularly important for York Region which will be growing to 1.5 million residents in 510,000 households, and 780,000 jobs, by 2031. Accommodation of this growth will require the expansion of the existing urban boundary in East Gwillimbury, Vaughan and Markham, redevelopment and intensification of existing built-up areas and construction or expansion of supporting infrastructure.

In recognition of these facts, York Region retained *Archaeological Services Inc. (ASI)* to prepare the Archaeological Management Plan.

The York Region Archaeological Management Plan has five major goals:

1. The compilation of detailed, reliable inventories of registered and unregistered *archaeological sites* within the Region,
2. The development of an *archaeological site* potential model and associated mapping, based on known site locations, past and present land uses, environmental and cultural-historical data, and assessment of the likelihood for survival of *archaeological resources* in various urban contexts,
3. Recommendations concerning revisions to Regional and Local Official Plan policies concerning *archaeological resources*, and the integration of *archaeological assessment* into the development application process,
4. Recommendations regarding the development of a First Nations and Métis Consultation Tool, and,
5. Recommendations regarding the development of a Contingency Plan for the Protection of Archaeological Resources in Urgent Situations.

In ensuring the compilation of detailed, reliable inventories of registered and unregistered *archaeological sites* within the Region, it was essential to consult with First Nations and the Métis Nation of Ontario to ensure that our analysis accurately reflects First Nations cultural ties, *traditional territories* and historic knowledge of York Region. To facilitate this dialogue, York Region established the Archaeological Management Plan Steering Committee which included a broad range of stakeholders, including:

- First Nations
 - Alderville First Nation
 - Beausoleil First Nation
 - Chippewas of Georgina Island First Nation
 - Curve Lake First Nation
 - Hiawatha First Nation
 - Huron-Wendat First Nation
 - Kawartha-Nishnawbe First Nation of Burleigh Falls

- Mississaugas of the New Credit First Nation
- Mississaugas of Scugog Island First Nation
- Rama First Nation
- Six Nations of the Grand River
- The Métis Nation of Ontario
- Regional staff
- All local municipalities including both planning and municipal heritage staff
- Toronto and Region Conservation Authority
- Lake Simcoe Region Conservation Authority
- Building Industry and Land Development Association (BILD)

Seven Steering Committee meetings have been held to review the products that developed as part of the Archaeological Management Plan. In addition, the Region consulted and met with First Nations and Métis representatives separately, when they were not able to attend Steering Committee meetings.

Results of the Study

As of spring 2012, 1,453 *archaeological sites* had been registered within the Region, which date from the earliest period of human occupation in the Region and surrounding areas, 11,000 years ago, through to the nineteenth and early twentieth centuries. In order to understand the manner in which undiscovered *archaeological sites* may be distributed within the Region, an archaeological potential model was developed using the Region's Geographic Information System (GIS) to map various sets of information as separate, but complementary layers of spatial data on 1:10,000 scale digital base maps.

The areas of pre-contact archaeological potential were determined only after a detailed consideration of the past natural and cultural environments in the Region. Important considerations in determining pre-contact archaeological potential include distance to various forms of potable water, soil drainage characteristics and slope attributes.

Examination of the early historic mapping of the Region, together with identification of areas of early European settlement (i.e., residential, commercial, industrial and transportation development) helped to determine the areas of historic archaeological potential.

After eliminating areas where previous land development has resulted in extensive landscape disturbance, the remaining lands falling within the areas of pre-contact and historic potential encompass approximately 55% of the total landmass of the Region. A significant percentage of these areas are already protected from development by virtue of their location within the Regional Greenlands System.

Maps 1, and 1 a), b) and c) of the Plan show the locations of Archaeological Potential in the Region as a whole and in the three urban expansion areas. Map 2 indicates Areas

of Ossuary Potential in the Region, where an *ossuary* or communal burial may be located. Only a very small portion of ROPA 2 has lands subject to the Ossuary Potential Model at this time. Should additional Villages be found in areas of Archaeological Potential then the Ossuary Potential model would be applied.

The primary means by which *archaeological resources* may be protected is through the planning approvals process, since municipally-approved developments constitute the majority of land-disturbance activities in the Province. In recognition of these facts, the Archaeological Management Plan recommends a number of policies for incorporation into the York Region Official Plan, and practices for implementation in the development approvals process for the Region. The local municipalities will ensure the *conservation* of these valuable cultural heritage resources within the context of growth in the Region.

The major recommendations resulting from this study include:

1. Amend the Regional Official Plan to expand the existing section specific to archaeological planning and adopt new policies (See Appendix A). It is recommended that a definition of *archaeological resources* that is both consistent with the definition laid out in the Provincial Policy Statement, and recognizes their fragile nature, be included.
2. Make Archaeological Potential and Ossuary Potential mapping available to the local municipalities, the development industry and the public by means of YorkMaps, to be used in determining requirements for *archaeological assessments* in advance of submission of development applications.
3. Assist local municipalities in developing and implementing archaeological procedures as part of the development application review process, to ensure a consistent approach.
4. Undertake to update the Archaeological Management plan and Potential mapping, as outlined in Section 10.
5. Develop, in collaboration with First Nations, Métis, the Ministry of Tourism, Culture and Sport, and local municipalities, a First Nations and Métis Consultation Tool for York Region (see Section 6).
6. Develop, in collaboration with local municipalities, a “Contingency Plan for the Protection of Archaeological Resources in Urgent Situations” for instances when deeply buried *archaeological resources* or human burials are discovered during construction.
7. Seek means by which the general public might be made more aware of the wide range of *archaeological resources* present within the Region, their significance as part of the Region’s cultural heritage, and their inherent fragility (see Section 5).
8. In collaboration with local municipalities, First Nations, Métis and other stakeholders, explore opportunities for the appropriate disposition of *artifacts* recovered from *archaeological sites* within the Region, and appropriate sites for the re-interment of burials that are discovered and must be relocated as a result of development within the Region (see Section 5).

In summary, municipalities cannot avoid dealing with *archaeological resources*. Provincial Policy requires sound management of heritage resources, and legal precedents demonstrate the severe financial and political costs of avoiding this responsibility. York Region is building on its past commitment to heritage protection and joining with other major municipalities in Ontario (e.g., Windsor, London, Toronto, Kingston, and the Regions of Waterloo, and Halton) in adopting progressive policies for the wise use and *conservation* of their archaeological records.

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1 Introduction

The objective of the Archaeological Management Plan project was the preparation of a study which identifies, analyses, and establishes priorities concerning the stewardship of known and undiscovered *archaeological sites* located within the boundaries of York Region.

York Region is a large culturally and geographically diverse municipality encompassing some 1,776 square kms. The richness of its natural environment has attracted human habitation to the Region from the time of the first peopling of Ontario, approximately 11,000 years ago. The *archaeological sites* that are the physical remains of this lengthy settlement history represent a fragile and non-renewable cultural legacy, and present a challenge for ensuring their wise management.

Protecting *archaeological sites* has become especially important in southern Ontario, where landscape change has been occurring at an ever increasing rate since the 1950s, resulting in extensive losses to the non-renewable archaeological record. The most effective means of protecting those sites is through adoption of planning and management guidelines that are informed by the distribution and character of known sites and by assessment of the potential location of undiscovered sites.

The role of the municipality in the *conservation of archaeological resources* is crucial given the significant impact municipal land use decisions may have on *archaeological resources*. The primary means by which these *archaeological resources* may be protected is through the planning approvals process. The review and approval of local municipal official plans is the responsibility of the Region and represents an important opportunity to ensure a consistent approach to *archaeological resource conservation* across the Region.

The *Planning Act*, R.S.O. 1990 identifies the *conservation* of significant features of archaeological interest as one of several matters of provincial interest, which approval authorities need to take into account when making planning decisions, including subdivision of land through consent or plans of subdivision. In recognition of these facts, and the provincially-mandated role of municipalities in the archaeological *conservation* process, York Region initiated the Archaeological Management Plan project in 2010. With the direction of the Steering Committee, which draws on the knowledge and expertise of representatives of First Nations and Métis communities with *traditional territories* in York Region, and a wide range of individuals and organizations from the York heritage, planning and archaeological communities, a collaborative effort was undertaken to collect and compile data for this massive project.

Change and growth within York Region must be guided by sound planning and growth management policies, all of which must be consistent with recent changes to provincial *archaeological resource conservation* legislation and policy including:

- Planning Act, 1990
- The Funeral, Burial and Cremation Services Act, 2002
- Ontario Heritage Act, 1990 , and
- Provincial Policy Statement, 2005 (currently under provincial review).

The York Region Archaeological Management Plan has five major goals:

1. The compilation of detailed, reliable inventories of registered and unregistered *archaeological sites* within the Region;
2. The development of an *archaeological site* potential model and associated mapping, based on known site locations, past and present land uses, environmental and cultural-historical data, and assessment of the likelihood for survival of *archaeological resources* in various urban contexts;
3. Recommendations concerning revisions to Regional and Local Official Plan policies concerning *archaeological resources*, and the integration of *archaeological assessment* into the development application process;
4. Recommendations regarding the development of a First Nations and Métis Consultation Tool, and;
5. Recommendations regarding the development of a Contingency Plan for the Protection of Archaeological Resources in Urgent Situations.

This document and its appendices present a discussion of the implications of the archaeological potential modeling exercise and a review of the current planning and management guidelines for *archaeological resources*. It further identifies a recommended management strategy for known and potential *archaeological resources* within the Region.

2 11,000 years of Human Habitation in and around York Region

The Pre-contact Period

For over ten millennia, temporary encampments and semi-permanent villages of various sizes were situated along the river valleys and lake shore of south-central Ontario. The Aboriginal occupants of these sites left no written record of their lives. Their legacy includes the oral histories and traditions passed on to their descendants and the traces of their settlements.

A brief review of the pre-contact history of the study area, as it is understood in its broader regional context, is included below (see also Table 1). The terms used to describe the temporal periods were developed during the last century to recognize key shifts in environmental adaptation, subsistence strategies or technologies.

Paleo-Indian Period (9,000 B.C.-7,000 B.C.)

It is thought that Paleo-Indian hunting bands arrived in southern Ontario sometime between approximately 11,000 and 10,500 years ago, soon after the retreat of the glaciers made the area habitable. During the previous millennia, glaciers had covered much of southern Ontario. As these glaciers began to retreat approximately 12,500 years ago, large meltwater lakes formed in their wake.

The landscape that subsequently emerged was one of relatively barren tundra interspersed with areas of open boreal forest. This environment supported large Pleistocene mammals such as mastodon, moose, elk and especially herds of caribou which were a major focus of Paleo-Indian hunters. Evidence concerning the Paleo-Indian peoples is very limited since their populations were not large and little of their sparse material culture has survived the millennia. Furthermore, in following the herds, Paleo-Indian groups traveled extremely long distances over the course of the year, and seldom stayed in any one place for a significant length of time. Virtually all that remains are the stone tools and by-products of their flaked stone industry, the hallmark being large distinctive spear

First Nations European

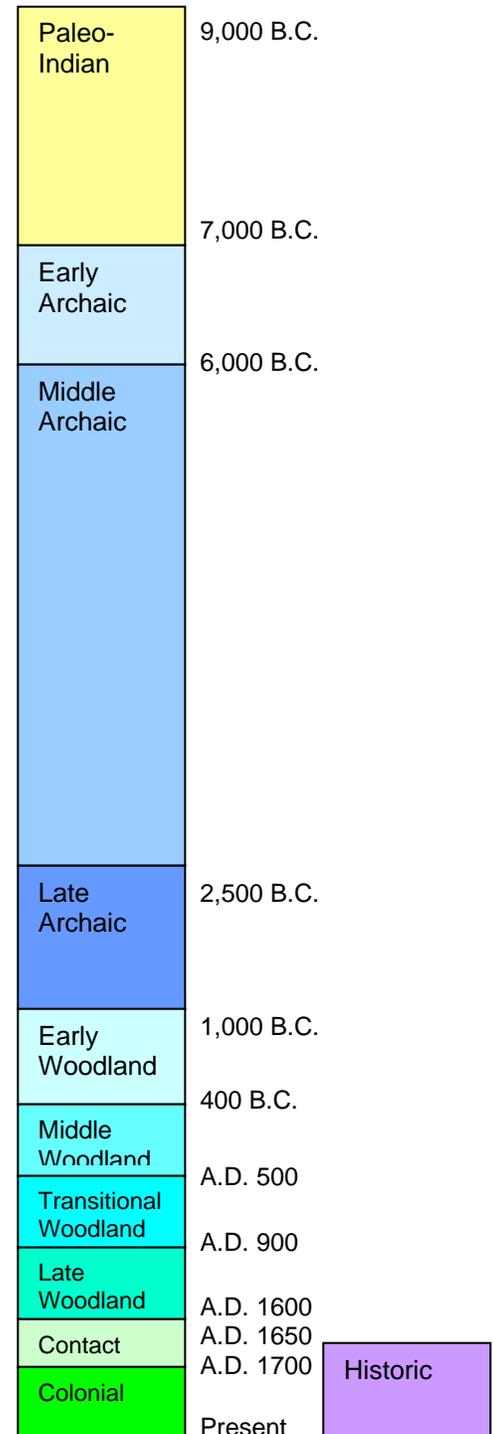


Figure 1 – Timeline of Human Habitation

points that have a prominent channel or groove on each face.

Paleo-Indian sites are frequently found adjacent to the remnant shorelines of large post-glacial lakes, suggesting that their camping sites were located along the shores of lakes to intercept migrating caribou herds. The water levels in the Lake Ontario basin continued to fall in the early post-glacial period before rising again to modern levels. Some of the largest campsites were along its shoreline and adjacent to estuaries that drained into this early Lake Ontario. Many of these sites are now situated more than a kilometre into the lake.



Figure 2 - Typical Paleo-Indian spear points of the Late Paleo-Indian period, circa 8,000 B.C.



Figure 3 - The earliest Paleo-Indian occupants of the Toronto area knew a very different landscape than that encountered 10,000 years later by the first European settlers.

Archaic Period (7,000 B.C.-1,000 B.C.)

The Archaic period is commonly divided into three sub-periods: Early Archaic (circa 7,000-6,000 B.C.), Middle Archaic (circa 6,000-2,500 B.C.), and Late Archaic (circa 2,500-1,000 B.C.). Few Early or Middle Archaic period sites have been investigated and they, like Paleo-Indian sites, are often identified on the basis of the recovery of isolated *projectile points*. Paleo-environmental data suggest that a mixed needle and broadleaf forest cover had established in Ontario by circa 7,000 B.C. and that the nomadic hunter-gatherers of this period exploited deer, moose and other animals, as well as fish and some plant resources, still moving relatively large distances over the landscape during the course of the year. The landscape continued to change, with much lower water levels in the Great Lakes and the expansion of more temperate forests. Over the following millennia, technological and cultural change is evident in the wide variety of tools produced, which in turn reflect the shifts in hunting strategies necessitated by a constantly evolving environment. By the Late Archaic period, however, hunter-gatherer bands had likely settled into familiar hunting territories. Their annual round of travel likely involved occupation of two major types of sites. Small inland camps, occupied by small groups of related families during the fall and winter, were situated to harvest nuts and to hunt the deer that also browsed in the forests and congregated in cedar swamps during the winter. Larger spring and summer settlements located near river mouths were places where many groups of families came together to exploit rich aquatic resources such as spawning fish, to trade, and to bury their dead, sometimes with elaborate mortuary ceremonies and offerings.

Excavations of regional sites have yielded important insights into long-distance trade and elaborate mortuary rituals shared with distant groups throughout northeastern North America. By approximately 3,000 years ago, many of the stone tools, and especially those made from ground stone, have both social and symbolic functions. Many of these objects were made of banded slate and were carved and ground to resemble animals. While they may have had day-to-day uses such as weights for spear-throwing devices, their inclusion in burials also ascribes to them a sacred intent. Regardless of the context in which they were used or found, they form part of the artistic history of the region.



Figure 4 - Most of the art of the pre-contact peoples of the Great Lakes region likely was created using perishable materials such as wood and bone. When they used more durable materials, such as slate, their works are of great beauty.



Figure 5 - Moreover, the imagery typically is imbued with complex symbolism and powerful cultural meanings.

Woodland Period (1,000 B.C.-A.D. 1650)

The Woodland period is divided into four sub-periods: Early (1,000 B.C.-400 B.C.), Middle (400 B.C.-A.D. 600), Transitional (A.D. 600-A.D. 900) and Late (A.D. 900-A.D. 1650). The Late Woodland period, during which Iroquoian society flourished in the southern Great Lakes region, is further divided into the Early, Middle and Late Iroquoian stages.

The Early Woodland period differed little from the previous Late Archaic period with respect to settlement patterns and subsistence pursuits. This period is, however, marked by the introduction of ceramics into Ontario. Although a useful temporal marker for archaeologists, the appearance of these ceramics does not seem to have profoundly changed the hunter-gatherer lifestyle. There is compelling evidence in the Early Woodland period, however, for an expanding network of societies across northeastern North America that shared burial rituals. A common practice, for example, was the application of large quantities of symbolically important red ochre (ground iron hematite) to human remains and the inclusion in graves of offerings of objects that represented a considerable investment of time and artistic skill. Moreover, the nature and variety of these exotic grave goods suggest that members of the community outside of the immediate family of the deceased were contributing mortuary offerings.

The most significant change, during the Early and Middle Woodland periods, was the increase in trade of exotic items, no doubt stimulated by contact with more complex, mound-building cultures in the Ohio and Mississippi valleys. These items were included in increasingly sophisticated burial ceremonies that occasionally involved the construction of burial mounds by local groups. This may have developed out of the need for greater social solidarity among growing aboriginal populations that were competing for resources.

The pace of cultural change seems to have accelerated during the Transitional Woodland period. Much of this change was brought about by the acquisition of tropical plants species, such as maize and squash, from communities living south of the Great Lakes. The appearance of these plants initiated a transition to food production that reduced the traditional reliance on naturally occurring resources, and led to a decrease in group mobility as people tended to their crops. Sites were more intensively occupied and subject to a greater degree of internal spatial organization.

Revolutionary changes continued in the settlement and subsistence patterns of regional populations. As the most populous and the most involved in the development of this new life-style, Ontario Iroquoian societies often form a distinct focus of Late Woodland archaeology; hence the Late Woodland period is often subdivided into Early (A.D. 900-A.D. 1300), Middle (A.D. 1300-A.D. 1400) and Late Iroquoian (A.D. 1400-A.D. 1650) periods. The people who resided along the central north shore of Lake Ontario were the ancestors of the Neutral, Huron, and Petun, while to the south of Lake Ontario, in what is now central New York State, ancestral Iroquoians became the Five Nation Iroquois

(Seneca, Cayuga, Onondaga, Oneida and Mohawk). While there were most certainly interactions between these Iroquoian-speaking groups, the Five Nation Iroquois did not inhabit the Toronto area until the mid-to-late seventeenth century.

Early Iroquoian society represents a continuation of Transitional Woodland subsistence and settlement patterns. Villages tended to be small, palisaded compounds with longhouses occupied by either nuclear or, with increasing frequency, extended families. These extended families formed the basis of social and political relationships within each village and between communities. The camps and hamlets around villages served as temporary bases from which to collect wild plants or to hunt game. While corn appears to have been an important dietary component at this time, its role was still more supplementary rather than a staple food.

The Middle Iroquoian period marks the stage in Iroquoian cultural evolution at which a fully developed horticultural system (based on corn, bean, and squash husbandry) and complex political means for regulating village affairs and linking separate villages had developed. Widespread similarities in pottery and smoking pipe styles also point to increasing levels of inter-community communication and integration. The commitment to producing food through agriculture involved abandoning the group mobility that had characterized aboriginal life for millennia. Instead, base settlements were established and land cleared around them for crops, while hunting, fishing, and gathering parties were sent out to satellite camps to harvest additional naturally occurring resources. By the beginning of the fourteenth century and due to the increasing reliance on horticulture, most Iroquoian people inhabited large, sometimes fortified villages throughout southern Ontario, including the central north shore of Lake Ontario within the Humber, Don, Duffins, and Rouge drainage systems. New villages are discovered and excavated every year.



Figure 6 - Large Iroquoian settlements, based on horticulture, were complex and dynamic communities.



Reproduction of a bone comb recovered from a seventeenth century Seneca burial accidentally disturbed by a service line at Baby Point on the southern Humber River. The original artifact was re-interred with the individual after the grave site had been documented.

Figure 7 - Reproduction of a bone comb recovered from a seventeenth century Seneca burial accidentally disturbed by a service line at Baby Point on the southern Humber River.

Communities continued to change during the fourteenth and fifteenth centuries. Certain village households, for example, consistently grew larger and more variable in membership than others within the same community. This trend peaked around the turn of the sixteenth century with some longhouses being repeatedly enlarged to reach lengths of over 120 metres. Some villages attained a size of over four hectares. This trend may reflect changes in the fortunes and solidarity of dominant lineages within villages and/or the movement of families between allied communities. During the sixteenth century, longhouses became smaller again and smaller villages coalesced to form 3 ha settlements. When European explorers and missionaries arrived in Ontario at the beginning of the seventeenth century, Iroquoian villages were under the direction of various chiefs elected from the principal clans. In turn, these villages were allied within the powerful tribal confederacies.

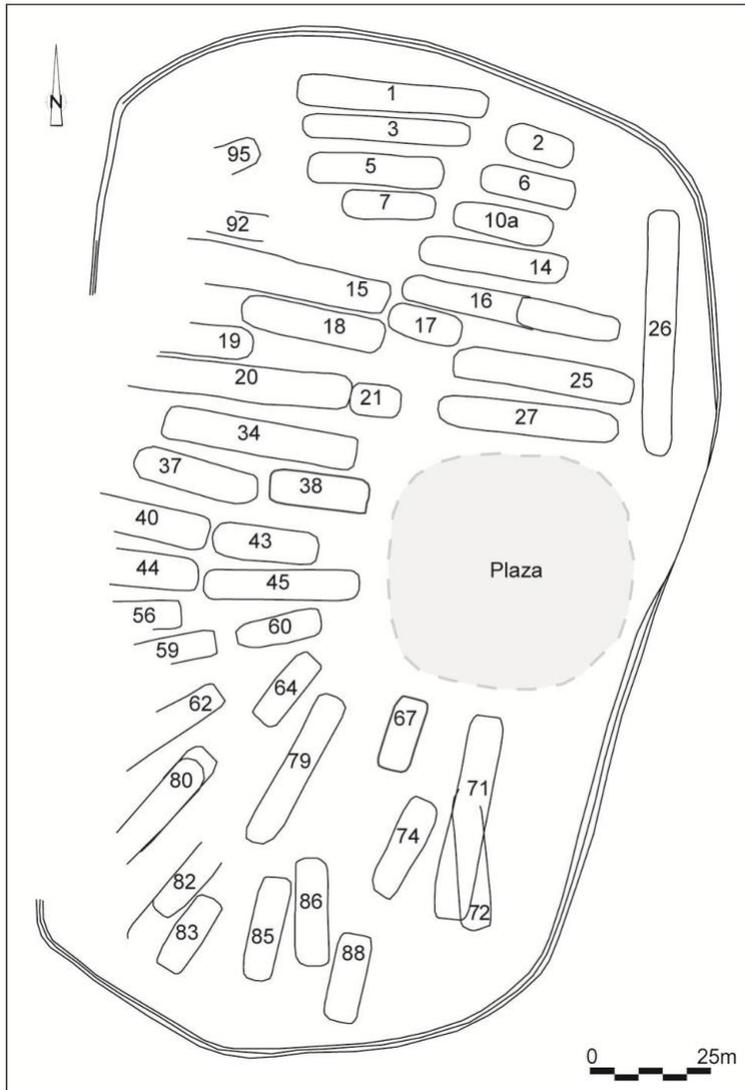


Figure 8 - Plan of early sixteenth century Mantle village in Stouffville. Discovered in 2003 and excavated over the course of four years, the village is one of the most complex in the Great Lakes Region. The settlement extended over an area of 2.9 hectares.

Most, if not all, of the Lake Ontario north shore communities, had moved by about 1600 from Lake Ontario northward, joining with other groups in Simcoe County to form the Petun and Huron. While this movement of communities likely took place over many generations, the final impetus was conflict with the Five Nations Iroquois of New York State. Intertribal warfare with the Five Nations during the first half of the seventeenth century, exacerbated by the intrusion of Europeans, ultimately resulted in the collapse (and dispersal) of the three Ontario Iroquoian confederacies—the Huron, the Petun and the Neutral.

Table 1: Southern Ontario Pre-Contact Cultural-History

Date	Period	Description
A.D. 1650-A.D. 1400	Late Iroquoian (Late Woodland)	<ul style="list-style-type: none"> • Complex agricultural society • Villages, hamlets, camps • Politically allied regional populations
A.D. 1400 – A.D. 1300	Middle Iroquoian (Late Woodland)	<ul style="list-style-type: none"> • Major shift to agricultural dependency • Villages, hamlets, camps • Development of socio-political complexity
A.D. 1300 – A.D. 900	Early Iroquoian (Late Woodland)	<ul style="list-style-type: none"> • Foraging with limited agriculture • Villages, hamlets, camps • Socio-political system strongly kinship based
A.D. 900 – A.D. 600	Transitional Woodland	<ul style="list-style-type: none"> • Incipient agriculture in some regions • Longer term settlement occupation and reuse
A.D. 600 – 400 B.C.	Middle Woodland	<ul style="list-style-type: none"> • Hunters-gatherers, spring/summer congregation and fall/winter dispersal • Large and small camps • Band level society with kin-based political system • Some elaborate mortuary ceremonialism
400 B.C. – 1000 B.C.	Early Woodland	<ul style="list-style-type: none"> • Hunters-gatherers, spring/summer congregation and fall/winter dispersal • Large and small camps • Band level society with first evidence of community identity • Mortuary ceremonialism • Extensive trade network for exotic raw materials
1000 B.C. – 7000 B.C.	Archaic	<ul style="list-style-type: none"> • Hunter-gatherers • Small camps • Band level society • Mortuary ceremonialism • Extensive trade networks for exotic raw materials
7,000 B.C. – 9,000 B.C.	Paleo-Indian	<ul style="list-style-type: none"> • First human occupation of Ontario • Hunters of caribou and now-extinct Pleistocene mammals • Small camps • Band level society

The Contact Period

By the late 1600s, the Five Nations Iroquois, in particular the Seneca, were using the central north shore of Lake Ontario for hunting, fishing, and participation in the European fur trade. Their main settlements were located near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place—the route that linked Lake Ontario to the upper Great Lakes via Lake Simcoe.

On the plateau above and on the flats at Baby Point on the Humber River, David Boyle documented a village site in the late nineteenth century, more familiarly referred to as “Teiaiaagon.” Another Seneca village called “Ganatsekwyagon” (thought to be the Bead Hill archaeological site) was situated two kilometres from the mouth of the Rouge River. The first European use of the latter site was as a mission established by the Sulpician Fathers from 1669 to 1671 under François d’Urfé. The missionary François de Salignac de la Motte-Fénélon spent the winter of 1669-1670 on the site. This represents one of the first recorded residencies of a non-aboriginal in the Toronto region.

Both the Seneca and earliest European occupations along the original lakeshore, therefore, were largely defined by the area’s strategic importance for accessing and controlling long-established economic networks.

The Post-Contact Period

Early Post-Contact Period (A.D. 1600-1650)

During the first half of the seventeenth century the Huron Confederacy inhabited Simcoe County between Barrie and Midland, the Petun confederacy inhabited the Collingwood area to the west and the Neutral confederacy was located at the head of Lake Ontario and in the Niagara Peninsula. Following the final abandonment of the north shore of Lake Ontario by the Ontario Iroquoian confederacies in the mid- sixteenth century, it remains possible that these people did not relinquish all claims on their former territory, returning occasionally to mount large-scale deer-hunting expeditions, similar to those known to take place by the Huron as far east as Kingston on a more or less annual basis in the early seventeenth century (Biggar 1922-1936: 59). Such forays, however, were likely comparatively brief and any sites established would have been of short duration. It is also likely that Six Nations Iroquois hunting parties were attracted to the north shore (Konrad 1981:136-137).

Intertribal warfare with the Five Nations Iroquois of New York State (the Seneca, Cayuga, Onondaga, Oneida and Mohawk) during the seventeenth century, exacerbated by the deleterious effects of the intrusion of Europeans (most notably the spread of epidemic diseases), resulted in the dispersal of the three Ontario Iroquoian confederacies and many of their Algonquian-speaking allies of the southern Canadian Shield by circa 1650. While many of the surviving Ontario refugees were dispersed to

Quebec, Michigan, Ohio (and ultimately Kansas and Oklahoma), many others were incorporated into the New York Iroquois populations. Seventeenth century European commentators frequently remarked upon the fact that former Hurons and Neutrals comprised high proportions of the residents of post-dispersal settlements, in certain New York villages (e.g., Thwaites 1896-1901:53:19, 54:79, 81) and Iroquois could be found as accepted members of the community on Algonquian settlements (e.g., Thwaites 1896-1901:41:176).

The Later Post-Contact Period (A.D. 1650-1700)

The years immediately following the dispersal of the Huron, the Neutral and their Algonquin allies in the 1640s and 1650s are poorly documented. Migrations, fission and amalgamation of formerly independent groups, and shifting territories further complicate the picture. The continuing effects of European diseases, warfare and periods of starvation through the mid-and late seventeenth century contributed to further population reductions among all Aboriginal peoples. Those who survived were freely adopted into remaining groups.

During this period, the Five Nations Iroquois established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario (Konrad 1981:135), including Teiaiagon, near the mouth of the Humber River; and Ganestiquiagon, near the mouth of the Rouge River. Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The west branch of the Carrying Place followed the Humber River valley northward over the drainage divide, skirting the west end of the Oak Ridges Moraine, to the East Branch of the Holland River. Another trail followed the Don River watershed.

When the Senecas established Teiaiagon at the mouth of the Humber, they were in command of the traffic across the peninsula to Lake Simcoe and the Georgian Bay. Later, Mississauga and earliest European presence along the north shore, was also largely defined by the area's strategic importance for accessing and controlling long-established economic networks. Prior to the arrival of the Seneca, these economic networks would have been used by the Huron-Wendat for over five hundred years, and before them, by the Algonquians. While the trail played an important part during the fur trade, people would also travel the trail in order to exploit the resources available to them across south-central Ontario, including the various spawning runs, such as the salmon coming up from Lake Ontario or herring or lake trout in Lake Simcoe.

Due, in large part, to increased military pressure from the French upon their homelands south of Lake Ontario, the Iroquois abandoned their north shore frontier settlements by the late 1680s, although they did not relinquish their interest in the resources of the area, as they continued to claim the north shore as part of their traditional hunting territory (e.g., Lytwyn 1997). The settlement vacuum, however, was immediately filled by the Anishnaubeg, such as the Mississauga, Ojibwa (or Chippewa) and Odawa. At

the time of European contact in the early seventeenth century, the Anishnaubeg “homeland” was a vast area extending from the east shore of Georgian Bay, and the north shore of Lake Huron, to the northeast shore of Lake Superior and into the upper peninsula of Michigan (Rogers 1978:760). Individual bands were politically autonomous and numbered several hundred people. These groups were highly mobile, with a subsistence economy based on hunting, fishing, gathering of wild plants, and garden farming (Rogers 1978:760).

The Mississauga and other Ojibwa groups began expanding southward from their homelands in the upper Great Lakes in the late seventeenth century, coming into occasional conflict with the New York Iroquois, although alliances between the two groups were occasionally established as well. It is likely that the former Iroquois settlements were maintained. While the continued appearance of these sites on maps produced during the remainder of the French regime probably reflects, to a certain degree, simple copying of earlier sources, it seems that the villages were taken up by the Anishnaubeg. Since the same settlements continued to function in the fur trade, their original village names remained on the maps. (Konrad 1981:141-142).

The Historic Period (A.D. 1700 to present)

The French period of exploration and settlement concluded with 1763 as a result of the Seven Years War between Britain and France. The French military were replaced by British facilities and settlement accelerated from Britain toward the end of the century. After the 1783 defeat of the British in the American Revolutionary War, large numbers of refugees from America began to arrive. Settlers of both European and First Nations descent were awarded land grants for their loyalty to Britain. In 1788, the area that is now York Region had been part of “Montreal District” in the province of Quebec but this was subsequently subdivided and the area became known as Nassau District. In 1791, the province of Quebec was divided into Upper Canada (most of what is now southern Ontario) and Lower Canada (the southern portion of what is now Quebec, plus what is now Labrador). In 1792, after Nassau District was renamed Home District, the first Lieutenant-Governor of Upper Canada, John Graves Simcoe, divided Upper Canada into 19 Counties and set out a road system and further subdivision of the Counties into Townships, York being the fourteenth County created. At that time York County included much of present-day York Region, parts of Durham Region, and the City of Toronto.

By 1815, immigrants were arriving directly from Britain and other European countries, with skills that were complimentary to the traditional farming skills of the earlier settlers. These skills were in demand among a growing population, and soon villages with churches, blacksmiths, general stores and other specialized services were established.

Sites from the Historic period are often characterized by the recovery of evidence of root cellars, excavated under the floors of early log cabins, or small house foundations, as well as pits, drains, wells and fence rows. Typical categories of *artifacts* include kitchen

and food (e.g., ceramic tableware and glassware), architectural (e.g., nails, window glass, bricks, door handles), personal class (e.g., buttons, buckles, toys, personal hygiene, smoking pipes, tokens) farming implements, and animal bone, which in some cases can reflect the ethnic origin and social class of the residents. Sites from the early period of European settlement are scattered across York Region, reflecting the many farms and villages that were built and were later either abandoned or absorbed into the evolving settlement pattern of York Region.

For an in-depth discussion of the pre-history and early colonial history of southern Ontario, see Appendix E – Overview of Southern Ontario History.



Figure 9 - Root cellar from a nineteenth century homestead.



Figure 10 - An example of a nineteenth century well.

3 Defining Cultural Heritage and Archaeology

Cultural Heritage

In common usage, the word heritage tends to be equated with “things of the past.” While accurate, this is a very narrow interpretation of the word. An interest in heritage indicates an awareness of, and concern for, “things of the past,” and recognition that these “relics” provide insights into the processes and cultures that have helped to shape the contemporary world, and will continue to influence the future.

Ontario’s heritage has been defined as:

“all that our society values and that survives as the living context — both natural and human — from which we derive sustenance, coherence and meaning in our individual and collective lives (Ontario Heritage Policy Review [OHPR] 1990:18-19).”

Our heritage consists of both natural and cultural elements and there has always been a complex interrelationship between people and their environment, each shaping the other. This definition further recognizes that heritage not only includes that which is tangible, but also that which is intangible.

Understanding the links between the natural and cultural heritage of the Region, in particular the importance of the Humber, Don, and Rouge corridors, is central in the effort to identify and *conserve* the archaeological heritage of the Region.

The development of management tools for heritage resources depends on categorizing these resources by type and recognizing that these basic types also form a continuum. Both the distinctiveness of the individual categories of cultural resources and the overlap between these categories has been recognized by the Ontario Heritage Policy Review, which defined three broad classes of cultural resources:

1. Immovable Heritage – land or land-based resources, such as buildings or natural areas that are “fixed” in specific locations.
2. Moveable Heritage – resources, such as *artifacts* and documents that are easily “detachable” and can be transported from place to place.
3. Intangible Heritage – such as traditional skills, beliefs and stories.

Archaeological sites are “immovable” resources, yet in most cases these sites are formed by concentrations of man-made or man-modified objects that are “movable” resources. Similarly, “movable” or “immovable” resources, such as buildings or documents often derive their significance through their intangible cultural associations, as they may reflect or typify specific skills or beliefs.

Distinguishing between the three basic categories outlined above allows us to understand the various threats to resources and tailor appropriate approaches to examining, conserving and preserving different resources.

Archaeology

The Provincial Policy Statement defines *archaeological resources* as including “artifacts, archaeological sites and marine archaeological sites.” Individual *archaeological sites*, which are places associated with past human activities or events, are distributed in a variety of settings across the landscape. These sites may occur on or below the modern land surface, or may be submerged under water. The physical forms that *archaeological sites* may take include: surface scatters of *artifacts*; subsurface strata which are of human origin, or incorporate cultural deposits; the remains of structural features; or a combination of these attributes. As such, *archaeological sites* are both highly fragile and non-renewable.

Ontario Regulation 170/04 under the *Ontario Heritage Act* defines *archaeological site* as “any property that contains an artifact or any other physical evidence of past human use or activity that is of cultural heritage value or interest;” *artifact* as “any object, material or substance that is made, modified, used, deposited or affected by human action and is of cultural heritage value or interest;” and *marine archaeological site* as “an archaeological site that is fully or partially submerged or that lies below or partially below the high-water mark of any body of water.” *Archaeological fieldwork* is defined as “any activity carried out on, above or under land or water for the purpose of obtaining and documenting data, recovering artifacts and remains or altering an archaeological site; and includes *monitoring*, assessing, exploring, *surveying*, recovering, and excavating.”

Determining Cultural Heritage Value

The *Ontario Heritage Act* (Ontario Regulation 9/06) also sets out criteria for determining the *cultural heritage value of archaeological resources*, including:

- Information value
- Value to a community
- Value as a public resource

The *Standards and Guidelines for Consultant Archaeologists, 2011* defines a set of indicators of cultural heritage value, which helps to determine which *archaeological resources* are *significant* and therefore must be *preserved* or *conserved*.

Table 2: Indicators Showing Cultural Heritage Value or Interest

Information Value

The archaeological site contributes to local, regional, provincial or national archaeological history.	
Criteria	Indicators
Cultural Historical Value	Information from the archaeological site advances our understanding of: <ul style="list-style-type: none"> • Cultural history – locally, regionally, provincially or nationally • Past human social organization at the family, household or community level • Past material culture – manufacture, trade, use and disposal
Historical Value	The archaeological site is associated with: <ul style="list-style-type: none"> • Oral histories of a community, Aboriginal community, or specific group or family • Early exploration, settlement, land use or other aspect of Ontario’s history • The life or activities of a significant historical figure, group, organization or institution • A significant historical event (cultural, economic, military, religious, social or political)
Scientific Value	The archaeological site contains important evidence that contributes to: <ul style="list-style-type: none"> • Paleo-environmental studies • Testing of experimental archaeological techniques
Rarity or Frequency	The archaeological site is: <ul style="list-style-type: none"> • Unique – locally, regionally, provincially or nationally • Useful for comparison with similar archaeological sites in other areas • A type that has not been studied or has rarely been studied, and is therefore under-represented in archaeological research
Productivity	The archaeological site contains: <ul style="list-style-type: none"> • Large quantities of artifacts, especially diagnostic artifacts • Exotic or rare artifacts demonstrating trade or other exchange patterns
Integrity	The archaeological site is well preserved and retains a large degree of original material
Value to a Community	
The archaeological site has intrinsic value to a particular community, Aboriginal community or group.	
Criteria	Indicators
The archaeological site has traditional, social or religious value.	The archaeological site: <ul style="list-style-type: none"> • Contains human remains • Is identified as a sacred site

	<ul style="list-style-type: none"> • Is associated with a traditional recurring event in the community, aboriginal community or group (e.g., an annual celebration) • Is a known landmark
Value as a Public Resource The archaeological site contributes to enhancing the public's understanding and appreciation of Ontario's past.	
Criteria	Indicators
The archaeological site has potential for public use for education, recreation or tourism.	The archaeological site: <ul style="list-style-type: none"> • Is or can be made accessible to tourists, local residents or school groups • Is or can be incorporated into local education, recreation or tourism strategies and initiatives

(reproduced from Standards and Guidelines for Consultant Archaeologists 2011)

4 Threats to Cultural Heritage and Archaeological Resources

Protecting *archaeological sites* has become especially important in southern Ontario, where landscape change has been occurring at an ever increasing rate since 1950, resulting in substantial losses to the archaeological record.

A study of the scale of the threat to southern Ontario's archaeological record has been undertaken, considering demographic and agricultural change over the last century, and estimating the number of *archaeological sites* that have been destroyed as a result of those changes (Coleman and Williamson 1994). Initial disturbance to *archaeological sites* occurred from 1826 to 1921, when large tracts of land were deforested and cultivated for the first time. This disturbance typically resulted in only partial destruction of archaeological data as most subsurface deposits remained intact. However, extraordinary population growth in the post-World War I period resulted in a more disturbing trend as large amounts of cultivated land were consumed by urban growth.

It is possible that more than 10,000 sites were destroyed in Ontario during the post-World War I period, of which 25% represented *significant* archaeological features that could have contributed meaningfully to our understanding of the past (Coleman and Williamson 1994: Tables 2 and 3). In York Region, the potential loss was enormous — an estimated 2,500 or more sites destroyed of which 659 would have been important enough to protect or completely excavate.

Archaeological sites also face a less direct, but equally serious threat, in the form of man-made changes to the landscape that alter or intensify destructive natural processes in adjoining regions. For instance, increased surface run-off in the wake of forest clearance and hydrological fluctuations associated with industrial and transportation development can result in intensified rates of erosion on certain sites.

The amount of land (and hence the potential number of *archaeological sites*) which has been subjected to these destructive forces is impossible to quantify, but is likely to be considerable.

There has recently been a marked reduction in the rate of *archaeological site* destruction throughout much of the province. The incorporation of cultural and *heritage conservation* in the PPS enabled municipalities to provide stronger protection of these resources. In addition, the penalties for disturbing or destroying *archaeological resources* have been strengthened in the past decade, to include \$50,000 fine and/or one year imprisonment for an individual or the director of a corporation; or a \$250,000 fine for a corporation. However, the potential for loss of *archaeological resources* in the future remains, due to continuing growth and development.

In response, York Region has developed the Archaeological Management Plan as a screening tool to assist municipalities, developers and residents to identify and protect *archaeological resources*.

5 Planning for Archaeological Resource Conservation

The Province's natural resources, water, agricultural lands, mineral resources, and cultural heritage and archaeological resources provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key provincial interest. The Province must ensure that its resources are managed in a sustainable way to protect essential ecological processes and public health and safety, minimize environmental and social impacts, and meet its long-term needs (Vision for Ontario's Land Use Planning System, Provincial Policy Statement, Ministry of Municipal Affairs and Housing 2005, pp. 2-3).

Archaeological management planning provides an important mechanism for ensuring that future development (e.g., residential, industrial, commercial and infrastructure construction) respects the *cultural heritage* of the Region.

Archaeological resources are often located on private property and are fragile and non-renewable. The role of the custodian and steward of these resources generally falls to the private property owner. It is neither possible nor desirable that all resources be brought into public ownership. Consequently legislation, policy and education must be used to minimize negative impacts of development on important resources. Any archaeological management policy must respect certain private property rights while protecting a resource valued by society.

Cultural heritage resources may be affected by purposeful action, such as development activities (e.g., road building, residential construction). This may result in adverse and/or beneficial impacts, depending on how development is managed. Change may also be a

gradual and natural process of aging and degeneration, independent of human action, which affects *artifacts*, building materials, human memories or landscapes. *Archaeological resource* management must ensure that change, when it does occur, is controlled so negative impacts on cultural heritage resources can be either averted or minimized. This can be achieved by ensuring that change has no adverse impacts or that intervention in the process results in the promotion of beneficial effects.

Heritage legislation and provincial policy require the *conservation* or *preservation* of *significant archaeological resources*. Planning legislation requires *archaeological assessment* as a component of the development process along with the other technical studies that have traditionally been required, such as Environmental Site Assessments, Stormwater Management Reports, Traffic Impact Studies, Tree Preservation Studies, etc. This approach provides a broad understanding of a proposed development site, and the opportunity to *preserve* or *conserve archaeological resources* and other features by selecting the most appropriate development alternatives.

Increasing Awareness of Archaeological Resources in York Region

The general public in Ontario has little awareness of the rich archaeological record around them. While in some areas of the province, there are large landscape features such as burial mounds, most pre-European building infrastructure was constructed of wood, rendering them virtually invisible in the modern landscape. It is generally not until archaeological techniques are employed that settlements and the *artifacts* that were discarded at them become apparent.

The invisibility of the archaeological record in York Region is in contrast to other parts of the world where past cultures left behind much more visible reminders of their existence (e.g., monumental architecture). In many of these areas, the appreciation for, and protection of, *archaeological resources* is assisted by the fact that people have regular visual reminders of the past. In the absence of highly visible *archaeological sites*, it is worth seeking opportunities for people to observe and learn about the archaeological heritage of York Region.

Disposition of Artifacts Recovered within York Region

Section 14 of the Terms and Conditions for Archaeological Licences states “The licensee shall hold in safekeeping all artifacts and records of *archaeological fieldwork* carried out under this licence, except where those artifacts and records are transferred by the licensee to Her Majesty the Queen in right of Ontario or the licensee is directed to deposit them in a public institution in accordance with subsection 66(1) of the Act.” Section 66 (1) of the *Ontario Heritage Act* governs matters related to the care and curation of *artifacts* and stipulates that “The Minister may direct that any artifact taken under the authority of a licence or a permit be deposited in such public institution as the

Minister may determine, to be held in trust for the people of Ontario.”

The application of this section of the Act and the Terms and Conditions for Archaeological Licences typically involve the curation of recovered *artifacts* by the archaeologist until such time that the analyses are complete and that a place for ultimate disposition can be arranged, usually a fully accredited public repository. It is also generally assumed that archaeologists will consult with the landowner to decide upon the location for the disposition of *artifacts*. In general, it is desirable that material from a particular *archaeological site* be deposited in a public institution located in the same community (either a local museum or a First Nations cultural centre), provided that adequate storage and curatorial facilities for both *artifacts* and field records are available, that the institution’s collections are accessible to researchers, and that the material is not transferred or disposed of without provincial approval.

Identifying publicly accessible repositories for *artifacts* recovered during archaeological *excavations* in York Region would provide one opportunity to increase York Region residents’ and visitors’ awareness of the cultural history of the area. It may also provide a venue for increased heritage tourism in York Region.

Reinterment Sites

Occasionally, in the course of development projects, human remains are encountered (e.g., single burials, cemeteries, *ossuaries*). The *Funeral, Burial and Cremation Services Act, 2002* requires that all work on the site must cease, the site be secured and the police and coroner be called immediately.

Once it is determined that no criminal investigation is required and forensic interest in a site has been ruled out, the coroner must notify the Registrar of Cemeteries. An archaeological investigation of a burial site must be conducted by an archaeologist who holds a professional license under Part VI of the *Ontario Heritage Act*.

Should it be determined that the remains are Aboriginal, the First Nations community with cultural affiliation to the remains must be notified.

In many cases, the appropriate action will be to leave the site intact and adjust the development plans in such a way that the remains can be *preserved* undisturbed. In some cases (e.g., shallow burials exposed to the elements), circumstances may make it impossible or undesirable to leave burials in their present location. As such, appropriate *reinterment* sites must be found for the burials. It will often be preferable to relocate the burials as close as possible to the original burial site. The *proponent, approval authority, Ontario Cemeteries Registrar* and interested parties (e.g., affiliated First Nation or religious organization) should work together to find a suitable location for this purpose.

Rarely, it may be more appropriate to relocate burials, or even sacred items, off-site. Consultation with First Nations and the Métis has indicated interest in working with York

Region and local municipalities to identify a site that would be appropriate for this use.

6 Aboriginal Involvement in the Archaeological Process

As noted, York Region has been the site of human occupation throughout the past 11,000 years. The vast majority of this occupation has been by Aboriginal peoples and much of the archaeological record reflects this long period of human habitation. For this reason, *archaeological sites* and *artifacts* have particular significance to First Nations and Métis communities.

The archaeological record is an important source of information and documentation concerning traditional practices and territories and can supplement oral traditions and the historical record. The archaeological record also includes individual burial sites and cemeteries, which have specific significance to many cultural groups and require particular sensitivity. Because of the implications of *archaeological assessment* for Aboriginal communities, it is important to offer the opportunity for affected First Nations and Métis communities to be involved in the archaeological process through appropriate consultation.

Consultation with First Nations and Métis are intended to show respect for Aboriginal communities, to build and enhance strong relationships that can benefit First Nations, Métis, the Region, local municipalities and other parties involved, and to increase the inclusiveness of the planning, development and infrastructure decision-making processes.

It is often assumed that the First Nation that is geographically closest to a project location is the most suitable group with whom to consult, particularly when the issues at stake are those of *archaeological resources* and human remains. However, the complex histories and settlement patterns of the First Nations of the Region, both before and after European contact, mean that such assumptions can be inaccurate and detrimental to the success of the entire consultation process. Under all circumstances there should be an effort to identify the group or groups that are the most appropriate (on cultural-historical grounds) to act as the designated descendants of those who occupied the project area in the past, and who are willing to participate and ensure that cultural heritage remains are treated in an appropriate and seemly manner. This identification process is best achieved through negotiation with a variety of communities in order that they may themselves arrive at the final decision.

The Ministry of Tourism, Culture and Sport requires licensed *consultant archaeologists* to engage in consultation with Aboriginal communities between Stages 3 and 4 archaeological investigations on *significant* Aboriginal sites and recommends consultation before Stage 2 and 3.

The “Engaging Aboriginal Communities in Archaeology” bulletin directs archaeologists to consult with Aboriginal communities when developing appropriate *mitigation* proposals for Aboriginal sites, and when determining disposition of the *artifacts* gathered in the course of archaeological field work on these sites.

Development and Infrastructure projects undertaken by municipalities and other public agencies are primarily subject to the Environmental Assessment process, as set out in the provincial *Environmental Assessment Act*, which requires consultation regarding archaeological and other issues of environmental concern with regard to the project with Aboriginal communities that will potentially be affected by the project.

In order to respect and build upon the relationships that have developed during the consultation process for the Archaeological Management Plan, York Region will develop a broader “First Nations and Métis Consultation Tool”. This will also expand upon lessons learned and experience gained by York Region during development and infrastructure projects, for example the Teston Road *Ossuary* site discovered during road widening work. The Tool will be developed in collaboration with First Nations and Métis members of the Archaeological Management Plan Steering Committee.

The Tool may include information on a variety of issues, such as:

- Identification of interested communities
- Notification requirements for projects
- Documenting and reporting on consultation activities
- Developing principles to guide consultation
- Creating clear and explicit objectives for consultation
- Determining the most appropriate method of consultation for a particular situation and project
- Identifying issues for discussion
- Methods for integrating the consultation results into the overall project
- Expected responses to concerns
- Defining the roles and responsibilities of the parties to the consultation

7 Current Archaeological Assessment Process in Ontario

Roles and Responsibilities in Archaeological Assessment

The *archaeological assessment* process involves many individuals, levels of government, and stakeholder groups. Below is an outline of the key roles and responsibilities of the main participants in the process.

Province

The Province sets out the policy and legislative framework for the protection of *archaeological resources* and other cultural heritage resources, through the Provincial Policy Statement 2005 (currently under provincial review), the *Planning Act*, the *Ontario Heritage Act*, the Standards and Guidelines for Consultant Archaeologists 2011, and Engaging Aboriginal Communities in Archaeology: A Draft Technical Bulletin for Consultant Archaeologists in Ontario.

The Ministry of Tourism, Culture and Sport is the authority which licenses *consultant archaeologists* in Ontario, as well as regulating work on specific properties and *archaeological sites*. They review reports written by licensed archaeologists regarding *archaeological assessments* and approve recommendations with respect to whether further *archaeological assessment* is required on a particular site, and whether proposed *preservation* or *conservation* strategies are appropriate for the particular site.

The Ministry of Municipal Affairs and Housing is the *approval authority* for the Regional Official Plan, and determines whether the policies within the ROP, including those relating to *archaeological resources* and cultural heritage, meet the requirements of applicable provincial legislation and policy.

The Regional Municipality of York

The Region implements provincial policy and legislation through its Official Plan policies with respect to the protection of archaeological and cultural heritage resources. The Region is also the *approval authority* for Local Official Plans and some Local Official Plan Amendments, all of which must conform to the policies within the Regional Official Plan and provincial policy and legislation.

The Region is also a commenting agency on site plans, plans of subdivision and plans of condominium submitted to local municipalities. Staff at York Region review these applications to ensure they meet the requirements of the Regional Official Plan as well as other relevant legislation and policy.

Regional development and infrastructure projects, such as new roads and road widening projects, waste disposal sites, water and wastewater projects, etc. are subject to the Environmental Assessment process, as governed by the *Environmental Assessment Act*. An Environmental Assessment requires the Region, as the development *proponent*, to undertake studies to demonstrate the environmental, cultural and natural features of the project site, and to determine what the impacts of the proposed development will be on those features. During an Environmental Assessment, the Region is required to consult with the Province, regulatory agencies, Aboriginal Communities who may be affected by or interested in the project, and the public.

As part of the Environmental Assessment process, the lands required by the project are

screened for archaeological potential and where an area exhibits potential, an *archaeological assessment* is carried out in accordance with the regulations of the *Ontario Heritage Act*. In the event that *significant archaeological resources* have been found during the *archaeological assessment* process, Regional projects must obtain Ministry of Tourism, Culture and Sport clearance prior to proceeding.

Local Municipality

Local municipalities implement Provincial and Regional policy and legislation through their Official Plans, which must be consistent with the Regional Official Plan and thus be consistent with the Provincial Policy Statement and provincial legislation.

Municipalities are the *approval authority* for some site plans, subdivision plans, condominium plans, consents, re-zonings and Local Official Plan amendments. Local planners also make recommendations to the local Committee of Adjustment regarding Minor Variances with respect to whether or not they are in keeping with the intent of the Official Plan and Zoning By-law.

Local planners play an important role in the *archaeological assessment* process as they are involved in the pre-consultation process with *proponents* of most development applications that take place within the Region. Therefore, they are the first planners with the opportunity to bring to the attention of the development *proponent* the *archaeological potential* and *archaeological assessment* requirements for a particular property.

Local infrastructure projects are subject to the same applicable Environmental Assessment process as Regional projects. This process requires the determination of archaeological potential, the assessment of *archaeological resources*, and the clearance of archaeological concerns prior to work proceeding.

Development Proponent (includes their representatives, contractors and consultants)

Development *proponents* trigger many of the *archaeological assessments* that take place in Ontario when they propose development in areas that exhibit archaeological potential. *Proponents* are required to meet the legislated requirements for *archaeological assessment* and *conservation* by hiring a licensed archaeologist to carry out the assessment in accordance with applicable legislation and the Standards and Guidelines developed by the Ministry of Tourism, Culture and Sport.

If the *archaeological assessment* locates *significant archaeological resources* on the proposed development site, *proponents* must ensure that the requirements for engagement with interested stakeholders, including Aboriginal communities, are met and that an appropriate *preservation* or *conservation* strategy is developed and

implemented prior to development of a property. *Proponents* are also required to keep the *approval authority* (the Region or local municipality, depending on the application) informed of the findings of all archaeological work carried out related to a development application. This allows the *approval authority* to make informed decisions with respect to the application, and also to facilitate updates to the archaeological potential mapping with respect to areas that have been identified as *archaeological sites*, or cleared of archaeological concerns.

Consultant Archaeologist

Under the *Ontario Heritage Act* *archaeological fieldwork* must be undertaken by licensed *consultant archaeologists*, and qualified personnel working under their supervision. *Consultant archaeologists* are educated and experienced in archaeology and complementary fields. Licensing requirements for *consultant archaeologists*, as well as for specific site works, are determined and implemented by the Ministry of Tourism, Culture and Sport.

Licensed *consultant archaeologists* are required to undertake *archaeological assessments* in accordance with the “Standards and Guidelines for Consultant Archaeologists”, published by the Ministry of Tourism, Culture and Sport. Their services include background research, site investigation, recommending appropriate *preservation or mitigation* strategies in the event that *significant archaeological resources* are located, engagement with appropriate Aboriginal communities, and reporting to the Ministry of Tourism, Culture and Sport as per their licence requirements.

Any alteration of *archaeological sites* without a license, by any person or agency, is illegal under the *Ontario Heritage Act*. Penalties for violating this law include a fine of up to \$50,000 for an individual or director of a corporation or imprisonment for up to one year, or both. A corporation that violates the Act or regulations can be subject to a fine of up to \$250,000. Unlawful removal of *artifacts* is a violation that may result in a fine of up to \$1,000,000.

The Four Stages of Archaeological Assessment

Archaeological assessment in Ontario follows a four-stage process. Each stage of the *archaeological assessment* process in Ontario must be undertaken by a licensed *consultant archaeologist*, under the laws and processes set out by the Ministry of Tourism, Culture and Sport.

The first three stages of the process are intended to identify whether there are *archaeological resources*, assess the *cultural heritage value or interest* of any *archaeological resources* discovered, and recommend appropriate next steps. The fourth stage provides for the *mitigation* of archaeological concerns in the event that *significant archaeological resources* have been discovered through the first three

stages.

Archaeologists prepare and submit a report at the conclusion of each stage of the process (although Stages 1 and 2 are most often combined), which the Ministry reviews in order to ensure that a property is free from archaeological concern or an *archaeological site* has been properly *conserved* and that the archaeologist met the terms and conditions of the licence. Work conducted by the archaeologist must conform to the standards set forth in the most current *Standards and Guidelines for Consultant Archaeologists* and associated Bulletin (i.e., *Engaging Aboriginal Communities in Archaeology*) published by Ministry of Tourism, Culture and Sport.

Provincial regulations require assessment of the entire subject property, not simply the portion(s) that falls within the area of archaeological potential. Any deviation from this approach and the results of the work by the registered archaeologist must be approved by the Ministry of Tourism, Culture and Sport, unless otherwise exempted.

Under the Ministry's requirements, a **Stage 1** assessment consists of background research concerning registered sites on or near the subject lands, as well as the environmental character of the property and its land use history. This process determines and reports on whether a property exhibits archaeological potential, and the extent and type of potential.

Once archaeological potential has been established, a **Stage 2** assessment is undertaken, consisting of an archaeological field assessment to discover and document any sites that may be present on a property. Where possible, properties are ploughed and walked by archaeologists. *Artifacts* brought to the surface by ploughing indicate the location of an *archaeological site*. Where ploughing is not possible the archaeologists will dig parallel rows of small holes, called "test pits", down to sterile subsoil and screen the soil to look for *artifacts*. In instances where land is paved or may have been deeply buried by previous site-alteration there may be specialized assessment techniques undertaken.

Once the Stage 1-2 *archaeological assessment* has been completed, the archaeological consultant will submit a report to the Culture Services Branch of the Ministry of Tourism, Culture and Sport. Ministry staff will review the report to determine if the assessment has met current licensing and technical standards. If this is not the case, Ministry of Tourism, Culture and Sport will require the consultant to carry out additional field work, and/or provide further documentation.

If the assessment complies with licensing and technical standards and did not result in the documentation of any *significant archaeological resources* the Ministry of Tourism, Culture and Sport will provide a letter to the archaeological consultant (and sometimes the municipality), which will serve to notify them that all provincial concerns with respect to *archaeological resource conservation* and archaeological licensing have been met. Upon receipt of this notification and/or supporting documentation from the

archaeological consultant, the *approval authority* may clear the planning application of any further archaeological concern.

Where one or more *archaeological sites* have been located on a property, a **Stage 3** investigation is required. Stage 3 investigations are designed to determine the scale and extent of a site, as well as its cultural heritage value. This may involve complete or partial systematic collection of *artifacts* found on the surface, as well as test *excavation* of one-metre square test units at regular intervals across the site. This allows mapping of the extent of the site, as well as collection of sufficient *artifacts* to determine the cultural and temporal affiliations as well as *cultural heritage value* of the site.

Where a site has been located and determined to be of Aboriginal origin, the archaeologist is required to engage with the appropriate affiliated First Nation or Métis community at the completion of Stage 3. If affiliation can be determined based on Stage 2 findings, the archaeologist is encouraged to engage with the affiliated community prior to Stage 3.

Based on information gathered through the Stage 3 assessment and Aboriginal consultation, the archaeologist will make recommendations to the Ministry of Culture, Tourism and Sport regarding *preservation* of the site, *conservation* of the site through Stage 4 *mitigation*, or the clearance of archaeological concerns on the property.

Once Stage 3 assessments have been completed on the *archaeological sites* requiring further investigation, it is generally possible to secure partial clearance for the portions of the property not encompassed by the *archaeological site(s)* and required protective buffer zones.

Where an *archaeological site* has been identified and determined to be of significant cultural heritage value, it will either be *preserved* on-site or **Stage 4 mitigation** will proceed, usually by *excavation*. See below for further discussion of *mitigation* options.

Upon receipt of notification that all Ministry of Tourism, Culture and Sport archaeological *conservation* and licensing concerns have been addressed, and/or receipt of the necessary supporting documentation from the *consultant archaeologist*, the *approval authority* will clear the planning application of further archaeological concern. Although the final report of a comprehensive archaeological *mitigation* may take many months to complete, final clearance for the property may be available upon the archaeological consultant completing the *fieldwork* and submitting a preliminary report to Ministry of Tourism, Culture and Sport.

Completion of an *archaeological assessment*, no matter how rigorous, does not fully guarantee that all *significant archaeological resources* on a property will be identified prior to land disturbance. *Archaeological sites* or resources may be missed in areas where processes such as filling, flooding or erosion have resulted in the burial of original ground surfaces; with respect to isolated human burials that are typically small features

that can escape detection; or in the case of *ossuaries*, which are often buried more deeply than standard Stage 2 archaeological techniques can reach. For this reason it is necessary for development *proponents* to maintain an archaeological contingency plan to address situations where deeply buried *archaeological resources* are uncovered during site development

This four stage *archaeological assessment* process can be integrated into the development approvals process and is similar to the many other studies and reports required for a complete development application and follow-up during the development phase.

Mitigation Options for Archaeological Resources

In any situation where *significant archaeological resources* are discovered, there are a number of mitigative options, including *avoidance*, modifications to construction techniques, and various degrees of documentation and/or *excavation*. In all cases, thought should be given to the interpretive and educational potential of the site.

Preservation

Preservation is the preferred option, particularly in the case of finds with *cultural heritage value* such as village sites, *ossuaries* and cemeteries. *Preservation* may involve long-term protective measures such as changes to the planned development in order to avoid the site, while integrating the resource within the overall development plan. To further avoid both accidental impact and intentional vandalism and looting, additional protective measures may include fencing, screening, or capping (only in special circumstances). The *approval authority*, in consultation with the Ministry of Tourism, Culture and Sport, licensed *consultant archaeologists*, the *proponent*, and other stakeholders, must determine whether *preservation* is to occur on the landscape scale (i.e., areas of high cultural landscape heritage integrity combined with high archaeological potential are to be *preserved* as a whole), or at the scale of individual sites that are deemed to be particularly significant or sensitive (e.g., Late Woodland settlements that may contain human burials).

The site *preservation/avoidance* option has both short- and long-term components. The short-term component involves both the redesign of the development plan (e.g., lot layouts, parkland, road, and service alignments) and ensuring that the resource(s) in question are physically protected during construction by means of fencing or other visible barriers. The long-term protective measures may entail the use of protective zoning by-laws, as permitted by subsection 34(1) of the *Planning Act*, or other conditions or orders that prohibit any future land use activities that might result in soil disturbance, such as designation under Section VI of the *Ontario Heritage Act*, covenants on title, or transfer of land ownership to a public land-holding body.

Stabilization

Stabilization may be required in the case of eroding archaeological deposits that need not be removed from the site in their entirety. This may involve the salvage *excavation* of the eroding area and/or the construction of retaining walls or barriers.

Systematic Excavation and Data Recovery

This option is used when other mitigative options are not feasible. It includes a complete or partial systematic surface collection and/or *excavation* of the site, which may involve the use of heavy machinery to remove topsoil in order to expose the features of a site. Features are mapped, photographed and excavated; *artifacts* are removed, cleaned, catalogued and studied to aid in dating of the site and to ascertain the activities that took place at the site. A comparative analysis and interpretation of content and contextual information gathered through the surface collection and *excavation* is carried out and an investigative report is produced. This *mitigation* strategy ultimately results in the destruction of the *archaeological site*.

Monitoring

Site *monitoring* may be undertaken (only in specific circumstances, such as areas with the potential for deeply buried *archaeological resources* that could not be detected during Stage 2 *archaeological assessment*) to ensure that adverse impacts on *archaeological sites* which could not be predicted or evaluated prior to construction are addressed. This could include lands within the Ossuary Potential Area, or properties where other information suggests the presence of *archaeological resources* that could not be detected through traditional Stage 2 processes. *Monitoring* requires the presence of a licensed archaeologist during the ground disturbance phase of a project. This takes the form of scheduled site visits and on-call availability during a long term project.

Determining the appropriate strategy for *preservation* or *conservation* of a *significant archaeological site* should involve discussion between the archaeologists, development *proponent*, *approval authority*, Aboriginal communities and other stakeholders.

All decisions regarding mitigative options or preservation strategies are subject to Ministry of Tourism, Culture and Sport review and approval.

8 The Archaeological Potential Model

One of the main components of this Archaeological Management Plan is the Archaeological Potential Model, which includes the data and assumptions used to map areas of potential for containing previously undiscovered *archaeological sites*.

The archaeological potential model developed as part of this project was created using

GIS (geographic information systems) base maps and applying buffers relating to known *archaeological sites*, geographic features and attributes known to be associated with *archaeological sites*, and heritage designated properties. This archaeological potential model is a refinement of the criteria for determining archaeological potential, as set out by the Ministry of Tourism, Culture and Sport. Several different layers were mapped and then a composite of those layers was used in order to develop the most comprehensive model possible based on currently available data.

Pre-contact Archaeological Potential Layer

The pre-contact archaeological potential layer identifies the potential location of pre-contact Aboriginal settlement throughout the Region. This layer was developed by examining settlement tendencies through time, based on resource use, and having accounted for changing environmental adaptations.

Two of the most important criteria for determining pre-contact archaeological potential are proximity to various water bodies and water sources, as well as soil type. In order to account for these criteria, major stream segments, including the Humber, Don, Rouge and Holland as well as their major tributaries, and the original Lake Ontario and Lake Simcoe shorelines, were buffered by 250 metres from the top of bank. A 250 metre buffer was also applied to the brow of glacial lakes Iroquois and Algonquin, and 200 metres from the base of the bank. All smaller streams were then buffered by 250 metres from their centreline, and wetlands were buffered by the same distance from their borders. Soil information was used to determine archaeological potential based on three main attributes: texture, drainage, and capability for agriculture. Much of the Region has soils with few limitations for agriculture, with the exception of the Moraine. Soil texture and drainage characteristics were employed to determine poorly drained areas that would have been avoided for settlement. Finally, all areas with a slope exceeding 20 degrees were excluded from the model.

The pre-contact archaeological potential area was determined to encompass 69% of the Region's area.

Historic Archaeological Potential Layer

A historic archaeological potential layer (pre-1870) was mapped based on historical maps and archival research to identify early European settlement centres (i.e., hamlets, villages, etc.), as well as rural residential, commercial, industrial and transportation features. The Chippewas of Georgina Island First Nation also supplied mapping of their traditional family hunting trails, travel corridors and hunting territories within York Region, which were also included in the potential model. Boundaries of the identified settlement centres were established to indicate where the greatest concentration of buildings would have been during the historic period. Buildings such as schools, places of worship, meeting halls, commercial buildings (e.g., inns, taverns, blacksmith shops,

stores, mills, lime kilns and quarries) would have drawn activity and development to the surrounding area and therefore demonstrate significant historical archaeological potential. Similar features located outside of the settlement centres were mapped as points on the base-map and buffered by 100 metres. Isolated rural homesteads were also mapped and buffered by 100 metres. Transportation routes such as early roads and railroads were buffered by 100 metres on either side, as were cemeteries and family burial grounds, unless they were recent burial grounds, or within urban areas. All features which are designated under the *Ontario Heritage Act*, for those municipalities that provided such data, were buffered by a radius of 100 metres as well.

The historic potential layer covers 24% of the total land area of York Region.

Known Archaeological Site Layer

A known *archaeological site* layer was developed by plotting the 1453 registered *archaeological sites* in York Region for which adequate information exists to determine an accurate location. All sites plotted were then buffered by 100 metres.

Integrity Layer

Many modern development activities destroy all but the most deeply buried *archaeological sites*. For this reason most developed land in the Region was excluded from the areas of archaeological potential, with the exception of parking lots, schoolyards, parks, golf courses and similar developments where soil disruption is often shallow enough to have left sites intact below. The 100 metre buffer around all designated heritage features that pre-date 1870 was not excluded from the archaeological potential layer.

Composite Archaeological Potential Layer

The final stage in creating the map of archaeological potential was to combine the layers to generate a composite archaeological potential layer. The pre-contact archaeological potential, historic archaeological potential and known site layers were merged. Subsequently the areas identified in the Integrity layer were excluded from the composite layer.

The composite archaeological potential layer indicates that 55% of the geographical area of York Region is potentially a location of an *archaeological site*. However, the Ministry of Tourism, Culture and Sport checklist for determining archaeological potential, which is used in the absence of a composite archaeological potential layer, would capture approximately 90% of the Region. Additionally approximately 47% of the Region's area is within the Regional Greenlands System, including the Greenbelt Natural Heritage System, and the Oak Ridges Moraine Conservation Plan Natural Linkage and Natural Core Areas, which provides Provincial Plan protection from many

forms of development at this time. Map 1 to this report shows areas of Archaeological Potential for the Region as a whole, including lands within the Oak Ridges Moraine and Greenbelt Plan areas.

Maps 1 a), b) and c) show the three urban expansion areas in York Region where the majority of growth is expected to occur between the present and 2031. The total land area of these three urban expansions areas is 2,631.84 ha of which approximately 72% is within an area of Archaeological potential, underlining the need for comprehensive *archaeological resource* policies at the Regional and local official plan level.

Ossuary Potential Model

Ossuaries are features in which the remains of numerous individuals, who were formerly interred within ancestral Wendat villages, were disinterred and re-deposited into one or two mass graves. *Ossuaries* range in size from those that contain the disarticulated and/or bundled remains of approximately ten individuals, to those that contain the remains of 500 people or more. By AD 1300, these ceremonies sometimes involved the participation of members of different allied villages in a joint burial ceremony. Their usual depth of over one metre renders them invisible in the modern landscape and impossible to identify through standard methods used in Stage 2 *archaeological assessments*. These features are most often discovered by chance during site alteration or construction activities that require large scale earth-moving. In York Region, this most recently occurred at the site of the widening of Teston Road in the City of Vaughan when the side of a small knoll was removed. Its associated village is located within 200 metres of the *ossuary*.

Because there are only a small number of *ossuaries* that have been systematically studied and precisely mapped and therefore linked with their villages, there are limited data on which to construct a model to predict their locations. The information that is available indicates that most *ossuaries* will be located within 1000 metres of their associated village and also within 300 metres of a current or former water source. Each Late Woodland village for which an *ossuary* has not yet been located has therefore been buffered by 1000 metres on those lands that are also within 300 metres of water. These lands will be subject to special *monitoring* measures to minimize impacts to incidental discoveries of *ossuaries*. This model will be modified to add the buffers around any newly discovered village sites within York Region, and as more data are collected with regard to geographical or cultural attributes that may relate to *ossuary* locations.

Map 2 to this report shows areas of Ossuary Potential for the Region as a whole, including lands within the Oak Ridges Moraine and Greenbelt Plan areas.

Setting out the procedures to be followed in cases of unplanned discoveries, such as in the case of ossuaries helps to ensure that all parties know their roles and responsibilities in such cases. For specific procedures related to the discovery of

ossuaries or burials, see the following section.

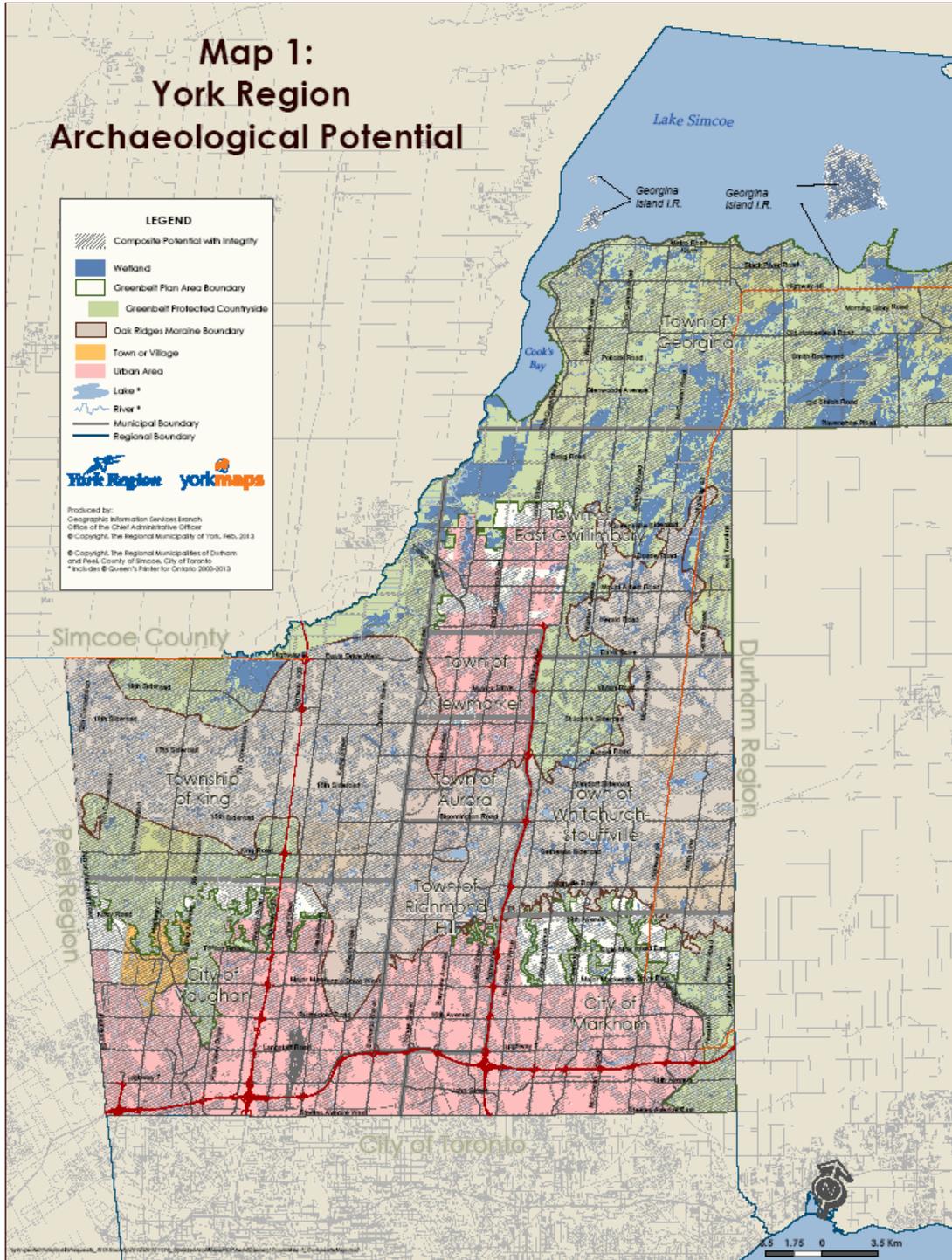


Figure 11 - York Region Composite Archaeological Potential Map

For a more detailed view of the Archaeological Potential map, please visit <http://www4.yorkmaps.ca/YorkMaps/LandInformation/index.html> and select Planning Boundaries, Archaeological Potential in the More Content menu.

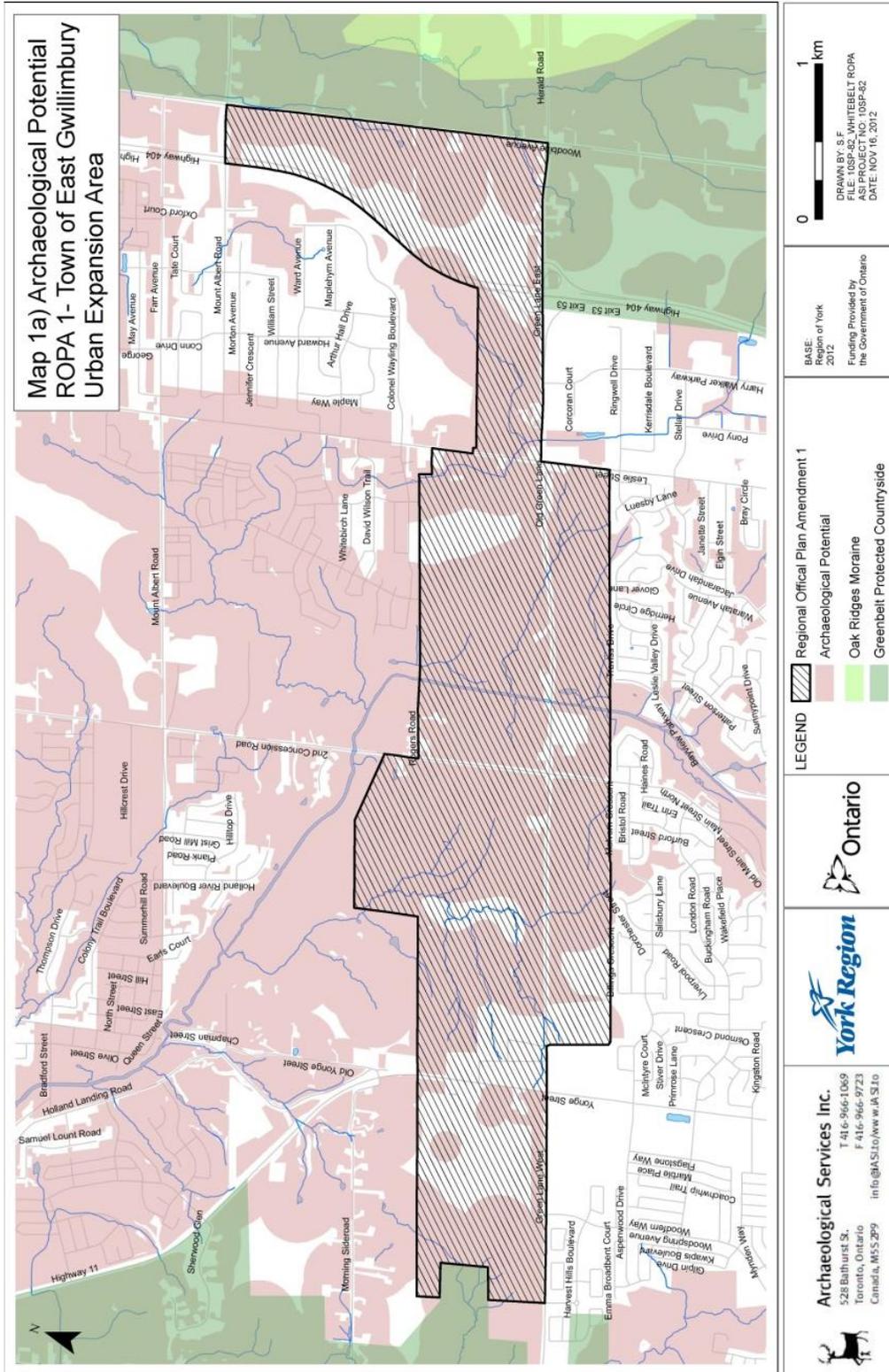


Figure 12 - Regional Official Plan Amendment 1 - East Gwillimbury Urban Expansion Area

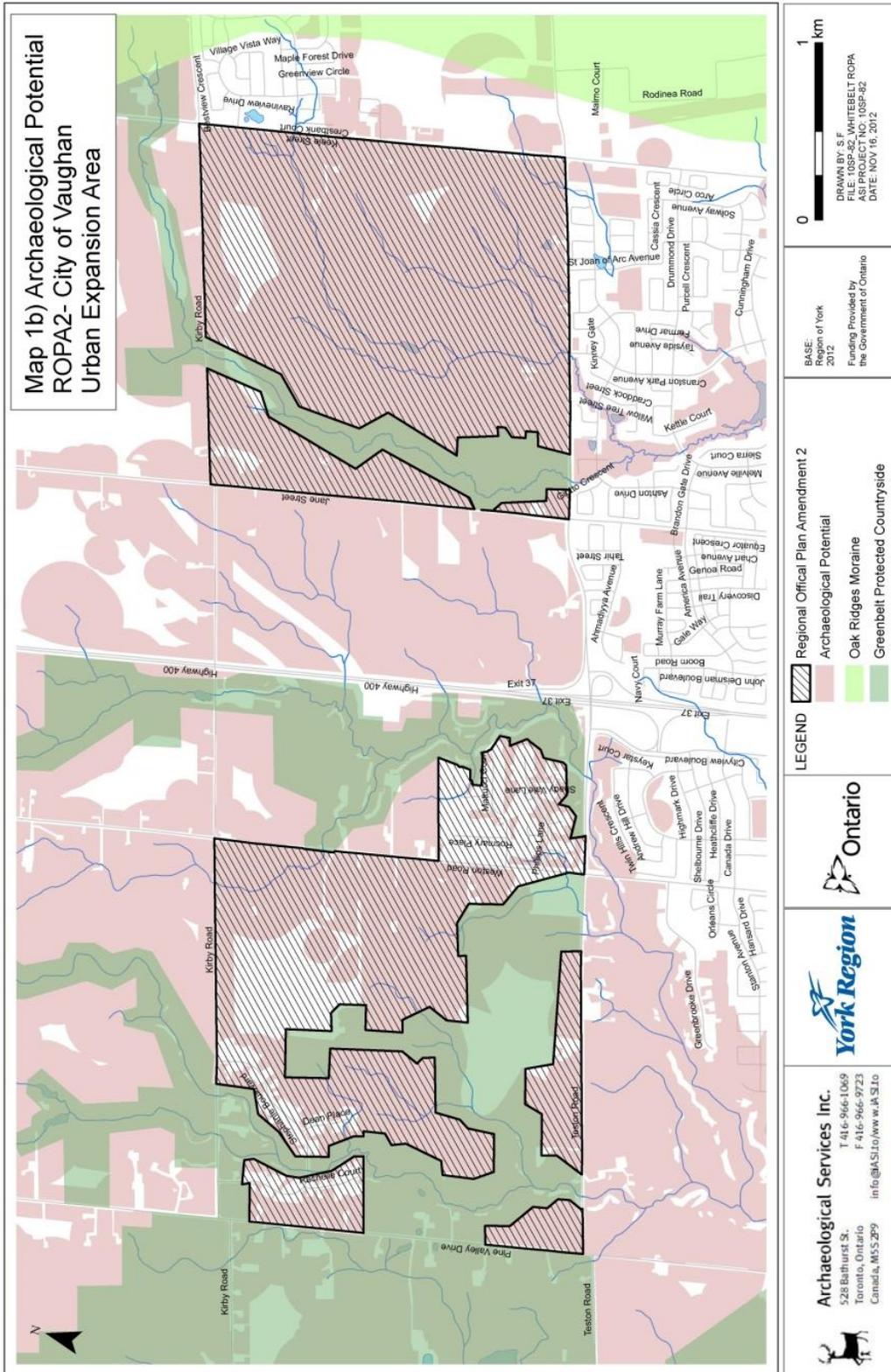


Figure 13 - Regional Official Plan Amendment 2 - City of Vaughan Urban Expansion Area

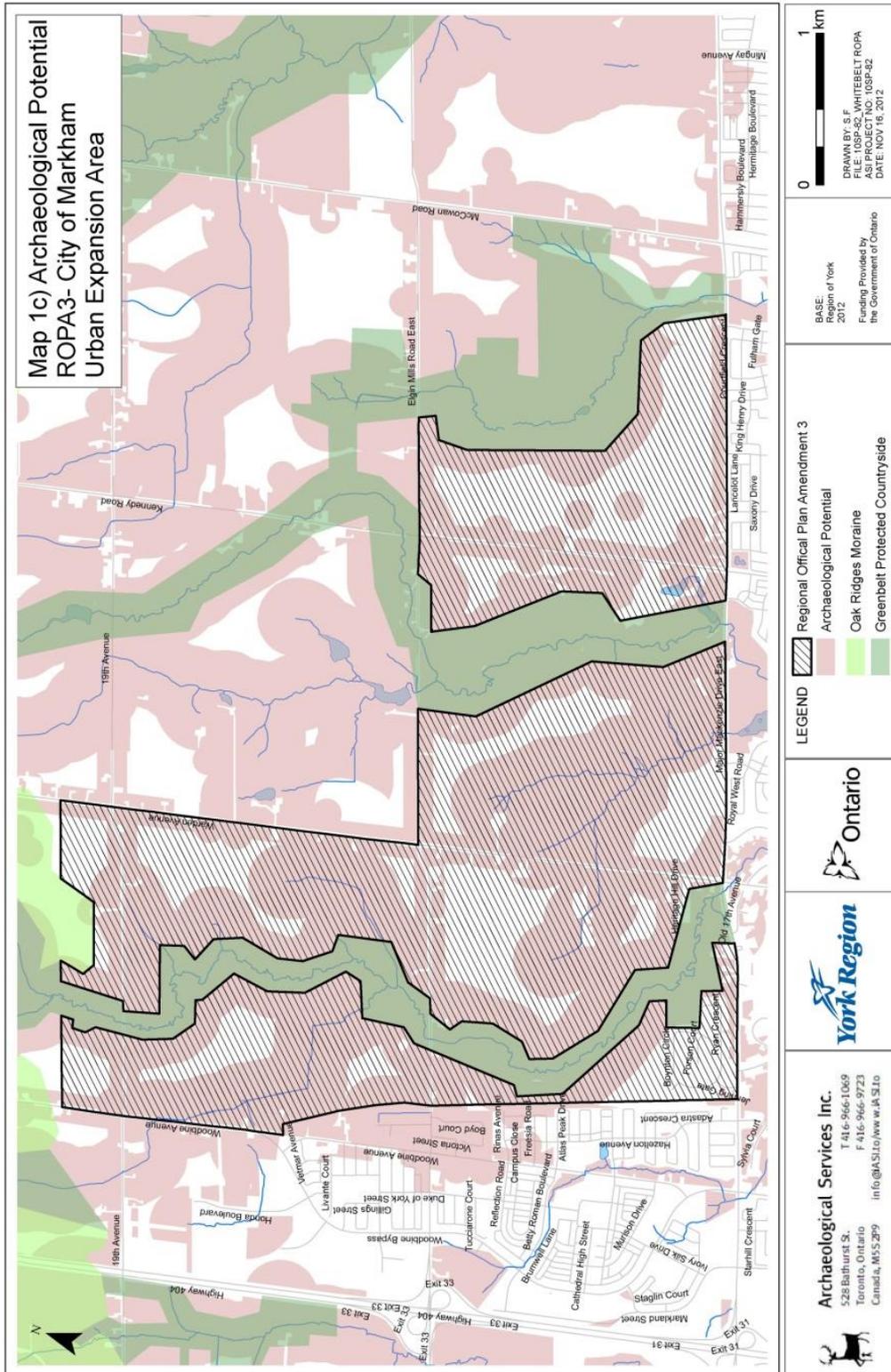


Figure 14 - Regional Official Plan Amendment 3 - City of Markham Urban Expansion Area

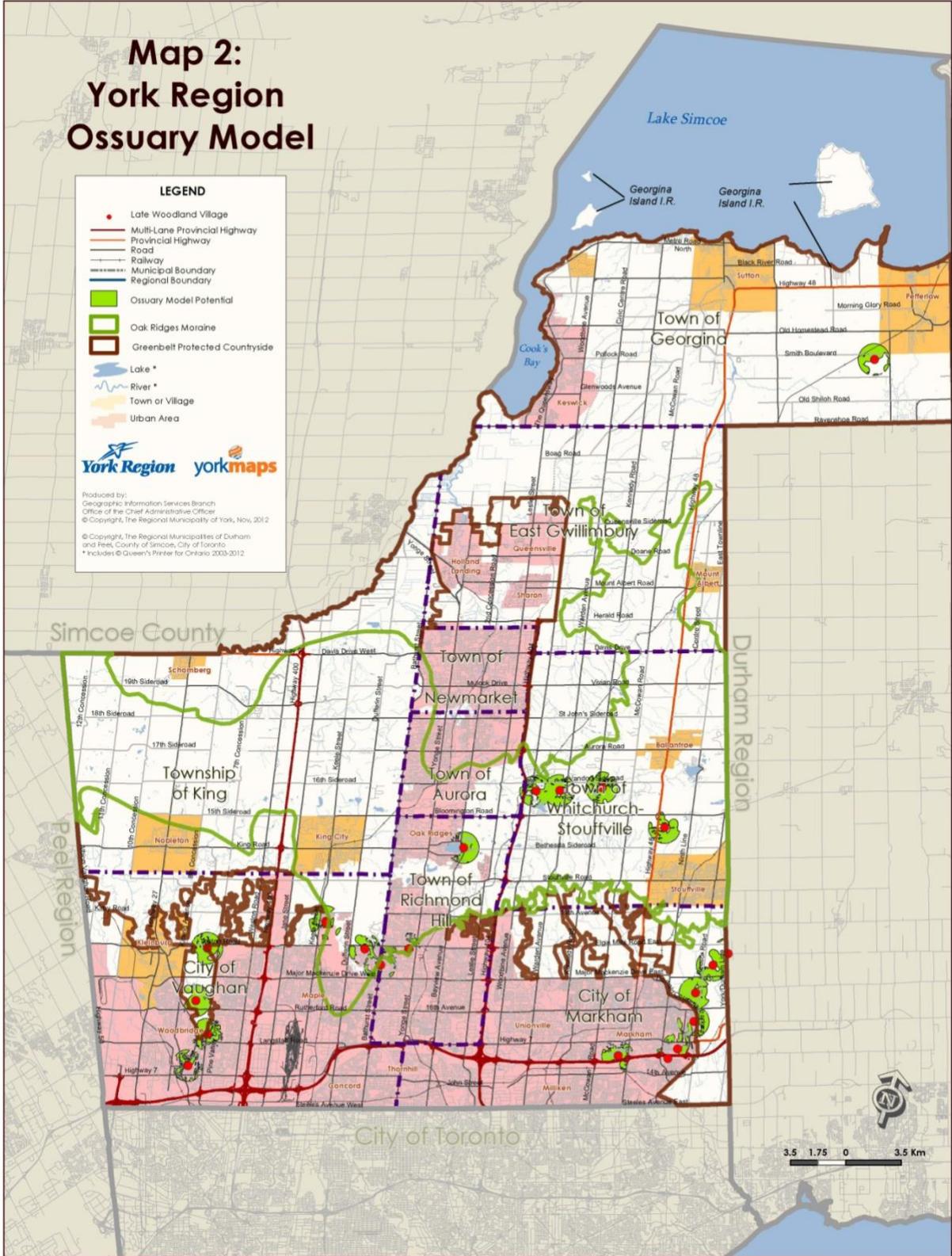


Figure 15 - York Region Ossuary Potential Map

9 Integrating Archaeological Assessment and the Development Review Process

Planning and land use control are predominantly municipal government responsibilities and the impact of municipal land use decisions on *archaeological resources* is significant, especially since municipally-approved developments constitute the majority of land disturbing activities in the Province. Adequate screening at a municipal level is required to ensure valuable *archaeological resources* are protected.

The archaeological potential maps (see previous pages) will be used by local and Regional planners as a screening tool to determine the need and requirements for *archaeological assessments* in advance of development approval.

Undertaking archaeological investigations early in the planning process will minimize process delays and provide an opportunity to tie the review of large-scale applications directly to an understanding of the archaeological concerns associated with a property. This allows any outstanding heritage concerns to be identified or resolved in advance of submission of the formal application. As the development and implementation of *mitigation* or *preservation* options for *significant archaeological resources* may occasionally be time-consuming, it is to the development *proponent's* advantage to identify, schedule and budget for the *conservation* or *preservation* of *archaeological resources* at the earliest possible opportunity.

A brief outline of the recommended timing of *archaeological assessment* procedures for specific development applications follows.

Official Plan Policies at the Regional and Local Municipal Level

Section 3.4 of the York Region Official Plan 2010 (ROP 2010) and the sidebar “A Brief History of York Region” adjacent to the policies contain a narrative intended to protect and celebrate the Region’s Aboriginal and European archaeological and cultural history.

While protection of European cultural heritage has been acknowledged through the formation of local municipal historical societies, local architectural advisory committees (LACAC) and pioneer museums in the majority of local municipalities and the inclusion of policies within their official plans, policies dealing with First Nations *archaeological resources* as a distinct subset have not been as widespread. With a new generation of Official Plans underway, the timing is right for Regional and local planning documents to provide additional guidance and direction for integrating the protection of *archaeological resources* into the development approval process.

At the Regional level, Policies 3.4.10 through 3.4.12 of the York Region ROP 2010 deal

specifically with First Nations and Métis archaeological and cultural resources and identify the policies of Council as follows:

“10. To prepare, in partnership with First Nations, the Métis Nation, and other stakeholders a York Region Archaeological Resources Management Plan which considers:

- a. the locations of significant or potentially significant archaeological resources, cultural heritage sites, ceremonial sites and sacred sites; and,
- b. protocols for the protection and management of significant or potentially significant archaeological resources, cultural heritage sites, ceremonial sites and sacred sites.

11. That prior to approval of *development* or *site alteration* on lands containing significant or potentially significant archaeological resources, a plan for the protection and/or management of these resources will be developed, in co-operation with the local municipality and the Region, in accordance with provincial legislation and guidelines. If the archaeological resources pertain to First Nations and/or Métis Nation heritage, the protection and/or management plan will be developed in consultation with appropriate First Nations and Métis Nation communities. In situations where archaeological resources are to be preserved on-site, the Region in consultation with local municipalities shall consider regulatory tools such as zoning restrictions and heritage easements.

12. To investigate the potential for a secure re-interment site and interpretation centre for First Nations and the Métis Nation artifacts and remains, where preservation in their current location is not possible.”

These policies were appropriate at the time ROP 2010 was adopted and approved in December 2009 and September 2010 respectively. However, with the completion of the Archaeological Management Plan there is now an opportunity to provide greater policy direction surrounding the continuum of protection for *archaeological resources* and the process by which they are found and protected.

In addition, policy 3.4.10 can be amended to provide for a process to regularly update the AMP as well as require ongoing monitoring of the effectiveness of OP policies. Policy 3.4.12 does not require amendment at this time. An investigation into the potential to establish a secure interment site and an Interpretative Centre will be a process separate from finalizing the AMP.

Proposed ROPA 6, based on the AMP was initiated in March 2013 to update the ROP policies and is attached as Appendix A to this Study. It is recommended that they be used as the starting point for discussion, not only with First Nations and Métis, but also with additional stakeholders prior to the approval of the Regional Official Plan Amendment.

The majority of local official plans in the Region are currently being updated to bring them into conformity with the provincial Growth Plan for the Greater Golden Horseshoe and the new ROP-2010. This includes official plans for the City of Vaughan and the Towns of Richmond Hill, Aurora and East Gwillimbury, all of which have newly adopted Official Plans which have been appealed to the OMB. Other local municipalities in York Region are also at various stages of official plans update. Both the Town of Richmond Hill and the City of Vaughan have conducted relatively recent Archaeological Management Plans on which the *archaeological resource* policies in their new Official Plans are based. These policies can serve as templates for the Region and for other local plans. In the course of the ongoing local plans reviews, where the Region is the *approval authority*, Regional staff has recommended the inclusion of these policies in the Plans.

During the course of preparing this Archeological Management Plan, the ROP footnote entitled “A Brief History of York Region” associated with the cultural heritage policies has also been reviewed to determine if the footnote accurately describes Aboriginal history in this area. In order to improve historical accuracy in regard to Aboriginal habitation in York Region, a revised sidebar has been developed.

Secondary Plans/Official Plan Amendments

- Discussion of archaeological potential at first pre-consultation meeting
 - Requirement to submit at minimum the Ministry of Tourism, Culture and Sport (MTCS)-approved Stage 1-2 report as part of the supporting documentation to meet the standards of a complete application
- As applicable, completion of a Stage 3 assessment to determine the extent, cultural affiliation and significance of any sites located, is preferable at this planning stage as it gives more complete information on which to evaluate the appropriateness of the proposed land uses in the secondary plan

Plans of Subdivision and Condominium

- Discussion of archaeological potential at first pre-consultation meeting, and requirement to submit, at a minimum approved Stage 1 through 3 reports, as applicable, as part of a complete application
- Draft Plan Conditions
 - Archaeological concerns to be cleared, to the satisfaction of the MTCS
 - Either a plan for preserving the site through zoning, green space, heritage designation or other methods or for *mitigation* of any remaining archaeological concerns
- Subdivision Agreement
 - Inclusion of contingency plans for the accidental discovery of deeply buried *archaeological resources* or human remains during site development

Site Specific Official Plan Amendments

- Determination of whether the amendment will result in any development that will disrupt soil and impact any *archaeological resources* that may be present
- Discussion at pre-consultation of archaeological potential on property and requirements for a complete application package
- Stage 1-3 archaeological investigations, as applicable, to be complete as part of complete application

Site Plans

- Discussion at pre-consultation of archaeological potential on the site, and requirement to undertake Stage 1-2 archaeological investigation to determine archaeological concerns
- Clearance of archaeological concerns, to the satisfaction of the MTCS, prior to site plan approval
 - If applicable, Stage 4 *mitigation of archaeological site* or rezoning of site area, with protective measures, and redesign of project to avoid and protect *archaeological site*

Consent Applications

- Discussion at pre-consultation of archaeological potential on the site and whether the application is to create a new building lot and either:
 - the application (or any part of it) is situated within the zone of archaeological potential, or
 - the application contains or will directly affect a federal, provincial, or municipal historic landmark, monument, site or designated property or conservation district, battlefield cemetery, and industrial complexes of cultural heritage value
- In the case of rural severances, only the land disturbance footprint need be assessed unless that footprint exceeds 50% of the area of the severed lot. In the case that the footprint of land disturbance exceeds 50% of the lot area, the entire lot will be assessed
- An *archaeological assessment* should be undertaken prior to granting of consent, due to the one year limit on fulfilling conditions of approval. Alternatively a holding provision or similar mechanism can be used to ensure that no development of the site can take place until archaeological conditions are met

Regional or Municipal Development and Infrastructure Construction Projects

As noted in Section 7, Archaeological procedures also apply to municipal development

and/or infrastructure projects. The Environmental Assessment process triggers the applicable Stage 1-4 assessment/*mitigation* in many Regional or local construction projects, and these procedures are well defined. For Regional or local construction projects that do not require an EA, the same *archaeological assessment* procedures will be followed as for private development. Additionally, should deeply buried *archaeological resources* or burials be discovered during Regional or municipal works, site alteration will cease and a licensed consultant archaeologist will be employed to undertake the appropriate *archaeological assessment*.

Any Application within the Ossuary Potential Area shown on Map 2 or within a new Ossuary Potential model if a Village Site is found through Stages 1 to 4 Archaeological Assessment

Recommendations deriving from this study with respect to archaeological procedures for areas of *ossuary* potential should centre on *monitoring* and if an *ossuary* or other burial site is discovered through Stages 1 to 4 assessment then procedures are determined through provincial requirements. It is recommended that all jurisdictions develop and adopt burial *avoidance* strategies since the potential disturbance to *ossuaries* remains a subject of considerable concern.

Such strategies should include policies dealing with;

- Predevelopment topsoil removal (grading) within development lands located within 1000 metres of a documented village site *and* within 300 metres of any current or former water sources should be subject to archaeological *monitoring*
- All site supervisors and heavy equipment operators working on site should be briefed in advance concerning the role and responsibilities of the archaeological monitor. Should they encounter potential human remains while the monitor's attention is elsewhere on site, they must cease work in the area, retain all potentially associated soils in place and notify the monitor and their own supervisors immediately
- In the event that human remains are encountered during construction, the *proponent* must immediately contact the Police and Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Business Services. Should any *ossuary* feature be discovered during the course of the *monitoring* work, *preservation* through *avoidance* and project redesign/revision is the preferred alternative. The details of this form of *mitigation* must be negotiated with the appropriate First Nation(s) and the Cemeteries Registrar.

York Region and local municipalities are encouraged to develop a "Contingency Plan for the Protection of Archaeological Resources in Urgent Situations" to address situations where *archaeological resources* or burials are discovered unexpectedly on development sites.

Figure 18 below, outlines the integration of the development review and *archaeological assessment* processes.

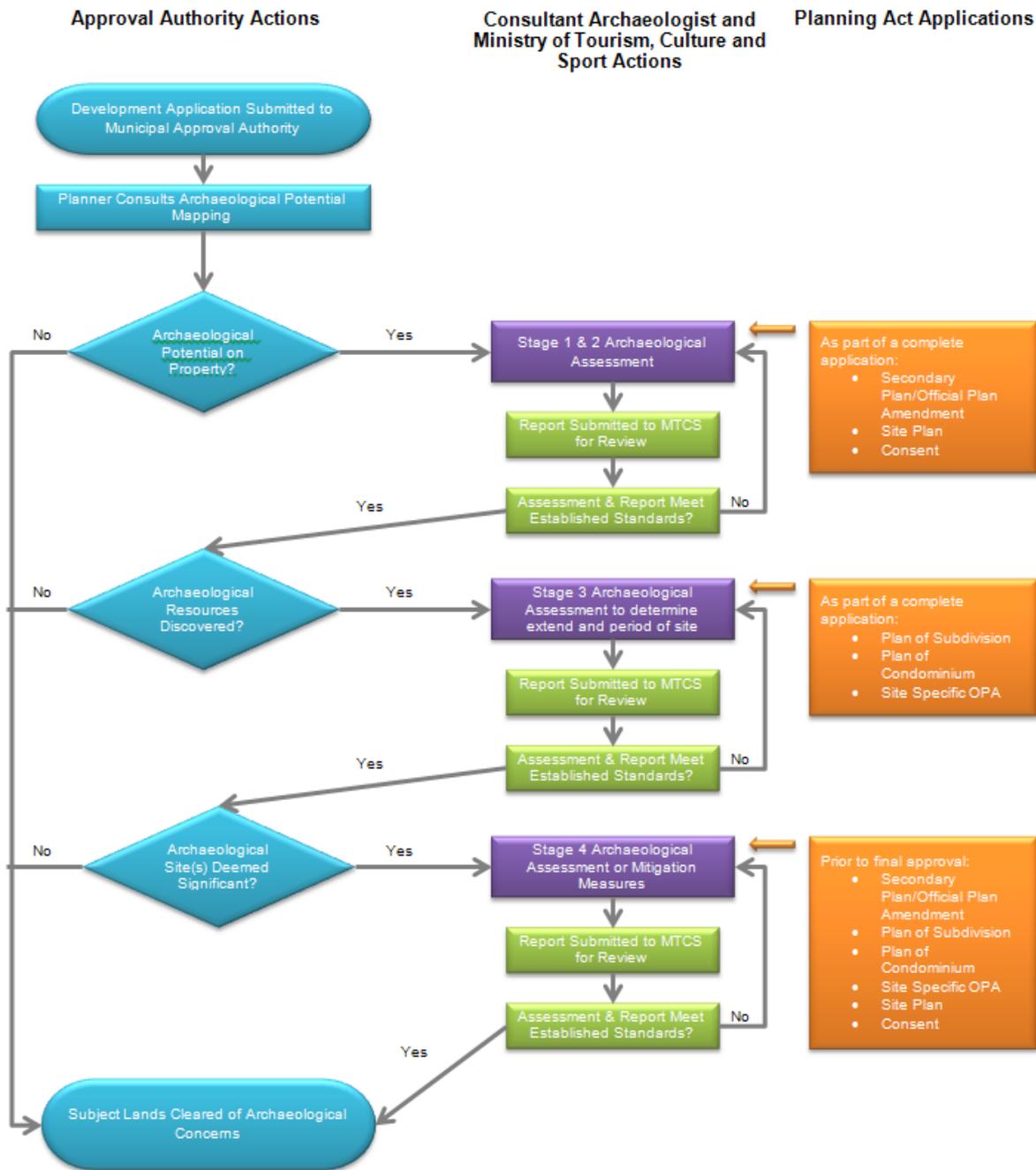


Figure 16 - Integration of the Development Review and Archaeological Assessment Processes

10. Future Updates to the Archaeological Management Plan

The Archaeological Management Plan will require periodic updates in order to remain relevant and in compliance with applicable legislation and policy. Updates to the Policies and Procedures of the Archaeological Management Plan and the associated Official Plan policies should be made with the input of a licensed archaeologist and/or the advice of the Ministry of Tourism, Culture and Sport, where appropriate.

Archaeological and Ossuary Potential Models

Updates to the model should be made:

1. when new sites are identified and registered with the Ontario Archaeological Sites Database, from the Ministry of Tourism, Culture and Sport,
2. when new heritage designations are made by the local municipalities they must be added to the potential model, along with a 100m buffer of the designated structure/feature,
3. when changes are made by the Ministry of Tourism, Culture and Sport to the criteria for determining archaeological potential, and
4. as further archaeological investigations in York Region demonstrate patterns and associations that can be modelled using the Region's Geographic Information System.

Policies and Procedures

Updates to policies and procedures should be made:

1. Concurrent with review of the Regional Official Plan,
2. Taking into account any changes to the *Planning Act*, the *Ontario Heritage Act*, the Provincial Policy Statement, *Standards and Guidelines for Consultant Archaeologists*, and other relevant provincial heritage planning tools, and
3. As further archaeological investigations and development projects in York Region demonstrate a need for further clarification to the policies and procedures.

11. Next Steps for York Region

As a result of the information gathered during the development of the York Region Archaeological Management Plan, it is recommended that York Region take the following next steps:

1. Amend the Regional Official Plan through ROPA 6 to expand the existing section

specific to archaeological planning and adopt new policies (See Appendix A). It is recommended that a definition of *archaeological resources* that is both consistent with the definition laid out in the Provincial Policy Statement, and recognizes their fragile nature, be included in the Regional Official Plan. Ensure local Official Plans are consistent with the Regional Official Plan policies relating to Archaeology.

2. Ensure Archaeological Potential mapping continues to be available to the First Nations and the Métis, local municipalities, the development industry and the public by means of YorkMaps, to be used as a screening tool in determining the need for and the requirements for *archaeological assessments* in advance of submission of development applications.
3. Assist local municipalities and their operational departments in developing and implementing archaeological procedures as part of the development application review process, and municipal infrastructure and parks development to ensure a consistent approach.
4. Undertake to update the archaeological management plan and potential mapping, as outlined in Section 10 and as included in Proposed ROPA 6.
5. Develop, in collaboration with First Nations, Métis, the Ministry of Tourism, Culture and Sport, and local municipalities, and the development industry a First Nations and Métis Consultation Tool for York Region.
6. Investigate, in collaboration with local municipalities, a “Contingency Plan for the Protection of *Archaeological Resources* in Urgent Situations” for instances when deeply buried *archaeological resources* or human burials are discovered during construction.
7. Seek means by which the general public might be made more aware of the wide range of *archaeological resources* present within the Region, their significance as part of the Region’s cultural heritage, and their inherent fragility
8. In collaboration with local municipalities, First Nations, Métis and other stakeholders, explore opportunities for the appropriate disposition of *artifacts* recovered from *archaeological sites* within the Region, and appropriate sites for the *reinterment* of burials that are discovered and must be relocated as a result of development within the Region (see Section 5).

Appendix A: DRAFT Regional Official Plan Policies to be included in Section 3.4 Cultural Heritage of the ROP-2010

Archaeological Resources

First Nations, Métis and European *archaeological resources* contribute to York Region's unique, local identity. They include sites that may contain scatters of artifacts, the remains of structures, cultural deposits or subsurface strata of human origin. Archaeological sites are both highly fragile and non-renewable. This Plan recognizes the importance of conserving archaeological resources and the potential to commemorate significant archaeological discoveries in recognition of their contribution to the municipality's unique community identity.

Objective

To ensure conservation of *archaeological resources* occurs *in situ* or in an alternate location by proper excavation, documentation and preservation of recovered cultural materials and site documentation, to the satisfaction of the local municipality in compliance with Provincial requirements, standards or guidelines.

It is the Policy of Council:

12. To require local municipal official plans to contain policies dealing with *archaeological resources* that require their identification, appropriate documentation and/or protection in accordance with the following:

- a. that upon receiving information that land proposed for development may include *archaeological resources* or contain an area of archaeological potential, the proponent of the development shall undertake studies by a provincially licensed archaeologist to:
 - i) Complete the applicable level of *archaeological assessment* of the land in compliance with current Provincial requirements, standards and guidelines for consultant archaeologists;
 - ii) Assess the impact of the proposed development on any *archaeological resources* identified.

- b. That First Nation or Métis *significant archaeological resources* shall be considered resources that are preferably to be protected in place unless it is demonstrated that preservation *in situ* is not reasonable in the circumstances. The consultant archaeologist shall engage those First Nations or Métis with the closest cultural

affiliation and in whose *traditional territories* the *significant archaeological resource* is situated to identify commemorative approaches to assist in maintaining the heritage integrity of the site.

c. That where *archaeological resources* are documented during a Stage 2 *archaeological assessment* and found to be First Nations or Métis in origin, the proponent is encouraged, through their consultant archaeologist, to ensure that those First Nations or Métis with the closest cultural affiliation and in whose *traditional territories* the *archaeological resources* were found receive a copy of the Stage 2 *archaeological assessment* report prior to the development proceeding.

d. That where First Nations or Métis *significant archaeological resources* are identified during a Stage 2 *archaeological assessment*, and preservation in their current location is not possible, the proponent should engage with the First Nations or Métis with the closest cultural affiliation and in whose *traditional territories* the *significant archaeological resource* is situated to address their interest in the resource and define interpretive and commemorative opportunities related to the resource.

e. The proponent is encouraged, through their consultant archaeologist, to ensure that where a Stage 3 *archaeological assessment* of such an *archaeological resource* is being undertaken to define the nature and extent of the Resource, those First Nations or Métis with the closest cultural affiliation and in whose *traditional territories* the *archaeological resource* is located, be notified in advance of onsite assessment work.

f. The proponent shall provide the municipality with a copy of the Provincial letters confirming that the reports have been filed into the Provincial Register.

g. That where *significant archaeological resources* are preserved *in situ* the area subject to on-site preservation shall be excluded from the land development and the municipality shall consider regulatory tools such as zoning restrictions, designation and heritage easements or open space land dedications to protect the resources;

h. Where human burial sites are encountered during any land-disturbing activity, all work must immediately cease and the site be secured, in accordance with legislated requirements. The appropriate provincial and municipal authorities must be notified and the required provisions under the *Funeral, Burial and Cremation Services Act, 2002*, along with other applicable protocol or policy must be followed.

13. That local municipalities encourage the communication of appropriate archaeological discoveries and/or cultural narratives to residents in development proposals through innovative architectural and/or landscape architectural design, public art, or other public realm projects.

14. To encourage local municipalities, with the advice of a provincially licensed archaeologist and the Province, to develop a contingency plan for the protection of

archaeological resources in urgent situations, this may include a funding resource to be accessed in emergency situations to protect *archaeological resources* that are discovered by chance or are under imminent threat.

15. That should previously undocumented *archaeological resources* be discovered during undertaking of Regional public works, including but not limited to the construction of streets and ancillary structures, sewer and water mains and associated structures, they may be an *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.

16. To investigate the potential for a secure re-interment site for human remains where preservation in their current location is not possible and an interpretation centre for First Nations and the Métis artifacts recovered from archaeological investigations in the Region.

17. To review in partnership with First Nations, the Métis Nation and other stakeholders, the Archeological Management Plan on the same review schedule as this Plan to ensure that *archaeological resources* information is kept up-to date.

18. To develop in conjunction with First Nations and Métis having *traditional territories* in or an interest in the cultural heritage of York Region, local municipalities, and the Province, a First Nations and Métis Consultation Tool.

19. That the York Region Archaeological Management Plan and Archaeological Potential Map provide guidance on addressing the policies of this Section. New *development* and *site alteration* shall meet all items required by this Plan, and shall strive to achieve all items encouraged in this Plan.

That the **DEFINITIONS** section is hereby amended by the addition of the following:

archaeological assessment

A survey undertaken by a provincially licensed archaeologist to identify an *archeological site* and, to the extent required, the cultural heritage value or interest of the site and applicable mitigation measures. There are four levels of archeological assessment that are specific to the circumstances, a Stage 1, Stage 2, Stage 3 or Stage 4 archaeological assessment, each of which as required is completed by a provincially licensed archaeologist in accordance with the current Provincial requirements, standards and guidelines applicable to provincially licensed archaeologists.

archaeological fieldwork

Any activity carried out on, above or under land or water for the purpose of obtaining and documenting data, recovering artifacts and remains or altering an archaeological site and includes monitoring, assessing, exploring, surveying, recovering and excavating.

archaeological resources

Includes artifacts, archaeological sites and marine archaeological sites. The identification and evaluation of such resources are based upon *archaeological fieldwork* undertaken in accordance with the Ontario Heritage Act.

archaeological site

Any property that contains an artifact or any other physical evidence of past human use or activity that is of cultural heritage value or interest.

artifact

Any object, material or substance that is made, modified, used, deposited or affected by human action and is of cultural heritage value or interest.

in situ

In situ means remaining in place in the original location where something was found.

marine archaeological site

An archaeological site that is fully or partially submerged or that lies below or partially below the high-water mark of any body of water.

significant archaeological resources

Resources that, in the opinion of a licensed archaeologist (and confirmed by the Province through acceptance of the archaeological assessment report into the Ontario Public Register of Archaeological Reports) meet the criteria for determining cultural heritage value or interest set out in the Standards and Guidelines for Consultant Archaeologists, as amended, and are to be protected from impacts of any sort.

traditional territories

The geographic area traditionally occupied or used regularly by a First Nation and/or their ancestors.

Note: For accuracy, please refer to Regional Official Plan Amendment 6, as adopted by Council.

Appendix B - Template for Conditions and Comments

To be used in areas of Archaeological Potential for the following applications:

- Consent to sever land
- Condition of draft plan approval for subdivision
- Comments with appropriate wording for requiring further archaeological clearances

WORDING FOR THE ARCHAEOLOGICAL CONDITION

If an archaeological assessment is required as a result of the review of the Management Plan archaeological potential map, planning staff will recommend that an archaeological assessment be made a condition of approval of the development application. The assessment would be completed and submitted as part of the application (already required in the case of Plans of Subdivision). The condition should read:

The proponent shall carry out an archaeological assessment, in accordance with the *Standards and Guidelines for Consultant Archaeologists* published by the Ministry of Tourism, Culture and Sport as amended, superseded or replaced, of the entire development property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading or other soil disturbances shall take place on the subject property prior to the approval authority confirming that all archaeological resource concerns have met resource conservation requirements of the Province.

The archaeological assessment will be completed by a consultant archaeologist, licensed by the Ministry of Tourism, Culture and Sport under the provisions of the *Ontario Heritage Act* as amended, superseded or replaced; and any significant archaeological sites found will be properly mitigated (avoided or excavated), prior to the initiation of construction, servicing, landscaping or other land disturbances.

Appendix C – Glossary of Terms

Approval authority

Approval authorities include provincial ministries, such as the provincial Ministry of the Environment, Ministry of Transportation, Ministry of Municipal Affairs and Housing and Ministry of Natural Resources, and municipalities. Approval authorities have legislative authority to determine if proposed development projects meet their requirements and can proceed.

Archaeological Assessment

A survey undertaken by a provincially licensed archaeologist to identify an *archeological site* and, to the extent required, the cultural heritage or interest of the site and applicable *mitigation* measures. There are four levels of archeological assessment that are specific to the circumstances, a Stage 1, Stage 2, Stage 3 or Stage 4 archaeological assessment, each of which as required is completed by a provincially licensed archaeologist in accordance with the current Provincial requirements, standards and guidelines applicable to provincially licensed archaeologists.

Archaeological Fieldwork

Any activity carried out on, above or under land or water for the purpose of obtaining and documenting data, recovering *artifacts* and remains or altering an *archaeological site* and includes *monitoring*, assessing, exploring, *surveying*, recovering and *excavating*.

Archaeological Resources

Includes *artifacts*, *archaeological sites* and *marine archaeological sites*. The identification and evaluation of such resources are based upon *archaeological fieldwork* undertaken in accordance with the *Ontario Heritage Act*.

Archaeological Site

Any property that contains an *artifact* or any other physical evidence of past human use or activity that is of *cultural heritage value or interest*.

Artifact

Any object, material or substance that is made, modified, used, deposited or affected by human action and is of *cultural heritage value or interest*.

Avoidance

The process by which alterations to an *archaeological site* are prevented during the short-term time period during which development activities are undertaken.

Conserve/Conservation

The identification, protection, use and/or management of cultural heritage and

archaeological resources in such a way that the heritage values, attributes and integrity are retained. This may be addressed through a conservation plan or heritage impact assessment.

Consultant archaeologist

An archaeologist who enters into an agreement with a client to carry out or supervise *archaeological fieldwork* on behalf of the client, produce reports for or on behalf of the client and provide technical advice to the client (OHA, O. Reg. 8/06).

Cultural heritage value or interest

For the purposes of the *Ontario Heritage Act* and its regulations, *archaeological resources* that possess cultural heritage value or interest are protected as archaeological sites under Section 48 of the Act. Where analysis of documented *artifacts* and physical features at a given location meets the criteria stated in the Standards and Guidelines for Consultant Archaeologists published by the Ministry of Tourism, Culture and Sport, as amended, that location is protected as an *archaeological site* and further *archaeological assessment* may be required.

Excavating/Excavation

To expose to view by digging away a covering.

Fieldwork

See archaeological fieldwork.

Heritage conservation

The identification, protection, use and/or management of cultural heritage and *archaeological resources* in such a way that their heritage values, attributes and integrity are retained.

in situ

In situ means remaining in place in the original location where something was found.

Mitigation

Actions that are taken to avoid or reduce impacts to *archaeological sites* of *cultural heritage value or interest*. The actions include either the long term protection of *archaeological sites* or the documentation and removal of *archaeological sites* through *excavation*, or a combination thereof.

Monitoring

An archaeological consultant's task of observing the *excavation* of fill at a construction site to see if *archaeological resources* are exposed.

Ossuaries/Ossuary

Broadly defined as a depository for the bones of deceased persons. In York Region,

ossuaries are features in which the remains of numerous individuals, who were formerly interred within ancestral villages, were disinterred and re-deposited into one or two mass graves.

Preserve/Preservation

The protection of cultural heritage or *archaeological resources* in place, through zoning, easements, designation or other methods.

Projectile points

Stone arrow heads or spear heads.

Proponent

An entity, consisting of individuals, private corporations or government bodies, that is undertaking a development project.

Reinterment

Reburial of human remains that have been moved from their original burial site.

Significant Archaeological Resources

Resources that, in the opinion of a licensed archaeologist (and confirmed by the Province through acceptance of the *archaeological assessment* report into the Ontario Public Register of Archaeological Reports) meet the criteria for determining *cultural heritage value or interest* set out in the Standards and Guidelines for Consultant Archaeologists, as amended, and are to be protected from impacts of any sort.

Survey/Archaeological Survey

The process followed in order to make initial identifications of *archaeological sites*. This may consist of pedestrian survey of ploughed fields, test pitting, the use of mechanical equipment in specific deeply buried or urbanized situations, or remote sensing. Survey is part of the overall *archaeological assessment* process.

Traditional Territories

The geographic area traditionally occupied or used regularly by a First Nation and/or their ancestors.

Appendix D – Modelling Archaeological Potential

Introduction

Archaeological sites in York Region represent an important heritage resource for which only limited locational data exist. While access to this kind of information is imperative to land-use planners and heritage resource managers, the undertaking of a comprehensive archaeological *survey* was not feasible. As an alternative, planners and managers must depend on a model which predicts how sites are likely to be distributed throughout the Region. Such a model can take many forms depending on such factors as its desired function, the nature and availability of data used in its development, the geographic scope of the project, and the financial resources available. Ideally these constraints are balanced in order to produce a model of maximum validity and utility.

The following sections provide an overview of the layers that together form the model of *archaeological site* potential in the Region. Details for each of these layers including all of the supporting research are presented in the companion volume to this document entitled, *Management Plan of Archaeological Resources, York Region, Technical Report*.

Pre-contact Archaeological Site Potential Layer

Throughout most of pre-contact history, the inhabitants of the York Region were hunter-gatherers who practiced an annual subsistence round to exploit a broad range of natural resources for food and raw materials for such needs as shelter construction and tool fabrication. Later Aboriginal populations who practiced agriculture appear to have settled in the southern portions of the Region. They used the entire region for hunting and fishing. Assuming, therefore, that access to natural resources influenced and constrained the movement and settlement of Aboriginal peoples, our goal was to understand what these resources were, how they may have been distributed, how their use and distribution may have changed over time, and how the landscape itself may have constrained movement and access to resources and settlement location.

The Regional Municipality of York encompasses portions of six physiographic regions as defined by Chapman and Putnam (1984) including from north to south, the Simcoe lowlands, the Schomberg clay plains, the Peterborough drumlin field, the Oak Ridges moraine, the South slope, and the Peel plain. The Oak Ridges Moraine represents the drainage divide between the Lake Ontario watershed to the south and the Lake Simcoe watershed to the north. Environmental change within the Lake Ontario watershed has been relatively minor since deglaciation with only minor downcutting of headwater streams which arise at the toe of the Oak Ridges Moraine. The Simcoe watershed has been much more dynamic, beginning with the incursion of glacial Lake Algonquin into the Simcoe lowlands around 10,500 B.P. The retreat of the Algonquin waters ca. 10,000 B.P. created Lake Simcoe more or less as we know it today, along with extensive

wetland areas such as the Holland Marsh in the Simcoe lowlands.

In response to climatic warming and landscape changes since the end of the Pleistocene, the bio-physical environment developed through a sequence beginning with tundra and ending with northern mixed hardwood forest. Aboriginal people have adapted to this changing landscape by changing their land use patterns over time. However, proximity to water has always been a primary influence on pre-contact Aboriginal land-use. The bio-physical environment can be described based on pollen cores taken from lakes in the region.

Table 3: Pollen Zones

Pollen Zone	Bio-physical Environment	Timeframe	Aboriginal Cultural Historic Period
1	dominated by sedges that occurred in close proximity to the continental glacier		Early Paleo-Indian period
2	open parkland dominated by spruce (>30%) with high percentages of sedges, grasses, herbs, and shrubs and some closed boreal forest	12,000 B.P	Paleo-Indian period
3	boreal-like forest with a significant decrease in spruce and a concomitant increase in pine	10,500 and 10,000 B.P.	Late Paleo-Indian Period
4	establishment of northern mixed hardwood forest	8,000 B.P	Early Archaic period

Pollen Zone 1 is a tundra zone dominated by sedges that occurred in close proximity to the continental glacier.

This is thought to pre-date the Early Paleo-Indian period. Pollen Zone 2 is an open parkland dominated by spruce (>30%) with high percentages of sedges, grasses, herbs, and shrubs. Some sites might even have been characterized by closed boreal forest by ca. 12,000 B.P. This zone is thought to have been contemporary with early Paleo-Indian period. Pollen Zone 3 is a boreal-like forest with a significant decrease in spruce and a concomitant increase in pine. The transition to pine-enriched forest generally occurred between ca. 10,500 and 10,000 B.P. and differs from modern boreal forest by the current significant content of oak and other hardwoods. This zone is generally contemporary with late Paleo-Indian Period.

As glacial Lake Algonquin encompassed all of the existing Lake Huron basin as well as Lake Simcoe and surrounding lowlands until ca. 10,000 B.P. As a result, northern York Region exhibited a much more complex shoreline, featuring large bays, points of land,

and an off-shore archipelago. Paleo-Indian hunter-gatherers were clearly attracted to this rich environment, as illustrated by the distribution of currently known sites. As Lake Algonquin withdrew, it created lower level beaches and terraces, which were also occupied by Paleo-Indians.

Pollen Zone 4 represents the establishment of northern mixed hardwood forest, a transition that occurred ca. 8,000 B.P. during the Early Archaic period. Pollen Zone 5 represents the period of European land clearance occurring at about ca. A.D. 1820. An essentially modern landscape and ecosystem was established during the Early Archaic period. During this period, small, resident bands of perhaps 30 to 50 hunter-gatherers were likely attracted to the shores of Lake Simcoe, as were similar groups throughout the Great Lakes area during the general Archaic period. Major campsites near the lake likely formed part of each band's seasonal land-use cycle, followed by dispersal into interior family hunting camps in the late fall and winter. The Oak Ridges Moraine, with its limited water resources, would have had little to offer except during the fall when oak mast would have been available and attracted game such as white-tailed deer, which was targeted by hunters. The South slope and Peel plain may have also been used for cold-season camps by bands based in the lower reaches of the Humber, Don, and Rouge watersheds.

Aboriginal lifeways and land-use patterns likely changed little through the initial centuries of the Woodland period, although certain technological changes are noted, such as the advent of ceramic vessels. Around 1,000 years ago, Middle Woodland populations based along the Lake Ontario north shore began to expand as they made the transition from hunter-gatherers to farmers, growing maize, beans, squash, sunflowers, and tobacco. These people, while deriving out of local Algonquian-speaking populations, became the ancestors of some of the historic tribal systems that became the Huron-Wendat. York Region may have become an increasingly important interface area between certain ancestral Huron-Wendat populations and their Algonquian neighbours to the north. During the fourteenth century, the ancestral Huron-Wendat began to colonize the area north of the Oak Ridges Moraine as their population continued to grow and their communities sought new farmland. Suitability of farmland became an important land-use criterion, including adequate drainage, adequate moisture and moisture-holding capacity, adequate natural fertility and low to moderate slope.

While this description paints a general pattern of land use throughout the millennia, the significant number of known Aboriginal sites allowed for an inductive model to be produced that could predict the locations of additional sites. While the total number of *archaeological sites* in York Region is 1453, 938 of them have Aboriginal components and a known site type. An additional 112 sites are Aboriginal in nature but insufficient data are available to evaluate site type.

Many of these, however, are isolated finds of flakes or projectiles, lost while traveling through the landscape and may not be used in the modeling exercise. Many also lack

sufficient data to be reliable indicators of site locations having been documented on the basis of hearsay evidence and in the absence of firm locational data. Having reviewed all of the sites with Aboriginal components, the total number of Aboriginal sites used for modeling was 424, an excellent sample.

In light of these considerations, a combination of criteria was combined to create the pre-contact archaeological potential layer. First, all river and major stream segments within the Region (e.g., Humber, Don, Rouge and Holland) and their major tributaries—defined as those represented by two lines (i.e., banks) on the hydrographic layer—were buffered at 250 metres from the tops of bank. A 250 metre buffer was also applied to the original Lake Ontario and Lake Simcoe shorelines. A 250 metre buffer was established back from the brow of the glacial Lake Algonquin as well as immediate post-glacial large bays, points of land, and the early off-shore archipelago and 200 metre buffers established out from the bottom of the bluffs. Third, all subordinate streams—defined as those watercourses represented by a single line on the hydrographic layer—were buffered by 250 metres from the centre line. All wetlands were also buffered by 250 metres.

The 250 metre buffer was employed since it captures 91% of the modeled sites representing approximately 65% of total study area. A smaller buffer of 200 metres only captures 76% of the sites. To evaluate the efficacy of this buffer against the background landscape, in terms of the presence of water, a GIS program was employed to generate 325 random points. While over 400 points were generated, those not used were actually in water and were excluded from the study. Of the 325 random points, 74% were captured by the 250m buffer and 81% was captured by a 300m buffer, which suggests the actual site capture rate of 91% for the 250m buffer is significant.

Also, a digital soils layer was acquired from the Guelph Geomatics Services, Ontario Ministry of Agriculture and AgriFood, dated to 2007. This layer is essentially a digital version of the soils mapping contained in the Ontario Soil Survey Reports. The soil information provides relatively high resolution of soil variability across the region. At the same time, however, this complex array of mapped soils made it difficult to interpret gross regional trends. Accordingly, the soil series were re-grouped in order to provide mapped summaries of relevant attributes, including soil texture, drainage, and agricultural capability. This was accomplished by adding new texture, drainage, and capability fields to the attribute database from the digital soils map, and then using the GIS to produce maps based on these attribute sets. The soil texture layer discriminated between: exposed rock, gravely sandy loam, fine sandy loam, sand, silt loam, loam, clay loam, clay, and organic. The soil drainage layer discriminated between: well drained, imperfectly drained, and poorly drained. The soil capability for agriculture layer discriminated between: Class 1, having no significant limitations for agriculture; Class 2, having moderate limitations for agriculture; Class 3, having moderately severe limitations to agriculture; Class 4, having severe limitations to agriculture; Class 5, having very severe limitations to agriculture; Class 6, being only capable of producing perennial forage crops; and Class 7, having no capability for arable culture or

permanent pasture. However, much of the Region can be classified as soils with few limitations for agriculture with the exception of the Moraine which has large areas suitable for pasture only. The objective in aggregating the soils data this way was to identify those soils where pre-contact settlement would have been unlikely to have occurred. Thus, the above water buffers were only applied where they crossed well- or imperfectly drained soils.

Finally, using a digital elevation model, areas of slope exceeding 20 degrees were similarly excluded from the potential zone.

These resulted in a pre-contact zone of 69% of the study area.

Historic Archaeological Site Potential Layer

Examination of eighteenth and nineteenth century mapping, as well as other primary source material, together with consideration of the basic historical themes that have been most influential in explaining the development within the Region, have led to the identification of areas of early settlement with its associated commercial, industrial and transportation features. It is recognized that these maps did not always illustrate historic features that may be of interest and are not definitive. All of the mapped locations should be considered approximate. Mapping was also provided by the Chippewas of Georgina Island First Nation for their traditional family hunting trails, travel corridors and hunting territories in York Region.

With regard to the settlement centres across the Region, their boundaries were plotted using the same sources. The boundaries of these settlements, as plotted, serve to indicate those areas where most of the building activity was concentrated at the time the sources were produced. In general, individual public buildings and homes were not mapped within these centres. On the whole the settlement centre overlay is indicative of the areas that exhibit potential for the presence of places of worship, meeting halls, school houses, blacksmith shops, stores, hotels, taverns, and other commercial service buildings.

All schools, places of worship, and commercial buildings, such as inns, that occur outside of the major settlement centres were mapped individually if their locations were shown on relevant historic maps. These features represent the earliest structures of social and economic significance in the Region and should be considered as heritage features demonstrating significant historical archaeological potential. All features were mapped as points buffered by a radius of 100 metres. All mill locations, lime kilns, and quarries were also mapped in this way.

Isolated rural homesteads were also incorporated within this layer. While nineteenth century maps do not necessarily provide comprehensive locational data for rural homesteads, it is anticipated that those represented on the Illustrated Historical Atlas, Tremaine maps and Township histories will represent the majority of these resources.

These homesteads were buffered with 100 metre zones.

Transportation routes such as early settlement roads, established by the 1870s (buffered by zones of 100 metres either side), and early railways (buffered by zones of 100 metres either side) have been mapped to draw attention to potential heritage features adjacent to their rights-of-way. Eighty-three percent (83%) of all currently mapped historic buildings (n=4387) are situated within the early transportation and water buffers, clear evidence of the efficacy of the historic model and of the fact that the vast majority of unmapped features will be caught by the model's buffers.

Cemeteries and family burial grounds have been included in the historic theme layer due to their particularly sensitive nature and the fact that these sites may become invisible in the modern landscape. Information concerning pioneer cemeteries was obtained from Ontario Genealogical Society records and members of the public. Their locations were plotted based on examination of relevant historic maps and the GIS layer provided by the Region. In general, this inventory of cemeteries did not include large, municipal and private cemeteries in urban areas, especially if they have been established recently. The historic cemeteries were buffered with 100 metre zones as well.

All features designated under the *Ontario Heritage Act*, for those municipalities that provided data (not including the Township of King, Town of East Gwillimbury and Town of Whitchurch-Stouffville; complete data provided for Vaughan and Richmond Hill), and situated outside of settlement centres have also been plotted and buffered by a radius of 100 metres. They are not subject to exclusion through the integrity layer.

Of the data set, 81.8% of the designated heritage properties are captured by heritage conservation districts and historic settlement centres; 93.9% of the designated heritage properties are captured by archaeological potential with integrity.

Because we have the complete data including dates of structures for Richmond Hill and Vaughan, the data from those municipalities were examined in more detail. In Richmond Hill, 8.6% of the properties are not captured by the model but only 10 (of 32) properties are earlier than the pre-1870 standard indicating that the historic model excluded only 2.7% of the archaeologically relevant designated properties. In Vaughan, only 3.2% of the properties are not captured by the model and 5 of 9 properties are earlier than the pre-1870 standard thus the model missed 1.7% of the archaeologically relevant designated properties.

Based on this analysis, it is clear that our model has captured at least 96% of the designated structures for the Region, regardless of the provision of data or the completeness of the data set.

The historic potential zone of the Region represents 24% of the study area.

Known Archaeological Site Layer

There are 1453 registered *archaeological sites* that could be accurately plotted on the base mapping within the Region. While most of these were in the Ministry of Tourism, Culture and Sport database, several were added based on research undertaken by Archaeological Services Inc. It should be noted that *archaeological sites* found during 2010-2012 may not have been entered into the provincial database by the Ministry of Tourism, Culture and Sport and may not be reflected in this study.

Of the total number of sites, 40 are classified as villages and 305 as campsite/cabins. More than half of the Aboriginal sites (524) are findspots, defined usually as one to three *artifacts*, likely lost while traveling across the landscape, 170 are indeterminate and 11 sites are known burials or *ossuaries*.

The remaining sites are Euro-Canadian. All sites were buffered by 100 metres.

Integrity Layer

An integrity layer was compiled based on a review of present land uses within the Region. The objective of this task was to distinguish between those lands upon which modern development activities have likely destroyed any *archaeological resources*, and those lands, such as parking lots, schoolyards, parks and golf courses, where resources potentially remain wholly or primarily undisturbed.

This layer was compiled using the built-up layer from the National Topographic Data Base together with high-resolution ortho-imagery provided by the Region. Areas deemed to have no remaining archaeological integrity were subsequently excluded from the zone of archaeological potential. The only exceptions to this were the settlement centres and registered *archaeological sites* (which have not been completely excavated) and all pre-1870 designated heritage features (where information was available).

It should be noted, that in the future, alterations to the evaluation of integrity may result from a detailed Stage 1 *archaeological assessment* which demonstrates clearly that a study area has been severely disturbed thereby negating archaeological potential.

Composite Archaeological Potential Layer

The final composite GIS layer, demonstrating zones of archaeological potential within York Region, was compiled by merging the zones of pre-contact archaeological potential and zones of historic archaeological potential, as defined through application of the various modeling criteria (Table 2). All areas lacking landscape integrity were then excluded from this layer. The resultant potential mapping presents an approximation of the overall distribution of *archaeological resources* in the York Region.

On the basis of this mapping, it may be suggested that 48% of the area within the boundaries of York Region exhibits potential for the presence of undocumented *archaeological sites*. For purposes of comparison, it was determined that the Ministry of Tourism, Culture and Sport's generic proximity to water model (Ministry of Culture 1997) captures more than 90% of the Region.

Table 4: Summary of Site Potential Modeling Criteria

Environmental or Cultural Feature	Buffer Distance (metres)	Buffer Qualifier
Pre-contact Aboriginal Site Potential		
Lake Ontario and Lake Simcoe shores	250	when crossing well- or imperfectly drained soils
rivers and streams	250 (each side)	from top of bank for former; from centerline for latter; when crossing well- or imperfectly drained soils
floodplains	complete	none
glacial lake strands	250	above strand; when crossing well- or imperfectly drained soils
glacial lake strands	200	below strand; when crossing well- or imperfectly drained soils
off-shore archipelago	250	when crossing well- or imperfectly drained soils
registered archaeological sites	100	if not completely excavated
slopes ≥ 20 degrees	0	removed from potential zone
Historic Site Potential		
Aboriginal trails and travel corridors	100	both sides
Aboriginal hunting territories	polygon as mapped	none
historic settlement centres	polygon as mapped	no buffer, override integrity
designated sites	100	override integrity
domestic sites	100	none
breweries and distilleries	100	none
hotels/taverns	100	none
historic schools and churches	100	none
historic mills, forges, extraction industries	100	none
early settlement roads	200	both sides
early railways	50	both sides
train stations	100	none

Environmental or Cultural Feature	Buffer Distance (metres)	Buffer Qualifier
Pre-contact Aboriginal Site Potential		
cemeteries	100 around polygon	none
registered archaeological sites	100	if not completely excavated

Ossuary Potential Model

Introduction

This model originated with the 2006 Class Environmental Assessment Aboriginal consultation program. The generation of an *ossuary* model was a recommendation of that process and an initial version of the present study was prepared by Archaeological Services Inc. and provided to the ORC and the Huron-Wendat Nation. Subsequently, the model was revised and incorporated in reports for The Regional Municipalities of York and Durham as well as the municipalities of Vaughan and Richmond Hill.

In order to compile as much reliable information as possible, the study involved consideration of the record of *ossuary* burial sites for the whole of Durham and York Regions and the City of Toronto, which together formed a core area in the development of the later pre-contact period Aboriginal communities that ultimately participated in the formation of the Huron Confederacy in Simcoe County. Because of considerably different environments, however, *ossuary* data for Simcoe County were not included.

The density of Late Woodland villages along the north shore of lake Ontario strongly suggests that more *ossuaries* will be present within the study area. Predicting the potential locations of such features is a challenging task, as the locations for such sites were likely chosen primarily for ideological or aesthetic reasons that are not amenable to the economically based methods of spatial analysis utilized in standard *archaeological site* potential models. Such places held particular significance in terms of their spiritual, historical and social associations, particularly in view of the complexity of Iroquoian views of death and the afterlife as attested by the documented views of the seventeenth-century Huron.

The multiplicity of souls comprising the individual, and their various powers for good and ill, required careful management and propitiation. Huron villages were inhabited by the free souls of both the living and the recently dead who had not yet been sent on their way by means of the Feast of the Dead. Moreover, living villages were also surrounded by villages of the dead, as deserted settlements remained inhabited by the souls of those ancestors who, for one reason or another, were unable to make the journey to the

Land of the Dead (Trigger 1969:103-104). These spirits remained in the abandoned villages and planted their own crops in the former clearings (von Gernet 1994:42-45; cf. Hall 1976:363). Within such a worldview, *ossuaries*, and the transformative activities that took place at them, were likely essential to the continued well-being of the community both in life and in death (Robertson 2006). Given this importance, it is likely that the places chosen for such features were only decided upon after much deliberation. There is no way of controlling for these variables, which were ultimately rooted in the complex symbolic traditions and ideological worldview of these communities.

Any attempt to reconstruct the decision-making process that led to the establishment of *ossuaries* in the places that they are found today can only be expected to be at the most coarse of scales.

Ossuaries are essentially invisible in the modern landscape. Their detection during Stage 2 *archaeological assessment* is virtually impossible. Most of the *ossuaries* known to archaeologists were first discovered as a result of land clearance in the nineteenth century. The locations of those sites may or may not be well-documented. Moreover, it is difficult to predict the location of such features in more than a general manner.

This is partially a reflection of the available data, although the data that do exist have not been rigorously examined by archaeologists in either the academic or cultural resource management context. Modern discoveries of *ossuaries* are generally accidental results of large scale earth-moving or other construction activities, as occurred in the Moatfield soccer field in Toronto (Williamson and Pfeiffer [eds] 2003) or during the widening of Teston Road in the City of Vaughan.

In an effort to redress this situation, this model constitutes a review of the available data concerning documented *ossuary* locations in York and Durham Regions in an effort to identify potential locational trends for *ossuaries* relative to settlement sites and local landscape features. Few such insights were forthcoming. Nevertheless, on the basis of this research, several recommendations concerning appropriate burial management strategies during development were offered.

The Model

Unfortunately, there are only a small number of *ossuary* sites for which we have information of sufficient detail to be of use in the present study. Precise locational and site setting information is generally lacking and there are frequently uncertainties concerning the dates of specific *ossuary* sites and/or the identity or location of their associated village sites.

These obstacles are exacerbated by the extremely limited archaeological data that can be brought to bear on the question of *ossuary* distribution patterns and locational preferences. Of the eighteen confirmed, probable or possible *ossuaries* reviewed, only

ten, together with their potentially associated settlements, can be mapped with any degree of precision. Given this limited data set, a primarily deductive modelling approach was employed using a sample of 19 *ossuaries*.

General Patterns

The modelling process involved examination of site distribution as recorded in the OASD and site reports and the accompanying mapping. No clear patterns of *ossuary* location relative to their presumably associated settlements are immediately evident on the basis of this information.

In two instances, the *ossuary* is known or presumed to have been located within or on the limits of the village. This pattern is characteristic of the early phase in the development of the *ossuary* burial tradition, reflecting the gradual transition from family to community burial rights. Two *ossuaries* including the Keffer and Teston *ossuaries* are located within 200 metres from their associated villages. Three others including Kleinburg (associated with Skandatut) are located between 400 and 1000 metres from their presumed settlements. The case of Fairty is complicated by the fact that it likely served more than one community (on the strength of the present evidence it would seem that one of these was the Robb site, actually located 1000 metres away, rather than the Faraday site, located 700 metres away). There are only two *ossuaries* for which one of the potentially associated settlements is located more than 1000 metres distant although this may be due to the early and greater degree of urban development in the area that may well have resulted in extensive landscape and hydrographic alterations and destroyed nearer settlements.

While most of the *ossuaries* are within close proximity to a water source as mapped at the 1:50,000 scale, three are located well beyond any threshold that would be used to capture settlement sites within a typical archaeological potential model. Two of those may have been adjacent to swales that may represent former minor/seasonal watercourses.

In a few cases, *ossuaries* are located on higher ground than their potentially associated settlement or settlements but are more often located on terrain that is at roughly the same elevation. More rarely, the *ossuary* is on markedly lower ground. In terms of their relative orientation, the only orientation not encountered is that of an *ossuary* lying to the northwest of its associated settlement. Given the limited sample, however, this cannot be considered meaningful.

Given the constraints imposed by the limited sample and general lack of data, it is clear that a more sophisticated modelling exercise involving the use of GIS analysis is not warranted. Nevertheless, based on the data that are available, a reasonable level of confidence may be achieved by the suggestion that any *ossuaries* within the Region are most likely to occur within 1000 metres of documented village sites and within 300 metres of any current or former water source.

While the rationale behind the 1000 metre buffer zones around the major settlement sites is self-evident, the 300 metre to water buffer zone is important as a means to compensate for the many remaining unknown factors. In the first place it is intended to address the possibility that an *ossuary* associated with one of the known or presumed villages may lie at a greater distance from the settlement in question (although any such feature would still likely be located in reasonably close proximity to water). Second, it will address the possibility that there are, as of yet, undiscovered major settlements within the Region.

Appendix E – Legislation, Policy, Ownership and Jurisdiction

The Minister of Tourism and Culture is the provincial government lead on the conservation and protection of *archaeological resources*. The Minister is responsible for encouraging the sharing of cultural heritage and for determining policies, priorities and programs for the conservation, protection and preservation of the heritage of Ontario (Cuming 1985). Under the *Ontario Heritage Act*, a process is defined that ensures that “once a property is designated of archaeological or historical significance and is likely to be adversely affected by commercial, industrial, agricultural, residential, or other development,” the appropriate measures are taken. In order to maintain a professional standard of archaeological research and consultation, the Minister is responsible for issuing licenses to qualified individuals, without which archaeological activities involving exploration, *survey* or field work are illegal. All reports submitted to the Ministry, as a condition of an archaeological license are reviewed by Ministry staff to ensure that the activities conducted under a license meet current technical guidelines, resource conservation standards, and the regulations of the *Ontario Heritage Act*. The regulation of archaeological activities carried out within the development context requires that all approval authorities must integrate the requirements of the *Ontario Heritage Act* within their land use planning process.

The rationale for a greater sharing of responsibilities between provincial and local governments for all types of heritage including *archaeological resources* was explained most effectively in a document entitled *A Strategy for Conserving Ontario’s Heritage* (Ontario Heritage Policy Review 1990). This document suggested a re-allocation of roles, in which the provincial government would maintain an advisory function and the municipal governments would assume the day-to-day responsibility for monitoring those archaeological features in their jurisdiction.

International Treaties and Charters

Canada supports and/or adheres to a number of treaties which impose a duty on the governments of Canada, its provinces and territories, to take action for archaeological management.

Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property

Promoted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1970 and formally acceded by Canada in 1978, this Convention declares that “cultural property acquired by archaeological, ethnological or national science missions” is recognized as belonging “to the cultural heritage of each State” (article 4). To ensure the protection of their cultural property, under article 5, participating countries

are obliged to (among other obligations):

- contribute to the formation of draft laws and regulations designed to secure the protection of the cultural heritage...
- establish and keep up to date, on the basis of a national inventory of protected property, a list of important public and private cultural property...
- promote the development or the establishment of scientific and technical institutions (museums, libraries, archives, laboratories, workshops...)...
- organize the supervision of archaeological *excavations*, ensuring the preservation “*in situ*” of certain cultural property, and protecting certain areas reserved for future archaeological research...

Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)

Under article 1 of this Convention, which Canada formally adhered to in 1976, “cultural heritage” may consist of “sites – works of man or the combined works of nature and man, and areas including *archaeological sites* which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.” To ensure the protection of their cultural property, under article 5 participating countries are obliged to (among other obligations):

- adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and integrate the protection of that heritage into comprehensive planning programs...
- develop scientific and technical studies and research to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage.
- to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage.

Convention on the Protection of the Underwater Cultural Heritage

This convention, which was adopted by UNESCO in 2001, requires participating countries to adopt necessary measures to preserve their underwater cultural heritage. Canada has not yet made a decision concerning ratification.

Professionals in Canada are also guided by charters of International Organizations such as the International Council on Monuments and Sites (ICOMOS). Four Charters in particular provide guidance on *archaeological resources* management:

- Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter), describes the principles of appropriate conservation;

- *Charter on the Conservation of Places of Cultural Significance (Burra Charter)*, outlines the principles and practices of conservation based on the cultural significance of historic places;
- *Charter for the Protection and Management of the Archaeological Heritage (Lausanne Charter)*, reflects basic principles and guidelines relating to the management of *archaeological resources* and is a reference for policies and practice;
- *Charter for the Protection and Management of the Underwater Cultural Heritage*, outlines the principles for the appropriate protection and management of cultural sites underwater.

Federal Legislation

The major federal statutes applicable to archaeology include the *Canadian Environmental Assessment Act, 2012* and the *Cultural Property Export and Import Act*. There is no federal legislation which specifically governs archaeological research and planning. In cases where archaeological issues on federal lands do not fall into the category of exports or the confines of an environmental impact assessment, federal land managers are expected to rely on federal policies applicable to all departments or to the specific directives of their own departments.

In terms of the protection of *archaeological resources*, the federal government's role would be confined primarily to land that it owns, such as national historic sites and parks, lands belonging to federal departments, such as National Defence or Agriculture, lands where there is a federally regulated undertaking, such as railways, airports or reserves, and lands where a federally regulated development project is proposed.

The federal government's *Archaeological Heritage Policy Framework* (Department of Canadian Heritage 1990) states that:

As heritage protection is an essential element of our Canadian identity, and as our archaeological heritage is a source of inspiration and knowledge, it is the policy of the Government of Canada to protect and manage *archaeological resources*.

In order to realize these objectives on all lands and waters under federal jurisdiction, the Parks Canada Agency has an advisory role for the protection and management of all *archaeological resources* on all lands and waters under federal jurisdiction.

Several federal departments have specific rules to protect archaeological heritage, such as the Department of National Defense and the Parks Canada Agency.

Canadian Environmental Assessment Act, 2012

The Federal Archaeology Office is also recognized as an "expert department" for

matters involving implementation of specific legislation in the *Canadian Environmental Assessment Act, 2012* (CEAA), where it is outlined that the Government of Canada seeks to conserve and enhance environmental quality and to ensure that the environmental effects of projects receive careful consideration before responsible authorities take actions in connection with them. An “environmental effect”, in respect of a project, is defined to include:

Any change that the project may cause in the environment, including any effect of any such change on health and socio-economic conditions, on physical and cultural heritage, on the current use of lands and resources for traditional purposes by Aboriginal persons, or any structure site or thing that is of historical, archaeological, paleontological or architectural significance (Section 2(1)).

The *Reference Guide on Physical and Cultural Heritage Resources* (1996:2) for the CEAA goes on to describe a cultural heritage resource as:

...a human work or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has historic value... This interpretation of cultural resources can be applied to a wide range of resources, including cultural landscapes and landscapes features, archaeological sites, structures, engineering works, artifacts and associated records.

Legally, a project that would prompt an environmental assessment under the *Canadian Environmental Assessment Act, 2012* also triggers a requirement to research archaeology.

Cultural Property Export and Import Act

The regulations under the federal *Cultural Property Export and Import Act* offer a specific list of objects or *artifacts* that are protected under the Canadian Cultural Property Export Control List. The list incorporates:

archaeological object[s] of any value recovered from the soil of Canada, the territorial sea of Canada or the inland or other international waters of Canada not less than 75 years after its burial, concealment or abandonment if the object is an artifact or organic remains, including human remains, associated with or representative of historic cultures.

The document then goes on to list specific *artifacts* relating to the “Aboriginal peoples of Canada” (2a), to the “progressive exploration, occupation, defense and development of the territory that is now Canada by non-aboriginal peoples” (2b), and “organic remains associated with or representative of historic or prehistoric cultures” (2c).

Parks Canada

Part of the mandate of Parks Canada, as per the Parks Canada Charter (2002), is to “protect and present nationally significant natural and cultural heritage...” Not only is the Archaeological Services Branch of the Parks Canada Agency responsible for the all issues pertaining to archaeology on Parks Canada lands, it also has an advisory role, upon request, to other federal departments. The Agency has developed a number of policies and guidelines, as well as directives, bulletins and manuals, concerning the preservation of cultural heritage. Here are some examples:

Parks Canada Guidelines for the Management of Archaeological Resources (2005)

Using the principles and practices of the *Cultural Resource Management Policy (1994)*, this document presents Parks Canada’s approach to *archaeological resource* management as a component of cultural resource management. It provides guidelines on the undertaking of projects and activities that may affect terrestrial or underwater *archaeological resources* in heritage areas under the jurisdiction of Parks Canada. These include National Parks of Canada, National Historic Sites of Canada, National Marine Conservation Areas of Canada, National Park Reserves of Canada, and National Marine Conservation Area Reserves. These guidelines can also be used by other federal land managers seeking advice on the management of *archaeological resources*.

Standards and Guidelines for the Conservation of Historic Places in Canada (2003)

This document serves as a document to guide *heritage conservation* projects, including projects on *archaeological sites* that have an impact on *archaeological resources*. Section 3 deals with the Guidelines for Archaeological Sites, Landscapes, Buildings, and Engineering Works. It is intended that the separate guidelines for these four subjects be used in conjunction with one another to ensure that all heritage values of a historic place be protected.

Recently, Parks Canada has released the latest draft Standards and Guidelines for the Conservation of Archaeological Sites. It resulted from extensive consultation with government, academic, and consulting archaeologists and benefited from their application in a number of pilot projects across Canada.

It is suggested that archaeologists consider this document as a guide to best practice when designing and undertaking their archaeological work within York Region.

Other Federal Legislation

Under the *Canada Shipping Act*, all material recovered from a wreck (ships and aircraft) during any activity, such as fishing, diving, or during an archaeological *excavation*, must be reported to the district Receiver of Wreck, an officer of Transport Canada. The *Canada Shipping Act* provides for the regulation of wrecks that, on the recommendation of Parks Canada, have heritage value.

Provincial Legislation

The specific provincial legislation governing planning decisions is complex, but provides for a number of opportunities for the integration of archaeological conservation. The two principle pieces of legislation are the *Planning Act* and the *Environmental Assessment Act*. Approximately 500 to 800 *archaeological sites* have been documented annually in southern Ontario since 1990 as a result of these Acts.

The Ontario Planning Act

The *Planning Act* provides the legislative framework for land use planning in Ontario. It sets out:

- how the land use planning system works,
- who makes decisions,
- ways to ensure public input,
- a dispute resolution process, and
- Provincial and municipal roles in planning administration.

Section Two of the Act identifies matters of Provincial interest including the “conservation of features of significant architectural, cultural, historical, archaeological or scientific interest and requires that municipal planning decision have regard to those matters having Provincial interest. Further, Section Three of the *Planning Act* allows the province to issue policy statements on matters of provincial interest.

The Provincial Policy Statement (PPS), 2005 is the framework for a comprehensive, integrated and long-term approach to planning. It provides policy direction to municipalities and approval authorities that make decisions on land use planning matters. The *Planning Act* states that all decisions affecting land use planning matters “shall be consistent with” the PPS.

With respect to archaeological resources, the PPS, states that:

“Development and site alteration shall only be permitted on lands containing

archaeological resources or areas of archaeological potential if the significant archaeological resources have been conserved by removal¹ and documentation, or by preservation on site. Where significant archaeological resources must be preserved on site, only development and site alteration which maintain the heritage integrity of the site will be permitted (Section 2.6, Cultural Heritage and Archaeology).”

For the above policy statement, significant archaeological resources are defined as those “that are valued for the important contribution they make to our understanding of the history of a place, an event, or a people.” The identification and evaluation of such resources are based upon *archaeological fieldwork* undertaken in accordance with the *Ontario Heritage Act*.

All planning decisions, regardless of the identity of the development *proponent* or the relevant approval agency, must address potential heritage resource impacts. As a result, municipalities require that an *archaeological assessment* be completed prior to the approval of a planning application.

Archaeological assessments must be completed and submitted with an application for approval of a plan of subdivision. Subsection 51 (17) of the *Planning Act*, in conjunction with Section 2 of O. Reg. 544/06 establishes the information and material to be provided by an applicant for approval of a plan of subdivision. An applicant is required to provide the *approval authority* with the following prescribed information and material:

“23. Whether the subject land contains any areas of archaeological potential.

24. If the plan would permit development on land that contains known archaeological resources or areas of archaeological potential,

a) an *archaeological assessment* prepared by a person who holds a license that is effective with respect to the subject land, issued under Part VI (Conservation of Resources of Archaeological Value) of the *Ontario Heritage Act*; and

b) a conservation plan for any archaeological resources identified in the assessment.”

Note that the PPS defines “archaeological resources” as including “artifacts, archaeological sites and marine archaeological sites”.

With respect to zoning by-laws, the *Planning Act* allows a municipality to use the option of attaching a holding “H” symbol to a zoning by-law and require that as a condition of removing the holding symbol, and before development can proceed, an *archaeological*

¹ “Removal” of an archaeological resource is accomplished through mitigative documentation and/or excavation.

assessment or other matter be completed. Site Plan Control requires the approval of plans by the municipality, which implies that due regard, has been given to matters of provincial interest. Agreements can be entered into regarding the site plan matters approved and the agreement can include a requirement for an *archaeological assessment*.

In regard to municipal projects, the *Planning Act* states that where there is an Official Plan in effect, no public work shall be undertaken that does not conform to the Plan. The Act also permits municipalities to pass zoning by-laws: “for prohibiting any use of land and the erecting, locating or using of any class or classes of buildings or structures on land that is the site of a significant archaeological resource”.

In summary, a municipality is obligated within the existing legislative framework to require archaeological concerns be addressed in connection with any planning application and is able to pass zoning by-law(s) regulating the use of land that is the site of a *significant archaeological resource*. Moreover, a municipality is prevented from undertaking any public work that does not comply with its Official Plan. Heritage protection policies are appropriate in Official Plans, if developed and incorporated properly. If a municipality has a sound basis in its policies (Official Plan), it is possible to refuse applications that do not conform to heritage requirements.

The Culture Services Unit of the Ministry of Tourism, Culture and Sport has the primary responsibility under the *Planning Act* for matters relating to cultural heritage including *archaeological resources*. When a municipality determines that there is potential for impacts to *archaeological resources* resulting from the approval of a development application, the development *proponent* is required to undertake an *archaeological assessment*, the results of which are subject to Ministry of Tourism, Culture and Sport review and approval. Such assessments may be required for official plan amendments or plans of subdivision, and may also be required for smaller-scale developments reviewed under consent and zoning by-law amendment applications. In all of those cases where potential is identified on all or a portion of a subject property, a standard archaeological condition is attached to the development application.

The current condition recommended by the Ministry of Tourism, Culture and Sport reads:

The proponent shall carry out an archaeological assessment of the subject property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No grading or other soil disturbances shall take place on the subject property prior to the approval authority and the Ministry of Tourism, Culture and Sport confirming that all archaeological resource concerns have met licensing and resource conservation requirements.

A generic primer has been developed by the Ministry of Tourism, Culture and Sport (1997) for informing municipal planners about evaluating archaeological potential.

Those municipalities that have undertaken detailed archaeological potential studies or Management plans have access to much more detailed information, which provides more effective and accurate means of determining archaeological potential and whether or not an assessment will be required. The review of site specific development applications, for the purpose of determining if *archaeological resources* or areas of archaeological potential are present within any particular subject plan, may now be made directly by the local municipalities within York Region through the use of this Archaeological Management Plan, consisting of potential mapping, explanatory text, and suggested procedures for implementation of the study's conclusions. Review of the resulting archaeological investigations, in order to determine that *Ontario Heritage Act* requirements have been satisfied, remains the responsibility of the Ministry of Tourism, Culture and Sport, which provides notification to the consulting archaeologist of the results of their review. The Ministry of Tourism, Culture and Sport may notify the *approval authority* and development *proponent* of their review. That Ministry also administers all matters related to the management of the resources documented, *mitigation* strategies proposed, and any disputes arising from the conservation of *archaeological resources* under the land use planning process.

The Ministry of Tourism, Culture and Sport has also issued a Bulletin in 2011 entitled Engaging Aboriginal Communities in Archaeology: A Technical Bulletin for Consultant Archaeologists in Ontario. The *consultant archaeologist must* engage Aboriginal communities during Stage 3 *Archaeological Assessment*, when they are assessing:

- the *cultural heritage value or interest* of an Aboriginal *archaeological site* that is known to have or appears to have sacred or spiritual importance,
- or is associated with traditional land uses or geographic features of cultural heritage interest,
- or is the subject of Aboriginal oral histories

A *consultant archaeologist must* engage Aboriginal communities at the end of a Stage 3 *Archaeological Assessment*, when formulating a strategy to mitigate the impacts on the following types of Aboriginal *archaeological sites* through *avoidance* and protection or *excavation*:

- rare Aboriginal archaeological sites;
- sites identified as sacred or known to contain human remains;
- Woodland period Aboriginal sites;
- Aboriginal *archaeological sites* where topsoil stripping is contemplated;
- undisturbed Aboriginal sites; and
- sites previously identified as of interest to an Aboriginal community.

A description of the engagement and a copy of any documentation arising from the process must be provided to the Ministry of Tourism, Culture and Sport as part of the supplementary documentation included in the Project Report Package.

The Bulletin *recommends* that *consultant archaeologists* also engage with Aboriginal communities during a Stage 1 *Archaeological Assessment*, when conducting the Background Study, in order to identify information sources in local Aboriginal communities (e.g., for information on traditional use areas, sacred sites, and other sites when available and relevant to the property); in Stage 1, when evaluating archaeological potential and making recommendations to exempt areas meeting the criteria for low archaeological potential from further assessment, in order to ensure there are no unaddressed Aboriginal cultural heritage interests; in Stage 2, when assessing a property and determining *archaeological sites* that require Stage 3 *fieldwork*, in order to determine interest (general and site-specific) in the Aboriginal *archaeological sites* and ensure that there are no unaddressed Aboriginal archaeological interests connected with the land surveyed or sites identified; and in Stage 3, when making recommendations regarding the *excavation or preservation* of Aboriginal *archaeological sites of cultural heritage value or interest* (other than those identified in the standards), in order to review the recommendations with the relevant, interested Aboriginal communities. In the event that something unexpected is discovered during a Stage 4 investigation that would change the interpretation of the *archaeological site*, the relevant Aboriginal communities *should* be contacted.

Table 5: Consultation with Aboriginal Communities

Ministry of Culture	Assessment Stage	Consultation with Aboriginal Communities	Purpose
Recommends	Stage 1	Background Study	To identify Information Sources in local Aboriginal communities
Recommends	Stage 1	Evaluating Archaeological Potential	To ensure there are no unaddressed Aboriginal archaeological sites of cultural heritage value
Recommends	Stage 2	Assessing an archaeological site	To determine if Stage 3 fieldwork required
Requires	Stage 3 (during)	Assessing an archaeological site	That have sacred or spiritual importance, associated with traditional land uses, or oral history.
Requires	Stage 3 (end of)	Assessing an archaeological site	In order to make recommendations regarding the excavation or preservation of Aboriginal archaeological sites
Recommends	Stage 3	Fieldwork	In order to determine interest (general and site-specific) in the

			Aboriginal archaeological sites and ensure that there are no unaddressed Aboriginal archaeological interests connected with the land surveyed or sites identified
Recommends	Stage 3	Recommendations	In order to review the recommendations with the relevant, interested Aboriginal communities
Recommends	Stage 4	Unexpected Discovery	That would change the interpretation of the archaeological site, the relevant Aboriginal communities <i>should</i> be contacted.

The Ontario Environmental Assessment Act

The *Environmental Assessment Act* applies to public sector projects and designated private sector projects. Private sector projects that are designated by the Province as subject to the Act are usually major projects such as waste disposal sites (e.g. landfills). The purpose of the Act is “the betterment of the people ... by providing for the protection, conservation and wise management in Ontario of the environment” (Section 2). The “Environment” is very broadly defined to include “the social, economic and cultural conditions that influence the life of man or a community” [Section 1(c) (iii)] and “any building, structure ... made by man” [Section 1(c) (iv)]. Thus, environment is broadly interpreted to include heritage *artifacts*, structures or events.

The *Environmental Assessment Act* requires the preparation of an environmental assessment document, containing inventories, alternatives, evaluations and *mitigation*. An environmental assessment that is not a Class Environmental Assessment is subject to formal government review and public scrutiny and, potentially, to a tribunal hearing. Heritage studies of these major undertakings are a common component. There are also Municipal Engineers Association (MEA) Class Environmental Assessments for municipal infrastructure projects that require similar considerations, but entail a review and approval process that reflects the complexity and sensitivity of a proposed project.

Various provincial ministries are establishing protocols related to activities subject to the environmental assessment process in order to ensure that heritage concerns in their respective jurisdictions are addressed. The Ontario Ministry of Transportation (2004), for example, ensures that archaeological *surveys* are undertaken in advance of all new road construction in order to ensure that no *archaeological sites* will be unknowingly damaged or destroyed, and the Ontario Ministry of Natural Resources prepared a set of guidelines on the conservation of heritage features as part of the Timber Management

Planning Process (1991).

The Ontario Heritage Act

The Ministry of Tourism, Culture and Sport² is tasked under the *Ontario Heritage Act* with the responsibility to “determine policies, priorities and programs for the conservation, protection and preservation of the heritage of Ontario” and so fills the lead provincial government role in terms of direct conservation and protection of cultural resources. The Minister is responsible for encouraging the sharing of cultural heritage and for determining policies, priorities, and programs for the conservation, protection, and preservation of the heritage of Ontario (Cuming 1985). These goals are generally accomplished through other legislated processes, such as those required by the *Planning Act* and *Environmental Assessment Acts* rather than directly through the *Ontario Heritage Act* itself.

The Culture Services Branch of the Ministry of Tourism, Culture and Sport has the primary responsibility under the *Planning Act* and *Ontario Heritage Act* for matters relating to cultural heritage including *archaeological resources*. This branch has developed an “Ontario Heritage Tool Kit” that includes guides for interpreting the *Ontario Heritage Act* as well as InfoSheets on applying the cultural heritage and archaeology provincial policies.

The *Ontario Heritage Act* does, however, govern the general practice of archaeology in the province. In order to maintain a professional standard of archaeological research and consultation, the Minister is responsible for issuing licences to qualified individuals. All work conducted by the licenced archaeologist must conform to the standards set forth in the most current *Archaeological Assessment Technical Guidelines* authorized by the Ministry of Tourism, Culture and Sport and the accompanying bulletins, including “Engaging Aboriginal Communities in Archaeology.”

In changes to the *Ontario Heritage Act*, outlined in the *Government Efficiency Act* (2002), it became illegal for any person or agency to alter³ an *archaeological site* without a licence. This in effect offers automatic protection to all *archaeological sites* and the Region should exercise due diligence in all planning contexts to ensure that

² Provincial management of cultural resources has been carried out by operations units attached variously to the Ministry of Citizenship, Culture and Recreation (1993-1998), the Ministry of Tourism, Culture and Recreation (1998-2002) and the Ministry of Culture (2002-2010); Ministry of Tourism, Culture and Sport (2010-2011) and Ministry of Tourism, Culture and Sport (2011 to present).

³ The term “alteration” covers unsanctioned disturbance or destruction of archaeological resources brought about by any means (i.e., either archaeological excavation, site looting, or development). More generally, it should be noted that in recent changes to the *Heritage Act*, it is now an offence to knowingly alter an archaeological site without a licence.

archaeological features are protected from disturbance. Penalties for violating this law include a fine of up to a \$50,000 for an individual or director of a corporation or imprisonment for up to one year, or both. A corporation that violates the Act or regulations can be subject to a fine of up to \$250,000. Unlawful removal of *artifacts* is a violation that may result in a fine of up to \$1,000,000.

All reports submitted to the Ministry, as a condition of an archaeological licence are reviewed by Ministry staff to ensure that the activities conducted under a licence meet current technical guidelines, resource conservation standards, and the regulations of the *Ontario Heritage Act*. The regulation of archaeological activities carried out within the development context requires that all approval authorities must integrate the requirements of the *Ontario Heritage Act* within their land use planning process.

Cultural Heritage and the Renewable Energy Approval Process

The Renewable Energy Approvals regulation (O. Reg. 359/09), issued under the *Environmental Protection Act*, sets out the heritage requirements for obtaining approval to proceed with a renewable energy project. The regulation provides a streamlined approvals process, while simultaneously ensuring that the proposed project considers and avoids or mitigates impacts to the environment, including the cultural environment. O. Reg. 359/09 separates cultural heritage resources into *archaeological resources* and heritage resources (including both built heritage and cultural heritage landscapes), and addresses each separately (e.g. sections 19 through 23 of O. Reg. 359/09)

Using the tools provided by the Ministry, applicants can self-assess, where appropriate, to determine if there are archaeological or heritage resources at the project location, and confirm if there is any possibility of impact on those resources. Written summaries supporting a self-assessment must be accompanied by appropriate documentation. A “self-assessment” is not required, and the ministry strongly encourages applicants to hire consultant(s) to undertake archaeological and heritage assessments, especially if there is any uncertainty about project impacts on cultural heritage resources.

Other land use legislation in the province provides opportunities for *archaeological resource* protection. The *Aggregate Resources Act*, governing approval of pits and quarries and administered by the Ministry of Natural Resources, recognizes the potential impact quarrying activities may have on cultural features such as *archaeological resources*. Furthermore, the development of a pit or quarry will often require an official plan amendment or zoning by-law amendment, and thus would require involvement by the municipality at either the upper or lower tier level. The process for addressing archaeological concerns is similar to that outlined for *Planning Act* related projects. A background study, field *survey* and detailed archaeological investigations are all identified as required Technical Reports under Part 2.2 of the *Aggregate Resources Act* Provincial Standards which identify the requirements for obtaining licences for aggregate extraction on private lands, permits for aggregate extraction on Crown Lands, or permits for operating wayside pits or quarries.

The *Funeral, Burial and Cremation Services Act, 2002* also addresses the need to protect human burials, both marked and unmarked, which is yet another valuable link to the past. The discovery of such burials will require further investigation in order to define the extent and number of interments, and either the registration of the burial location as a cemetery, or the removal of the remains for re-interment in an established cemetery. The actual workings of this process are complex and vary depending upon whether the burial(s) are an isolated occurrence, or part of a more formal cemetery, and whether the remains in question are Aboriginal or Euro-Canadian. In all cases, the success of the process is dependent upon the co-operation of the landowner, the next of kin (whether biological or prescribed), and the Cemeteries Registrar (Ministry of Small Business and Consumer Services). The Ministry of Tourism, Culture and Sport's role in the process is to assist in co-ordinating contact and negotiation between the various parties, and ensuring that archaeological investigations of such burial sites meet provincial standards.

With this legislative planning context, success in protecting heritage features depends on sufficient resource information, sound policies, the capability to implement requirements, and participation by both local and provincial heritage planners in the process.

Existing York Region Official Plan, 2010 Policy

York Region has undertaken a comprehensive growth management exercise which culminated in the adoption of an updated York Region Official Plan in 2009 and approval by the Ministry of Municipal Affairs and Housing in 2010. The Regional Official Plan establishes a policy framework for the protection and conservation of cultural heritage resources. Section 3.4 of the York Region Official Plan states that:

It is the policy of Council:

- 1 To encourage local municipalities to compile and maintain a register of significant cultural heritage resources, and other significant heritage resources, in consultation with heritage experts, local heritage committees, and other levels of government.
- 2 To ensure that cultural heritage resources under the Region's ownership are *conserved*.
- 3 To require local municipalities to adopt official plan policies to *conserve* significant cultural heritage resources.
- 4 To promote heritage awareness and support local municipal efforts to establish heritage conservation districts.
- 5 To ensure that identified cultural heritage resources are evaluated and *conserved* in capital public works projects.
- 6 To require that cultural heritage resources within secondary plan study areas be

- identified, and any significant resources be *conserved*.
- 7 To encourage local municipalities to use community improvement plans and programs to *conserve* cultural heritage resources.
 - 8 To encourage local municipalities to consider urban design standards in core historic areas that reflect the areas' heritage, character and streetscape.
 - 9 To encourage access to core historic areas by walking, cycling and transit, and to ensure that the design of vehicular access and parking complements the historic built form.
 - 10 To prepare, in partnership with First Nations, the Métis Nation, and other stakeholders a York Region Archaeological Resources Management Plan which considers:
 - a) the locations of significant or potentially significant archaeological resources, cultural heritage sites, ceremonial sites and sacred sites; and,
 - b) protocols for the protection and management of significant or potentially significant archaeological resources, cultural heritage sites, ceremonial sites and sacred sites.
 - 11 That prior to approval of development or site alteration on lands containing significant or potentially significant archaeological resources, a plan for the protection and/or management of these resources will be developed, in co-operation with the local municipality and the Region, in accordance with provincial legislation and guidelines. If the archaeological resources pertain to First Nations and/or Métis Nation heritage, the protection and/or management plan will be developed in consultation with appropriate First Nations and Métis Nation communities. In situations where archaeological resources are to be preserved on site, the Region in consultation with local municipalities shall consider regulatory tools such as zoning restrictions and heritage easements
 - 12 To investigate the potential for a secure re-interment site and interpretation centre for First Nations and the Métis Nation *artifacts* and remains, where preservation in their current location is not possible.
 - 13 To recognize and celebrate the rich cultural heritage of the Region's ethnic and cultural groups

The archaeological policies are further supported by Policy 8.1.3 which requires York Region to engage, consult and partner, as appropriate, with First Nations and Métis Nation communities when considering planning applications and studies that may affect their interests. In addition, policy 8.1.15 identifies *archaeological assessments* as a potential study to evaluate Regional Official Plan Amendments and local official plan amendments and development applications. Section 8.3 The Planning Process states that:

It is the policy of Council:

- 15 That all Regional studies required in this Plan be included in local municipal official plan complete applications listings:

Table 6: Possible Regional Planning Studies Required to Evaluate a Proposed Amendment to this Plan

Planning Studies	Circumstance
Archaeological Assessment	Development on lands containing significant or potentially significant archaeological resources

The York Region Archaeological Management Plan will assist York Region and the local municipalities in implementing their official plan policies related to the protection and conservation of cultural heritage resources.

Toronto Region Conservation Authority Archaeological Planning Policy

TRCA recognizes the value of the *archaeological resources* on its lands and has itself prepared an Archaeological Master Plan that provides an inventory of *archaeological sites* on its lands along with the archaeological potential and makes recommendations for the proper management of these resources. In 1988, TRCA also adopted The Archaeological Heritage Strategy as an integrated component of the Greenspace Plan for the Greater Toronto Region. The intent of this program is to present a balanced and integrated program of inventory, management and interpretation for archaeological heritage resources.

New sites and other cultural heritage landscapes continue to be found every year, and along with that, educational programs are offered to enhance local knowledge.

On their website, the TRCA indicate that protecting new *archaeological sites* is the primary goal of the *archaeological resource* management program. While sites, or portions of sites, might be excavated, which provides a wealth of information and understanding about past peoples' lives and movements throughout their watersheds, they emphasize that, in many circumstances, new sites that are encountered can be avoided and left in place, for future generations to further explore.

Ownership

The question of ownership of *archaeological resources*, whether they be sites or individual *artifacts* has never been adequately resolved in Ontario. Consequently, issues of ownership have often complicated the protection or conservation of the resource.

This situation led the Ministry of Tourism, Culture and Sport's Advisory Committee on New Heritage Legislation to the suggestion that:

Ontario should follow the lead of many provincial governments in asserting Crown ownership of archaeological objects. This cuts out all claims but those of true owners. In the case of material of Aboriginal origin, however, such an approach may be inconsistent with current steps toward First Nations' self-government and jurisdiction over certain matters. Resolution of this matter should be negotiated with First Nations (Minister's Advisory Committee 1992:42).

If the Crown is to become the custodian of such materials, however, it will first be necessary to make better provision for their storage, curation and access to interested individuals or groups, than currently exists (OHPR 1990:59). Furthermore, it will be essential to resolve the equally legitimate, but frequently conflicting, interests of First Nations, the scientific community and of society in general, regarding the ultimate disposition of pre-contact archaeological remains. Such an objective will only be met through a long process of negotiation and consultation among these groups.

The first steps, however, have been taken in this regard. In the late 1980s, the Assembly of First Nations and the Canadian Museums Association together sponsored a Task Force on Museums, the purpose of which was to develop an ethical framework and strategies by which Aboriginal peoples and cultural institutions can work together to represent Aboriginal history and culture. The results of extensive consultations carried out by the Task Force are available in the *Task Force Report on Museums and First Peoples*. Also, the Canadian Archaeological Association together with the Federal Department of Communications sponsored an extensive program of consultation with Aboriginal communities across Canada resulting in a *Statement of Principles for Ethical Conduct Pertaining to Aboriginal Peoples*, which should serve to guide the actions of Canadian archaeologists (Nicholson et al. 1996). While neither of these documents asserts singular ownership of *artifacts*, they both provide guidelines regarding their interpretation and presentation to the public.

The *Ontario Heritage Act* also governs matters related to the care and curation of *artifacts*. Under Section 66 (1), this legislation stipulates that "The Minister may direct that any object taken under the authority of a license or a permit be deposited in such public institution as he may determine to be held in trust for the people of Ontario". Moreover, section 14 of the Terms and Conditions for Archaeological Licences states "The licensee shall hold in safekeeping all artifacts and records of *archaeological fieldwork* carried out under this licence, except where those artifacts and records are transferred by the licensee to Her Majesty the Queen in right of Ontario or the licensee is directed to deposit them in a public institution in accordance with subsection 66(1) of the Act."

The application of this section of the Act and this Condition of the Archaeological Licence typically involves the curation of recovered *artifacts* by the archaeologist until such time that the analyses are complete and that a place for ultimate disposition can be arranged, usually a fully accredited public repository. It is also generally assumed that archaeologists will consult with the landowner to decide upon the location for the ultimate disposition of *artifacts*. In general, it is desirable that material from a particular *archaeological site* is ultimately deposited in a public institution located in the same community (either a local museum or a First Nation cultural centre), provided that adequate storage, curatorial facilities for both *artifacts* and field records are available, that the institution's collections are accessible to researchers, and that the material is not transferred or disposed of without provincial approval.

Summary

With all of these planning requirements, success in protecting heritage features depends on sufficient resource information, sound policies, the capability to implement requirements, and participation by planners in the process. These objectives are also being realized, in the case of *archaeological resources*, through the preparation and updating of management plans and the inclusion of policies and procedures in the official plans of municipalities. Heritage protection policies are appropriate in Official Plans, if developed and incorporated properly, if only to draw attention to the fragility of *archaeological sites*. Moreover, as the Official Plan is implemented through zoning by-laws restricting building form, land uses and subdivision and other agreements, it is possible with each of these instruments to reinforce provincial, federal and local interests by requiring certain information to be supplied, conditions to be satisfied or actions to be taken. Thus, if a municipality has a sound basis in its policies (Official Plan), it is possible to refuse applications that do not conform to heritage requirements.

Alterations to the policies in the York Region Official Plan are being contemplated as a result of this study. A Regional Official Plan Amendment would be required to introduce the recommended policy changes resulting from this study. Local municipal partners and stakeholders will be consulted on the development of these policies.

Appendix F – Detailed Overview of Southern Ontario History

Since 1974 all *archaeological sites* for the Province of Ontario have been registered with the Ontario Archaeological Sites Database (OASD) maintained by the Heritage Branch and Libraries Branch of the Ontario Ministry of Tourism, Culture and Sport, Toronto. This database is the official, central repository of all site information for the province collected under the *Ontario Heritage Act* (1974, 1980). The inventory of registered *archaeological sites* that formed the basis for the present study was compiled by the Data Co-ordinator of the Archaeology Unit, Heritage Branch and Libraries Branch, Ministry of Tourism, Culture and Sport, and by the staff of Archaeological Services Inc.

The land now encompassed by the Region has a cultural history that begins approximately 11,000 years ago and continues to the present. The chronological ordering of this review of the study area's pre-contact history is made with respect to three temporal referents: B.C. – Before Christ; A.D. – Anno Domini (in the year of our Lord); and B.P. – Before present (1950). Sites of all of the following periods have been documented in the Region.

Paleo-Indian Period (9,000 B.C.-7,000 B.C.)

During the previous millennia, southern Ontario was covered by glaciers that stretched across most of North America. As these glaciers began to retreat approximately 12,500 years ago, large meltwater lakes formed in their wake and covered much of southern Ontario. The landscape that emerged was one of relatively barren tundra interspersed with areas of open boreal forest. This environment supported herds of large Pleistocene mammals such as mastodon, moose, elk, and caribou.

The arrival of Paleo-Indian hunting bands in southern Ontario has not been accurately dated. However, radiocarbon dates from other North American Paleo-Indian sites suggest that the earliest sites found in Ontario date between approximately 11,000 and 10,800 years B.P, soon after the area became habitable.

Evidence concerning the Paleo-Indian people is very limited since populations were not large and since little of the sparse material culture of these nomadic hunters has survived to present day. Virtually all that remains are the tools and by-products of their flaked stone industry. Characteristic Paleo-Indian tool types include fluted points, large lanceolate *projectile points*, bifacial leaf-shaped and semi-lunate knives, and a variety of unifacial scrapers, and graters (Ellis and Deller 1990).

During this period, there was a marked preference for lithic raw materials derived

directly from bedrock outcrops, over secondary sources such as glacial till. Paleo-Indian populations throughout much of south-western and south-central Ontario obtained toolstone from the Collingwood and Beaver Valley areas, where Fossil Hill Formation cherts were quarried extensively.

Given the tundra-like environment that prevailed during this period, it has long been postulated that the Paleo-Indian economy focused on the hunting of large Pleistocene mammals such as mastodon, moose, elk, and especially caribou. Of particular interest in this regard is the frequent location of Paleo-Indian sites adjacent to the strandlines of large post-glacial lakes. This settlement pattern has been attributed to the strategic placement of camps in order to intercept migrating caribou herds.

The traditional view of Paleo-Indians' reliance almost exclusively on large game has been modified somewhat, as it is becoming more apparent that smaller game and fish were also important dietary contributors (Storck 1988). It may be that their subsistence practices were more flexible and broadly based than previously assumed. Whether the Paleo-Indians were dependent on the constantly moving herds or on less communal species, these subsistence strategies would have necessitated that social groups remain relatively small and egalitarian. These highly mobile bands probably moved in seasonal patterns throughout very large territories, establishing small camps for only brief periods of time, which may have been re-occupied on a seasonal basis.

Archaic Period (7,000 B.C.-1,000 B.C.)

The Archaic period is commonly divided into three sub-periods:

- Early Archaic (7,000-6,000 B.C.),
- Middle Archaic (6,000-2,500 B.C.), and
- Late Archaic (2,500-1,000 B.C.).

Few Early or Middle Archaic period sites have been investigated and they, like Paleo-Indian sites, are often identified on the basis of the recovery of isolated *projectile points*. During the archaic period, paleo-environmental data suggest that a mixed forest cover had been established in Ontario by circa 7,000 B.C. and that the nomadic hunter-gatherers of this period exploited deer, moose and other animals, as well as fish and some plant resources, still moving relatively large distances over the landscape during the course of the year. The landscape continued to change including much lower water levels in the Great Lakes and the expansion of more temperate forests. Over the following millennia, technological and cultural change is evident in the wide variety of tools produced, which reflects shifts in hunting strategies necessitated by a constantly evolving environment.

The Early Archaic period witnessed a change in lithic procurement practices, as a wider range of chert sources was exploited, rather than the few distant primary deposits utilized during the Paleo-Indian Period. The lithic tool kit became increasingly dominated by small “disposable” tools and for the first time, heavy wood working tools manufactured from ground stone are evident (Ellis et al. 1990:79).

During the Middle Archaic, many of the *artifact* types considered characteristic of the Archaic period as a whole, first begin to appear in quantity. These include netsinkers and ornate ground stone items such as bannerstones. Raw materials used in the production of flaked and ground stone tools were increasingly limited to locally available material. In south-eastern Ontario, a number of sites dating to the Middle Archaic period have yielded evidence of the use of copper to produce a range of decorative and prosaic items, in addition to a wide array of ground stone tool forms. This eastern expression is frequently referred to as the “Laurentian Archaic” (Ellis et al. 1990:85-89),

By about 3,000 B.C., there is evidence for increased population levels, within smaller areas exploited during the course of the annual round. Sites were larger and occupied for longer periods of time, at least in areas characterized by more stable and productive natural environments. Despite a reduction in territory size on the part of individual hunter-gatherer groups, long-range exchange remained important to at least those groups in eastern Ontario that produced items of copper (Ellis et al. 1990:93).

By the Late Archaic period, hunter-gatherer bands had likely settled into familiar hunting territories. Their annual round of travel likely involved occupation of two major types of sites. Small inland camps, occupied by small groups of related families during the fall and winter, were situated to harvest nuts and hunt the deer that browsed in forests and congregated in cedar swamps during the winter. Larger spring and summer settlements located near river mouths were places where many groups of families came together to exploit rich aquatic resources such as spawning fish, to trade, and to bury their dead, sometimes with elaborate mortuary ceremonies and offerings (Ellis et al. 1990:121).

A number of Archaic period sites have been registered within York Region including:

- the Andridge site (AlGu-327) and
- the Edgar site (AlGu-199).

The Andridge site is thought to date to the Early Archaic period due to the presence of spurred end scrapers and moderate to full dorsal flaking on two tool specimens. The presence of secondary knapping and retouch flakes at Andridge suggests that at least some semi-refined or refined biface reduction and/or formal tool re-sharpening was carried out at the site. The site appears to be a short-term seasonally occupied camp-site (ASI 2008).

The Edgar site, an Early Archaic lithic scatter, is located immediately northeast of Andridge. The stone tools at Edgar were Nettling (serrated, corner-notched) *projectile points*, thinned biface base fragments and “drills”. These tools are all consistent with *artifacts* from Tennessee that have been radiocarbon dated in stratified contexts to the period 9700-8900 B.P. (approximately 11,000-10,000 CAL years B.P.) (Ellis et al. 1990). The assemblage also included three gravers, which suggests an affinity with earlier Paleo-Indian technology. The site also appears to be a short-term seasonally occupied camp site (ASI 2007).

The Woodland Period

The Woodland period is divided into four sub-periods:

- Early (1,000 B.C.-400 B.C.),
- Middle (400 B.C.-A.D. 500),
- the Middle to Late Woodland Transition (A.D. 500-A.D. 900), and
- Late Woodland (A.D. 900-A.D. 1650).

In the opinion of some researchers, the transition from the Middle to Late Woodland periods represents a major disjuncture in the population history of the southern Ontario, with the arrival of Iroquoian-speaking migrants to the region. The succeeding Late Woodland period witnessed the florescence of Iroquoian societies in the Great Lakes region.

The Late Woodland period is further divided into the stages:

- Early,
- Middle and
- Late Iroquoian.

The use of the term “Iroquoian” to describe these communities is based on the fact that the peoples encountered by the French in southern Ontario circa A.D. 1600 (as well the Iroquois of western New York) spoke languages related to Cherokee and Tuscarora, the homelands of which lay in the southern Appalachians, North Carolina and Virginia, rather than forms of the Algonquian language which dominated much of the remainder of eastern North America (Trigger 1969:6).

The existence of this enclave of Iroquoian-speakers within the eastern Great Lakes basin has led to two major schools of thought regarding their origins. Arguably, the most accepted theory, known as the *in situ* model, is that these Iroquoian-speakers are simply the descendants of the Middle Woodland bands that were already established in the region, who gradually adopted a semi-sedentary agricultural way of life. The

alternative theory—which is largely contradicted by the evidence of continuities in many aspects of material culture between the Middle and Late Woodland periods and by current understandings of the chronology of the adoption of agriculture in the region—is that they represent a migration of people into the area from southern Pennsylvania, who brought with them their distinctive lifeways, and who succeeded in displacing or absorbing the resident Algonquian-speaking populations. These competing schools of thought will be further discussed in Section 3.4.3, however, it is probable that the reality lies somewhere in between these opposing views.

The Early Woodland (1,000 B.C.-400 B.C.)

The Early Woodland period differed little from the previous Late Archaic period with respect to trends in settlement-subsistence pursuits. This period is marked by the introduction of ceramics into Ontario. Although a useful temporal marker for archaeologists, the appearance of these ceramics does not seem to have profoundly changed the hunter-gatherer way of life. As was likely the case from the Late Archaic period onward, the settlement-subsistence system likely involved congregations at lake or river shore sites, from spring until fall, relying primarily on fish, shellfish and wild plant foods for their subsistence needs. In late fall, wild rice, deer and nuts would have contributed to their diet. These large bands would probably then have dispersed into smaller groups for the winter, depending upon preserved foodstuffs augmented by any available game. Such seasonal movements probably took place within well-defined territories, with individual bands repeatedly returning to certain preferred sites.

There is compelling evidence in the Early Woodland period, however, for an expanding network of societies across north-eastern North America that shared burial rituals. A common practice, for example, was the application of large quantities of symbolically important red ochre (ground iron hematite) to human remains and the inclusion of objects, into graves. These objects represented a considerable investment of time and artistic skill. Moreover, the nature and variety of these exotic grave goods suggest that members of the community outside of the immediate family of the deceased were contributing mortuary offerings.

The most significant change during the Early and Middle Woodland periods was the increase in trade of exotic items, no doubt stimulated by contact with more complex, mound-building cultures in the Ohio and Mississippi valleys. These items were included in the increasingly sophisticated burial ceremonies of the period. These developments may have emanated from the need for greater social solidarity among growing Aboriginal populations that were competing for resources.

A small number of sites assigned to the Early Woodland period, most of which consist of isolated finds, have been registered within the Region.

The Middle Woodland (400 B.C.-A.D. 500)

Information regarding the Middle Woodland period occupation of the Region is limited. While fairly detailed information exists for the Rice Lake area to the east, it is recognized that certain cultural developments there—including low-level social ranking as suggested by elaborate burial ceremonialism—were unusual. Generally throughout southern Ontario and environs, the Middle Woodland settlement-subsistence pattern seems to have involved bands of around 35 to 50 people following a seasonal round of resource procurement. Evidence also indicates a continuation of the long term trend toward the intensification of either seasonal macroband settlements or long-term base camps wherever harvests of key resources, such as spawning fish, shellfish, and wild rice, would support such congregations. These localities tended to be adjacent to major lakes and rivers (Ferris and Spence 1995: 97-102; Finlayson 1977; Johnston 1968; Spence et al. 1990; Warrick 1990:323; Wilson 1990; 1991).

With its origins lying in the Late Archaic and Early Woodland periods, the elaborate mortuary ceremonialism of the Middle Woodland—which included the development of large cemeteries and the use of prominent natural features and artificial mounds—is generally seen as a reflection of the emergence of an increasingly strong sense of social or community identity. The long-term use of formalized cemeteries, in some instances including monumental construction, along with a general increase in sedentism during the Middle Woodland likely point to some important changes in land use and control, brought about by increasingly sedentary subsistence-settlement patterns, within smaller, more well-defined band territories (Ferris and Spence 1995:98; Spence et al. 1984; Spence et al. 1990:165-168). Where documented, burial mounds are prominently situated along the shores of major lakes and rivers; they are located on high points of land or raised shoreline terraces that command extensive views of the surrounding landscape and waters. The degree to which these mounds may have been visible from afar is more difficult to ascertain, given that they were seldom very large features, and that sight-lines towards them often would have been limited by dense forest cover during all but the winter months. It is likely, however, that they were established in clearings, either natural or man-made, as all are associated with very large, warm-weather camp sites established in locales that were particularly rich in seasonal resources, where many people could come together to hunt, fish, collect plant foods, establish or reaffirm social ties between families, and bury the dead. Therefore, together with their contemporary domestic sites, they may have served as conspicuous landmarks.

Three broad archaeological complexes, largely defined on the basis of regional differences in ceramic vessel manufacture and decoration have been identified for the Middle Woodland period: the Couture complex in extreme south-western Ontario; the Saugeen complex from the southeast shore of Lake Huron easterly to the Niagara River and Escarpment; and the Point Peninsula complex in south-central and eastern Ontario

(Spence et al. 1990:143). These regional groupings are probably only poor reflections of the socio-political realities of the Middle Woodland period. In his consideration of the baseline population for Middle Woodland in south-central Ontario, Gary Warrick (1990:322-332) examined information concerning over seventy sites, based in large part on the territories of a number of interacting groups of hunter-gatherers in the Rice Lake region, and suggested that there were at least five or six regional bands in south-central Ontario contributing to a total population of two to three thousand people. A review of sites documented in the rest of southern Ontario suggests that there were as many as 25 to 30 regional bands, each occupying a significant portion of a major drainage system (Spence et al. 1990).

Exchange and communication patterns among neighbouring and distant local bands were likely primary factors influencing material culture production. It has been argued, for example, that the stylistic standardization within Middle Woodland ceramic vessel traditions resulted from the development of symbolic redundancy in exchange activity among both neighbouring and geographically separated communities (Braun 1986:123). Such uniformity was perhaps deliberately sought in an effort to reinforce membership in an expanding network of social relations. In this way, the most frequently expressed cultural markers may have symbolized the “salient affiliations” of a group, making it easier to identify membership since these cues were highly visible and redundant (Schortman 1989). They should, therefore, find lasting expression in the archaeological record. In this way, what we have traditionally recognized as Saugeen and Point Peninsula cultural complexes might actually have represented broad social networks to which local bands belonged.

Several Middle Woodland lithic scatters and isolated finds have been registered within the Region.

The Middle to Late Woodland Transition (A.D. 500-A.D. 900)

Beginning around 2000 years ago, the appearance of maize (a domesticated crop of tropical origin) and cord-wrapped-stick decorated pottery, together with developments in the settlement-subsistence system involving the use of both year-round base camps and short-term special purpose sites oriented to lacustrine, riverine, and wetland locations, marks the beginning of a cultural complex that exhibits continuity with the subsequent Early Iroquoian (Late Woodland) period. The most well understood series of sites occur in south-western Ontario in an area roughly bounded by Long Point, the western end of Lake Ontario, and the Niagara River (Crawford and Smith 1996; Fox 1990; Smith and Crawford 1995; 1997; Smith 1997; Stothers 1977). These sites, which have been collectively defined as comprising the Princess Point complex, are currently restricted to the period A.D. 400 to A.D. 1,000.

It has proven difficult to incorporate the Princess Point complex within the existing culture history taxonomy, since Princess Point—which exhibits Late Woodland cultural patterns—co-exists for several centuries with Middle Woodland cultural expressions to the west and east. It also may co-exist with later Early Iroquoian manifestations from around A.D. 900 to A.D. 1,000 (Smith 1997; Smith and Crawford 1997). While some authors (e.g., Spence and Pihl 1984; Ferris and Spence 1995; Smith 1997; Williamson and Robertson 1994) have assigned Princess Point to a new category termed “Transitional Woodland” in an attempt to overcome the constraints of the existing taxonomy, this assignment is thought by others to be taxonomically problematic (Smith 1997; Smith and Crawford 1997).

In eastern Ontario, a similar, but far less well-documented, archaeological construct for this period is the Sandbanks Tradition. Several sites at the eastern end of Lake Ontario and the north shore of the St. Lawrence River, which apparently date to the A.D. 800-1,000 period, have produced “Princess Point-like” ceramics (Daechsel and Wright 1988).

Princess Point sites provide the earliest evidence for the presence of maize in southern Ontario. On the basis of Accelerator Mass Spectrometry (AMS) radiocarbon dates on charred maize remains, Crawford and Smith have established that maize was present on several sites within the Grand River valley by the sixth century A.D. (Crawford et al. 1997). Similar sixth-century results from macrofossil samples have been found near Rice Lake (Jackson 1983). In New York State, a series of sites have yielded evidence for the presence of maize in the early seventh century (Hart et al. 2003). These latter findings are the result of an innovative study combining AMS dating of carbonized food remains on ceramic vessel sherds and microscopic phytolith analysis of those food remains. Further research using these techniques has demonstrated that maize was being cooked in central New York by around 2000 years ago, a full millennium before the earliest published direct date on macrobotanical remains in the state (Hart and Williamson 2004). Phytolith analysis has not been undertaken in Ontario in any great frequency. In one instance, however, it has resulted in the identification of another cultigen. In this instance, squash (*Curcubit pepo*), was found in two features radiocarbon dated to the Middle Woodland period at the HH site near the mouth of the Red Hill Creek at the western end of Lake Ontario (Buerhle cited in Woodley 1996:124). On the basis of macrofossil evidence alone, squash has generally been assumed to be a relatively late arrival to Ontario and comparatively unimportant prior to the thirteenth century (e.g., Chapdelaine 1993:194; Smith and Crawford 1997:26).

In spite of deficiencies in both the current taxonomy and the supporting archaeological data, it is the prevailing supposition that cultural continuity and a genetic relationship, exists between local Middle Woodland and Late Woodland (Early Iroquoian) populations in south-central Ontario, based on osteological (e.g., Molto 1983), demographic (e.g., Warrick 1990, 2008), and archaeological evidence (Crawford and Smith 1996; Smith

and Crawford 1995, 1997; Engelbrecht 1999; Ferris and Spence 1995; Fox 1990; 1995; Spence et al. 1990).

Of course continuity in some areas and discontinuity in others is a possibility, and it may be too early to rule out migration as *one* of the processes involved in the Middle to Late Woodland transition (Smith and Crawford 1997: 28). Nevertheless, there is not yet a coherent argument outlining how a small intrusive population managed to displace or absorb the thousands of—presumably Algonquian-speaking people—distributed in geographically disparate regional groupings across southern Ontario and western and central New York resulting in an “island” of Iroquoian speakers in the middle of a “sea” of Algonquian speakers. It is far more likely that a small number of Iroquoian-speakers introduced both maize and the language to resident Algonquian-speaking Great Lakes populations after which both the language and the subsistence technology gained wide-spread acceptance.

It should be noted, however, that there is likely to be little material culture evidence of this transition in the Great Lakes Region. It has become increasingly clear that Iroquoians and Algonquians alike participated in a tradition of ceramic vessel manufacture that enjoyed comparatively widespread currency throughout much of the Northeast (e.g., Brumbach 1975, 1995; Moreau et al. 1991:58; von Gernet 1992:122-123, 1993:77). Determining the relationships between *artifacts* and ethnic groups is further complicated by the overlapping territories and high degree of social mobility often ascribed to the various groups in this region, the apparent openness of social groups to new members through adoption, and the drastic population movements and realignments which appear in European accounts of seventeenth and eighteenth century life in the Great Lakes region (cf. Engelbrecht 1999).

Despite our limited knowledge of the period, the events of the Middle to Late Woodland transition are of great significance to the subsequent culture and history of the region. The adoption of maize must ultimately have had an important role in initiating the transition to food production and reducing the traditional reliance on naturally occurring resources. It appears that this process was much more gradual than previously thought. Likewise, it is probable that it was highly variable from one area to the next. In some areas this shift may have been accomplished simply through local populations adopting agricultural practices and associated customs or ritual. In other areas, it is equally possible that the arrival of new peoples were initially responsible for the changes apparent in the archaeological record. The Iroquoian language(s) may have spread into the lower Great Lakes area through either means—the process being facilitated by the fact that social and ethnic boundaries were flexible and permeable to the individuals and groups who were active agents in their creation in the first place.

In any case, the incipient agriculture of these communities likely led to decreased mobility. At least some members of the community likely remained for longer periods of

time to tend their crops. However, it may be easy to over-estimate the role of maize in this process. It also seems that increased sedentism necessitated by population concentration into regional site clusters was already occurring in many areas of the Northeast prior to the widespread adoption of maize (cf. Brashler et al. 2000; Ceci 1990; Ferris 1999; Hart 2001; Hart et al. 2003; Wymer 1993). Either way, sites were more intensively occupied and subject to a greater degree of internal spatial organization and, increasingly, were located on terraces overlooking the floodplains of large rivers. In southern Ontario, this pattern is most clearly seen in the Grand River valley and at later Princess Point sites such as Porteus (Noble and Kenyon 1972; Stothers 1977) and Holmedale (Pihl et al. 2008).

Only a few campsites dating to the Middle to Late Woodland transition period have been documented within York Region. The events of the period are potentially significant; however, to the settlement history of the area given the significant number of Early Iroquoian sites recorded within the Region and directly south in the City of Toronto.

The Late Woodland (A.D. 900-A.D. 1650)

Changes in the settlement-subsistence regime of southern Ontario's Aboriginal peoples continued throughout the balance of the Late Woodland period. The Late Woodland is subdivided into the Early (A.D. 900-A.D. 1300), Middle (A.D. 1300-A.D. 1400), and Late Iroquoian (A.D. 1400-A.D. 1650) periods.⁴

Most previous research into the Late Woodland in southern Ontario has been framed in a model of Iroquoian cultural development whose origins lie with the in situ model first advanced by Richard MacNeish (1952), but which has been challenged by the revived migrationist school of thought, as discussed in Section 3.4.4. In 1952, MacNeish published a study of ceramics that demonstrated continuity between known seventeenth century Iroquoian groups and more remote pre-contact cultures, thereby establishing an in situ developmental sequence. The proposed length of this largely unbroken cultural sequence was the subject of some debate with researchers proposing variously that the Iroquoian-speakers of the contact period were the descendants of the Early- to Middle Woodland groups, if not their Late Archaic or even Middle Archaic forebears.

⁴ The basic chronology for the Late Woodland presented herein is largely consistent with that utilized by most researchers (cf. Ellis and Ferris [ed.s] 1990), even if they utilize different names for specific sub-periods (e.g., Ferris 1999). Smith (1997), however, would place the beginning of the Early Iroquoian period circa A.D. 1000, but given the gradual nature of the transitions occurring at that time, this is not a serious discrepancy. Finlayson (1998:Volume 1:371-375) has recently proposed substantial revisions to the chronology of the Middle and Late Iroquoian periods, however, his suggestions are based only on site sequences in the Crawford Lake region and run counter to that established for all other areas of the province and are unlikely to be accepted (e.g., Warrick 2000:421).

The basic tenets of the in situ theory became truly formalized when J.V. Wright (1966) established a generalized framework of pre-contact Iroquoian history that remains in use as a taxonomic tool to the present day (Smith 1990:284-285). In his outline of the "Ontario Iroquois Tradition," Wright proposed three stages of development, the first of which, the "Early Ontario Iroquois" stage, consisted of a western branch (Glen Meyer) and an eastern branch (Pickering), both thought to be evolving in relative isolation from one another. The Niagara Escarpment was seen to represent the "frontier" between these two branches.

The second of Wright's stages, the "Middle Ontario Iroquois," was thought to represent the fusion of these two branches, and the subsequent appearance of a uniform Iroquoian cultural pattern throughout southern Ontario. This fusion of Pickering and Glen Meyer was thought to be the result of a military conquest of the Glen Meyer on the part of the Pickering. Wright defined two substages within the Middle Ontario Iroquois stage: the Uren substage of the early fourteenth century, which was portrayed as the onset of a rapid and widespread process of homogenization in settlement patterns, subsistence, and material culture (by and large a Pickering ascendancy) and the Middleport substage of the second half of the century, which was said to represent the culmination and consolidation of these sudden changes.

Wright's final stage, the "Late Ontario Iroquois," was thought to be a divergence from the middle stage culminating in the historical tribal groupings of the Huron, Petun, Neutral, and Erie. The Huron-Petun branch was further subdivided into Southern and Northern divisions. Both divisions were conceived as having evolved along basically parallel trajectories, a result of their having emerged from a common Middle Iroquoian base and having maintained some degree of continued contact. Beginning in the mid-sixteenth century, the gradual movement of the Southern division groups away from the shore of Lake Ontario resulted in the "fusion" of the two divisions in Simcoe County between Barrie and Midland shortly before European contact (Wright 1966:68-83; cf. Popham and Emerson 1952; Emerson 1959, 1961).

Two other Iroquoian co-traditions were similarly defined: the Mohawk-Onondaga-Oneida Tradition and the Seneca-Cayuga-Susquehannock Tradition. Wright acknowledged that the three postulated traditions were, in effect, rather simplistic taxonomic tools, but he argued that simplicity was necessary to understand the archaeological record (Wright 1966:3). Archaeologists now recognize, however, that complex cultural developments cannot adequately be investigated using superficial models. Indeed, the imposition of one-dimensional taxonomic divisions such as "branches" on pre-contact societies masks regional variation and discourages the investigation of dynamic, multi-dimensional lines of socio-political integration (MacDonald 2002).

Wright's Early Iroquoian conquest hypothesis was only cautiously received, or rejected outright, by many archaeologists in the years following its proposal (e.g., White 1971; Noble 1969, 1975; Trigger 1976, 1985; Fox 1976; M. Wright 1986; Cooper 1983; Pearce 1984; Warrick 1984; Williamson 1985, 1986). More recently, the conquest hypothesis has been largely abandoned by researchers in light of the vastly extensive data that have come to light for the Early and Middle Iroquoian periods (e.g., Williamson 1990:311-312; Williamson and Robertson 1994; Spence 1994; Ferris and Spence 1995:110; Timmins 1997; Ferris 1999; Warrick 2000).

Likewise, Wright's characterization of a Middle Iroquoian cultural pattern being homogeneous from one region to the next is coming under question as well. The Middle Iroquoian period was originally developed on the basis of a sudden and widespread homogenization of Iroquoian material culture and subsistence-settlement patterns. Within Wright's scheme, the Uren substage of the early fourteenth century was portrayed as the beginning of a widespread process of homogenization in settlement patterns, subsistence, and material culture, by and large, a "Pickering ascendancy". The Middleport substage of the second half of the century was, said to represent the culmination and consolidation of these sudden changes and the onset of a rapid expansion of Iroquoians communities across many previously unsettled parts of southern Ontario. Additional research has shown, however, that the fourteenth century was a period of considerable cultural diversity. It has become evident, that individual communities underwent a series of transitions in different ways and at different times, depending on where they lived and on the structure of the social and economic networks in which they were involved (Robertson and Williamson 2002).

The limitations of Wright's original constructs are clearly reflected in the increasing difficulty with which archaeological data are accommodated by his paradigm. Middle and Late Woodland sites in south-central Ontario have cultural assemblages that share attributes with complexes in south-western and south-eastern Ontario. The classification of certain Early Iroquoian communities as either Pickering or Glen Meyer is proving as difficult as classifying some Late Iroquoian sites as either pre-contact Huron or pre-contact Neutral (Williamson and Robertson 1994; Ferris and Spence 1995; Ferris 1999:12-14; Warrick 2000). Similarly, the precise degree of Middle Iroquoian homogeneity remains to be defined. Moreover, the appearance of larger and more numerous Middle Iroquoian sites in many areas were merely the precursors of the population amalgamations that resulted in the emergence of much larger tribal systems during the mid-fifteenth century. This is not to say that the consolidation of autonomous Early Iroquoian communities during the thirteenth and fourteenth centuries did not represent significant socio-political events, perhaps even the development of incipient tribal systems, but this was but one step in an 800-year-long transition to agricultural village life. The continued use of the Uren and Middleport substages as taxonomic referents, and even of the more general concept of a Middle Iroquoian period, tends to obscure the long-term continuity of this process, and to hinder examination of the

complexity and variability seen across southern Ontario.

A break from Wright's paradigm of Iroquoian pre-contact history is slowly being made. In most cases now, the continued use of his taxonomy serves as a convenient tool to simplify communication rather than as a paradigm to guide research (Smith 1990:287-288). If no rigid taxonomy is imposed *a priori*, many of the problems discussed above, which are inherent in the model, disappear. Equally vexing for all periods, however, is the problem of archaeologically differentiating between Iroquoian and certain Algonquian groups who shared a similar lifestyle and material culture.

Early Iroquoian (A.D. 900-1300)

Within south-central Ontario, virtually all the documented Early Iroquoian sites are distributed along the north shore of Lake Ontario on the glacial Lake Iroquois Plain or around Rice Lake (Williamson 1990). These sites occur as geographically discrete, regional clusters of larger settlements and smaller camps and special purpose sites. Given this distribution pattern, some groups may have associated with their neighbours more frequently than did others and each were adapting to a slightly different environment. The level of interaction between communities would have been primarily a function of distance mediated by accessibility and economics. Inter-group communication was likely greatest among neighbouring groups, particularly among those that shared major navigable waterways. Indeed, Timmins (1997:228) has noted that some regional clusters of Early Iroquoian sites may have involved not a single site sequence, but two or more contemporary communities that may have shared a hunting territory or some other common resource base. In this way, a number of self-governing, autonomous polities may have participated in a large social network with more meaningful social links established between neighbouring communities than with distant groups. Such networks may have involved spousal exchanges, war alliances, and trading relationships, and may even have served to "predispose people for the eventual decision to amalgamate into larger villages", once the region-wide intensification of food production had occurred (Timmins 1997:228). Sequences of ceramic development are consistent with this pattern in that they were quite variable from one region to another, as was the use of specific decorative motifs or techniques (Williamson 1985:289-290). This may be attributable to the fact that spouses were obtained from other communities within a regional cluster (Timmins 1997:228).

The evolution of this period should be viewed as multi-linear, with each region experiencing unique cultural adaptations and arriving at different stages of economic, social, and political development at slightly different times (Williamson 1990). While apparently there were a large number of regional ceramic micro-traditions, there was also considerable developmental uniformity in material culture and settlement-subsistence patterns at the macro-regional level. It is at the level of interaction - between these regional clusters of villages - that the processes which ultimately led to

the emergence of larger tribal groupings operated, and it is there that the most informative investigations will occur (Renfrew 1986:7; Williamson and Robertson 1994).

Beyond certain core areas of early agriculture, such as the Grand River valley, serious reliance on corn horticulture seems to have begun during the Early Iroquoian period. As Trigger (1985:77) has argued, the introduction of corn as early as the sixth century (Crawford and Smith 1996; Smith and Crawford 1997) offered yet another, relatively reliable, resource to the late Middle Woodland repertoire. Such a resource would have been particularly favoured given the apparent trend towards increased macrobanding and quest for ways to prolong the much-valued sociocultural interaction that occurred during these seasonal congregations. During the Early Iroquoian period, increasing reliance on corn eliminated the need for seasonal macroband dispersal, thereby initiating the development of semi-sedentary settlement (Trigger 1978:59-61; 1985:87; Warrick 2000:432-433; Williamson 1990).

The traditional hunter-gatherer ethos prevailed during the Early Iroquoian period and the settlement-subsistence patterns suggest no fundamental change from earlier times. Economic security was sought through a diverse natural resource base now supplemented by corn horticulture (Williamson 1990:312-313). Investigation of one regional population's settlement-subsistence practices through time has demonstrated the importance of special-purpose resource extraction camps to the support of a central village. This work has also demonstrated that central villages were initially not occupied by the entire population year round, thereby highlighting how Early Iroquoian settlement was transitional between Middle Woodland and Middle Iroquoian modes. Peter Timmins (1997) has documented how one such village, the Calvert site, developed from seasonal hunting camp into a village between circa A.D. 1150 and A.D. 1250. While no detailed studies such as these have been undertaken in south-central Ontario, similar trends can be expected in this region (e.g., Kapches 1987). As supported by Mima Kapches' (1981b, 1987) work at the Auda site (AlGo-29) in the Port Hope area, for example, these settlements were likely occupied by the descendants of various indigenous Middle Woodland populations (Trigger 1985:86). Some sites in this area, however, may have been occupied by the descendants of immigrants from the Grand River valley (Warrick 2000:438) or perhaps from New York State (MacDonald and Williamson 1995).

Bruce Trigger (1976:134) has suggested that the estimated population of most of the early sedentary villages (200 to 400) falls comfortably within the size range of Middle Woodland spring and summer fishing groups, and that the small villages of the Early Iroquoian period may have been continuations of these early macrobands. Their small size also suggests that separate bands had not yet begun to join together to form larger communities and that leadership would have remained informal, perhaps being limited to an individual who also acted as a spokesperson in dealings with neighbouring groups (Trigger 1981:24). Early sedentary villages, therefore, may have been characterized by

a flexible and evolving socio-political structure, whereby people were free to pursue seasonal subsistence activities in either extended or nuclear family units. Some members of these groups may have elected to remain at fall hunting sites into the winter, depending on the severity of the weather and the availability of resources.

The sandy soils of the Iroquois Plain in the undeveloped lands in the Pickering area in Durham Region are similar to what would have been present within the City of Toronto and southern York Region. The Plain extends a considerable distance inland from the shore of Lake Ontario in Durham and contains a significant cluster of Early Iroquoian settlements, which have survived by virtue of the fact that the Iroquois Plain extends north of the previously urbanized lands along the lake front. Of these, the Delancey (AIGs-101), Bolitho (AIGs-102) and Ginger (AIGs-104) sites were subject to limited test *excavations* in the late 1970s and early 1980s (Spittal 1978; Ambrose 1981). An exposed, disturbed burial at Ginger was subsequently excavated in the late 1990s and *reinterred* at the site (DRPA 1998). The McLachlin site (AIGs-199) was documented as a diffuse surface scatter of material distributed over approximately 0.5 hectare area of tableland. It has been interpreted as a short-term village or seasonally occupied hamlet (DRPA 1998:35). It is located approximately 150 metres to the southwest of the Miller site (AIGs-1), which is the only Early Iroquoian component that has been investigated on a large scale. Miller is located in an area of level terrain on the west side of a deep, steep-sided ravine cut by Ganatsekaigon Creek. The site was investigated extensively under the direction of Dr. Walter Kenyon of the Royal Ontario Museum, from 1958 to 1961 after it had been discovered while the Miller Paving Company was exploring the area for sand and gravel concentrations (Kenyon 1968).

Kenyon's *excavations* at the site resulted in the documentation of a settlement consisting of at least six small longhouses set within a palisaded compound of approximately 0.5 hectare. The Miller site *excavations* also resulted in the discovery of seven graves, containing a total of 32 individuals. The ceramics recovered from the site date the occupation to between A.D. 1100 and A.D. 1215. An exterior activity area apparently located beyond the west limits of primary settlement compound was recently subject to salvage *excavation* (ASI 2004).

As is typical of many long-term Early Iroquoian settlements, there is considerable evidence at Miller for house rebuilding and extensive traces of exterior activity entailing the construction of slight shelters, windbreaks, or simply poorly defined houses. Until recently, the vast number of posts forming overlapping lines, amorphous clusters, or simply broad areas of isolated posts that exhibit little patterning of any sort, found at Miller and other Early Iroquoian settlements have been interpreted as reflecting an absence of community planning, lack of formal village government, low population densities and short-term but frequently repeated occupations during the cold-weather months (e.g., Noble 1968; Trigger 1981; Williamson 1990). More recently, however, highly detailed analysis of the Early Iroquoian Calvert site (Timmins 1997) has clearly

demonstrated that the apparent randomness and lack of order on such sites is largely a consequence of the use of these sites over the course of many years, during which period each occupation was much more orderly than previously assumed.

One additional large and partially investigated Early Iroquoian village has been documented within Durham Region. The eleventh century A.D. Boys site (AIGs-10) is located on Duffins Creek in the Greenwood Conservation Area and was initially investigated by Frank Ridley and members of the Ontario Archaeological Society (Ridley 1958). This work involved *excavation* of a trench through a midden. The OAS carried out further investigations at the site in the early 1970s. Additional work was carried out at the same time by Paddy Reid. Cumulatively, the *excavations* documented portions of two longhouses, a single row palisade on the north side of the site and several middens along the steep ravine slopes that defined the south and east limits of the settlement area (Reid 1975). It is likely that other houses are present within those portions of the compound that were not investigated.

Middle Iroquoian (A.D. 1300-1400)

Toward the end of the thirteenth century, significant changes had begun to take place in Late Woodland culture. While there is no evidence to suggest discontinuities among regional populations from Early to Middle Iroquoian times, there are notable changes in both community and regional settlement patterns (Dodd et al 1990; Kapches 1981a). In most cases, it appears that individual Early Iroquoian communities may have amalgamated during the early fourteenth century, precipitating changes in the economic, social and political spheres.

Community patterns are characterized by groupings of aligned longhouses and less evidence of house rebuilding. There is also a nearly two-fold increase in mean village size and longhouse length. Both overall population increases and community fusion have been suggested to explain these trends (Dodd et al. 1990; Pearce 1984:379-384). It has been argued that Middle Iroquoian population growth occurred at rates that have rarely been equalled among early agricultural societies (Warrick 1990:353, 2000:444). These changes in the community pattern infrastructure imply a more elaborate socio-political organization in order to cope with the logistics of managing a resident population which increasingly exceeded the capabilities of band-level social institutions (Trigger 1985:93; Warrick 1990:348; 2000:439-441; Williamson and Robertson 1994). Complex political means of regulating village affairs and for linking separate villages developed, as exemplified by the appearance on sites (in variable frequencies within and between regional settlement clusters) of palisades around settlements, *ossuary*

burial features⁵, semi-subterranean sweat lodges⁶, and, as noted above, increasingly orderly settlement layouts. Widespread similarities in pottery and smoking pipe styles also point to increasing levels of intercommunity communication and integration. Substantial variability in longhouse and settlement size, on the other hand, involving both expansion and contraction, as well as overall settlement configuration, suggests significant movements of people, as groups struggled to adapt to the evolving ecological and social milieux (MacDonald 2002:348). As is the case for earlier (and later) periods, the evolution of Middle Iroquoian period must be understood as multilinear, with each region experiencing unique cultural adaptations and arriving at different stages of economic, social, and political development at slightly different times (Robertson and Williamson 2002).

The Middle Iroquoian period also marks the point in Iroquoian cultural evolution at which a fully developed agricultural system, based on corn, bean and squash husbandry, crystallized. Maize was the pre-eminent dietary staple, although hunting, fishing and the collection of wild plant foods remained important tasks at particular times of the year. This required the establishment of a variety of special purpose sites at varying distances from the main settlements. In fact, it may have been during the late thirteenth century, at least in some localities that maize consumption peaked. Detailed isotope analysis of human remains from the circa A.D. 1300 Moatfield *ossuary*, located on a tributary of the Don River approximately five kilometres north of Lake Ontario in the City of Toronto, indicates that for a brief period, maize comprised 70% of the diet. Such a reliance on a single foodstuff was likely neither sustainable in terms of production effort nor desirable in terms of health or risk buffering. Intensified cultivation may have been a necessary, temporary, response to increased population concentration within a newly amalgamated settlement (van der Merwe et al. 2003; Pfeiffer and Williamson 2003). Such levels of

5 Ossuary burial is a mode of corporate burial in which the remains of numerous individuals, who were formerly interred within a village were disinterred and re-deposited into one or two mass graves. Presumably, this act took place upon abandonment of the village in favour of a new site. Ossuaries range in size from those that contain the disarticulated and/or bundled remains of approximately ten individuals, to those that contain the remains of 500 people or more. The tradition of ossuary burial began in the Early Iroquoian period as a family-oriented rite. By early Middle Iroquoian times, ossuaries had become larger community-wide features, and by the end of the Middle Iroquoian period their creation likely involved the participation of members of different allied villages in a joint burial ceremony.

6 Communal sweat lodges likely used for ritual, curative, or socio-political purposes (Smith 1976; MacDonald 1988; 1992), although uses for other purposes requiring solitude or segregation cannot be ruled out. Semi-subterranean sweat lodges are apparently a thirteenth to mid-fifteenth century A.D. phenomenon in Ontario. The frequency with which these structures occur within longhouses on Ontario Iroquoian settlements after circa A.D. 1200 suggests that their role may have been a fundamental aspect of daily life in an Iroquoian household, especially if their use related to a curing society that functioned as a socially unifying institution within the emergent tribal systems of the Middle and early Late Iroquoian periods (MacDonald and Williamson 2001; Robertson and Williamson 1998:147).

maize consumption represent the highest levels recorded for Ontario populations, although it appears to have been related to a single generation of individuals at Moatfield. Analysis of remains from later fourteenth and fifteenth century sites suggest that at its peak, maize typically comprised approximately half of the diet of Iroquoians (Schwarcz et al. 1985; Katzenberg et al. 1995).

A notable change in regional settlement patterns is a later thirteenth-early fourteenth century northward (or upstream) expansion onto the South Slopes Till Plain from the glacial Lake Iroquois Plain. This period was also marked by the first expansion of Iroquoian settlements into the uplands, west of Lake Simcoe (Sutton 1996, 1999). By the end of the fourteenth century, there is evidence to suggest that a population explosion may have taken place (Warrick 1990:353). Regional populations continued to occupy the South Slopes Till Plain; however, the “colonization” of southern Simcoe County was intensified, as agricultural communities continued to migrate into the region (Warrick 1990:360; Sutton 1996, 1999). In all likelihood, the homelands of these communities lay along the watersheds draining into Lake Ontario. A similar expansion into the Trent Valley (Warrick 1990; Sutton 1990, 1996) also began at this time. The establishment of villages in these areas likely entailed a lengthy period of negotiation and interaction between the Iroquoians of the South Slope and the Algonquian-speaking groups that utilized the Georgian Bay littoral and the Trent valley. It is possible that such interaction involved protracted visits of Algonquian parties to the villages south of the Oak Ridges Moraine.

Interaction between these groups likely had begun at least by the Early Iroquoian period, based on the presence of a few sites within the shield region that have yielded Early Iroquoian-like ceramics (Trigger 1976:170-171; Warrick 1990:350-352; Sutton 1996, 1999). Some of these sites may represent actual forays into the area and the establishment of temporary fishing camps along the coast of Georgian Bay, such as at Methodist Point (Smith 1979). Given that similar ceramics are found as far north as Lake Nipissing (Ridley 1954; Wright 1966:41) it seems likely that their presence was the result of more intricate socio-political relations between the groups; interaction that also facilitated or was expressed through a sharing of ceramic traditions. Undoubtedly exchange was part of this process, as indicated by the presence of a small quantity of Fossil Hill Formation chert (the sources of which lie in the Collingwood and Beaver Valley areas) and other exotic lithic types, in the debitage recovered from the Early Iroquoian Bolitho site (Ambrose 1981:59; Fox and Garrad 2004) in Durham Region.

Again many *archaeological sites* of this period were destroyed by nineteenth- and twentieth-century urban development in York Region. Still, the richness of the archaeological record of this period far surpasses that of previous times, with more surviving sites allowing for a better understanding of agricultural village lifeways. Moreover, new villages are discovered and excavated regularly. The Alexandra site, to take just one case in point, is a fourteenth-century ancestral Huron village discovered in

the summer of 2000, during a routine pre-development *archaeological assessment* along Highland Creek in north-eastern Toronto. The site was over two hectares in size and was completely excavated in 2000 and 2001, yielding evidence of 17 longhouse structures, more than 600 subsurface cultural features and approximately 19,000 *artifacts*. Other similar villages or settlements have been discovered in Vaughan and Richmond Hill in the last five years.

Late Iroquoian (A.D. 1440-1600)

Peter Ramsden was one of the first researchers to attempt to comprehensively redress the short-comings of Wright's overly generalized model for the Late Iroquoian period (Ramsden 1977; 1990a). His was an effort to identify the complex and dynamic interplay of socio-political interaction (e.g., alliance, conflict, population movement, etc.), primarily occurring at the local level, which led to the formation of the large polities concentrated in Huronia during the seventeenth century. Ramsden (1990a) has defined three major chronological periods within the overall development of the Huron, distinguished on the basis of changes in material culture and socio-political structure. The first of these periods, the "Black Creek-Lalonde period" (circa 1400-1500) is one of marked regional differences between groups, reflecting the existence of distinct "local or 'tribal' groups" in the Toronto, Kawartha Lakes, Kingston, and Simcoe regions (Ramsden 1990a:381). Ramsden described the following "Realignment period" (circa 1500-1600) as a time of considerable change brought about by the "re-structuring of traditional tribal groupings, population migrations, and the coalescence of small villages into large cosmopolitan ones" (1990a:382). Much of this upheaval was originally attributed to competition, between the populations of central and eastern Ontario, for access to exchange networks through which European trade goods were beginning to flow (Ramsden 1977:291-293; 1978). More recently, however, Ramsden has become less inclined to believe that competition for European material could have been the only, or indeed, even the primary cause for these developments (Ramsden 1990a:382; 1990b:91-92). based on the re-identification of "trade" metal from many sixteenth century sites as being of native rather than European origin, and on the recognition that European items do not appear on sites in southern Ontario prior to the 1580s (e.g., (Finlayson 1985:437; Fitzgerald 1990:103-107; Fox et al. 1995:282; Hancock et al. 1991), however this has recently been shown to be incorrect by the appearance of trade items at the early-16th century Mantle site in York Region. The end of the Realignment period, and the succeeding "French period" (circa 1600-1650), witnessed the final shift of populations into Huronia, as well as stabilization and consolidation of communities into the socio-political groups subsequently encountered by the European explorers and missionaries (Ramsden 1990a:282-283).

It is not clear, however, that the marked regional differences between groups apparent in the archaeological record of the fourteenth or early fifteenth century can be explained in the context of "tribal" groups or "nations", as they are understood from the historic

record. Nor is it clear that realignment of pre-contact period communities occurred only in the sixteenth century. Prior to the mid-fifteenth century, the autonomous, multi-lineage village likely represented the maximal political unit, although many neighbouring villages may have participated in loosely-formed social and political networks. It is at the level of such networks, between regional clusters of villages, that the processes which ultimately led to the emergence of larger tribal or national groupings probably operated (Renfrew 1986:7). Thus, it would appear that the consolidation of many smaller, autonomous multi-lineage communities in the early to mid-fifteenth century does mark the initial stages in the emergence of fully formed tribal social systems (cf. Service 1971). These were among the first systems to be integrated by cross-cutting pan-residential institutions and to be involved in long distance, large scale politics, warfare and exchange (Niemczycki 1984:80-84; Timmins 1997:227-229; Williamson and Robertson 1994:34). Since clan membership cut across related communities, this aspect of kinship was an important source of tribal integration (Ramsden 1990a; Jamieson 1990; Lennox and Fitzgerald 1990).

This consolidation of larger tribal or national groupings is most evident in the archaeological record of south-central Ontario beginning in the mid-fifteenth century with the appearance of very large, well-planned and heavily fortified villages (in excess of three hectares in size). These villages represent not only population growth, but the amalgamation of two or more neighbouring villages that may have previously participated in a more loosely-formed trade or military alliance. To a certain degree, the consolidation of military alliances at this time may be both a cause and a consequence of an overall increase in hostilities that appear to have arisen between different communities. While it has traditionally been assumed that the endemic conflict that characterized Late Iroquoian society was played out over long distances, such as between the geographically disparate Huron and St. Lawrence Iroquoians, or the Neutral and the Algonquian-speaking Fire Nation (e.g., Warrick 1984:63; Pendergast 1993:25-26), in some regions, feuding was taking place between neighbouring communities or tribal systems (Dupras and Pratte 1998; Robertson and Williamson 1998). However, given the likelihood that both alliance formation and conflict between individual communities was highly dynamic, it may be expected that both occurred at a broad range of scales.

It appears that by the middle of the fifteenth century the Iroquoian population expansion in south-central Ontario was waning and had stabilized by the third quarter of the century (Warrick 1990:362; 2000:446). Significant expansion continued into the uplands west of Lake Simcoe and to a lesser extent into the Trent Valley. Not surprisingly, there is evidence of increasing trade with northern Algonquians at this time. Substantial variability in community and longhouse size, including evidence that both houses and settlements were being expanded and contracted to accommodate significant movements of people (e.g., Finlayson 1985), suggest that a considerable amount of "settling in" was underway as groups continued to adapt to changing ecological and

social circumstances. As community territories became more densely packed, one might expect that competition for certain resources would become increasingly confrontational. Yet Trigger (1985:98) has pointed out that documented site densities do not appear to be such that competition over arable land would have been a likely source of contention. Moreover, continued clearance and regeneration of lands through swidden agriculture would have increased habitat for deer and other game species, thereby likely offsetting the effects of increased predation by Iroquoian hunters (but see Gramly 1977). Moreover, it is likely that settlement redistributions were designed to maintain local population densities at supportable levels (MacDonald 2002:21). Continued migration north and north-eastwards throughout the fifteenth century likely played an important role in maintaining the viability of those communities that remained on the South Slope.

Around the beginning of the sixteenth century, expansion into the uplands of Simcoe County and the Trent Valley levelled off, settlement on the South Slopes Till Plain was reduced, and colonization of the Nottawasaga Highlands began. There is evidence to suggest that the colonists of the Trent Valley were interacting with and eventually assimilated groups of St. Lawrence Iroquoians (Jamieson 1990:403; Nasmith Ramsden 1989:64; P. Ramsden 1990a:383; Warrick 1990:376-378; 2000: 454-457). Evidence of settlement fission and fusion continued (e.g. Damkjar 1990; Finlayson 1985; Nasmith Ramsden 1989). By the end of the sixteenth century, the northward migration that had begun in the thirteenth century approached its final stage, as groups coalesced to form the Huron tribal confederacy in the northern uplands of Simcoe County and the Tionnontaté or Petun nation in the Nottawasaga Highlands. The South Slopes Till Plain and Trent Valley were virtually abandoned at this time.

A number of Late Iroquoian period sites have been documented within the Region and surrounding area. Archaeologists have been able to reconstruct century long settlement sequences for one or perhaps two ancestral Huron communities in the Humber valley between A.D. 1400 and 1600: one in the middle Humber–Black Creek drainage area and the other at the headwaters of the Humber.

The best-known site of the middle Humber sequence is the Parsons site, a large, late-fifteenth-century ancestral Huron village near the campus of York University in the City of Toronto, and a subject of both avocational and professional investigations. In the late 1980s, archaeologists carrying out pre-development *excavations* at the site found parts of ten house structures, several large refuse heaps known as middens and an extensive palisade. Since Parsons is almost twice the size of earlier villages, there may have been two or more earlier sites that amalgamated to form this larger settlement, perhaps in response to growing conflict. We know there was conflict of some form because of the elaborate defensive systems and scattered human bone on Parsons and on a number of other nearby sites. The early-fifteenth-century Black Creek site, situated on a low terrace of the Black Creek floodplain, is thought to have been one of the immediate

predecessor sites to the Parsons community. Professor Norman Emerson of the University of Toronto carried out limited *excavations* at the site in 1948, and found evidence of a palisaded community, perhaps two hectares in size. An unusual double palisade was discovered along the west side of the site, beside the creek. One row was placed at the base of the terrace, while the other was embedded halfway up the slope. Excavators observed a similar pattern at the Parsons site, with one row at the top of slope and the other halfway down, suggesting that the same architectural team designed the palisades of both sites.

The fourteenth-century predecessor villages for this community sequence were likely located along the lower Humber close to Lake Ontario. These sites, along with sites on the lower reaches of other rivers in the Toronto area, were destroyed by land development before they could be documented by archaeologists.

There was a similar but much later blending of local villages in the upper reaches of the Humber Valley. Scholars do not know whether the two sequences were related. The Boyd site (AkGv-3), situated on the East Humber River near Woodbridge, extends over an area of one hectare. It may have been occupied at the same time as the McKenzie-Woodbridge site (AkGv-2), a larger, two-hectare village about three kilometres downstream from Boyd. Professor Emerson excavated portions of 17 longhouses and a palisade at McKenzie-Woodbridge. Later *excavations* during the 1970s and 1980s revealed additional structures. Aboriginal people occupied both communities during the mid- to late sixteenth century, when European goods became available to them, as to other Aboriginal people in southern Ontario, through trade. The Latree village (AkGv-139) is located less than a kilometre northwest of Boyd on the west side of the East Humber River.

The Seed-Barker site (AkHv-1), with an area of about two hectares, is situated on a plateau overlooking the East Humber River. The presence of trade goods dates it to the sixteenth century. Archaeologists uncovered a multiple-row palisade and parts of fourteen longhouses. One of the longhouses contained an architectural feature characteristic of contact-period Neutral longhouses even though the site was more likely occupied by ancestral Huron. At the time of European exploration, the Neutral were located around the west end of Lake Ontario and in the Niagara Peninsula, although their influence is evident at a number of other regional sites, including this one. The discovery of planks related to longhouse benches at Seed-Barker suggests that a Neutral house builder was there, away from his homeland.

The Skandatut site (AlGv-193) is a three-to-four-hectare ancestral Huron village, situated on a steep-sided promontory overlooking the east branch of the Humber River, approximately one kilometre north of Seed-Barker. The *artifacts* recovered from a surface collection include over twenty-five ground stone axes and close to a dozen chert arrow points (one of them manufactured from Knife River flint from South Dakota), glass

trade beads and copper scrap. The site probably dates to 1580–1600, and represents the latest occupation in the upper Humber River sequence. The site is also located close to the Kleinburg *Ossuary*, which dates to the same period. The *ossuary* was excavated in 1970 — it was a deep pit, 4.2 metres in diameter and 1 metre deep, and it contained the remains of 561 individuals who had died, probably during the occupation of Skandatut village. At the time the *ossuary* was formed, the remains of people who had been buried previously within or next to the village were disinterred and moved to the pit and mixed together to create a community of the dead. The grave goods buried with the deposit include similar-aged *artifacts*; some of these are bone and ceramic objects, early-style iron trade axes, an iron kettle, shell beads, native copper beads and large glass trade beads. The Huron-Wendat council in Wendake, Quebec, is currently engaged in efforts to ensure that the site and associated *ossuary* are permanently protected and commemorated.

Also, on the east branch of the Humber River, just north of Skandatut is the earlier Damiani site (AIGv-231). Damiani is a large, plough-disturbed, ancestral Huron-Wendat village that covers an area of approximately 1.5 hectares. The site dates to the second half of the fifteenth century and yielded evidence of 21 longhouses. And the remnants of a multiple-row palisade extending across part of the site.

A number of villages have been identified along the east and west branches of the Don River in the City of Vaughan. The Keffer site (AkGv-14), an early to mid-sixteenth century ancestral Huron village, was situated along the West Don. At its maximum size, it is estimated that Keffer supported a population of 800-1000 people (Finlayson et al. 1985). The Keffer *ossuary* is located approximately 150-200 metres south of the village site. The Jarrett-Lahmer site (AIGv-18) sits on a high, narrow promontory at the confluence of two tributaries of the West Don River, approximately four kilometres northwest of Keffer. The site covers an area of approximately one hectare and was enclosed by a multiple-row palisade. No detailed settlement pattern data are available for the site, which likely dates to the mid- to late fifteenth century, based on the ceramic assemblage. Further north is the ShurGain site (AIGv-39), situated at the confluence of the Don River and a tributary. According to the OASD information sheet, this palisaded site covered approximately one acre and was not rich in *artifacts*.

The Teston site and *ossuary* (AIGv-2) comprises a 2-3 hectare village that occupies flat high tableland on the west bank of the West Don River. It was first observed and recorded by A.J. Clark in 1925 at the northeast corner of Teston Road and Jane Street. The recovery of a small *artifact* sample from the site in the late 1980s led MPPA (1988: Volume 3 Part B: 111-119) to suggest that the site was occupied between circa 1450 and 1500 by ancestral Hurons. Northeast of Teston is the Hope site (AIGv-199). The plough-disturbed site was encountered as two scatters of *artifacts* occupying the summits and upper flanks of two broad ridges separated from one another by the seasonal tributary of the Don River. *Excavations* at the site resulted in the discovery of

six longhouses in the north locus and seven longhouses and a curvilinear fence line in the south locus.

The Baker site (AkGu-15) is located in the East Don watershed and was originally registered in 1972 by Arthur Roberts of York University. The site is an early fifteenth century A.D. Iroquoian settlement that encompassed an area of approximately one hectare located on a southwest facing slope overlooking a series of minor creeks. The unpalisaded settlement contained four longhouses together with their associated interior and exterior features as well as three middens. The site is likely related to one of the other broadly contemporary settlements that are also located along the East Don River. These include Walkington 2 (AlGu-341), Senang (AlGu-314), Mill Road (AlGu-77), and McNair (AlGu-8). Baker may also be connected to the small Somme site (AlGu-239), which likely served as a base for warm-weather activities on the part of a small party or task group originating from one of these larger sites. Despite the variability in the sizes of the four houses at Baker, all appear to have been intensively occupied. This occupation appears to have occurred shortly before the community amalgamations that led to the rise of large, heavily defended villages on the South Slope of the Oak Ridges Moraine in the mid- to late fifteenth century. The nearby Walkington 2 site, where a single grouping of three aligned house structures was documented, appears to represent a community of similar size and organization. McNair has proved to be somewhat larger. There is little information available for the other local sites.

As is typical of many of the Late Iroquoian to early contact period sites in the Lake Ontario basin, the ceramic vessels recovered from many of the sites include many that are generally considered to be “exotic” to south central Ontario, in that they are reminiscent of St. Lawrence Iroquoian, New York Iroquois, or south-western Ontario Neutral types, but at least some of which are likely to have been manufactured locally (Trigger et al. 1980:132). As research in the region has progressed, however, it has become apparent that such diversity in ceramics should be considered a general feature of the ancestral Huron-Wendat ceramic assemblages of the area, attesting to the cosmopolitan contacts, relationships, or origins of the people who occupied these settlements (e.g., Williamson et al. 1998). Since clan membership cut across related communities, this aspect of kinship was an important source of tribal integration (Ramsden 1990a; Jamieson 1990; Lennox and Fitzgerald 1990).

Post-Contact Period (A.D. 1600-1700)

Early Post-Contact Period (A.D. 1600-1650)

Following the final abandonment of the north shore in favour of Huronia in the mid-sixteenth century, it remains possible that these people did not relinquish all claims on their former territory, returning occasionally, to mount large-scale deer-hunting

expeditions, similar to those known to take place by the Huron as far east as Kingston on a more or less annual basis in the early seventeenth century (Biggar 1922-1936: 59). Such forays, however, were likely comparatively brief and any sites established would have been of short duration. It is also likely that Six Nations Iroquois hunting parties were attracted to the north shore (Konrad 1981:136-137).

The denouement of Ontario Iroquoian culture as it then existed—took place during the first half of the seventeenth century well to the north and west of York Region. In the seventeenth century territories of the Huron Confederacy in Simcoe County between Barrie and Midland, the Petun confederacy in the Collingwood area to the west and the Neutral confederacy at the head of Lake Ontario and in the Niagara Peninsula. Intertribal warfare with the Five Nations Iroquois of New York State (the Seneca, Cayuga, Onondaga, Oneida and Mohawk) during the seventeenth century, exacerbated by the deleterious effects of the intrusion of Europeans (most notably the spread of epidemic diseases), resulted in the dispersal of the three Ontario Iroquoian confederacies and many of their Algonquian-speaking allies of the southern Canadian Shield by circa 1650. While many of the surviving Ontario refugees were dispersed to Quebec, Michigan, Ohio (and ultimately Kansas and Oklahoma), many others were incorporated into the New York Iroquois populations. Seventeenth century European commentators frequently remarked upon the fact that former Hurons and Neutrals comprised high proportions of the residents of post-dispersal settlements, in certain New York villages (e.g., Thwaites 1896-1901:53:19, 54:79, 81) and Iroquois could be found as accepted members of the community on Algonquian settlements (e.g., Thwaites 1896-1901:41:176).

The Later Post-Contact Period (1650-1700)

The years immediately following the dispersal of the Huron, the Neutral and their Algonquin allies in the 1640s and 1650s are poorly documented. Migrations, fission and amalgamation of formerly independent groups, and shifting territories further complicate the picture. The continuing effects of European diseases, warfare and periods of starvation through the mid-and late seventeenth century contributed to further population reductions among all Aboriginal peoples. Those who survived were freely adopted into remaining groups.

During this period, the Five Nations Iroquois established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario (Konrad 1981:135). From east to west, these Iroquois villages consisted of Ganneious, on Napanee Bay, an arm of the Bay of Quinte; Quinte, near the isthmus of the Quinte Peninsula; Ganaraske, at the mouth of the Ganaraska River; Quintio, at the mouth of the Trent River on the north shore of Rice Lake; Ganestiquiagon, near the mouth of the Rouge River; Teyaiagon, near the mouth of the Humber River; and Quinaouatoua, on the portage between the western end of Lake Ontario and the Grand River (Konrad

1981:135). Ganestiquiagon, Teyaiagon and Quinaouatoua were primarily Seneca; Ganaraske, Quinte and Quintio were likely Cayuga, and Ganneious was Oneida, but judging from accounts of Teyaiagon, all of the villages might have contained peoples from a number of the Iroquois constituencies. It seems likely that at least some of the people who occupied the Seneca north shore sites were former Huron who had been incorporated into Iroquois communities and were thus descendants of the South Slope Iroquoian communities of the sixteenth century. Some of these individuals may even have had first-hand familiarity with the area as a result of forays south from Huronia prior to the dispersal of the Huron Confederacy.

Their main settlements were located near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, the route that linked Lake Ontario to the upper Great Lakes through Lake Simcoe. The west branch of the Carrying Place followed the Humber River valley northward over the drainage divide, skirting the west end of the Oak Ridges Moraine, to the East Branch of the Holland River. Another trail followed the Don River watershed.

Given the physiographic, hydrographic, and ecological foundations on which these major north-south trails were established, they are likely of great antiquity. While there is certainly a correspondence between the portage route and local Late Woodland settlement distribution – Mackenzie (AkGv-2), Seed-Barker (AkGv-1), Boyd (AkGv-3), Damiani (AlGv-231) and Skandatut (AlGv-193) are all ancestral Huron-Wendat villages located along the Humber River system – it is reasonable to presume that the residents of these communities simply availed themselves of the same access routes and resources that were of importance to their ancestors.

When the Senecas established Teiaigon at the mouth of the Humber, they were in command of the traffic across the peninsula to Lake Simcoe and the Georgian Bay. Later, Mississauga and the earliest European presence along the north shore, was also defined by the area's strategic importance for accessing and controlling long-established economic networks. Prior to the arrival of the Seneca, these economic networks would have been used by the Hurons for over five hundred years, and before them, by the Algonquians. While the trail played an important part during the fur trade, people would also travel the trail in order to exploit the resources available to them across south-central Ontario, including the various spawning runs, such as the salmon coming up from Lake Ontario or herring or lake trout in Lake Simcoe.

Due to increased military pressure from the French upon their homelands south of Lake Ontario, the Iroquois abandoned their north shore frontier settlements by the late 1680's. Although they did not relinquish their interest in the resources of the area, as they continued to claim the north shore as part of their traditional hunting territory (e.g., Lytwyn 1997). The settlement vacuum, however, was immediately filled by the Anishnaubeg, a collective term for the Algonquian-speaking groups of the upper Great

Lakes such as the Mississauga, Ojibwa (or Chippewa) and Odawa. At the time of European contact in the early seventeenth century, the Anishnaubeg “homeland” was a vast area extending from the east shore of Georgian Bay, and the north shore of Lake Huron, to the northeast shore of Lake Superior and into the upper peninsula of Michigan (Rogers 1978:760). Individual bands were politically autonomous and numbered several hundred people. These groups were highly mobile, with a subsistence economy based on hunting, fishing, gathering of wild plants, and garden farming (Rogers 1978:760). During the Late Woodland period, extensive exchange systems had developed between the Odawa, Ojibwa and Cree of north-central and north-eastern Ontario and the Huron and other Iroquoian groups to the south. The Odawa, in particular, played an important role in this trade by dominating traffic in goods on the upper Great Lakes.

In the European-oriented fur trade that developed in the early contact period, the Odawa continued to play an important intermediary role. This role became increasingly difficult due to the disruptions caused by the conflict between the Neutral and the Algonquian Mascouten or “Fire Nation” of central Michigan and between the Ontario Huron, Petun and Neutral and the League Iroquois of New York. There was also a brief period of rivalry with the Potawatomi, who were based on the southern shores of Lake Michigan and had long been on close terms with the Odawa, although peaceful relations were re-established in face of the greater threat posed by the Iroquois. In the battles fought in Georgian Bay and on the north shore of Lake Huron, however, the Odawa and Ojibwa were relatively successful against the Iroquois and were only temporarily driven westward from their homes on Lake Huron (Feest and Feest 1978; Schmalz 1991). The Potawatomi, on the other hand, were forced to relocate temporarily to the Green Bay area on the western side of Lake Michigan.

The Mississauga and other Ojibwa groups began expanding southward from their homelands in the upper Great Lakes in the late seventeenth century, coming into occasional conflict with the New York Iroquois, although alliances between the two groups were occasionally established as well. It is likely that the former Iroquois settlements were maintained. While the continued appearance of these sites on maps produced during the remainder of the French regime probably reflects, to a certain degree, simple copying of earlier sources, it seems that the villages were taken up by the Anishnaubeg. Since the same settlements continued to function in the fur trade, their original village names remained on the maps. (Konrad 1981:141-142).

The Colonial Period (1700-present)⁷

There is little information in the historical documents of the first half of the 18th century

⁷ This section is based in part on a summary of Lytwyn (2005).

on the locations of Anishnaubeg settlements in south-central Ontario. While some data are available for a population that was settled in the Detroit area, the written records are far less informative for elsewhere. The Anishnaubeg settlement near the mouth of the Rouge River which was noted in the 1700 Peace Treaty. Under the heading for the north shore of Lake Ontario, the report indicated that there were no Iroquois settled but that “Mississagués were dispersed along this lake, some at Kenté [Bay of Quinte], others at the River Toronto [Humber River], and finally at the head of the Lake, to the number of one hundred and fifty [warriors] in all” (O’Callaghan 1853-1887: 1054-1058). By 1736, however, French estimates placed the Ojibwa population at 60 men near Lake St. Clair, and 150 men at Quinte, the head of Lake Ontario, the Humber, and Matchedash each, totalling 1000-1500 in Southern Ontario (Rogers 1978:762).

In 1751, a French officer named LaJonquiere reported that Apaequois, a Missisague Chief of the village at the head of Lake Ontario, had sent a message to support the wampum belt he gave in 1747 to the “Saulteux at the foot of the Quinibitanon rapid.” On the eve of the “French and Indian War,” the Anishinabe settlement of southern Ontario was probably limited to small seasonally occupied villages. Much of the year may have been spent in small family hunting groups, thus escaping notice by French and English travellers and writers.

In 1754, war in North America broke out between France and Britain. The records relating to that conflict shed some light on the geographic locations of Anishinabe settlements and the movements of people. For example, a 1755 map included a notation marked “Country of the Messessagues” north of Lake Ontario and a French report attributed to De Bouganville and dated about 1758, gave information on the French posts in the Great Lakes region. The report identified a post near Toronto, and noted: “the Indians who come there to trade are the Saulteux and the Mississaguas – they can supply forty to fifty bales [of furs]” (Riddell 1932).

Five years later, in 1759, Sir William Johnson led British troops to victory over the French at Niagara.. Johnson met with several Nations who had been allies of the French and made a preliminary peace treaty with them. In a letter Johnson wrote to Major General Jeffery Amherst on 30 August 1759, he noted that he had met with a number of “Missassagas and other Indians” from the area on the other side (north and west) of Lake Ontario.

On 10 February 1763, the Treaty of Paris was signed and ended the long period of warfare between Britain and France. When news of the Treaty spread throughout the region, the Anishinabe around Detroit expressed anger after hearing that their country had been ceded to the English and complained that they had never been conquered and the French had no right to give away their country. British efforts followed to address these complaints in a series of treaties with Pontiac and other Aboriginal leaders in Niagara and Detroit.

Following the 1764 Niagara Peace Treaty, and the follow-up treaties, the British colonial government considered the Anishinabe to be their allies since they had accepted the Covenant Chain. The English administrators paid heed to the terms of the Royal Proclamation and insured that no settlements were made in the hunting grounds that had been reserved to Aboriginal Nations. As a result, there is very little documentary evidence from this period regarding the Anishinabe settlement or use of the area north of Lake Ontario.

Again in 1783, signed between representatives of England and the United States thus ending the revolution in North America, the division of territory by these European powers was viewed by Anishnaubeg leaders as inappropriate since they had not been consulted nor did they agree to the line running through their territories.

For the next three decades, the Anishnaubeg of the north shore of Lake Ontario engaged in a number of treaties with agents of the British Crown which the British claimed provided vast tracts of land to the Crown in exchange for paltry quantities of goods and money. It is unlikely that the Aboriginal leaders comprehended the European concept of the absolute ownership of land by individuals; land belonged to the tribe” (Smith 1981). At least the British now recognized the Mississauga as the rightful owners.

In 1783 and 1784, extensive tracts of land were purchased along the north shore of Lake Ontario in the Bay of Quinte area although no written deeds seem to have been produced. In 1787 and 1788, the remaining land along the north shore of Lake Ontario from Etobicoke Creek to the Bay of Quinte was purchased in the “gunshot treaties” because their distance inland from the lakeshore was said to be measured in terms of how far back a gunshot could be heard. A blank deed later forced a second surrender in 1805.

Two more treaties had similar problems and it would seem that the government ignored verbal promises they had made to the Mississaugas; they deliberately abrogated fishing and water rights that the Mississauga had bargained for and relied instead exclusively on the written treaty texts (Telford 1999). While the English were purchasing vast tracts of land north of Lake Ontario, Six Nations continued to remind them of old treaties that protected their access to hunting grounds.

By the 1830s most land had been sold to the British Crown, which resulted in overcrowding and the formation of reserves — between 1820 and 1850, Rice Lake, Saugeen, Walpole Island, Credit, and Chemong reserves were founded. During this period of economic and cultural upheaval, Anishnaubeg spiritual beliefs remained relatively static (Rogers 1978:764). Despite many conversions to Christianity, most converts retained their belief in the spirit residing in all things in the natural world, and traditional medicine men remained the most influential people in the community.

Further, traditional spiritual 'vision quests' remained important for young men to determine their guardian spirit, even in the face of continuous European social and political encroachment.

In January of 1840, a Grand Council was held at the Credit River at which representatives from many communities in southern Ontario discussed Treaty and Aboriginal rights all in an effort to maintain the dish with one spoon concept to ensure peace between the nations and free access to shared hunting territories.

Having negotiated the right to fish in several of the Rivers traversing through Toronto, the Toronto-based Mississaugas were documented in the area as late as the mid-1800s. However, with increasing European settlement of the area and the inability to exercise their harvesting rights, they eventually settled on lands purchased from the Six Nations of the Grand River and came to be known as the Mississaugas of the New Credit.

In 1986, the Mississaugas of the New Credit filed a specific claim with the Government of Canada related to the Toronto Purchase of 1805. The basis for this claim was that the Crown had appropriated additional lands than previously mentioned and had not compensated the Mississaugas accordingly. This claim was officially settled on October 8, 2010. The Mississaugas of the New Credit retain treaty rights (hunting, gathering and fishing) on Crown land within the purchase area and participate actively in consultation regarding their interests in this area.

Other Mississauga and Ojibwa groups who had migrated southward from their homelands in the upper Great Lakes in the eighteenth century to south-central Ontario were signatories of the Williams Treaty in 1923. Collectively known as the Williams Treaty nations, these communities include the Hiawatha First Nation, Beausoleil First Nation, Georgina Island First Nation, Curve Lake First Nation, Scugog Island First Nation, Alderville First Nation and the Mnjikaning (Rama) First Nation. These First Nations maintain an active interest in their traditional lands and are involved in negotiations with the Federal and Provincial governments at the present time.

Euro-Canadian Settlement History of York Region

This section provides a brief summary of the historic Euro-Canadian settlement for the Region of York. It is not intended to be an exhaustive history of the Region, although the main focus of the text is historical in nature.

York County

Since European contact, the area that is currently within Region of York has been subject to several boundary adjustments. The area was part of the Montreal District in the Province of Quebec until 1788 when the District was further divided and the area became part of Nassau District. In 1791, the Province of Quebec was rearranged into Upper Canada and Lower Canada, thereby assigning the area to the former entity. In 1792, Nassau District became known as Home District which comprised a large area defined by two parallel lines, one to the east extending north from the mouth of the Trent River, another to the west extending north from Long Point on Lake Erie (Figure 1). That same year, Upper Canada was subdivided into 19 counties by its first Lieutenant Governor, Colonel John Graves Simcoe. York was the fourteenth county created and included a large area including parts of current Durham Region and the City of Toronto. By 1850, Districts were eliminated and York County became self-governing. The early prosperity of York County can be attributed to several key items, the most important being that it was chosen as the seat of Upper Canada's capital. The construction of Yonge Street, Dundas Street and the arrival of the Toronto and Nipissing Railway were also pivotal in the development of the County (Mika and Mika 1983:681-682; OGS 2008).

In 1950, the County went through another boundary change with the creation of Metropolitan Toronto (now City of Toronto) and included the Townships of Georgina, East Gwillimbury, North Gwillimbury, King, Markham, Vaughan and Whitchurch. The current limits of the Region of York are defined by the boundaries of these Townships (Mika and Mika 1983:681-682; OGS 2008) (Figure 2).

Township Survey and Settlement

A brief description each Township included in the study area is provided below.

Township of Georgina

Georgina Township, named after King George III, was surveyed by Duncan McDonald in 1817 with the first patents issued in 1819. The Township was bounded by Lake Simcoe to the north, Township of North Gwillimbury to the west and Ontario County to the south and east. The Township was united with North Gwillimbury for municipal purposes until 1826 when they were separated. One of the first settlers of the Township was a disbanded half-pay officer Captain James O'Brien Bouchier who owned a significant amount of land and founded the village of Sutton, also known as Bouchier's Mills, and established several businesses including a flour mill. The population of the Township was 586 in 1842, 946 in 1850, 1,987 in 1871 and 2,482 in 1881, 2,039 of whom were Aboriginal (Mulvaney and Adam 1885:158-163).

According to the 1878 *Illustrated Historical Atlas of York County*, the following

communities were established within Georgina Township during the nineteenth century⁸:

- Port Bolster
- Sutton (east half)
- Baldwin (east half)
- Peeferlaw
- Virginia
- Vachell
- Udora

Township of North Gwillimbury

Named after Elizabeth Simcoe, the wife of Governor Simcoe, whose family name was Gwillim, the Township of North Gwillimbury was the smallest Township in York County in terms of both size and population. It was approximately 29,011 acres and was bounded by Lake Simcoe to the north, the Township of East Gwillimbury to the south, Cook's Bay to the west and Georgina Township to the east. North Gwillimbury was settled at the beginning of the nineteenth century and the first patent for the Township is dated 1800 (Mulvaney and Adam 1885:164). By 1843 North Gwillimbury boasted a population of 697 inhabitants. In 1878, the Township was described as having "well-cultivated fields, comfortable and often superior dwellings, substantial and extensive barns, and out houses" and "generally excellent" roads (Canniff 1878: xviii).

According to the 1878 *Illustrated Historical Atlas of York County*, the following communities were established within North Gwillimbury Township during the nineteenth century:

- Sutton (west half)
- Baldwin (west half)
- Roach
- Jersey
- Keswick
- Bellhaven

⁸ Please note that the list of historical communities provided for each Township is limited to communities identified on the 1878 *Illustrated Historical Atlas of York County* and it is not intended as an exhaustive list.

Township of East Gwillimbury

In an attempt to uncover the best route from York to the British naval posts on Georgian Bay, Governor Simcoe commissioned the first survey of the Township of East Gwillimbury, also named after his wife's family name. This work was initiated in 1800 by John Stegman, and was followed by a number of other surveyors over the next century: Hambly in 1803, Wilmot in 1811, Lount in 1819, Chewitt in 1824, Lindsay in 1859, Haller in 1864 and Gossage in 1865 (Canniff 1878:XVII). Many of the early settlers in East Gwillimbury were Empire Loyalists, hired by the British to help fight in the American War of Independence. A number of Quakers were also attracted to the area by the promise of land grants and also the freedom to practice their faith in peace.

According to the 1878 *Illustrated Historical Atlas of York County*, the following communities were established within East Gwillimbury Township during the nineteenth century:

- Queensville
- Mount Albert
- Holt
- Sharon
- Holland Landing
- Newmarket (northern half)
- Ravenshoe
- Ravenshoe Station

Township of King

The first survey of King Township was undertaken in 1800, and the first settlers occupied their land holdings in the same year. The Township was probably named in honour of John King, who was British under-secretary of state for the Colonies during the 1790s and early 1800s. In 1805, Boulton noted that the Township was inhabited by Quakers, who were "industrious and very desirable neighbours." This was "a circumstance strongly recommending the settlement." King was initially settled by the Loyalists and their children, Quakers, and by immigrants from the United States, England, Ireland and Scotland. By the 1840s, the Township was noted for its good land and fine farms (Boulton 1805:82; Smith 1846:90-91; Armstrong 1985:144; Rayburn 1997:181).

According to the 1878 *Illustrated Historical Atlas of York County*, the following communities were established within King Township during the nineteenth century:

- Glenville

- Schomberg
- Lloyd Town
- Pottageville
- Kettleby
- Linton
- Holly Park
- Eversley
- Nobleton
- King Creek
- Laskay
- King
- Temperanceville
- Aurora (west half)

Township of Whitchurch

The Township of Whitchurch was originally surveyed by John Stegman in 1800, who surveyed the first four Concessions of the Township (Miles & Co. 1878). The Township was named in honour of the village of Whitchurch, Herefordshire, in England, where Elizabeth Simcoe was born. Like other Townships in York County, many of the early settlers in Whitchurch were United Empire Loyalists, hired by the British to help fight in the American War of Independence. A number of Quakers were also settled in the area in order to take advantage of free land grants and the ability to practice their faith in peace.

According to the 1878 *Illustrated Historical Atlas of York County*, the following communities were established within Whitchurch Township during the nineteenth century:

- Newmarket (south half)
- Pine Orchard
- Vivian
- Ballantrae
- Petchville
- Aurora (east half)
- White Rose
- Oakridges
- Bethesda
- Lemonville
- Stouffville (north portion)
- Bloomington

- Ringwood

Vaughan

The land within Vaughan Township was first surveyed in 1793, and the first legal settlers occupied their land holdings in 1796. The Township was named in honour of Benjamin Vaughan, who was one of the negotiators for the Treaty of Paris which ended the American Revolutionary War in 1783. In 1805, Boulton noted that the soil in Vaughan was “much improved,” and due to its proximity to York “may be expected to form an early and flourishing settlement.” Vaughan was initially settled by Loyalists, the children of Loyalists, disbanded soldiers, and by Americans including the Pennsylvania Dutch, French Huguenots, and Quakers. By the 1840s, the Township was noted for its excellent land and “well cleared and highly cultivated farms” (Boulton 1805:89; Smith 1846:199; Reaman 1971:19; Armstrong 1985:148; Rayburn 1997:355).

According to the 1878 *Illustrated Historical Atlas of York County*, the following communities were established within Vaughan Township during the nineteenth century:

- Nashville
- Klineburg
- Purpleville
- Teston
- Maple
- Patterson
- Carrville
- Vellore
- Elderville
- Coleraine
- Tormore
- Woodbridge
- Brownsville
- Pine Grove
- Edgeley
- Concord
- Humber
- Elgin Mills (west half)
- Richmond Hill (west half)
- Langstaff (west half)
- Thornhill (west half)

Markham

The land within Markham Township was first settled by German families from New York State, who arrived around 1790, before the Township had been surveyed. As more settlers began to arrive, Governor Simcoe encouraged United Empire Loyalists to take up land alongside English immigrants who also came in increasing numbers. Towards the end of the 18th Century, many Pennsylvanian German families were finding life difficult after the Revolutionary War and were prepared to relocate in British territory (i.e. Upper Canada) (Champion, 1989:27-28). Markham Township was then partially surveyed in 1794, being the third in the county to be marked, Yonge Street became the base of the Township and each concession, of which there were ten, contained 35 lots, making the Township an almost perfect square.

According to the 1878 *Illustrated Historical Atlas of York County*, the following communities were established within Markham Township during the nineteenth century:

- Ringwood (south half)
- Stouffville (south half)
- Gormley's Corner (south half)
- Elgin Mills (east half)
- Richmond Hill (east half)
- Langstaff (east half)
- Thornhill (east half)
- Almira
- Cashell
- Mongolia
- Victoria Square
- Milnesville
- Headford
- Dollar
- Buttonville
- Unionville
- Markham
- Belford
- Brown's Corner
- Milliken
- Hagerman's Corner
- Cedar Grove
- Box Grove

Appendix G - Brief Histories of First Nations and Métis with Interests in York Region

Taken from their respective websites or provided by the First Nations directly.

Chippewas of Rama First Nation (<http://www.mnjikaning.ca/>)

Known as the Chippewas of Lake Simcoe and Huron, Rama is part of the Chippewa Tri-Council, an alliance of three First Nation communities now encompassing Beausoleil First Nation on Christian Island, the Chippewas of Georgina Island on Georgina Island, and Rama First Nation. The Rama Nation consists of approximately 2,500 acres of interspersed land on the eastern shore of Lake Couchiching, with approximately half of their 1,500 members living on reserve. Following a series of relocations, land in Rama Township was purchased by the band in 1836, where they still reside today. The land proved difficult to farm and, with the loss of fishing and hunting rights with the Williams Treaty in 1923, other economic opportunities were required. Today, Casino Rama, which attracts over 11,000 visitors daily, allow them to share the net profits from the complex with all 134 First Nations in Ontario.

Beausoleil First Nation (<http://www.chimnissing.ca/>) “Pride Unity Strength Vision”

Located in the southern tip of Georgian Bay on Christian, Beckwith and Hope Islands, Christian Island was established as a reserve in 1856, and is home to about 700 residents year round and many cottagers during the summer months. In total, the three main islands, adjacent smaller ones and a portion of the adjacent mainland, Cedar Point, consists of 5,400 hectares of sand, soil, and gently rolling hills.

In 1649, 8000 Huron and 60 French, including 13 Jesuit missionaries, fled from the mission at Sainte Marie to Christian Island in an effort to escape the raiding Iroquois. The winter of 1649-50 was harsh, and many died from disease and starvation, causing the survivors to abandon the island the following summer.

Georgina Island First Nation (<http://www.georginaisland.com>)

The Chippewas of Georgina Island First Nation is located both on and off the east shore of Lake Simcoe and is comprised of three islands: Snake, Fox and Georgina. Georgina Island is home to approximately 80 households and 200 cottages. Snake and Fox Islands are leased to cottage owners. The largest nearby centre is the village of Sutton. Georgina Island First Nation’s population is approximately 220 residents and its total land mass is approximately 15 km². Total membership is 614, with 223 residents living

on-reserve, of whom 193 are First Nation members. Band members reside mainly on the western shoreline of Georgina Island, where the main local infrastructure is located.

Alderville First Nation (<http://www.aldervillefirstnation.ca>)

Located on the south shores of Rice Lake approximately 30 km north of Cobourg, the community consists of approximately 300 members that live on the reserve, and another 650 + members that reside off-reserve. Alderville was founded in 1837. The reserve has a large solar farm project underway with the goal to provide energy for the community as well as to sell energy on the open market.

Hiawatha First Nation (<http://www.hiawathafirstnation.com/>) “Mississaugas of Rice Lake”

The Hiawatha Reserve is located on the north shore of Rice Lake east of the Otonabee River, approximately 30 kilometres south of Peterborough. The reserve consists of approximately 1952 acres of land. In 1828, an area along the north shore of Rice Lake was officially designated as a reserve under the name of the Mississaugas of Rice Lake Reserve. It had a land base of approximately 1120 acres and a population of 130 adults and 90 children. For many years, the members used the land for farming. If they did not farm the land themselves, the lands were leased to others. While at one time this area was known for its abundance of wild rice, the building of the Trent-Severn Waterway and the resulting increase of water levels destroyed the wild rice beds. In 1966-67, Hiawatha became self-governing, meaning they no longer fell under the control of an Indian agent - Chief and Council could make decisions on their own.

Curve Lake First Nation

Curve Lake First Nation people are Anishnaabe from the great Mississauga Nation. We are the traditional people of Lake Ontario and its tributaries; this has been Mississauga territory since time immemorial.

Being a peace keeping people, the Mississauga often shared in the bounties of the land with other nations. In the mid-1600s, due to the fur trade and competition between the British and French over land and control, there came a time that our people had to temporarily leave our traditional territory to avoid disease and conflict. It was at this time that Jesuits came upon us at the Mississauga River, assuming this was our territory; they referred to our people as the Mississauga.

Our people migrated back to the Lake Ontario territory around the early 1700s; at this time we started signing treaties with the Crown on a Nation to Nation basis to allow for settlement to occur within Southern Ontario. With the encroachment of the settlers, the

Mississaugas slowly moved to live in small family groups around our present day reserves.

In 1829, the Federal Government worked with the New England Company to encourage farming and settlement for First Nations people on a peninsula within Mud Lake. The surrounding area was abundant in wild rice, numerous fish, birds, animals and plants for harvesting; there was everything our people needed to survive. The Mud Lake settlement officially became a reserve in 1889, there were approximately 200 members who settled in Mud Lake Reserve #35 in the late 1800s and it has currently grown to almost 2000 on and off members. The community officially changed its name to Curve Lake First Nation #35 in 1964.

Over the years, with a push for integration of First Nations people into western society, some of our spiritual traditions were almost lost. Luckily, some families continued to practice ceremonies and the traditional way of life and there has been a big movement to revitalize the spiritual traditions within our community. Today, hunting, fishing and gathering are still an integral part of who we are as a people and we continue to deeply value our culture, language and traditions.

Scugog Island First Nation

From the 1780's, the forefathers of the Mississaugas of Scugog Island First Nation were participants in peace and friendship Treaties with the British and other Treaties dealing with aboriginal title. The last, a modern-day Treaty that was seen by the Ojibway as a method of resolving past breaches of Treaty promises by the Crown, was signed in 1923. The *traditional territories* covered by the Treaties were from the Grand River basin to the Niagara Peninsula on the south and southwest, along Lake Ontario to the Gananoque area to the east, northward along the Ottawa River, parallel with and across Lake Nipissing, down the French River, along Georgian Bay roughly back to the Grand River basin.

At the time of the 1818 Treaty, forefathers to the current Mississaugas of Scugog Island First Nation occupied an island of approximately 1206 acres in Balsam Lake, Bexley Township. They later occupied land on Scugog Island itself, part of Scugog Township, and Indian Trading Point on the shores of Lake Scugog, now part of Mariposa Township. In 1834 the construction of a dam at Bobcaygeon flooded the marshes around Scugog Island and, particularly for health reasons related to noxious gases created by the flooding, the Mississaugas of Scugog Island relocated to the Coldwater reserve where they remained from 1835-1837.

For more than 100 years prior to major European settlement around Lake Scugog, the Mississaugas camped, traded, hunted and fished. The bounty of the land in this area included deer, black bear, beaver, muskrat, fox, cougar, wolves and numerous kinds of

fish. Most plentiful were wild rice and maple sap for maple syrup and these were the main staples of the Ojibway diet at that time.

In 1834, a transfer of 800 acres of land for a sum of 600 pounds occurred between the Crown and the Mississaugas for two parcels of land on the northern inland portion of Scugog Island. The Ojibway people were disappointed and disheartened to learn that they had to pay for merely a portion of the land, which they had previously occupied for many years. While in the past this land was known as an Indian Reservation, our description today is a “First Nation”, which implies that the designated territory is reserved solely for the use and benefit of the Mississaugas of Scugog Island First Nation.

Geographically, the Mississaugas of Scugog Island First Nation is the closest First Nation to Metropolitan Toronto, the largest city in this country. Ironically, it is one of the smallest First Nations in Canada and despite the assimilation process and numerous other obstacles the Mississaugas have had to overcome, the population has grown to the highest ever recorded. Further to the credit of the people, their determination and progressive attitude will ensure this community ample opportunities and accomplishments in the years to come.

Kawartha Nishnawbe First Nation

The Kawartha Nishnawbe First Nation is a small group of Mississaugas centred at Burleigh Falls, Ontario. Although this group is closely affiliated with the Curve Lake First Nation, having split from the Reserve in advance of the Williams Treaty, they were not signatories of the Williams Treaty in 1923 and consequently continue to maintain their harvesting rights in south-central Ontario within their traditional lands, a fact that was confirmed in *R. vs. Johnson* 2002. The Ontario Ministry of Natural Resources provides them with harvesting cards.

In 1987, the Curve Lake Band Council passed a Band Council Resolution recognizing that many Kawartha Nishnawbe members were descendants of the Curve Lake people and supporting the Kawartha Nishnawbe in forming their own band and in obtaining their own reserve. They also acknowledged the Kawartha Nishnawbe’s ownership of the land around Burleigh Falls.

Mississaugas of the New Credit First Nation

- Originated from the north shore of Lake Huron, mouth of the Mississaugi River
- There is a word in the Indian language “Missisakis” meaning “many river mouths”.
- French and others referred to the people as the “Mississauga Indians”

Mid 1600s to Late 1600s

- Iroquois making attempts to overtake hunting areas of the Ojibway
- Anishinabe formed an ally of the Ojibway, Odawa and Potawatomi, as the Three Fires Confederacy to force the Iroquois back to their original homeland south of Lake Ontario
- Mississaugas split into two groups; the first group travelled east, to the Bay of Quinte, the second group travelled south near the Holland and Humber Rivers.
- The southern route is known as the Toronto Carrying Place
- The southern group further split into two groups; the first group moved towards the Trent River along Lake Ontario, the second group moved west towards Toronto and Lake Erie.
- The second group are the direct ancestors of the present Mississaugas of the New Credit First Nation

1700-1800

- The traditional territory of the Mississaugas are located in south-western Ontario between Toronto and Lake Erie
- French built fur trade posts, credit was extended to the Mississaugas, as a result the river became known as the Credit River
- Europeans identified the Mississaugas as the Mississaugas of the Credit
- Euro-Canadian settlement became more intense, causing inland movement of the Mississaugas for harvesting purposes.
- Land surrenders to the British Colonial government and the Six Nations

1800-1900

- British Government gave exclusive rights to the Mississaugas for fishing and hunting.
- Became increasingly difficult for the Mississaugas to survive with Euro-Canadian settlement, causing the Mississaugas to accept an offer from the Six Nations to establish a settlement on the tract of land held by the Six Nations.
- The offer accepted possessed many qualities such as location, potential for agriculture and closeness to traditional ties, more than any other offers made to the Mississaugas.
- 1847-The relocation of the Mississaugas to the new tract of land is the origin for the First Nation being referred to as the Mississaugas of the New Credit First Nation.
- Reverend Peter Jones very instrumental in the survival of the Mississaugas

Present

- Still located on the tract of land offered and traditional territory of the Mississaugas, South-Western Ontario, one hour from U.S. Border and major Metropolitan areas.
- 6,000 acres in the townships of Oneida and Tuscarora, just off Highway # 6
- Approximately 1788 band members with nearly half of the population living off-reserve due to lack of employment opportunities, inadequate land base, and lack of available housing
- Elections system began in 1924, general elections held bi-yearly
- Community Development, new facilities; Lloyd S. King Elementary School, Social & Health Services-maamwi-gnawending (Caring Together), Ekwaamjigenang Children's Centre, New Credit Library, Industrial Building, Industrial Park, Commercial Plaza, New Credit United Church, Administration Office, Recreation Complex

Huron Wendat First Nation

The region occupied by Northern Iroquoians constitutes most of what is now known as southern Ontario, southwestern Quebec, New York State and northern Pennsylvania. The Iroquoian languages of the people that inhabited this area are distantly related to Cherokee, spoken in the southern Appalachians, and to Tuscarora, spoken near the mid-Atlantic coast. The term "Iroquoian," therefore, should not be confused with "Iroquois," an Algonquian word used by Europeans to refer to the Five Nations Confederacy of New York State and later southwestern Ontario.

The Huron (Wendat) were the northernmost of the Iroquoians, inhabiting historically both the north shore of Lake Ontario between the Credit River and the Kingston area during the period from AD 1300 to AD 1580 and subsequently the land between Georgian Bay on Lake Huron and Lake Simcoe known historically as Wendake. The relatively small Tionontaté (Petun) nation lived immediately to the southwest and resembled the Wendat in most linguistic and cultural respects. Their combined population prior to the onset of European-introduced epidemics in the 1630s has been estimated at approximately 30,000.

Intertribal warfare between the Wendat-Tionontaté and the Five Nations Iroquois during the seventeenth century resulted in the dispersal of the Ontario Iroquoian confederacies and many of their Algonquian-speaking allies of the southern Canadian Shield by circa 1650. While people from these nations migrated to Quebec, Michigan, Ohio (and ultimately Kansas and Oklahoma), many others were adopted into the New York Iroquois populations. A major population segment of the Huron-Wendat Nation now reside in Wendake, Quebec.

Métis

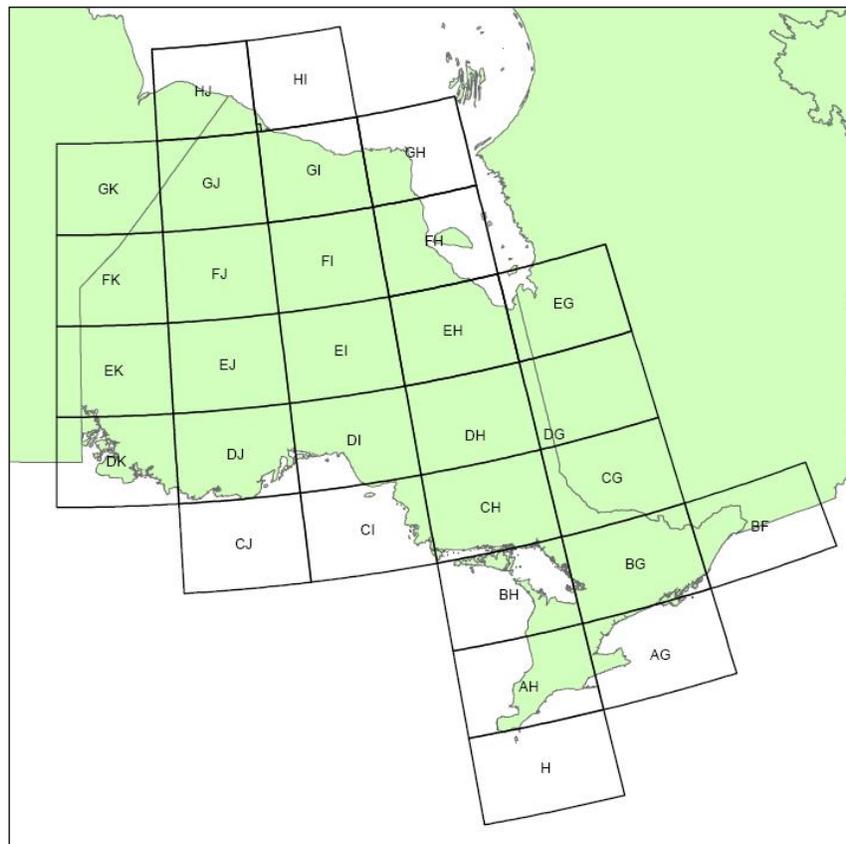
Prior to Canada's crystallization as a nation, a new Aboriginal people emerged out of the relations of Indian women and European men. While the initial offspring of these Indian and European unions were individuals who simply possessed mixed ancestry, subsequent intermarriages between these mixed ancestry children resulted in the genesis of a new Aboriginal people with a distinct identity, culture and consciousness in west central North America – the Métis Nation.

This Métis people were connected through the highly mobile fur trade network, seasonal rounds, extensive kinship connections and a collective identity (i.e., common culture, language, way of life, etc.). Distinct Métis settlements emerged throughout what was then called "the Northwest". In Ontario, historic Métis settlements emerged along the rivers and watersheds of the province, surrounding the Great Lakes and throughout to the northwest of the province. These settlements formed regional Metis communities in Ontario that are an indivisible part of the Metis Nation.

Appendix H – The Ontario Archaeological Site Database

Since 1974, all *archaeological sites* for the Province of Ontario have been registered with the Ontario Archaeological Sites Database (OASD), maintained by the Heritage Branch and Libraries Branch of the Ontario Ministry of Tourism, Culture and Sport, Toronto. This database is the official, central repository of all site information for the province collected under the *Ontario Heritage Act* (1974, 1980). An associated Geographic Information System has been developed by the Ministry of Tourism, Culture and Sport.

Within the OASD, registered *archaeological sites* are organized within the “Borden” system and based on blocks of latitude and longitude, each measuring approximately 13 kilometres east-west by 18.5 kilometres north-south. Each block is assigned a unique four letter designator and sites within each block are numbered sequentially. York Region encompasses lands within nine Borden Blocks: AjGt, AjGu, AjGv, AkGs, AkGt, AkGu, AkGv, AIGs, and AIGt.



Appendix I – References Cited

Ambrose, M.T.

1981 North Pickering Development Corporation Urban Stage One Archaeological Excavation, 1980. Report on file, Ontario Ministry of Culture, Toronto.

ASI (Archaeological Services Inc.)

2004 Stage 3-4 Archaeological Assessment of the Miller (AIGs-1)/Valley Ross Site (AIGs-232), Concession Road 3 (Rossland Road), Central Duffin Collector Sewage System, Town of Pickering, Regional Municipality of Durham, Ontario, Final Report. Report on file, Ontario Ministry of Culture, Toronto.

Biggar, H.P. (editor)

1922-1936 *The Works of Samuel de Champlain*. 6 volumes. The Champlain Society, Toronto.

Braun, D.P.

1986 Midwestern Hopewellian Exchange and Supralocal Interaction. In *Peer Polity Interaction and Socio-political Change*, edited by A.C. Renfrew and J.F. Cherry, pp. 117-126. Cambridge University Press, Cambridge.

Brashler, J., E. Garland, M. Holman, W. Lovis, and S. Martin

2000 Adaptive Strategies and Socioeconomic Systems in Northeast Great Lakes Riverine Environments: The Late Woodland of Michigan In *Late Woodland Societies: Tradition and Transformation Across the Midcontinent*, edited by T. Emerson, D. McElrath, and A. Fortier, pp. 543-579. University of Nebraska Press, Lincoln.

Brumbach, H. J.

1975 Iroquoian Ceramics in "Algonkian" Territory. *Man in the Northeast* 10:17-28.

1995 Algonquian and Iroquoian Ceramics in the Upper Hudson River Drainage. *Northeast Anthropology* 49:55-66.

Canadian Environmental Assessment Agency

1992 Canadian Environmental Assessment Act.

Canadian Environmental Assessment Agency

1996 Reference Guide on Physical and Cultural Heritage Resources. *Canadian Environmental Assessment Act*. Minister of Supply and Services Canada.

Ceci, L.

1990 Radiocarbon Dating "Village" Sites in Coastal New York: Settlement Pattern Change in the Middle to Late Woodland. *Man in the Northeast* 39:1-28.

Chapdelaine, Claude

1993 The Sedentarization of the Prehistoric Iroquoians: A Slow or Rapid Transformation? *Journal of Anthropological Archaeology* 12(2): 173-209.

Chapman, L.J. and F. Putnam

1984 *The Physiography of Southern Ontario*. Ontario Geological Survey, Special Volume 2. Ontario Ministry of Natural Resources, Toronto.

City of Toronto

2007 Toronto Official Plan.

http://www.toronto.ca/planning/official_plan/pdf_chapter1-5/chapters1_5_aug2007.pdf

Coleman, Derek J. and Ronald F. Williamson

1994 Landscapes Past to Landscapes Future: Planning for Archaeological Resources. In *Great Lakes Archaeology and Paleoecology: Exploring Interdisciplinary Initiatives for the Nineties*, edited by Robert I. MacDonald, pp.61-80. Proceedings of a symposium presented by the Quaternary Science Institute, University of Waterloo, Ontario, September 21-22, 1991.

Crawford, G.W., and D.G. Smith

1996 Migration in Prehistory: Princess Point and the Northern Iroquoian Case. *American Antiquity* 61(4): 782-790.

Crawford, G.W., D.G. Smith, and V.E. Boyer

1997 Dating the Entry of Corn (*Zea mays*) into the Lower Great Lakes Region. *American Antiquity* 62:112-119.

Cuming, D.J.

1985 Advisory Notes on Heritage Conservation and Municipal Planning. On File at Heritage Branch, Ministry of Culture and Communications (now Ministry of Culture), Toronto.

Daechsel, H., and P.J. Wright

1988 The Sandbanks Tradition – A Late Middle Woodland Manifestation in Eastern Ontario. Paper presented at the 21st Annual Meeting of the Canadian Archaeological Association, Whistler, B.C.

Department of Canadian Heritage

1977 Cultural Property Import and Export Act.

1990 Archaeological Heritage Policy Framework.

Djamkar, E.

1990 *The Coulter Site and Late Iroquoian Coalescence in the Upper Trent Valley*. Occasional Papers in Northeastern Archaeology 2. Copetown Press, Dundas, Ontario

Dodd, C.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 C.J. Ellis and N. Ferris, pp. 321-360. Occasional Publication 5. London Chapter, Ontario Archaeological Society, London.

D.R. Poulton & Associates

1998 The 1997 Stage 1-3 Archaeological Assessment of the Lamoreaux and Duffin Heights Neighbourhoods, Town of Pickering, Regional Municipality of Durham, Ontario. Volumes 1 and 2. Report on file, Ontario Ministry of Culture, Toronto.

Dupras, Tosha L. and David G. Pratte

1998 Craniometric Study of the Parsons Crania from Midden 4/Feature 245. *Ontario Archaeology, Special Volume 65/66*: 140-145.

Ellis, C.J., and D.B. Deller

1990 Paleo-Indians. In *The Archaeology of Southern Ontario to A.D. 1650*, edited by C.J. Ellis and N. Ferris, pp. 37-64. Occasional Publication 5. London Chapter, Ontario
145

Archaeological Society, London.

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 C.J. Ellis and N. Ferris, pp. 65-124. Occasional Publication 5. London Chapter, Ontario Archaeological Society, London.

Emerson, J. Norman

1959 A Rejoinder Upon the MacNeish-Emerson Theory. *Pennsylvania Archaeologist* 29: 98-107.

Engelbrecht, W.

1999 Iroquoian Ethnicity and Archaeological Taxa. In *Taming the Taxonomy: Toward a New Understanding of Great Lakes Archaeology*, edited by R.F. Williamson and C.M. Watts, pp. 51-59. Eastendbooks, Toronto.

Feest, J.E., and C. F.

1978 Ottawa. In *Handbook of North American Indians*, Volume 15 Northeast, edited by Bruce Trigger., pp. 772-786. Washington: Smithsonian Institution.

Ferris, N.

1999 Telling Tales: Interpretive Trends in Southern Ontario Late Woodland Archaeology. *Ontario Archaeology* 68:1-62.

Ferris, N., and N.W. Spence

1995 The Woodland Traditions in Southern Ontario. *Revista de Archeologia Americana* 9: 83-138.

Finlayson, W.D.

1977 *The Saugeen Culture: A Middle Woodland Manifestation in Southwestern Ontario*. Archaeological Survey of Canada Mercury Series Paper 61. National Museum of Man, Ottawa.

1985 *The 1975 and 1978 Rescue Excavations at the Draper Site: Introduction and Settlement Pattern*. Archaeological Survey of Canada, Mercury Series Paper 130. National Museum of Man, Ottawa.

Fitzgerald, W.R.

1990 *Chronology to Culture Process: Lower Great Lakes Archaeology, 1500-1650*. Unpublished PhD Thesis, Department of Anthropology, McGill University, Montreal.

Fox, W.A.

1990 The Middle to Late Woodland Transition. In *The Archaeology of Southern Ontario to A.D. 1650*, edited by C.J. Ellis and N. Ferris, pp. 171-188. Occasional Publication of the London Chapter, Ontario Archaeological Society 5. London, Ontario.

Fox, W.A., R.G.V. Hancock, and L.A. Pavlish

1995 Where East Met West: The New Copper Culture. *Wisconsin Archeologist* 76:269-293.

Fox, W.A. and C. Garrad

2004 Hurons in an Algonquin Land. *Ontario Archaeology* 77/78:121-134.

Gramly, R.M.

1977 Deerskins and Hunting Territories: Competition for a Scarce Resource of the Northeastern Woodlands. *American Antiquity* 42(4): 601-605.

Hancock, R.G.V., L.A. Pavlish, R.M. Farquar, R. Salloum, W.A. Fox, and G.C. Wilson

1991 Distinguishing European Trade Copper and Northeastern North American Native Copper. *Archaeometry* 33(1):69-86.

Hansen, G.

1984 Built-on Lands: Definition and Canadian Area Estimates. *Plans Canada* 17/4.

Hart, J.P.

2001 Maize, Matrilocality, Migration, and Northern Iroquoian Evolution. *Journal of Archaeological Method and Theory* 8:151-181.

Hart, J.P., R.G. Thompson, and H.J. Brumbach

2003 Phytolith Evidence for Early Maize (*Zea Mays*) in the Northern Finger Lakes Region of New York. *American Antiquity* 68:619-640.

Hart, J.P., R.G. Thompson, and H.J. Brumbach

2003 Phytolith Evidence for Early Maize (*Zea Mays*) in the Northern Finger Lakes Region of New York. *American Antiquity* 68:619-640.

Hart, J.P., and R.F. Williamson

2004 The Many Paths to Sedentism: The Contexts of Change in the Northeast. Paper presented at the 69th Annual Meeting of the Society for American Archaeology, Montreal.

International Council on Monuments and Sites (ICOMOS)

1965 Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter)

1990 Charter for the Protection and Management of the Archaeological Heritage (Lausanne Charter)

1999 Charter on the Conservation of Places of Cultural Significance (Burra Charter)

1999 Charter for the Protection and Management of the Underwater Cultural Heritage

Jackson, L.J.

1983 Early Maize in South-central Ontario. *Arch Notes* 83(3):9-11.

Jamieson, J.B.

1990 The Archaeology of the St. Lawrence Iroquoians. In *The Archaeology of Southern Ontario to A.D. 1650*, edited by C.J. Ellis and N. Ferris, pp. 385-404. Occasional Publications of the London Chapter, Ontario Archaeological Society 5. London, Ontario.

Johnston, R.B.

1968 *Archaeology of Rice Lake, Ontario*. Anthropological Papers 19. National Museum of Canada, Ottawa.

Kapches, M.

1981 AIGo-29: The Auda Site. Report submitted to Eldorado Nuclear Limited, Port Hope, Ontario.

1987 The Auda Site: An Early Pickering Iroquois Component in Southeastern Ontario. *Archaeology of Eastern North America* 15: 155-175.

Katzenberg, M.A., H.P. Schwarcz, M. Knyf, and F.J. Melbye

1995 Stable Isotope Evidence for Maize Horticulture and Paleodiet in Southern Ontario. *American Antiquity* 60:335-350

Kenyon, W.A.

1968 *The Miller Site*. Royal Ontario Museum, Art and Archaeology Division, Occasional Paper 14.

Konrad, V.A.

1981 An Iroquois Frontier: The North Shore of Lake Ontario during the Late Seventeenth Century. *Journal of Historical Geography* 7(2):129-144.

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 C.J. Ellis and N. Ferris, pp. 405-456. Occasional Publication of the London Chapter, Ontario Archaeological Society 5. London, Ontario.

Lytwyn, V.P.

1997 A Dish with One Spoon: The Shared Hunting Grounds Agreement in the Great Lakes and St. Lawrence Valley Region. In *Papers of the 28th Algonquian Conference*, edited by D. Pentland, pp. 210-227. University of Manitoba, Winnipeg.

2005 Aboriginal Settlement and Use of the North Pickering Development Planning Area and Adjacent Lands, 1690-1383. Historical Research Paper.

MacDonald, R.I.

1988 Ontario Iroquoian Sweat Lodges. *Ontario Archaeology* 47:17-26.

1992 Ontario Iroquoian Semi-Subterranean Sweat Lodges. In *Ancient Images, Ancient Thought: The Archaeology of Ideology*, edited by A.S. Goldsmith, S. Garvie, D. Selin and J. Smith, pp. 323-330. Proceedings of the 23rd Annual Chacmool Conference. University of Calgary, Calgary.

2002 Late Woodland Settlement in South-central Ontario: A Study of Ecological Relationships and Culture Change. Unpublished PhD dissertation, Department of Anthropology, McGill University, Montreal.

MacDonald, R.I., and R.F. Williamson

1995 The Hibou Site (AlGo-50): Investigating Ontario Iroquoian Origins in the Central North Shore Area of Lake Ontario. In *Origins of the People of the Longhouse*, edited by A. Bekerman and G. Warrick, pp. 9-42. Proceedings

2001 Sweat Lodges and Solidarity: The Archaeology of the Hubbert Site. *Ontario Archaeology* 71:29-78.

MacNeish, R.S.

1952 *Ontario Iroquois Pottery Types*. National Museum of Canada Bulletin 124. Department of Resources and Development, Ottawa.

M.P.P. (Mayer, Pihl, Poulton and Associates Inc.)

1988 The Archaeological Facility Master Plan Study of the Northeast Scarborough Study Area. 3 volumes. Report on file, Ontario Ministry of Culture, Toronto.

Minister's Advisory Committee

1992 Minister's Advisory Committee on New Heritage Legislation. Ministry of Culture and Communications (now Ministry of Culture), Toronto.

Ministry of Consumer and Business Services, Ontario

1990 Cemeteries Act.

Ministry of Culture, Ontario

1997 Conserving A Future For Our Past: Archaeology, Land Use Planning & Development in Ontario. Toronto: Cultural Programs Branch, Archaeology & Heritage Planning Unit.

2005 Ontario Heritage Act

2006 *Standards and Guidelines for Consultant Archaeologists* (final draft, August 2006). Cultural Programs Branch, Ontario Ministry of Culture, Toronto.

Ministry of Environment, Ontario

2006 Environmental Assessment Act

Ministry of Government Services, Ontario

2002 Government Efficiency Act

Ministry of Municipal Affairs and Housing, Ontario

2004 The Strong Communities (Planning Amendment) Act (Bill 26).

2005 Ontario Planning Act

2005 Vision for Ontario's Land Use Planning System. *Provincial Policy Statement Part IV*, pp. 2-3. Toronto.

Ministry of Natural Resources, Ontario

1990 Aggregate Resources Act.

1991 Timber Management Guidelines for the Protection of Cultural Heritage Resources.

Ministry of Transportation, Ontario

2004 Environmental Protection Requirements for Transportation Planning, and Highway Design, Construction, Operation and Maintenance.

Molto, J.E.

1983 *Biological Relationships of Southern Ontario Woodland Peoples: The Evidence of Discontinuous Cranial Morphology*. National Museum of Man Mercury Series, Archaeological Survey of Canada Paper 117. National Museums of Canada, Ottawa.

Moreau, J-F., E. Langevin and L.Verrault

1991 An Assessment of the Ceramic Evidence for Woodland-Period Cultures in the Lac Saint-Jean Area, Eastern Quebec. *Man in the Northeast* 41: 33-64.

Nasmith Ramsden, C.

1989 *The Kirche Site: A 16th Century Huron Village in the Upper Trent Valley*. Occasional Papers in Northeastern Archaeology 1. Copetown Press, Dundas, Ontario.

Nicholson, Bev, David Pokotylo and Ron Williamson (editors)

1996 *Statement of Principles for Ethical Conduct Pertaining to Aboriginal Peoples*. Report from the Aboriginal Heritage Committee, Canadian Archaeological Association. Canadian Archaeological Association and Department of Communications, Ottawa.

Niemczycki, M.A.P.

1984 *The Origin and Development of the Seneca and Cayuga Tribes of New York State*. Rochester Museum and Science Centre Research Records 17. Rochester Museum and Science Center, Rochester, New York.

Noble, W.C.

1968 Iroquois Archaeology and the Development of Iroquois Social Organization (1000-1650 A.D.): A Study in Culture Change Based on Archaeology, Ethnohistory and Ethnology. Unpublished PhD dissertation, Department of Archaeology, University of Calgary, Calgary, Alta.

1969 Social Implications of the Iroquois "In Situ" Theory. *Ontario Archaeology* 13:16-28.

Noble, W.C., and I.T. Kenyon

1972 Porteus (AgHb-1): A Probable Early Glen Meyer Village in Brant County, Ontario. *Ontario Archaeology* 19:11-38.

O'Callaghan, E.B., ed.,

1853-1887 Documents Relative to the Colonial History of the State of New York. 15 volumes, Albany: Weed, Parsons, vol. 9: 1,054-1,058.

Ontario Heritage Policy Review [OHPR]

1990 *A Strategy for Conserving Ontario's Heritage*. Ministry of Culture and Communications (now Ministry of Culture), Toronto.

Parks Canada

1994 Cultural Resource Management Policy

152

2002 The Parks Canada Charter.

2003 Standards and Guidelines for the Conservation of Historic Places in Canada

2005 Parks Canada Guidelines for the Management of Archaeological Resources.

Pearce, R.J.

1984 Mapping Middleport: A Case Study in Societal Archaeology. Unpublished Ph.D. dissertation, Department of Anthropology, McGill University, Montreal.

Pendergast, J.F.

1993 More on When and Why the St. Lawrence Iroquoians Disappeared. In *Essays in St. Lawrence Iroquoian Archaeology*, edited by J.F. Pendergast and C. Chapdelaine, pp. 9-48. Occasional Papers in Northeastern Archaeology 8. Copetown Press, Dundas, Ontario.

Pihl, Robert H., Stephen G. Monckton, David A. Robertson and Ronald F. Williamson

2008 Settlement and Subsistence Change at the Turn of the First Millennium: The View from the Holmedale Site, Brantford, Ontario. in *Current Northeast Paleoethnobotany* Volume 2:151-172, Edited by John P. Hart

Popham, R.E., and J.N. Emerson

1952 Comments upon the Huron and Lalonde Occupations of Ontario. *American Antiquity* 18(2): 197-210.

Ramsden, P.G.

1977 *A Refinement of Some Aspects of Huron Ceramic Analysis*. Archaeological Survey of Canada, Mercury Series Paper 63. National Museum of Man, Ottawa.

1978 An Hypothesis Concerning the Effects of Early European Trade Among Some Ontario Iroquois. *Canadian Journal of Archaeology* 2:101-106.

1990a The Hurons: Archaeology and Culture History. In *The Archaeology of Southern Ontario to A.D. 1650*, edited by C.J. Ellis and N. Ferris, pp. 361-384. Occasional Publication of the London Chapter, Ontario Archaeological Society 5. London, Ontario.

1990b Saint Lawrence Iroquoians in the Upper Trent River Valley. *Man in the Northeast* 39:87-95.

Reid, C.S.

1975 *The Boys Site and the Early Ontario Iroquois Tradition*. Archaeological Survey of Canada Mercury Series Paper 42. National Museum of Man, Ottawa

Renfrew, A.C.

1986 Introduction: Peer Polity Interaction and Socio-Political Change. In *Peer Polity Interaction and Socio-Political Change*, edited by A.C. Renfrew and J.F. Cherry, pp. 1-18. Cambridge University Press, Cambridge.

Riddell, William

1932 "Last Official French Report on the Western Posts," Journal of the Illinois State Historical Society, vol. 24 (4): 578-585.

Ridley, F.

1954 The Frank Bay Site, Lake Nipissing, Ontario. *American Antiquity* 20(1):40-50

1958 Did the Huron Really Migrate North from the Toronto Area. *Pennsylvania Archaeologist* 28: 143.

Robertson, D.A., and R.F. Williamson

1998 The Archaeology of the Parsons Site: Summary and Conclusions. *Ontario Archaeology* 65/66:146-150.

2002 Middle Iroquoian Cultural Evolution: Similar Trajectories within Different Contexts. Paper presented at the 35th Annual Meeting of the Canadian Archaeological Association, Ottawa, Ontario.

Rogers, E.S.

1978 Southeastern Ojibwa. In *Handbook of North American Indians*, Volume 15 Northeast, edited by Bruce Trigger., pp. 760-771. Washington: Smithsonian Institution.

Schmalz, P.

1991 *The Ojibway of Southern Ontario*. Toronto: University of Toronto Press.

Schortman, E.M.

1989 Interregional Interaction in Prehistory: The Need for a New Perspective. *American Antiquity* 54(1):52-65.

Schwarcz, H.P., J. Melbye, M.A. Katzenberg, and M. Knyf

1985 Stable Isotopes in Human Skeletons of Southern Ontario: Reconstructing Paleodiet. *Journal of Archaeological Science* 12:187-206.

Service, E.R.

1971 *Primitive Social Organization: An Evolutionary Perspective*. Random House, New York.

Smith, Donald B.

1981 "The Dispossession of the Mississauga Indians: a Missing Chapter in the Early History of Upper Canada." *Ontario History*, vol. 73 (2): 72 (1981).

Smith, D.G.

1990 Iroquoian Societies in Southern Ontario: Introduction and Historic Overview. In *The Archaeology of Southern Ontario to A.D. 1650*, edited by C.J. Ellis and N. Ferris, pp. 279-290. Occasional Publication of the London Chapter, Ontario Archaeological Society 5. London, Ontario.

1997 Radiocarbon Dating the Middle to Late Woodland Transition and Earliest Maize in Southern Ontario. *Northeast Anthropology* 54: 37-73.

Smith, D.G. and G. Crawford

1995 The Princess Point Complex and the Origins of Iroquoian Societies in Ontario. In *Origins of the People of the Longhouse: Proceedings of the 21st Annual Symposium of the Ontario Archaeological Society.*, edited by A. Bekerman and G. Warrick, pp 55-70. Ontario Archaeological Society, North York.

1997 Recent Development in the Archaeology of the Princess Point Complex in Southern Ontario. *Canadian Journal of Archaeology* 21(1):9-32.

Smith, S.A.

1979 *The Methodist Point Site*. Research Report 11. Ontario Ministry of Culture and Recreation, Historical Planning and Research Branch, Toronto.

Spence, M.W.

1994 Mortuary Programmes of the Early Ontario Iroquoians. *Ontario Archaeology* 58:6-26.

Spence, M.W., and R.H. Pihl

1984 The Early and Middle Woodland Occupations of Ontario: Past, Present and Future. *Arch Notes* 84: 32-48.

Spence, M.W., R.H. Pihl, and J.E. Molto

1984 Hunter-Gatherer Social Group Identification: A Case Study from Middle Woodland Southern Ontario. In *Exploring the Limits: Frontiers and Boundaries in Prehistory*, edited by S. DeAtley and F. Findlow, pp. 117-142. British Archaeological Reports, International Series 223. Oxford.

Spence, M.W., R.H. Pihl, and C.R. Murphy

1990 Cultural Complexes of the Early and Middle Iroquoian Periods. In *The Archaeology of Southern Ontario to A.D. 1650*, edited by C.J. Ellis and N. Ferris, pp. 125-169. Occasional Publication 5. London Chapter, Ontario Archaeological Society.

Spittal, D.

1978 North Pickering Development Corporation Urban Stage One Archaeological Survey, 1978. Report on file, Ontario Ministry of Culture, Toronto.

Stork, P.L.

1988 Recent Excavations at the Udora Site: A Gainey/Clovis Occupation Site in Southern Ontario. *Current Research in the Pleistocene* 5:23-24.

Stothers, D.M.

1977 *The Princess Point Complex*. National Museum of Man Mercury Series, Archaeological Survey of Canada Paper 58. National Museums of Canada, Ottawa.

Sutton, R. E.

1990 *Hidden Amidst the Hills: Middle and Late Iroquoian Occupations in the Middle Trent Valley*. Occasional Publications in Northeastern Archaeology 3. Copetown Press, Dundas, Ontario.

1996 *The Middle Iroquoian Colonization of Huronia*. Unpublished Ph.D. dissertation, Department of Anthropology, McMaster University, Hamilton.

1999 The Barrie Site: A Pioneering Iroquoian Village Located in Simcoe County, Ontario. *Ontario Archaeology* 67: 40–86

Task Force on Museums and First Peoples

1992 *Turning the Page: Forging New Partnerships Between Museums and First Peoples* (2nd edition). Task Force Report on Museums and First Peoples. Assembly of First Nations and Canadian Museums Association, Ottawa.

Telford, Rhonda M.

1999 “The Anishinabe Presentation of Their Fishing Rights to the Duke of Newcastle and the Prince of Wales,” *Papers of the Thirtieth Algonquian Conference*. David H. Pentland, ed., Winnipeg: University of Manitoba Press (1999): 374-396.

Thwaites, R.G.

1896-1901 *The Jesuit Relations and Allied Documents*. 73 volumes. Burrows Brothers, Cleveland.

Timmins, P.A.

1997 *The Calvert Site: An Interpretive Framework for the Early Iroquoian Village*. Archaeological Survey of Canada, Mercury Series Paper 156. Canadian Museum of Civilization, Hull.

Transport Canada

2001 Canada Shipping Act.

United Nations Educational, Scientific, and Cultural Organization (UNESCO)

1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property.

1976 Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)

2001 Convention on the Protection of the Underwater Cultural Heritage

Trigger, B.G.

1969 *The Huron: Farmers of the North*. Holt, Rinehart and Winston, Toronto.

1976 *The Children of Aataentsic: A History of the Huron People to 1660*. McGill-Queen's University Press, Montreal and Kingston.

1978 Iroquoian Matriliney. *Pennsylvania Archaeologist*. 48:55-65.

1981 Prehistoric Social and Political Organization: An Iroquoian Case Study. In: *Foundations of Northeast Archaeology*, edited by D.R. Snow, pp. 1-50. Academic Press, New York.

1985 *Natives and Newcomers: Canada's "Heroic Age" Reconsidered*. McGill-Queen's University Press, Montreal.

Trigger, B.G., L. Yaffe, M. Diksic, J.-L. Galinier, H. Marshall, and J.F. Pendergast

1980 Trace Element Analysis of Iroquoian Pottery. *Canadian Journal of Archaeology* 4:119-146.

von Gernet, A.D.

1992 A Possible Matouweskarini Hunting Camp: Excavations at the Highland Lake Site, Renfrew County. *Annual Archaeological Report, Ontario, (New Series)* 3:120-124.

1993 Archaeological Investigations at Highland Lake: 1991 Field Season. *Annual Archaeological Report, Ontario, (New Series)* 4:74-79.

Warrick, G.A.

1984 *Reconstructing Ontario Iroquois Village Organization*. Archaeological Survey of Canada, Mercury Series Paper 124:1-180. National Museum of Man, Ottawa.

1990 *A Population History of the Huron-Petun, A.D. 900-1650*. Unpublished PhD dissertation, Department of Anthropology, McGill University, Montreal, Québec.

2000 The Precontact Iroquoian Occupation of Southern Ontario. *Journal of World Prehistory* 14(4): 415-466.

White, M.E.

1971 Review of the Bennett Site. *American Antiquity* 36:222-223.

Williamson, R. F.

1985 Glen Meyer: People in Transition. Unpublished Ph.D. dissertation, Department of Anthropology, McGill University.

1990 The Early Iroquoian Period of Southern Ontario. In *The Archaeology of Southern Ontario to A.D. 1650*, edited by C. J. Ellis and N. Ferris, pp. 291-320. Occasional Publication 5. London Chapter, Ontario Archaeological Society, London.

Williamson, R. F., M. S. Cooper, and D. A. Robertson

1998 The 1989–90 Excavations at the Parsons Site: Introduction and Retrospect: Summary and Conclusions. *Ontario*

Williamson, R.F., and D.A. Robertson

1994 Peer Polities Beyond the Periphery: Early and Middle Iroquoian Regional Interaction. *Ontario Archaeology* 58:27-48.

Wilson, J.

1990 The Boersma Site: A Middle Woodland Basecamp in the Thames River Valley. Unpublished M.A. thesis, Department of Anthropology, McMaster University, Hamilton.

Woodley, P. A.

1996 The HH Site (AhGw-81), QEW Highway and Redhill Creek Expressway, Regional Municipality of Hamilton-Wentworth. Report on file, Ontario Ministry of Culture, Toronto.

Wright, J.V.

1966 *Ontario Iroquois Tradition*. National Museums of Canada, Bulletin 210. National Museums of Canada, Ottawa.

Wymer, D.

1993 Cultural Change and Subsistence: The Middle and Late Woodland Transition in the Mid-Ohio Valley. In *Foraging and Farming in the Eastern Woodlands*, edited by C. Scarry, pp. 13-26. University Press of Florida, Gainesville.

Letter from La Jonquiere to Maurepas, Wisconsin Historical Collection, vol. 18: 99-104

Map of North America, Showing the Routes of the French between Quebec and the Great Lakes and the Mississippi, PRO, CO 5, 46, Public Record Office, London, Original Correspondence, America and West Indies, 1755-56, Military and Naval Despatches, folio 108.



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Planning and Economic Development Branch

17250 Yonge Street
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