

**MASTER PLAN OF ARCHAEOLOGICAL RESOURCES
OF THE REGIONAL MUNICIPALITY OF HALTON
2008 UPDATE**

Submitted to:

Regional Municipality of Halton

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April 3rd, 2009



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Phase 3
Sustainable Halton Report 3.06



Prepared for Halton Region

Executive Summary

An Archaeological Master Plan with a comprehensive potential model is the most effective response to an old problem — how to deal with evidence of the past that is, for the most part, not visible because it is buried underground (or under water). The Region of Halton has a long cultural history which begins approximately 10,000 years ago and continues to the present. The archaeological sites that are the physical remains of this lengthy settlement history represent a fragile and non-renewable cultural heritage resource.

Recent court cases involving Aboriginal land claims, not to mention stop-work orders issued when human remains are uncovered on a development site, are but two examples of the ways in which archaeological resources affect property owners and the municipalities in which they are located. Policy initiatives, such as those found in the Report of the Ipperwash Inquiry, recommending that every municipality in Ontario adopt a master plan for archaeological resources so as to identify their flashpoints and put in place a way of dealing with them before they happen, coupled with more stringent heritage resource conservation policies in the Provincial Policy Statement (Planning Act), the *Ontario Cemeteries Act* and the *Ontario Heritage Act*, require municipalities to plan even more wisely than previously for the conservation of archaeological resources. It should be noted that the most recent revisions to the Ontario Heritage Act call for automatic protection of archaeological remains that are more than one hundred years old and substantial fines for knowingly destroying such remains.

Happily, the Region of Halton is a leader in archaeological site conservation, having constructed an archaeological master plan a decade ago. This study represents an examination of the efficacy of the model presented in the 1998 study and makes a series of recommendations reflective of the recent changes in legislation and protocols involving Aboriginal consultation concerning archaeological resource conservation.

The major conclusion emerging from this study is that the model presented in the 1998 study is working effectively to identify the potential for pre-contact sites. Adjustments have been made through the mapping of potential locations of historic Euro-Canadian domestic sites to ensure that the same is now true for that class of site.

The major recommendations resulting from this study include:

- 1) It is recommended that the Official Plan be amended to include a section specific to archaeological planning. It is recommended that both a definition of archaeological resources, consistent with the definition laid out in the provincial policy statement, and recognition of their fragile nature, be included.
- 2) It is recommended that any new designations of heritage structures under Part IV of the *Ontario Heritage Act* should be buffered by 100m and added to the final potential zone. It should also be noted that an archaeological site can be designated under Part VI (52) of the *Ontario Heritage Act* thereby affording it with permanent protection.
- 3) No Stage 4 archaeological investigations on Aboriginal sites should be undertaken within the Region of Halton without first filing a First Nations consultation report with the Legislative and Planning Services Department.

- 4) In order to ensure the long term viability of the Archaeological Master Plan, it should be subject to comprehensive review on a five year basis, in co-ordination with the five year review of the Region's Official Plan as required by the Planning Act. Such a review should consider any changes in Ministry of Culture criteria for site significance, any data gaps in the site inventory, changes required to the archaeological potential modelling, and all procedures and guidelines related to the implementation of the Plan.
- 5) There exist certain situations in which unforeseen and deeply buried archaeological deposits may be discovered during construction. There are also redevelopment contexts when the Region may have limited planning control, thus being restricted in its ability to implement the archaeological master plan guidelines. In light of these considerations, it is recommended that the Region develop and adopt, in consultation with the Ministry of Culture, relevant Aboriginal communities, other agencies, landowners, and the public, a "Contingency Plan for the Protection of Archaeological Resources in Urgent Situations."
- 6) Concomitant with legislative measures intended to conserve and manage archaeological resources, the Region of Halton should also seek means by which the general public might be made more knowledgeable of the wide range of archaeological resources present within the Region, and of their significance as part of the Region's cultural heritage (bearing in mind the necessity that the locations of certain extant sites remain confidential). A heightened public awareness of the importance and fragility of archaeological resources can serve as an additional and effective means of protecting those resources.
- 7) There is a clear need to co-ordinate the disposition of artifacts recovered from archaeological sites within the Region. Indeed, it is generally preferable that material from a particular archaeological site is ultimately deposited in a public institution located in the same community, provided that adequate storage and curatorial facilities for both artifacts and field records are available, that the institutions' collections are accessible to researchers, and that the material is not transferred or disposed of without provincial approval.

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**MASTER PLAN OF ARCHAEOLOGICAL RESOURCES
OF THE REGIONAL MUNICIPALITY OF HALTON
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1.0 INTRODUCTION

Completed in 1998, the Master Plan of Archaeological Resources of the Regional Municipality had three major goals:

- 1) the compilation of inventories of registered and unregistered archaeological sites within the Region and the preparation of an overview of the area's settlement history as it may be expected to pertain to archaeological resources;
- 2) the development of an archaeological site potential model, based on known site locations, past and present land uses, and environmental and cultural-historical data; and
- 3) review of the (then) current Provincial planning and management guidelines for archaeological resources, as well as the identification of a recommended management strategy for known and potential archaeological resources within the Region.

In the ten years that have elapsed since the implementation of the Master Plan, a large volume of new archaeological research has been undertaken in the Region and there have been numerous changes to the legislation and practice surrounding the management of archaeological resources as part of the land use planning and development process. This report provides an update to the 1998 Master Plan, and incorporates the data accumulated by archaeological assessments carried out between 1998 and the spring of 2008 (revised GIS layers and associated data files for precontact archaeological sites, historic features, and overall archaeological potential are provided on the accompanying CD-ROM); reviews the efficacy of the predictive model developed to identify areas of archaeological potential within the Region on the basis of these new data; provides a discussion of changes to the Planning and Heritage acts, as well as emerging trends in First Nation consultation with respect to cultural heritage resources; a summary of revisions to the Ontario Ministry of Culture's preferred significance evaluation criteria; and guidelines concerning the appropriate forms of mitigation with respect to different categories of archaeological sites. The report concludes with a series of recommendations intended to reflect these developments and to ensure that the archaeological resources of the Region continue to be managed in a wise manner.

It should be noted that the original 1998 Master Plan Planning Report contains discussions of numerous other issues that are relevant to an understanding of archaeological resource management that are not repeated herein if, despite the passage of time, they remain relevant. These include topics such as the importance of cultural heritage and the character of archaeological resources in particular; the Aboriginal and Euro-Canadian history of the Region; the principles of archaeological potential modelling; the threats to archaeological resources; other relevant legislation such as the Environmental Assessment Act; ownership of archaeological remains, etc. The reader is referred to the original Planning Report for information on such matters.

2.0 THE 1998 MASTER PLAN OF ARCHAEOLOGICAL RESOURCES

2.1 Technical Component: The Archaeological Potential Model

Precontact Archaeological Potential Layer

At the time of the compilation of the Master Plan, a total of 589 archaeological sites had been registered within the Region, based on the information available in the Ontario Archaeological Sites Database (OASD) maintained by the Ontario Ministry of Culture. The majority of these sites represent the remains of small precontact camps occupied for short lengths of time, as people moved throughout their territories on a seasonal basis, hunting game, fishing and collecting wild plant foods. Some of these sites were occupied as early as 9,000 B.C. By the middle of the first millennium A.D., however, larger and more permanently occupied agricultural villages became more firmly established in conjunction with smaller camps and hamlets. By the early seventeenth century, these people were known to be members of the Neutral confederacy.

In order to understand the manner in which additional, archaeological sites may be distributed within the Region, an archaeological potential model was developed using a 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. To this base mapping were added watercourses that appear on 1:25,000 and 1:50,000 topographic series maps as well as streams that appear on historic maps, but which no longer survive due to landscape change or drainage alteration. The distribution of soils, which were classified by type, texture and drainage, were also mapped, as were the locations of all registered precontact archaeological sites for which reliable spatial information was available within the OASD (n=285), all unregistered sites that were reported to the study team which could be plotted with reasonable accuracy (n=17), and all lands that had been subjected to comprehensive archaeological survey as of 1998. All precontact archaeological sites were mapped as points. It should be noted that of the precontact sites that were mapped within the GIS, those that were used for the purposes of model development consisted of those that were identified as “camps” or their equivalents¹ dating to all periods of precontact history (termed Category 2 in the original study) and Late Woodland “villages” (termed Category 3 in the original study). Sites registered as isolated finds were not used for establishing the regional archaeological buffers as the random processes that account for the loss or discard of single artifacts cannot be accounted for in a predictive model. These isolated finds essentially represent accidental and isolated events and are of comparatively limited significance from a cultural resource management perspective.²

A series of statistical analyses were then carried out in an effort to examine potential relationships between archaeological site locations, water sources and the distribution of soils within the Region. The analyses indicated that 85% of all registered precontact sites are found within 200 metres of water, which suggested that a buffer zone extending 200 metres from any water source would constitute an acceptable characterization of precontact archaeological site potential within the Region. To further refine this basic proximity to water criterion, all lands located beyond 200 metres of water, but within 200 metres of the top of bank of all two-line rivers, such as the Credit River or Bronte Creek, were also considered to demonstrate significant potential for selection by precontact populations. Also, all registered archaeological sites that were found beyond the basic 200 metre from water potential zones, were

¹ Such sites may also include agricultural hamlets or other special purpose areas such as quarries.

² Although it may be noted that the 200 metre buffer also captured 86% of the registered isolated finds.

buffered. For Late Woodland villages, a 200 metre buffer, measured from their centre points, was established, while for other sites a 100 metre buffer was used. Accordingly, these zones, site buffers, and floodplains were mapped as a discrete layer of precontact potential within the project GIS.

Integrity Layer

An integrity layer was compiled based on a review of then current 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 schoolyards, parks and golf courses, which potentially remain wholly or primarily undisturbed.

Given that field checking of integrity was not practical, maps and aerial photographs were used to compile this layer.

Historical Layer

Examination of the nineteenth century mapping of the Region, together with consideration of the basic historical themes that have been most influential in its development, led to the identification of zones as areas of historic archaeological potential. The GIS layer of historic features was based on primary source documents, particularly nineteenth century maps of the former Halton County. It was recognized that these maps do not always illustrate historic features that may be of interest and that the locations of the features in question could only be considered approximate, given the limited accuracy of the sources. This layer was not, therefore, considered definitive.

Settlement centres were mapped as polygons, and were expected to exhibit potential for the presence of individual features such as meeting halls, school houses, blacksmith shops, stores, grain warehouses, hotels, taverns, and other commercial service buildings. In addition a wide variety of feature types that occurred outside of the major settlement centres were mapped individually as points buffered by a radius of 100 metres, if their locations were shown on earlier nineteenth century maps. These included all schools, places of worship and commercial buildings, such as inns, industrial features such as mills, manufactories, lime kilns, quarries and mines. Transportation routes such as trails, early settlement roads and early railways were buffered by zones of 50-100 metres either side.

Cemeteries and family burial grounds were 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. All pioneer cemeteries listed as of April 1998 in the Inventory of Cemeteries maintained by the Halton-Peel Branch of the Ontario Genealogical Society (for which locations could be ascertained based on examination of the available mapping) were plotted. These locations were not field verified. In general, the inventory of cemeteries prepared for this study did not include large municipal and private cemeteries in urban areas, especially if they have been established recently.

It should be noted that isolated rural homesteads, some of which are illustrated on various nineteenth century maps, were not incorporated within this layer. They were excluded from the modelling exercise for several reasons. First, neither nineteenth century maps nor more recent studies provide comprehensive locational data for rural homesteads. Second, isolated rural settlements (homesteads/farmsteads) were not specifically identified as a significant historical theme worthy of systematic archaeological inventory and investigation given their quantity and ubiquity (although this generalization may or may not pertain to any particular site). Third, it was thought that the majority of early nineteenth century farmsteads (i.e., those

which are arguably the most potentially significant resources) were likely to be captured together with precontact sites, since both were subject to similar environmental constraints. Finally, it was thought that a significant percentage of rural homesteads would be captured coincidentally to the buffering of other historic themes, particularly early settlement trails, roads, and railways.

Composite Archaeological Potential Layer

The final GIS layer developed for the project was the map of the overall zones of archaeological potential within the Region. This was compiled by merging the zones of precontact archaeological potential and thematically-defined zones of historic archaeological potential. All areas lacking landscape integrity were then excluded from this layer. The resultant potential mapping presented a first approximation of the overall distribution of archaeological resources in the Region. On the basis of this mapping, it was suggested that 69,995 hectares, or 68% of the total landmass of the Region of Halton (97,264 hectares), exhibits potential for the presence of hitherto undocumented archaeological sites. The 200 metre buffer zone identified in this study incorporated considerably less land than would be encompassed by the generic criteria assessment approach outlined by the Ministry of Culture, which utilizes a 300 metre buffer for primary water sources and a 200 metre buffer for secondary water sources.

Model Evaluation and Implementation

The 1998 model presented a first approximation of the overall distribution of archaeological resources in the Region of Halton. The purpose of the exercise was to provide land-use planners and heritage resource managers with a theoretically-supported estimate of the scope of a resource for which there was still limited substantive data available. Given the hypothetical nature of such a model, it was recognized that it contained inherent limitations that needed to be considered if it was to be employed appropriately.

The unknown but undoubtedly complex distribution of sites in Halton were described in terms of a geographical continuum of density, or potential for discovery, ranging from none to very high. In the model, however, the continuum was subdivided into two classes: areas that demonstrate archaeological potential and areas that do not demonstrate potential. Since the principal orientation of the model revolved around access to water for travel and subsistence, it was anticipated that certain site classes, sacred sites for example, may not conform to the mapped zonation of potential. **Residual sites of this kind, and sites in localized zones of potential that could not be resolved at the mapping scale employed for the study, could be expected to occur throughout the Region of Halton.**

The Master Plan further recognized that as additional site information was accumulated in the future, the site sample on which the original model was developed would grow accordingly, and its success as a predictive tool could be re-evaluated over time. For this reason it was recommended that, where any part of a development application falls into the zone of archaeological potential, the *entire* application should be subject to assessment. This would afford the opportunity of examining lands beyond the archaeological potential zone, thereby improving the site sample and avoiding the self-fulfilling prophesy of only finding sites where one looks for them.

Finally, it was noted that the potential model and planning protocols be subject to comprehensive review on a five year basis. It was anticipated that such a review would consider any changes in Provincial criteria for site significance, any data gaps in the site inventory, changes required to the archaeological potential model, and all procedures and protocols related to the implementation of the Master Plan.

2.2 Planning Component

The planning component of the 1998 Master Plan entailed a review of the contemporary planning and management guidelines for archaeological resources that had been developed by various jurisdictions, as well as the identification of a recommended management strategy for known and potential archaeological resources within the Region.

This work included establishing definitions for significant archaeological resources, a review of the legislative context for archaeological resource assessment, evaluation, and mitigation within the context of land development, and the roles and responsibilities of all parties in this process.

The Region's Official Plan, and those of the lower tier municipalities were reviewed and recommendations were made so as to bring their treatment of archaeological matter into line with the contemporary requirements of the Ontario Planning Act.

A new archaeological review procedure was identified. This procedure was to be applicable to all large-scale land-use alterations in the form of Plans of Subdivision, site specific Official Plan Amendments and Niagara Escarpment Plan Amendments, Niagara Escarpment Commission development permit applications that propose large-scale development (e.g., golf courses, pond construction, large-scale buildings, etc.), large re-zonings as well as regional, city, town and any other public agency (e.g., school board) development/infrastructure projects that involve construction, erection or placing of a building or structure, activities such as site grading, excavation, removal of topsoil, or peat and the placing and dumping of fill; drainage works, except for the maintenance of existing municipal and agricultural drains.

It was also recommended that small-scale applications such as minor variances, small-scale re-zonings, building permit applications, or severances should be reviewed in order to determine impacts upon potential archaeological resources, although it was noted that the need for a subsequent archaeological assessment will probably be less frequent.

The Master Plan also outlined the workings of the specific day-to-day review and assessment processes, as well as the associated issues of archaeological resource significance evaluation, the range of mitigative options, and related matters.

3.0 THE 2008 MASTER PLAN UPDATE

3.1 Technical Component: The Archaeological Potential Model

Precontact Archaeological Potential Layer

In order to update the precontact archaeological sites layer, the OASD was again consulted in order to obtain a complete listing of registered sites within the Region (Figure 1). While the Ministry of Culture provided basic data in the form of Borden designation, site type, cultural affiliation and spatial co-ordinates, no information with respect to site name, researcher, research activities or site status was supplied. The vast majority of these are attributable to sites discovered during archaeological assessments completed subsequent to the Master Plan, however, there are a small number which had been discovered earlier, but for which data was not available during the Master Plan research, and one site which was overlooked by the earlier study.

**Figure 1: REGIONAL MUNICIPALITY OF HALTON
Archaeological Master Plan
Figure 1: Archaeological sites**

Note:

Figure 1 has been removed to protect the integrity of the archaeological sites and the artifacts they may contain. Figure 1 may be viewed by making an appointment with staff from the Legislative and Planning Services Department, Region of Halton.



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In total, 190 new precontact sites of all categories have been added to the precontact sites layer. These consist of 88 isolated finds (Category 1) which are not of utility for the purposes of modelling, and 102 precontact camps³ (Category 2) sites. No Late Woodland village (Category 3) sites have been added to the inventory.

Of the precontact sites, 32 (16.8% of the total of new sites) fall outside of the 1998 potential zones. This ratio is consistent with the results of the original analysis. Seventeen of these sites (53.1%) are isolated finds that do not warrant further consideration, while the remaining 15 (46.9%) comprise Category 2 “camps” of various ages or types (Table 1). Each of these 15 sites was then examined to account for their location beyond the archaeological potential zone, defined within 200 metres of all sources of water.

Table 1: Category 2 Sites Not Captured by the 200m Buffer

Borden	Site Type	Cultural/Temporal Association*
AjGw-26	Camp	Aceramic
AjGw-276	Camp	Precontact
AjGw-405	Camp	Aboriginal, Precontact ³
AjGw-410	Undetermined	Undetermined
AjGw-417	Camp	Aboriginal, Precontact
AjGw-419	Camp	Aboriginal, Precontact
AjGw-422	Camp	Undetermined
AjGx-74	Scatter	Precontact
AjGx-85	Cabin, Agricultural	Iroquoian, Late; Neutral; Woodland, Late
AiGw-301	Camp	Archaic, Middle; Brewerton
AiGw-305	Undetermined	Archaic, Middle; Brewerton; Archaic, Early; Nettling
AiGw-307	Camp	Iroquoian, Late; Woodland, Late; Daniels
AiGw-349	Scatter, Lithic; Workshop, Chert	Precontact
AiGw-383	Camp, Hunting	Precontact
AiGw-454	Scatter, Lithic	Aboriginal

*as stated on site record form transcribed into the OASD

AjGw-26

AjGw-26 was inadvertently omitted from the 1998 inventory of sites. Registered by David Spittal in 1976 as the Last site, it was found north of the North Service Road of the QEW, east of Ford Drive. The site is presumed to have been destroyed during the development of the area. The general vicinity of the site’s location, as plotted on the basis of the co-ordinates in the OASD was excluded from the potential zonation, based on lack of integrity. Examination of aerial photography confirms the validity of this assessment.

³ This number includes nine sites characterized as “undetermined” with respect to site type. These are assumed to be precontact lithic scatters that would fall within the general “camp” category.

Site AjGw-276

AjGw-276 is located approximately 215 metres outside of the closest zone of potential, which buffers the upper reaches of two tributaries of Sixteen Mile Creek. Examination of aerial photography provided no clear indications of a well defined stream course any closer to the site, suggesting that water mapping resolution may not be the problem. However, 1:50,000 scale topographic mapping depicts a broad swale to the southeast of the site and within 200 metres of its mapped location. This swale may represent a relict or seasonal headwater section of one of the tributaries. Alternatively, the site may have been occupied during winter, when proximity to a source of running water was less crucial, or during the spring when swales, such as that indicated on the topographic mapping may have contained standing water.

AjGw-405

The location of AjGw-405, plotted on the basis of the co-ordinates provided in the OASD place the site approximately 20 metres beyond the limits of the potential zone. Given the requirement in the Master Plan whereby an entire property must be assessed if any portion of it falls within an area of potential, it may be expected that sites located such minimal distances beyond the 200 metre buffer will be captured consistently.

AjGw-410, 417, 419 and 422

Sites AjGw-410, 417, 419 and 422 all appear to be located within a parcel of land for which an assessment was required on the basis of variety of criteria, including the presence of sources of water. While the sites are located beyond the 200 metre buffer established around these features, examination of aerial photography indicates that the sites are all oriented to a series of minor watercourses that were not originally included within the hydrography base mapping used in the 1998 study. These likely represent seasonal elements within the local drainage system.

AjGx-74

Site AjGx-74 appears to be located within a parcel of land removed from the integrity layer based on the fact that it had been assessed prior to the completion of the 1998 study, although no site record form was available at that time. Review of the location of the site, as plotted based on the co-ordinates provided in the OASD suggests that it fell within 200 metres of a watercourse, and so would have been otherwise captured by the model.

AjGx-85

Site AjGx-85 appears to be located within a parcel of land for which an assessment was required on the basis of variety of criteria, including the presence of sources of water. While the site is located beyond the 200 metre buffer established around these features, examination of aerial photography indicates that it was located within 200 metres of a pond or wetland that was not originally included within the hydrography base mapping used in the 1998 study.

Sites AiGw-301, 305, 307, and 383

All of these sites are located within the Highway 407 corridor, which was removed from the model due to lack of integrity. No site record forms for these sites were available at the time of the compilation of the 1998 master plan. Review of the locations of these sites, as plotted based on the co-ordinates provided in the OASD suggests that all fell within 200 metres of a watercourse, and so would have been otherwise captured by the model.

AiGw-349

The location of AiGw-349, plotted on the basis of the co-ordinates provided in the OASD place the site approximately 30 metres beyond the limits of the potential zone. Given the requirement in the Master Plan whereby an entire property must be assessed if any portion of it falls within an area of potential, it may be expected that sites located such minimal distances beyond the 200 metre buffer will be captured consistently.

AiGw-454

Site AiGw-454 appears to be located within a parcel of land for which an assessment was required on the basis of variety of criteria, including the presence of sources of water. While the site is located beyond the 200 metre buffer established around these features, examination of aerial photography indicates that it was located within 200 metres of a series of ponds or wetlands that were not originally included within the hydrography base mapping used in the 1998 study.

Summary

In summary, of the 15 Category 2 sites added to the 1998 inventory that were not captured by the archaeological potential buffers established during the Master Plan, six can be attributed to the problem of incomplete water mapping, while six appear to represent sites that were discovered prior to 1998 during projects for which integrity was removed from the model, but for which there was a lag in the transfer of the site record form data to the OASD. Among the latter, there appear to be no sites that would not otherwise have been captured by the potential model. Finally, three sites are located at very short removes (15-30 metres) from defined potential zones, and appear to have been discovered due to requirements for assessments made on the basis of the surrounding areas of potential.

Historical Layer

An additional 70 Euro-Canadian archaeological sites have been registered within the Regional Municipality of Halton since the completion of the Master Plan. Eleven of these (15.7%) were found beyond areas of archaeological potential, regardless of how these were defined (i.e., based on physiographic criteria, or on the basis of the historic theme and feature mapping).

As noted previously, the 1998 study did not include mapping of individual farmsteads depicted on nineteenth century maps. The locations of these features have been incorporated within the GIS as part of this update, based on Tremaine's 1858 map of Halton County, Surtees' 1859 map of Wentworth County,

the 1877 *Illustrated Historical Atlas of the County of Halton*, and the 1875 *Illustrated Historical Atlas of the County of Wentworth*. A total of 2,281 farmsteads, very few of which were depicted on the earlier Tremaine of Surtees maps, have been plotted as points, buffered by 100 metre diameter potential zones (Figure 2). Of these, 1,479 (64.8%) fall with the 1998 potential areas, regardless of how defined. While the fact that the remaining 802 (35.2%) initially appears to represent an unacceptably high number of examples overlooked by the model, it should be noted that, of these, 667 are mapped in areas of no integrity. Thus, the model fails to capture only 138 (6.0%) of the farmsteads mapped as part of this exercise. These are now flagged by one hundred metre diameter buffers.

Also as noted previously, the 1998 Master Plan included mapping of the locations of pioneer cemeteries listed as of April 1998 in the Inventory of Cemeteries maintained by the Halton-Peel Branch of the Ontario Genealogical Society. This inventory was re-examined in 2008, with the result that three additions have been made (Table 2; Figure 3).

Table 2: Additions to the Halton Cemetery Inventory

Name	Location	City	Township
Hornby Wesleyan Methodist Cemetery	SE Lot 1, Conc. 8	8002 Eighth Line, Halton Hills (Hornby)	Esquesing
Kindree Family Farm	Lot 10, Conc 10	South side of Derry Road between Ninth and Tenth	Trafalgar
Oakville Town including St Mary's R.C.	Oakville		Trafalgar

Conclusions

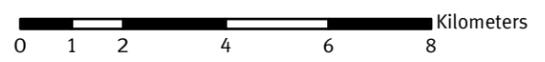
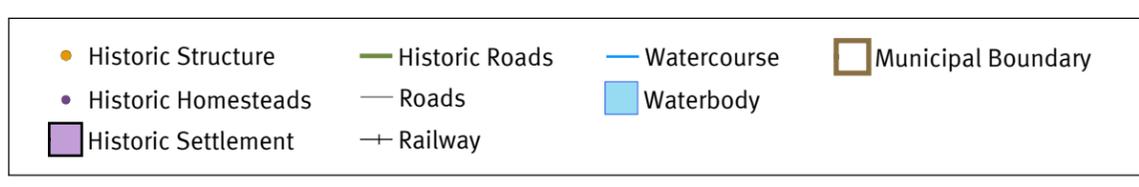
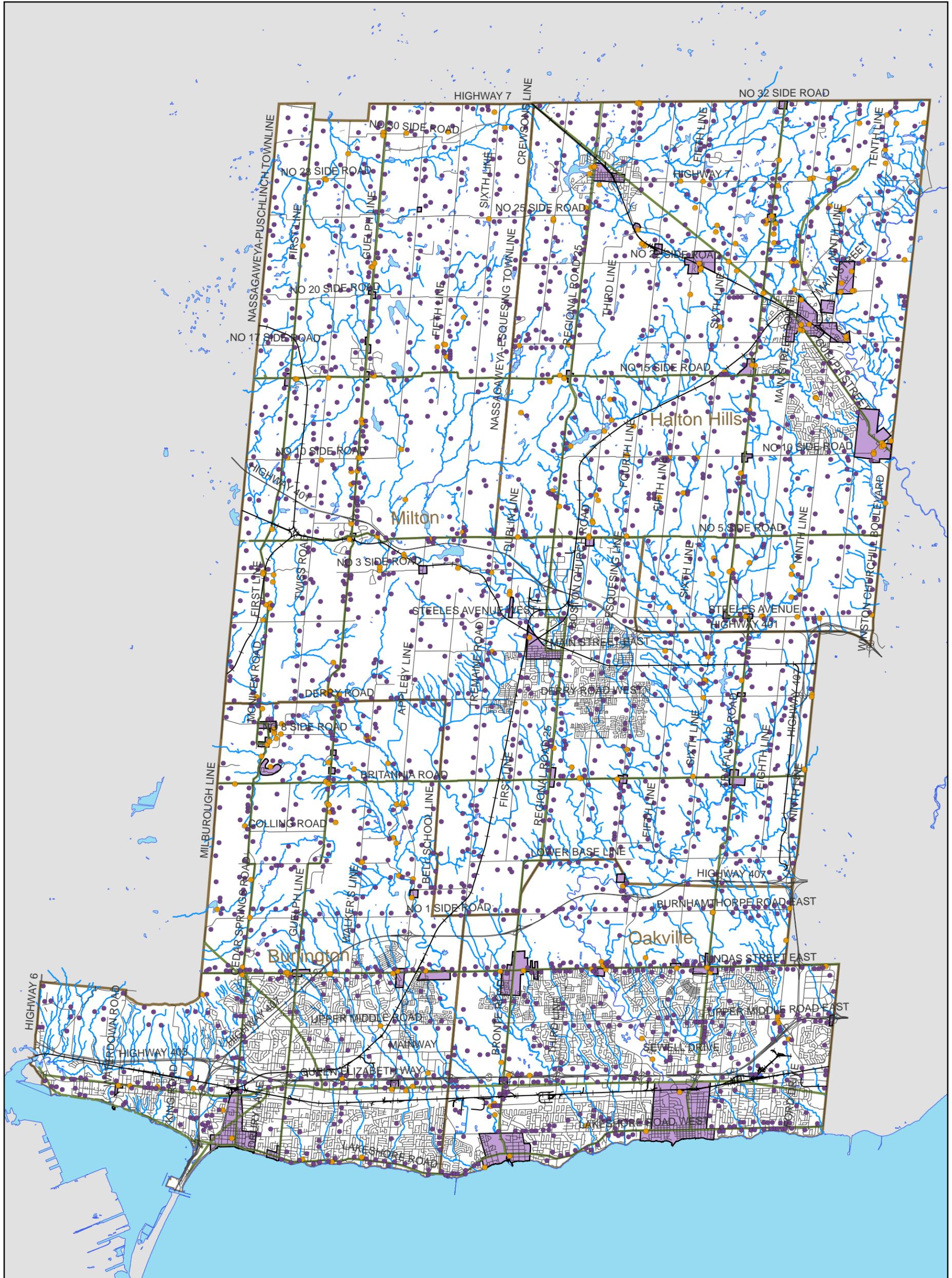
The results of the preceding research have led to the updating of the GIS, in regard to the archaeological sites, historic feature and composite archaeological potential layers. These have led to revisions to the composite archaeological potential layer, as the new archaeological sites with their appropriate buffer zones have been added, as have Euro-Canadian farmsteads with their buffers. Similarly three newly listed cemeteries have been added. Where water mapping resolution has been examined as part of the analysis of precontact archaeological sites that were not captured by the 1998 potential zones, some new data have been entered. While the latter are only minor changes that will not affect the future use of the model, as they will have little to no influence on adjacent lands, they do highlight, again, the implications of these limitations to the base data with respect to the overall process of defining potential.

On the whole, however, the model appears to have performed well in terms of directing archaeological assessments within the Region, and the results of this work confirm the validity of the modelling criteria employed in the 1998 study and the efficacy of the provision that all lands within a given property be subject to archaeological assessment, not just those parts that fall within a potential zone.

REGIONAL MUNICIPALITY OF HALTON

Archaeological Master Plan

Figure 2: Historic Features



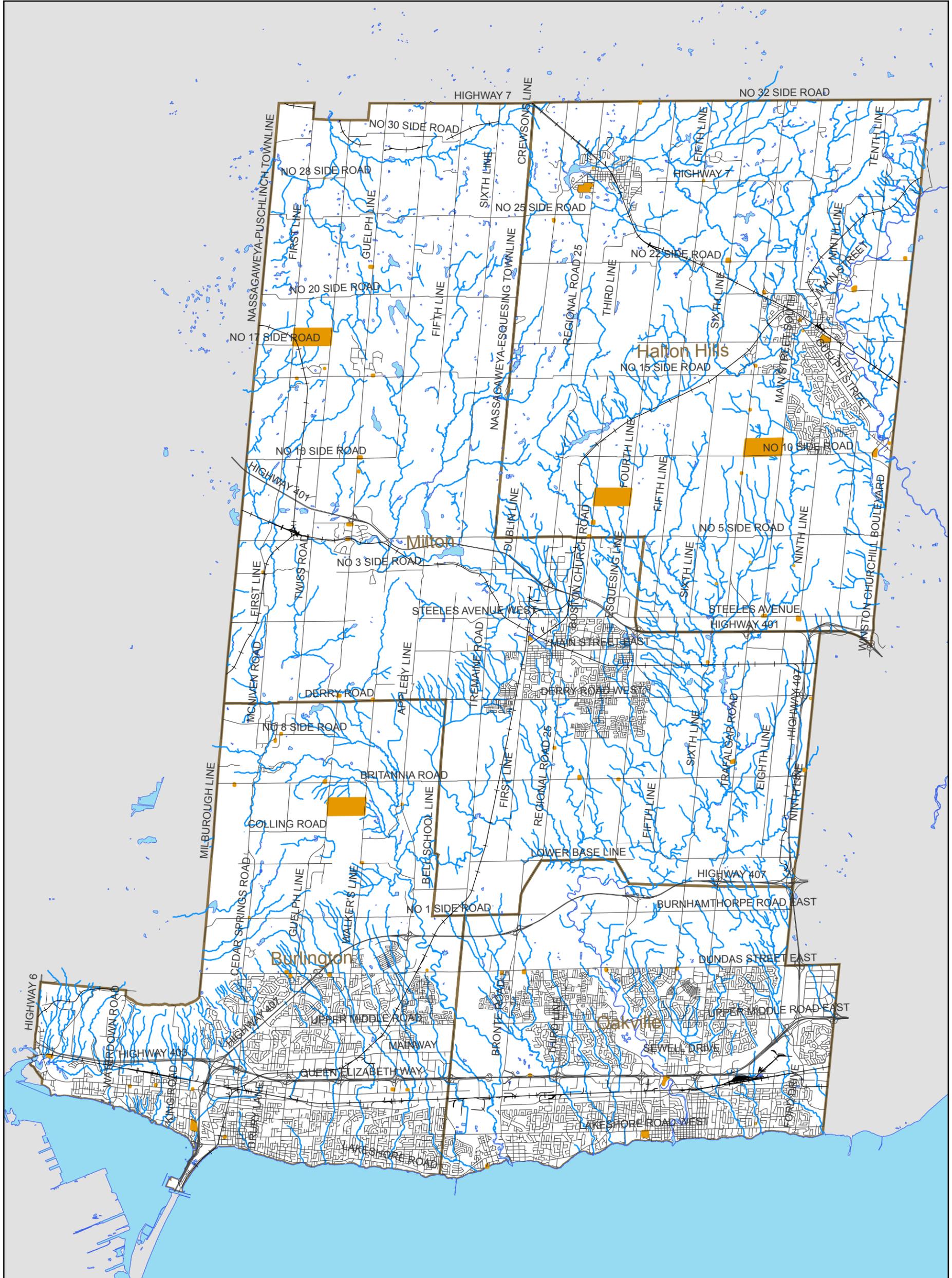
DATE:
AUG 7, 2008



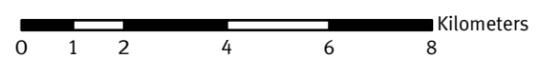
REGIONAL MUNICIPALITY OF HALTON

Archaeological Master Plan

Figure 3: Cemeteries



	Cemeteries		Watercourse		Municipal Boundary
	Railway		Waterbody		
	Roads				



DATE:
APRIL 2, 2009



3.2 Planning Component

Since the completion of the 1998 Master Plan, there have been a number of changes in the legislative and policy contexts in which the management of archaeological resources is undertaken and to the practices of such management.

The key elements are to be found in changes to the Planning Act and the accompanying Provincial Policy Statement, changes to the Ontario Heritage Act, and the emerging understanding that there is a need, on the part of municipal governments to ensure that they can demonstrate that they have carried out an adequate degree of consultation with those First Nations communities who have a legitimate concern with respect to land use planning decisions that may affect their cultural heritage legacy.

The Ontario Planning Act

With respect to archaeological resources, the most recent Provincial Policy Statement, which came into effect March 1, 2005, 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 removal 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).

“Removal” of an archaeological resource” in this context is accomplished through mitigative documentation and/or excavation as part of the *archaeological assessment* process.

The Provincial Policy Statement offers the following definitions for “archaeological resources,” “areas of archaeological potential,” conservation, and significance:

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.

Areas of archaeological potential: means areas with the likelihood to contain archaeological resources. Criteria for determining archaeological potential are established by the Province, but municipal approaches which achieve the same objectives may also be used. Archaeological potential is confirmed through archaeological fieldwork

THE ASSESSMENT PROCESS

A **Stage 1** assessment consists of background research concerning registered sites on the subject lands or within close proximity, as well as the environmental character of the property and its land use history. A **Stage 2** assessment consists of field survey to document any sites that may be present on a property. It should be noted that completion of an archaeological field assessment of a particular development property, no matter how rigorous, does not fully guarantee that all significant archaeological resources on that property will be identified prior to land disturbance. This is particularly the case in areas where processes such as filling, flooding or erosion have resulted in the burial of original ground surfaces, or with respect to isolated human burials that are typically small features that can escape detection. **Stage 3** investigations are designed to secure a detailed understanding of the nature and extent of a site and may involve complete or partial systematic surface collection and test excavation. **Stage 4** undertakings comprise extensive excavation; comparative analysis and interpretation of content and contextual information

undertaken in accordance with the Ontario Heritage Act.

Conserved: means 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. This may be addressed through a conservation plan or heritage impact assessment.

Significant: in regard to cultural heritage and archaeology, resources that are valued for the important contribution they make to our understanding of the history of a place, an event, or a people.

As noted in the first of these definitions, the identification and evaluation of archaeological resources is based upon archaeological fieldwork undertaken in accordance with the Ontario Heritage Act.

Provincial interests in land use planning are also detailed in the Provincial Policy Statement provided in Section 3(1) of the Act, as amended by the Strong Communities Act (2004), whereby:

a decision of the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Municipal Board, in respect of the exercise of any authority that affects a planning matter, “**shall be consistent**” with this policy statement.

Thus all decisions made during the development process, regardless of the identity of the development proponent or the relevant approval agency, must address potential heritage resource impacts. Given the provincial interest, any planning activity referred to in the Act, including the preparation of Official Plans or any planning application, should have regard for matters of provincial interest. The statements in the Act are sufficient for a municipality to require that an archaeological assessment be completed prior to the approval of a planning application.

It should be noted that an archaeological assessment must now be completed and submitted with an application for approval of a plan of subdivision. Section 51 (17) of the Planning Act, Part VI Subdivision of Land, now delineates under Schedule 1 the information and material to be provided by an applicant for approval of a plan of subdivision (O. Reg. 544/06, s. 2). This section states the applicant shall 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.

In the case of a zoning by-law, however, the Act allows a municipality to attach 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 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 Ontario Heritage Act

The Ministry of Culture is charged under Section 2 of 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. These goals are generally accomplished through other legislated processes, such as those required by the Planning and Environmental Assessment Acts, rather than directly through the Heritage Act itself, although revisions to the Act in the Spring of 2005 have greatly increased the efficacy of the legislation and it contains provisions aimed at ensuring that archaeological sites are protected from unauthorized disturbance. The key statements in this regard are contained in Section 48(1), wherein it is stated that:

subject to subsection (2), no person shall do any of the following unless the person applies to the Minister and is issued a licence under this Part that allows the person to carry out the activity in question:

1. Carry out archaeological fieldwork.
2. Knowing that a site is a marine or other archaeological site, within the meaning of the regulations, alter the site or remove an artifact or any other physical evidence of past human use or activity from the site.

Thus it became illegal for any person or agency to alter an archaeological site (through archaeological excavation, site looting, or development) without a license. This in effect offers automatic protection to all archaeological sites. The penalty for altering a site without a license is \$500,000.00.

Currently, 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 guidelines⁴,

⁴ The 1993 *Stage 1-3 Archaeological Assessment Technical Guidelines* are currently the only official statement of MCL’s requirements for archaeological assessments. These guidelines have been modified and expanded upon through day-to-day practice, however, there is no comprehensive or official documentation in this regard. Between 2004 and 2006, MCL in consultation with the archaeological community began the process of developing a new set of standards and guidelines. An August 2006 final draft of the resulting document, entitled *Standards and Guidelines for Consultant Archaeologists* was posted on the MCL website. It was subsequently removed and replaced by an August 2005 draft, which lacks a discussion of First Nation consultation that appeared in the August

resource conservation standards, and the regulations of the Heritage Act. The regulation of archaeological activities carried out within the development context requires that all approval authorities must integrate the requirements of the Heritage Act within their land use planning process. In the case of development, however, **the Regional Municipality of Halton is the approval authority that must ensure that these requirements are met.** The Ministry of Culture's role is one of providing advice concerning the degree to which a particular development proponent has satisfied an archaeological assessment condition.

Engaging Aboriginal Communities with Respect to Archaeological Resources

A series of recent events related to First Nations concerns with the prevailing development process in southern Ontario, have important implications for the Regional Municipality of Halton. Most notable among these are the ongoing controversies over a proposed residential development within the Town of Caledonia and the status of Six Nations claims regarding past treaty processes and land disposition within the Haldimand Tract, as well as the Ipperwash Inquiry. In York and Durham regions, there have also been a number of Environmental Assessment Act related projects that have highlighted the need to engage Aboriginal communities and have resulted in protocols for First Nations consultation.

The sources of the tensions that have arisen with regards to potential development impacts on First Nations rights are longstanding and complex and continue to be debated in the Federal and Provincial courts. In 2004, for instance, the Supreme Court of Canada released its decisions in the *Haida Nation v. B.C. and Weyerhaeuser* and *Taku River Tlingit First Nation v. B.C.* cases. These rulings have set out more clearly than ever the scope and extent of the Crown's duty to consult and, where appropriate, accommodate First Nations prior to development of Crown Lands. These rulings, which are applicable across Canada, noted that third parties, which include local governments, do not owe a duty to consult or accommodate First Nations peoples, as these duties rest solely with the Crown (Federal and Provincial governments). There has not yet been any decision as to whether local governments, as regulators exercising delegated Provincial powers, may also assume any portion of the Province's duty to consult. This must await future decisions; however, with the current trend towards "downloading" responsibilities from upper levels of government, municipalities will have a duty to enquire whether there has been adequate consultation.

Likewise, there is, as yet, no decision concerning municipally-owned or privately-owned lands. Nevertheless, it is clear that local governments should exercise caution in making any decision that could affect a First Nation and should take steps to consult with and fully inform itself of the practices and views of that First Nation.

In the meantime, three relatively recent initiatives have helped to resolve the past problems of inadequate consideration of First Nations concerns with respect to land use planning and may be of direct relevance to future development planning in Halton.

The first of these was the consultation process developed for the Oak Ridges Moraine/Seaton Class EA. The consultation process was designed to involve the participation of all formal First Nation groups that are—or may potentially be—concerned with that Class EA process. A major positive outcome of the Seaton initiative, despite perceptions that some First Nations had not been consulted adequately, was that it provided an opportunity for the Wendat, Haudenasaunee and the Anishnaubeg Nations to come together and formalize their united interests in their archaeological and cultural heritage.

2006 version. There has been no official announcement as to when the new *Standards and Guidelines* will be implemented.

It is often assumed that the First Nation that is geographically closest to a given project 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 of the First Nations of southern Ontario, both before and after European contact and settlement, means that such assumptions can be simplistic and detrimental to the success of the entire consultation process. Often the archaeological sites that are to be the focus of the consultation are of such antiquity that no conclusive identification of cultural affiliation to modern communities is possible.

Under circumstances of this sort there should be an effort to identify all groups that are 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.

In this way, ancient sites are represented by all of the First Nations together. In considering the archaeological resources of the Seaton lands, however, many sites were associated with the Huron-Wendat nation. Indeed, it was established that all confirmed Late Woodland village sites, which were occupied primarily by ancestral Huron, would be protected. In the case of large village sites in Halton Region, both the Huron and Six Nations should be consulted. This same cooperative approach has been used very effectively most recently in developing a protocol for Aboriginal consultation for the Southeast Collector Trunk Sewer Individual Environmental Assessment by York and Durham regions (project on-going).

Secondly, the final draft of the *New Standards and Guidelines for Consultant Archaeologists* developed by the Ministry of Culture was released on August 31, 2006. This document included a section (Unit 6) that required Aboriginal consultation between Stages 3 and 4 archaeological investigations on Aboriginal sites and recommended consultation before Stage 2 and 3. The new Standards and Guidelines recognize that the Crown has a formal duty to consult with First Nations, where its actions may adversely affect an established or asserted treaty right. They also note that this consultation is separate from any consultation that archaeologists may need to undertake on behalf of their clients in the land development sector (whether municipal or private) with respect to cultural heritage resources.

The draft Standards state that “engagement” (meaning consultation) *must* take place:

- anytime field work uncovers human remains;
- whenever a consulting archaeologist intends to propose fieldwork following an alternate strategy for an archaeological assessment that departs from those laid out in the Standards and Guidelines (this must occur prior to reviewing the proposed strategy with the Ministry itself);
- when assessing the cultural value or interest of an archaeological site that is known or appears to have sacred or spiritual import, or is associated with traditional land uses, geographic features of cultural heritage interest, or Aboriginal oral histories;
- when deciding whether to protect Aboriginal archaeological sites of cultural heritage value or interest (e.g., sites with sacred or spiritual manifestations reflected in the archaeological record, Late Woodland villages, large lithic scatters or quarries, nineteenth century Aboriginal domestic sites, undisturbed sites, any site identified as being of interest on the part of an Aboriginal community).

While these guidelines have not yet been finalized, such consultation is now expected by many First Nations and it will be important that the Region of Halton ensure that such consultation has

occurred in their jurisdiction. Access to archaeological information was one of the catalysts responsible for escalating the Caledonia dispute.

Finally, in the fall of 2006, the Ministry of Municipal Affairs and Housing initiated a project to begin training its staff on Aboriginal heritage issues and to develop an approach to engage First Nations/Aboriginal groups on future land use planning initiatives. Further outreach to the Ministry's municipal clients and the development industry on the intersection of Aboriginal affairs and land use planning are also foreseen.

Halton Region Official Plan

In light of these developments, it is also necessary to review the Regional Municipality of Halton Official Plan, in order to ensure that its policies are consistent with provincial legislation and policy.

The Halton Region Official Plan, dated August 17, 2006 includes the following policy statements that are applicable to the management of archaeological resources, which are subsumed within the larger category of "Heritage Resources":

165. The goal for heritage resources is to protect the material, cultural, natural and built heritage of Halton for present and future generations.

166. The objectives of the Region are:

166(1) To promote awareness and appreciation of Halton's heritage.

166(2) To promote and facilitate public and private stewardship of Halton's heritage.

167. It is the policy of the Region to:

167(1) Maintain, in conjunction with the Local Municipalities, local historical organizations, and municipal heritage committees a list of documented Heritage Features in Halton.

167(2) Inform promptly the appropriate government agencies and LACACs of development proposals that may affect defined Heritage Features and known archaeological sites.

167(3) Require that development proposals involving, in, or near defined Heritage Features:

- a) study and consider the preservation, relocation and/or adaptive re-use of historic buildings and structures based on both social and economic costs and benefits;
- b) incorporate in any reconstruction or alterations, design features that are in harmony with the area's character and existing buildings in mass, height, setback and architectural details; and
- c) express the Heritage Feature in some way, including: display of building fragments, marking the traces of former locations, exhibiting descriptions of former uses, and reflecting the former architecture and uses.

- 167(4) Prepare an Archaeological Master Plan to inventory, classify and map significant archaeological resources in Halton and to provide direction for their assessment and preservation, as required.
- 167(5) Encourage the Local Municipalities to prepare, as part of any Secondary Plan, an inventory of heritage resources and provide guidelines for preservation, assessment and mitigative activities.
- 167(6) Prior to development occurring in or near areas of archaeological potential, require assessment and mitigation activities in accordance with Provincial requirements and the Regional Archaeological Master Plan
- 167(7) Maintain and operate a Regional facility to, through collection management, research, exhibits and programming:
- a) preserve the material and cultural heritage of Halton,
 - b) acquire and share knowledge of Halton's historical and natural world, and
 - c) encourage discovery, appreciation and understanding of Halton's heritage.
- 167(8) Develop a coordinated heritage signage and heritage promotion program in Halton.”

A “heritage feature” is defined in the Plan as:

a feature of the Regional landscape which, by itself, or together with its associated environment, is unique or representative of past human activities or events. Such a feature may include a site or area of archaeological or historical value and it may include a building or structure of architectural and/or historical importance.

The Official Plan policies are echoed, in abbreviated form, in the Sustainable Halton Management Strategy Evaluation Framework, wherein Theme 1 (“Protect What is Valuable”) notes that there is the goal to “ensure protection of significant cultural heritage resources” with the objectives to “conserve cultural heritage landscapes” and to “conserve archaeological resources.”

While the Official Plan policies are generally consistent with provincial requirements, it is recommended that the Official Plan be amended to include a section specific to archaeological planning. It is recommended that both a definition of archaeological resources, consistent with the definition laid out in the provincial policy statement, and recognition of their fragile nature, be included. Moreover, it should be noted that the Region has undertaken preparation of its archaeological Master Plan and that it has been providing direction for the assessment and preservation of the archaeological sites of the Region.

The Archaeological Planning Review Process

The basic procedure recommended for use in the development review process for all new planning applications, as outlined in the 1998 Master Plan, should remain in effect. This process is reiterated here, incorporating the minor changes in nomenclature, etc.

The general sequence of actions is as follows:

1. As part of the consultation process, Legislative and Planning Services staff will determine if an archaeological assessment is required for a proposed application by means of review of the composite archaeological potential layer of the GIS. Should any portion of the property fall within a zone of archaeological potential or an archaeological site that has been previously registered on the property, then the Region will require that the proponent undertake an archaeological assessment as a condition of development approval. Preferably, the assessment should be completed and submitted as part of the application (required in the case of Plans of Subdivision). The Ontario Ministry of Culture (MCL), Culture Programs Unit, must be provided with copies of the notice from Legislative and Planning Services that an archaeological assessment will be required of the proponent. This is required in order for MCL to complete their review of the archaeological assessment and to be able to provide the archaeological consultant (on behalf of the proponent) with a letter recommending clearance of outstanding archaeological concerns once the assessment work has been completed and a report submitted.

WORDING FOR THE ARCHAEOLOGICAL CONDITION

The proponent shall carry out an archaeological assessment 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 and the Ministry of Culture confirming that all archaeological resource concerns have met licensing and resource conservation requirements.

The property will be assessed by a consultant archaeologist, licensed by the Ministry of Culture under the provisions of the Ontario Heritage Act (R.S.O. 1990); and any significant sites found will be properly mitigated (avoided or excavated), prior to the initiation of construction, servicing, landscaping or other land disturbances.

The consultant archaeologist will submit 1:10,000 scale mapping that clearly outlines the limits of the property subject to assessment; 2) a Region of Halton Archaeological Site Record form and attached 1:10,000 scale mapping providing site locations; and 3) a copy of the relevant assessment report(s).

The development applicant must retain a licensed archaeologist to conduct a Stage 1 and 2 archaeological assessment of the entire subject property, not simply the portion(s) that falls within the zone of archaeological potential. 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.

2. Any deviation from this approach must be approved by MCL. Also, all work conducted by the archaeologist as a result of the archaeological condition must conform to the standards set forth in the most current Archaeological Assessment Technical Guidelines authorized by MCL.
3. Once the archaeological assessment, consisting of background research and a field survey, has been completed, the archaeological consultant will submit a report to the Culture Programs Unit of MCL. The Archaeology Review Officer for the Central West Region, which includes Halton, will review the report to determine if the assessment has met current licensing and technical standards. If this is not the case, MCL will require the consultant to carry out additional field work, and/or provide more extensive documentation.
4. If the assessment complies with current licensing and technical standards and did not result in the identification of any archaeological potential within the property (in the case of a Stage 1

assessment) or did not result in the documentation of any significant archaeological resources (in the case of a Stage 1-2 assessment), MCL will provide a letter to the consultant archaeologist, the development applicant, and the Region, 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 of MCL approval, and supporting documentation from the archaeological consultant, the Region may then clear the planning application of any further archaeological concern.

5. If the assessment did result in the documentation of one or more significant archaeological resources, appropriate mitigation and/or preservation options must be recommended by the licensed archaeologist and approved by MCL. Upon completion of the mitigation, the archaeological consultant must provide a report detailing this work and its results to MCL, which will review the work and recommend to the consultant, the development applicant and the approval authority that there are no further archaeological concerns, or that additional mitigations be undertaken, as the case may be.

It should be noted, in this regard, that even if one or more significant archaeological sites that will require further mitigation are documented during the course of an assessment, it is generally possible to secure partial clearance for the property, in that the archaeological requirement may be removed from the balance of the subject lands not encompassed by the archaeological site(s) and suitable protective buffer zones. Similarly, 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 brief executive summary to MCL staff, and the proponent providing information regarding any outstanding concerns (e.g., commitment to production of the final report).

6. Upon receipt of notification that all MCL archaeological conservation and licensing concerns have been addressed, and receipt of the necessary supporting documentation from the archaeological consultant, the Region will clear the planning application of further archaeological concern.

Should the proponent choose not to proceed with all necessary assessment and/or site mitigations prior to, and in support of the application, the completion of these activities to the satisfaction of MCL must be made a condition of draft approval.

The Municipal Project Review Process

For municipal projects, whether or not they are subject to the Environmental Assessment Act, the same process will be followed. Should the project impact areas of archaeological potential, the completion of an assessment and any necessary mitigation, subject to the approval of MCL, will be required.

Assessing Resource Impacts and Identifying Mitigation Strategies

If no adverse impacts to an archaeological resource will occur, then development may proceed as planned. However, it should also be noted that completion of an archaeological assessment of a particular development property, no matter how rigorous, does not fully guarantee that all significant archaeological resources on that property will be identified prior to land disturbance. This is particularly the case in areas where natural processes, such as flooding or erosion, have resulted in the burial of original ground

surfaces, or with respect to isolated human burials that are typically small features that can escape detection. As outlined in archaeological licensing regulations, every report should contain the statement that should deeply buried archaeological remains be found on a property during construction activities, then MCL should be notified immediately. It should further specify that if human remains should be encountered during construction, the development proponent should immediately contact the police, MCL, and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services. If the burials are determined to be of Aboriginal origin, the appropriate Aboriginal community must also be notified and their assistance sought. The Cemeteries Act stipulates that the closest Aboriginal community is to be contacted, although it may ultimately prove that a more distant group is more suitable to act in the matter, on the basis of their cultural historical ties to the remains in question.

In any case in which deeply buried archaeological remains (including burials) are encountered, all construction activity in the vicinity of the discovery must be postponed until an appropriate mitigation strategy is identified and executed. It should be noted that the most recent revisions to the Ontario Heritage Act call for automatic protection of archaeological remains that are more than one hundred years old and substantial fines for knowingly destroying such remains.

Should a significant archaeological resource be discovered during the course of an assessment, the development proponent, the archaeological consultant, MCL, and the Region must assess the potential impact to an archaeological resource and arrive at rational decisions regarding integration of that resource into the site or development plan or the implementation of mitigative options.

The review process at this stage, therefore, requires the input of the developer in order to make the decisions regarding potential adverse effects to a site. Should a site be threatened, the two available options are to immediately integrate the site into the development plan, through re-allocation of open space/community park space, or provide for mitigative procedures. The decision-making process with respect to mitigative procedures may be subject, however, to a cost benefit analysis where the mitigative option involves input from all of the stakeholders, *i.e.*, the Region, the particular municipality, MCL, affected First Nations, if relevant, the heritage community and the developer. It should be noted that in many cases the developer is already based in the public sector. As discussed below, 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.

It should also be noted that detailed information regarding a site is frequently required in order to make a more accurate assessment of significance and to determine the potential for adverse effects. This may involve different levels of on-site investigations.

All management decisions that are made during the development process regarding a particular archaeological site must be informed by an assessment of that site's significance. It is only after such an evaluation that the most appropriate mitigative strategy, both in terms of resource protection and in terms of successful integration within the overall development plan, can be identified. This evaluation depends, in turn, upon information recovered during the course of the archaeological resource assessment that led to its discovery.

The process of evaluating site significance or “heritage value,” to use the current terminology preferred by MCL, is based on a number of overlapping considerations that are applied on a case-by-case basis. These considerations fall into three basic categories: ***information value***, ***value as a public resource***, and ***community value***.

Information value refers to the likelihood that investigation of a site will contribute to an increased understanding of the past. Such an assessment must be carried out through consideration of several major criteria: the degree to which a site will contribute to our understanding of the past (its cultural, historical and scientific value); the relative rarity or commonness of similar sites locally or regionally; its productivity or richness in terms of the artifacts it contains; and the degree to which it has been disturbed by more recent land uses or natural processes.

Value as a public resource refers to the degree that a site will contribute to an enhanced understanding and appreciation of Ontario's past on the part of the general public.

Value to a community refers to whether or not the site has intrinsic value to a particular community, First Nation or other group.

While the following section, derived from previous First Nations discussions about archaeological site mitigation strategies, outlines recommended Stage 4 mitigations for sites of various time periods and types, it should be noted that in all cases there is a presumption in favour of avoidance and preservation of any First Nation site that has not been disturbed by ploughing or other modern land uses. Any such site should be deemed to be of high heritage value. An additional complicating factor is that many sites may represent occupations of more than one general time period. The existence of such different components on a single site may or may not be apparent upon conclusion of a Stage 3 assessment. In such cases, the most conservative mitigative option should be preferred.

The logic underlying this discussion is that archaeological sites of heritage value are comparable to at least significant natural resource features, such as wetlands, in that they are scarce, fragile, and non renewable. They must therefore be managed in a similar manner and allowances for their existence and long term conservation must be made as early as is possible in the development planning process.

Paleo-Indian and **Early Archaic** sites, which on the basis of Stage 3 assessment are found to be more than a single isolated find, are deemed to be of high heritage value. Large sites of this period, e.g., tool stone acquisition sites and large base camps used on multiple occasions, or specialized sites such as caches or burials should be protected. Caches and burials *may* be identified on the basis of Stage 3 assessment through the recovery of a suite of diagnostic/unusual artifacts. Smaller transitory camps or apparently single-occasion chert reduction events are also of high heritage value, but may be subject to salvage excavation, provided that the appropriate methodological approaches for such sites are applied (see MCL Archaeological Fieldwork Draft Standards and Guidelines).

Middle Archaic, and **Late Archaic** sites, which on the basis of Stage 3 assessment are found to be more than a single isolated find, are deemed to be of high heritage value. Large sites of this period, e.g., tool stone acquisition sites and large base camps used on multiple occasions, or specialized sites such as caches, isolated burials, or cemeteries (which appear during the Late and Terminal Archaic) are of high value and should be protected. Caches, burials and cemeteries *may* be identified on the basis of Stage 3 assessment through the recovery of a suite of diagnostic/unusual artifacts. Sites that exhibit an unusual degree of preservation of organic materials are also of heightened value. Smaller transitory camps or apparently single-occasion chert reduction events are also of high heritage value, but may be subject to salvage excavation, provided that the appropriate methodological approaches for block excavation of such sites are applied (see MCL Archaeological Fieldwork Draft Standards and Guidelines).

It should be noted that many lithic sites that produce debitage, but lack formal diagnostic tools are assumed to be of generalized Archaic origin. Such sites may be of almost any size, although larger sites will be more likely produce at least some formal tools that can be more specifically dated. Small lithic sites that cannot be ascribed a more specific date are generally regarded as having lower heritage value, at

least in terms of their information potential, and are often not subject to any form of Stage 4 mitigation. Should such a site exhibit other unusual or unique attributes, however, preservation and/or salvage excavation would be required.

Early Woodland, Middle Woodland and Transitional Woodland sites, which on the basis of Stage 3 assessment are found to be more than a single isolated find, are deemed to be of high heritage value. Large sites of this period, e.g., tool stone acquisition sites and large base camps used on multiple occasions, or specialized sites such as caches, isolated burials or cemeteries should be protected. Caches, burials and cemeteries *may* be identified on the basis of Stage 3 assessment through the recovery of a suite of diagnostic/unusual artifacts. Sites that exhibit an unusual degree of preservation of organic materials are also of heightened value. Smaller transitory camps or locales marked by an apparently single chert reduction event or the breakage and discard of ceramic artifacts are also of high heritage value, but may be subject to salvage excavation, provided that the appropriate methodological approaches for block excavation (and potentially topsoil stripping) of such sites are applied (see MCL Archaeological Fieldwork Draft Standards and Guidelines).

Large **Late Woodland** and **Contact** period First Nation villages are deemed to be of high heritage value. Such sites should be protected. It is preferable that such sites be preserved through full avoidance, or a combination of avoidance and salvage excavation. There is a presumption that Late Woodland period settlements, in particular villages, exhibit a heightened potential for human burials. This can rarely be predicted on the basis of any Stage 3 assessment, but should be considered in determining an appropriate Stage 4 strategy, whereby avoidance is the preferred option where feasible. Should such a site be subject to salvage excavation, the appropriate methodological approaches for block excavation and topsoil stripping must be applied (see MCL Archaeological Fieldwork Draft Standards and Guidelines). Should one or more human burials be encountered during a Stage 4 salvage excavation, the disposition of the remains (preservation and avoidance versus exhumation and reburial elsewhere) must be negotiated between all relevant stakeholders.

Smaller Late Woodland and Contact period First Nation camps, cabins/hamlets and specialized resource extraction sites are deemed to be of high heritage value, depending on their size and characteristics. It is preferable that the larger sites be preserved through full avoidance or a combination of avoidance and salvage excavation provided that the appropriate methodological approaches for block excavation and topsoil stripping of such sites are applied (see MCL Archaeological Fieldwork Draft Standards and Guidelines). Smaller camps that evidently were only briefly occupied or marked by a limited range of activities are also of high heritage value, but may be subject to salvage excavation, provided that the appropriate methodological approaches for block excavation (and potentially topsoil stripping) of such sites are applied (see MCL Archaeological Fieldwork Draft Standards and Guidelines). There is potential that some Late Woodland period sites provisionally identified as “camps” or “cabins” may have served as specialized burial sites. This can rarely be predicted on the basis of any Stage 3 assessment, but should be considered in determining an appropriate Stage 4 strategy.

Late Woodland and post-contact period First Nation ossuaries or cemeteries are deemed to be of high heritage value, and should under all possible circumstances be protected through avoidance. It must be acknowledged that the detection of cemeteries and/or ossuaries during Stage 2 archaeological assessment is virtually impossible. 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. Many of the cemeteries and ossuaries known to archaeologists were first discovered as a result of land clearance in the nineteenth century. The locations of these sites may or may not be well-documented. Modern discoveries of such sites are generally accidental results of large scale earth-moving or other construction activities. Upon discovery of such burial features during the course of construction some

remedial documentation and excavation may be required, but avoidance and preservation through project redesign/revision should be the ultimate preferred alternative.

In areas where ossuary burial was not a traditional practice, or was only one of several contemporary practices, Late Woodland and Contact period First Nation cemeteries *may* be detected during Stage 3 assessment by the recovery of human bone and/or a suite of diagnostic/unusual artifacts. As historic Neutral cemeteries are often in close proximity to their associated villages, a 200 metre buffer zone around the perimeter of documented villages might be considered as having elevated potential for the discovery of human remains.

Upon confirmation that a Late Woodland or Contact period First Nation site served as a cemetery, preservation through avoidance through project redesign/revision should be the ultimate preferred alternative.

In any situation in which a human burial is encountered during a Stage 4 salvage excavation, the disposition of the remains (preservation and avoidance versus exhumation and reburial elsewhere) must be negotiated between the appropriate First Nations and the landowner under the supervision of the Cemeteries Registrar.

Euro-Canadian domestic and industrial sites, which on the basis of archival research and Stage 3 assessment are found to consist of significant artifact deposits and subsurface features that relate to the early Euro-Canadian settlement history of the area (i.e., pre-1870) are deemed to be of high heritage value. Such sites should be protected. Where protection is not an option, however, there are no major constraints on their salvage excavation, provided that the appropriate methodological approaches for block excavation (and potentially topsoil stripping) of such sites are applied (see MCL Archaeological Fieldwork Draft Standards and Guidelines).

The site preservation/avoidance option will have both short- and long-term components. The short-term component involves both the design and/or 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 entail the use of prohibitive zoning by-laws, as permitted by subsection 34(1) of the Planning Act, or through other conditions or orders that prohibit any future land use activities that might result in soil disturbance. Prior to protection of a site, it will first be necessary to accurately define its character and extent through completion of a detailed Stage 3 archaeological assessment.

4.0 PLANNING RECOMMENDATIONS

In light of the preceding considerations, the following recommendations are made:

1. It is recommended that the Official Plan be amended to include a section specific to archaeological planning. It is recommended that both a definition of archaeological resources, consistent with the definition laid out in the provincial policy statement, and recognition of their fragile nature, be included.
2. It is recommended that the Legislative and Planning Services Department continue to implement the Archaeological Planning Review Process as outlined in the 1998 Master Plan and updated by the present study.
3. It is recommended that the Region maintain open files on all development applications until such

time that the Ministry of Culture has signed off on all outstanding archaeological concerns. This will be particularly germane to phased developments where the archaeological clearance will be provided for each phase as investigations are completed.

4. It is recommended that any new designations of heritage structures under Part IV of the *Ontario Heritage Act* should be buffered by 100m and added to the final potential zone. It should also be noted that an archaeological site can be designated under Part VI (52) of the *Ontario Heritage Act* thereby affording it with permanent protection. This recommendation is intended to address Section 2.6.3 of the *Provincial Policy Statement*.
5. No Stage 4 archaeological investigations on Aboriginal sites should be undertaken within the Region of Halton without first filing a First Nations consultation report with the appropriate planner at the Region.
6. It should be noted that completion of an archaeological assessment of a particular development property, no matter how rigorous, does not fully guarantee that all significant archaeological resources on that property will be identified prior to land disturbance. This is particularly the case in areas where natural processes, such as flooding or erosion, have resulted in the burial of original ground surfaces, or with respect to isolated human burials that are typically small features that can escape detection.

As outlined in archaeological licensing regulations, therefore, every archaeological assessment report should contain the statement that should deeply buried archaeological remains be found on a property during construction activities, then Ministry of Culture should be notified immediately. It should further specify that if human remains should be encountered during construction, the development proponent should immediately contact the police, Ministry of Culture, and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services. The Region's Legislative and Planning Services Department should also be contacted.⁵

If the burials are determined to be of Aboriginal origin, the local/most closely culturally associated Aboriginal community must also be notified and their assistance sought. In any case in which deeply buried archaeological remains (including burials) are encountered, all construction activity in the vicinity of the discovery must be postponed until an appropriate mitigation strategy is identified and executed.

It should be noted that the most recent revisions to the *Ontario Heritage Act* call for automatic protection of archaeological remains that are more than one hundred years old and substantial fines for knowingly destroying such remains.

7. In order to ensure the long term viability of the Archaeological Master Plan, it should be subject to comprehensive review on a five year basis, in co-ordination with the five year review of the Region's Official Plan as required by the Planning Act. Such a review should consider any changes in Ministry of Culture criteria for site significance, any data gaps in the site inventory, changes required to the archaeological potential modelling, and all procedures and guidelines related to the implementation of the Plan. Any review regarding site significance should involve a

⁵ Should it come into effect, the August 2006 final draft of the *Standards and Guidelines for Consultant Archaeologists* contains very specific requirements for the wording of these and other advisory statements on compliance with legislation.

synthesis of archaeological knowledge resulting from the implementation of this plan to define what kind of sites require excavation to further our knowledge of the pre- and post-contact past of the Region.

8. Archaeological license reports are no longer subject to the Freedom of Information and Protection of Privacy Act, as well as copyright restrictions, with the exception of sensitive information concerning still extant archaeological site locations. The Region may use these reports for internal purposes and provide copies to licensed archaeologists.

As outlined in Recommendation 6 above, there exist certain situations in which unforeseen and deeply buried archaeological deposits may be discovered during construction. There are also redevelopment contexts when the Region may have limited planning control, thus being restricted in its ability to implement the archaeological master plan guideline. In light of these considerations it is recommended that:

9. The Region develop and adopt, in consultation with the Ministry of Culture, relevant Aboriginal communities, other agencies, landowners, and the public, a “Contingency Plan for the Protection of Archaeological Resources in Urgent Situations.”

As outlined in archaeological licensing regulations, the Contingency Plan should specify that if deeply buried archaeological remains are found on a property during construction activities, then the Ministry of Culture should be notified immediately. It should further specify that if human remains should be encountered during construction, the proponent should immediately contact both the Ministry of Culture and the Registrar of the Cemeteries Regulation Unit of the Ministry of Small Business and Consumer Services. In both cases all construction activity in the vicinity of the discovery must be postponed until an appropriate mitigation strategy is identified and executed. As noted above, it is illegal for any person or agency to alter an archaeological site without a license. This in effect offers automatic protection to all archaeological sites and the Region must exercise due diligence in all contexts, including emergency situations, to ensure that archaeological features are protected from disturbance of any nature.

Such a Contingency Plan should address:

- a notification process, involving the Region of Halton, the Ministry of Culture and any other communities or agencies identified during the consultation process;
- an investigation and reporting process undertaken by a licensed archaeologist;
- financial responsibility, structured according to the ability to pay of public sector, private sector, and individual land owners. In the case of individual land owners, it may be necessary to establish a contingency fund.
- Concomitant with establishing such a process for situations where heritage resource planning control is limited and provincial funding is absent; there is a need to establish greater latitude and flexibility in civic financial and other assistance for private conservation activities. Inducements of various types, extended to the private owner/developer in the community interest, are often seen as the quid pro quo for regulatory restrictions. While recognizing that the Region may be concerned about the potential effects of property tax inducements (e.g., rebates, temporary assessment freezes, etc.) on existing property assessments and tax revenues, it is suggested that the feasibility of such measures merits further consideration during consultation for the Contingency Plan.

10. Concomitant with legislative measures intended to conserve and manage archaeological

resources, and consistent with existing policies 167(7) and 167(8) of its Official Plan, the Region of Halton should also seek means by which the general public might be made more knowledgeable of the wide range of archaeological resources present within the Region, and of their significance as part of the Region's cultural heritage (bearing in mind the necessity that the locations of certain extant sites remain confidential). A heightened public awareness of the importance and fragility of archaeological resources can serve as an additional and effective means of protecting those resources.

While the public is generally supportive of environmental causes, we must share with others that humans exist in time as well as space, and that the record of our temporal environment is slowly vanishing. As a science, archaeology often suffers from the attitudes and actions which result from public misconceptions about its motives, aims and methods. It is encouraging to note that when members of the public are made aware of archaeological sites, there exists a genuine interest not only in the pre-contact history and history of a Region, but also in archaeology itself as an academic discipline. The Region should, therefore, support any programs and endeavours related to involving the public in the investigation of the Region's archaeological record.

11. There is a clear need to co-ordinate the disposition of artifacts recovered from archaeological sites within the Region. Indeed, it is generally preferable that material from a particular archaeological site is ultimately deposited in a public institution located in the same community, 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.

While many of the existing museum facilities within the Region already have collections of material, or may be willing to accept additional material, a large amount of material from sites in the Region is currently curated elsewhere. Indeed, collections derived from the activities of private archaeological consulting firms, for the most part, remain in the care of those firms. It is recommended that the Region consider preparing an accurate and comprehensive inventory of the collections currently held by museums and consulting archaeologists.

Should the Region deem it desirable to establish a guideline encouraging the curation of material from archaeological sites within Halton at local museums (existing or proposed), researchers active in the Region could be made aware of this interest.

In order to implement such a process, however, it would first be necessary to ensure that such institutions possess adequate storage and curatorial facilities, and management policies. Should the Region, in consultation with the local museums, wish to adopt a comprehensive policy concerning the curation of artifacts from archaeological sites within the Region, and incorporate any such policy within the overall implementation of the archaeological master plan, it is recommended that any such curatorial facilities (existing or proposed) and their practices meet current professional standards with respect to climate control, security, researcher access, etc.

As the curation of archaeological materials on Provincial lands falls entirely within the regulatory framework of the Province, the Region should request financial assistance from the Province for the study and implementation of the public curation of materials found within its jurisdiction.