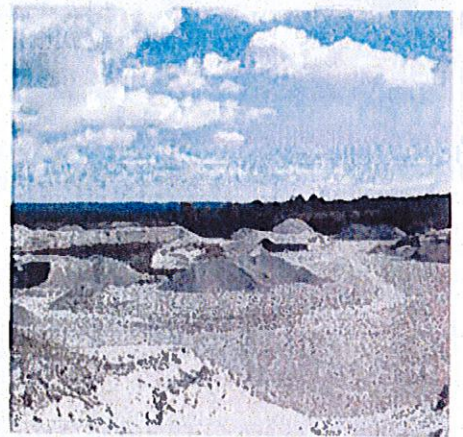
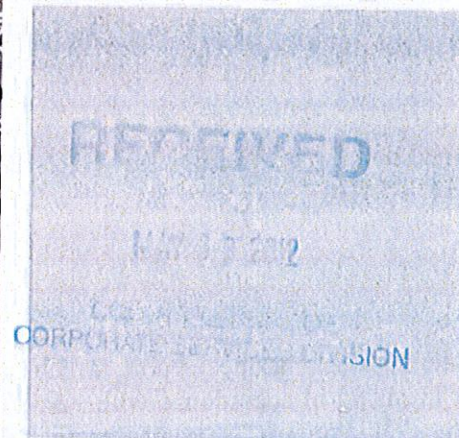
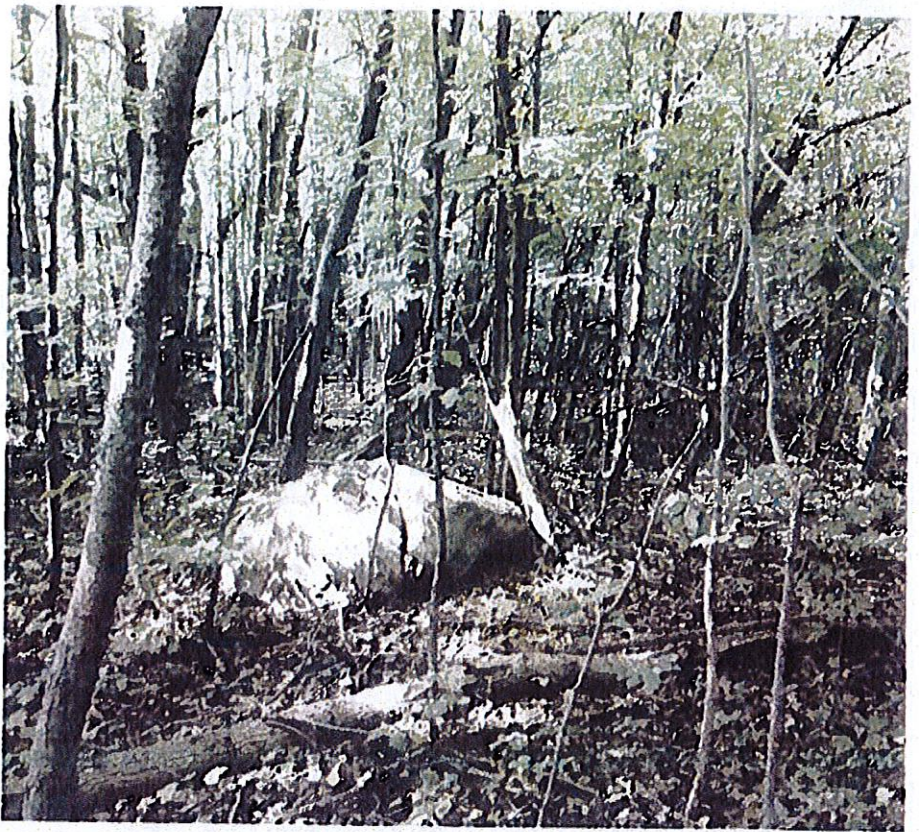


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Stage 1 and Stage 2 Archaeological Assessment
SibThorpe Pit Expansion
Lot 80, Concession 1 WPR
Geographic Township of Tiny, Simcoe County

144 Upper Turriff Road, L'Amable, ON K0L 2L0
Telephone: 705.201.1066 Facsimile: 866.231.6071 Email: info@centralarchaeology.ca



Ministry of Tourism and Culture

Culture Programs Unit
Programs and Services Branch
Culture Division
435 S. James St., Suite 334
Thunder Bay, ON, P7E 6S7
Telephone: 807 475-1632
Facsimile: 807 475-1297

andrew.hinschelwood@Ontario.ca

Ministère du Tourisme et de la Culture

Unité des programmes culturels
Direction des programmes et des services
Division de culture
Bureau 334, 435 rue James sud
Thunder Bay, ON, P7E 6S7
Téléphone: 807 475-1632
Télécopieur: 807 475-1297



Ontario

June 24, 2011

Derek Paauw
The Central Archaeology Group Inc.
PO Box 1598
Lakefield, ON K0L 2H0

RE: Review and Acceptance into the Provincial Register of Reports: Archaeological Assessment Report Entitled, *Stage 1 and Stage 2 Archaeological Assessment Sib Thorpe Pit Expansion, Lot 80, Concession 1 WPR, Geographic Township of Tiny, Simcoe County.* Report dated May, 2011, Report Received MTC Toronto May 17, 2011.

**MCL Project Information Form Number PIF P272-124-2010
MCL RIMS Number 43AG077**

Dear Mr. Paauw

This office has reviewed the above-mentioned report, which has been submitted to this Ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18. This review is to ensure that the licensed professional consultant archaeologist has met the terms and conditions of their archaeological licence, that archaeological sites have been identified and documented according to the 1993 technical guidelines set by the Ministry and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario.*

As a result of the Stage 1 and Stage 2 archaeological assessment in which no archaeological resources were identified, the report recommends that there are no further archaeological requirements for this project prior to development.

This Ministry concurs with the recommendations of the report that there are no further archaeological concerns for the subject property, as depicted by Figure 11 of the above titled report.

Please feel free to contact me with any concerns or questions regarding this letter.

Yours,

A Hinshelwood.

Andrew Hinshelwood
Archaeology Review Officer

cc. Archaeological Licensing Office

* In no way will the Ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.



Stage 1 and Stage 2 Archaeological Assessment
SibThorpe Pit Expansion
Lot 80, Concession 1 WPR
Geographic Township of Tiny, Simcoe County

144 Upper Turriff Road, L'Amable, Ontario K0L 2L0 - tel.: (705) 201-1066 - fax: 866-231-6071 - info@centralarchaeology.ca

www.centralarchaeology.ca

Stage 1 and Stage 2 Archaeological Assessment SibThorpe Pit Expansion Lot 80, Concession 1 WPR Geographic Township of Tiny, Simcoe County

Prepared for:

K.J. Beamish Construction Co. Ltd.
c/o Denis Simmons
Development and Land Management Consulting Services
General Delivery
Irondale, ON K0M 1X0

Ph: 705.447.2394

Prepared by:

Derek Paauw
President and Chief Archaeologist

Laura McRae
Director and Senior Archaeologist

The Central Archaeology Group Inc.
144 Upper Turriff Road
L'Amable
K0L 2L0

T. 705.201.1066
F. 866.231.6071

Licence No. P272
CIF No. P272-124-2010
May 2011

Bringing the **past**
to the **present**
for the **future**

Project Personnel

Project Director

Derek Paauw, P272

Research

Derek Paauw

Laura McRae

Field Crew

Derek Paauw

Laura McRae

Allison Torrie

Kathleen Ellwood

Photographers

Laura McRae

Derek Paauw

Report Preparation

Derek Paauw

Laura McRae

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- The staff at the Simcoe County Land Registry Office, Barrie.
- The staff at the University of Toronto, Robarts Library, Toronto.
- The staff at the Memorial University of Newfoundland Queens Elizabeth II Library, St. John's.
- The Geomatics Institute at Sir Sandford Fleming College Frost Campus, Lindsay.
- The staff at the National Air Photo Library, Ottawa.
- The staff at the Trent University Maps and Geospatial Resources section of the Thomas J. Bata Library, Peterborough.
- Denis Simmons, Development and Land Management Consulting Services.
- Robert von Bitter, Ontario Ministry of Tourism and Culture.

Executive Summary

Described within this report are the details of an archaeological assessment conducted on the SibThorpe Pit Expansion project area. The project area is proposed for expansion by K.J. Beamish Construction Co. Ltd. and is located in Simcoe County on Lot 80, Concession 1 WPR, Geographic Township of Tiny. Approximately 100 acres in size, the project area is bounded, in part, by Darby Road to the east, a secondary growth forest to the north, Marshall Road to the west and the existing pit and woodlots to the south. The purpose of the archaeological assessment was to determine the level of potential for extant archaeological or cultural resources within the project property. The information collected within this report is intended to identify archaeological resources and in turn inform future planning decisions regarding the study area.

As an initial requirement of land use planning and development, the Ontario Ministry of Tourism and Culture has legislated that three objectives must be met by way of a Stage 1 and Stage 2 archaeological study. These objectives include: 1) develop an inventory of all archaeological resources on the property; 2) determine the presence/absence of archaeological sites surrounding the property; and 3) recommend appropriate strategies for future assessments within the property.

The purpose of a Stage 1 assessment is to investigate the cultural land use, archaeological history and present conditions of the property. The majority of the Stage 1 process is conducted in the office and involves the examination of records such as historic settlement maps, land titles and documents, historical land use and ownership records, primary and secondary sources, and the Ministry of Tourism and Culture's archaeological sites database. The Stage 1 archaeological background study will outline the First Nations pre-contact and historic archaeological sequence as well as the Euro-Canadian historic settlement record for the area and the potential for the discovery of archaeological sites within the project area. Based on background research, the study establishes the potential for the discovery of significant archaeological sites, particularly in the immediate vicinity of historic settlement areas, lakes, rivers and streams.

A Stage 2 archaeological property survey involves the documentation of archaeological resources by collecting artifacts and mapping cultural features. Depending on the nature of the property environment, two methods may be employed in the survey: 1) pedestrian survey and 2) test pit survey. As the project area was a former agricultural field, the Stage 2 method employed during this assessment utilized a pedestrian survey strategy at 5 metre intervals after the soil was disced and sufficiently weathered.

Permission to access the area and to carry out the activities necessary for the completion of the Stage 1 and Stage 2 archaeological assessment was granted by the Denis Simmons on behalf of the property owner. Based on the results of the archaeological

assessment, the following recommendations are provided for consideration. The Ministry of Tourism and Culture is asked to review the recommendations presented in this report and issue comment.

- 1) The Stage 2 archaeological assessment did not recover any material culture during survey activities. Consequently, significant pre-contact and historic First Nations or historic Euro-Canadian archaeological sites are unlikely to be found in any undisturbed ground within the project area. Therefore, there are no significant archaeological concerns associated with the remainder of this project and it is recommended that the property be cleared of archaeological concerns.
- 2) The licensee shall hold the archaeological collections, including copies of study material and original notes generated during the course of research, in trust, unless it is transferred to an appropriate public institution as per the terms and conditions of holding a professional license.
- 3) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.
- 4) The Cemeteries Act requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries, Ministry of Small Business and Consumer Services.

The Stage 1 and Stage 2 archaeological assessment was conducted under the project and field direction of Derek Paauw, under professional licence P272 issued to Mr. Paauw in accordance with the Ontario Heritage Act (R.S.O. 1990). The archaeological assessment was undertaken according to the requirements of the Ontario Heritage Act (R.S.O. 1990), the Environmental Assessment Act (R.S.O. 1990), the Ontario Ministry of Culture Standards and Guidelines for Consultant Archaeologists (2010), and the Planning Act (R.S.O. 1990).

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Introduction

The Central Archaeology Group Inc. was retained by Denis Simmons, Development and Land Management Consulting Services to conduct a Stage 1 and Stage 2 archaeological assessment on Lot 80, Concession 1 WPR, Geographic Township of Tiny, Simcoe County. Comprised of approximately 100 acres, the study area is bounded, in part, by Darby Road to the east, a secondary growth forest to the north, Marshall Road to the west and the existing pit and woodlots to the south. It's westernmost extent is located approximately 9.8 kilometres east of Georgian Bay and its easternmost extent is location about 1.88 kilometres north of the Town of Waverley, 15.4 kilometres west of the City of Orillia and 4.84 kilometres north of Orr Lake. The purpose of the study is to provide a baseline level of data on known and potential cultural heritage resources within the subject property and the information collected within this report is intended to inform future planning decisions regarding the study area.

For this study, archaeological potential in this report is determined by examining the Ministry of Tourism and Culture's archaeological sites database for a radius of two kilometres around the project area, both recent and historical topographical maps, historical settlement maps, the presence of nearby commemorative plaques or monuments, reports of previous archaeological fieldwork within a two kilometre radius of the project area, recent and historical aerial photographs, geotechnical studies, title deeds and land registry documents, historical land use and ownership records and primary and secondary historical document sources.

Background research for this project was undertaken at the National Air Photo Library, the Trent University Maps and Geospatial Resources section of the Thomas J. Bata Library, the Trent University Thomas J. Bata Library, the University of Toronto Robarts Library, the Bancroft Public Library, the Ontario Land Registry Office for Victoria County in Lindsay, the Geomatics Institute at Sir Sandford Fleming College Frost Campus in Lindsay, and The Central Archaeology Group Inc. reference library. In addition, the Provincial archaeological database was also consulted in order to determine if there are registered sites within or in proximity to the subject property.

The following report is divided into seven sections. The first section provide a general overview of the project area with a brief discussion about the physical setting, including past and present geomorphology, soils, vegetation, water sources, and climate. In the second and third sections, a brief discussion of the First Nations and Euro-Canadian cultural history of the project area and surrounding region is provided, including any known archaeological sites within a two kilometre radius and a summary of past archaeological research. The fifth section examines the potential for the discovery of archaeological resources within the project area. The sixth section outlines the methods and results of the Stage 2 property survey. The seventh and final section provides a

summary of research and recommendations for future management of archaeological resources within the project boundaries.

The Stage 1 and Stage 2 archaeological assessment was undertaken in accordance with the requirements of the Ontario Heritage Act (R.S.O. 1990), the Environmental Assessment Act (R.S.O. 1990), the Archaeological Assessment Technical Guidelines (1993), the Standards and Guidelines for Consultant Archaeologists (2010) and the Planning Act (R.S.O. 1990).

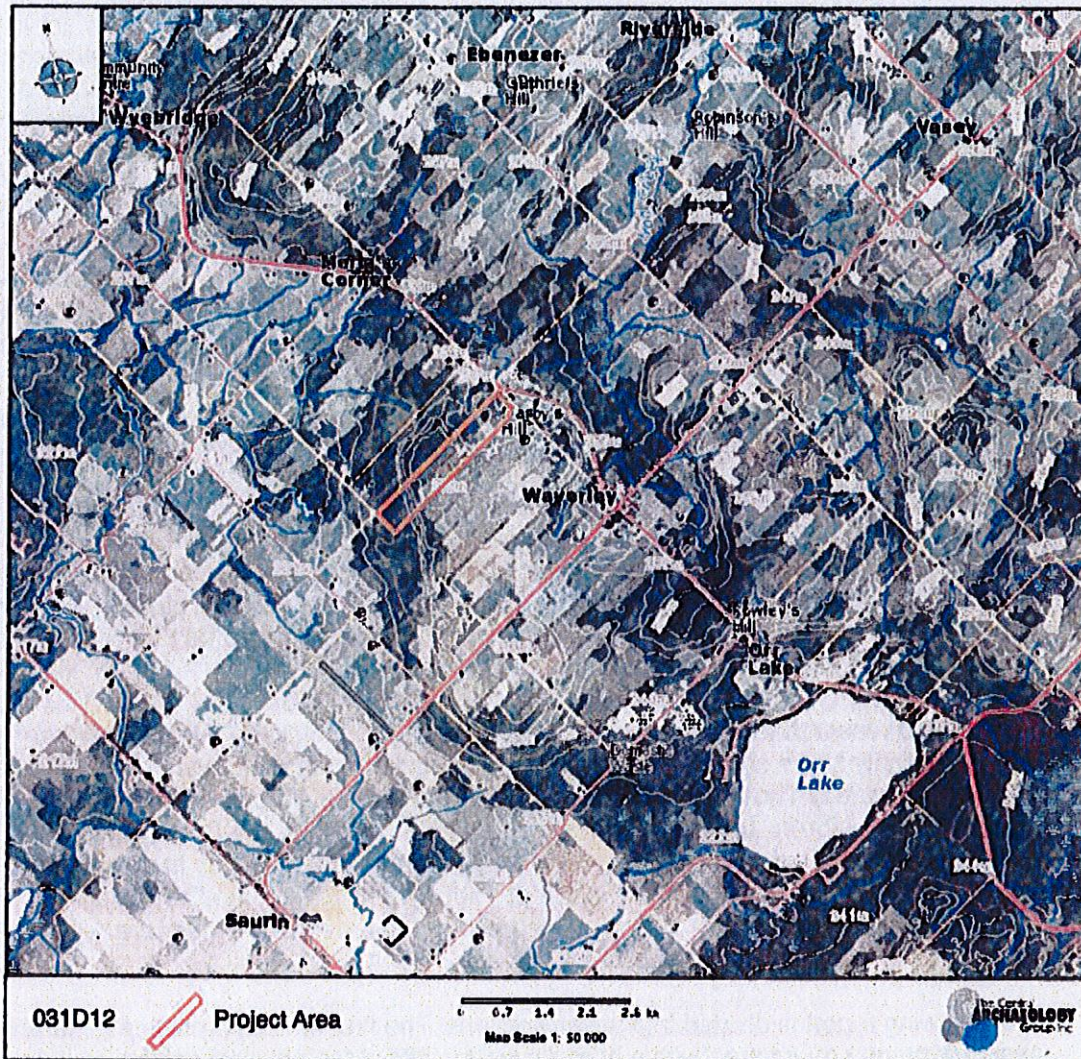


Figure 1. Location of the project area.

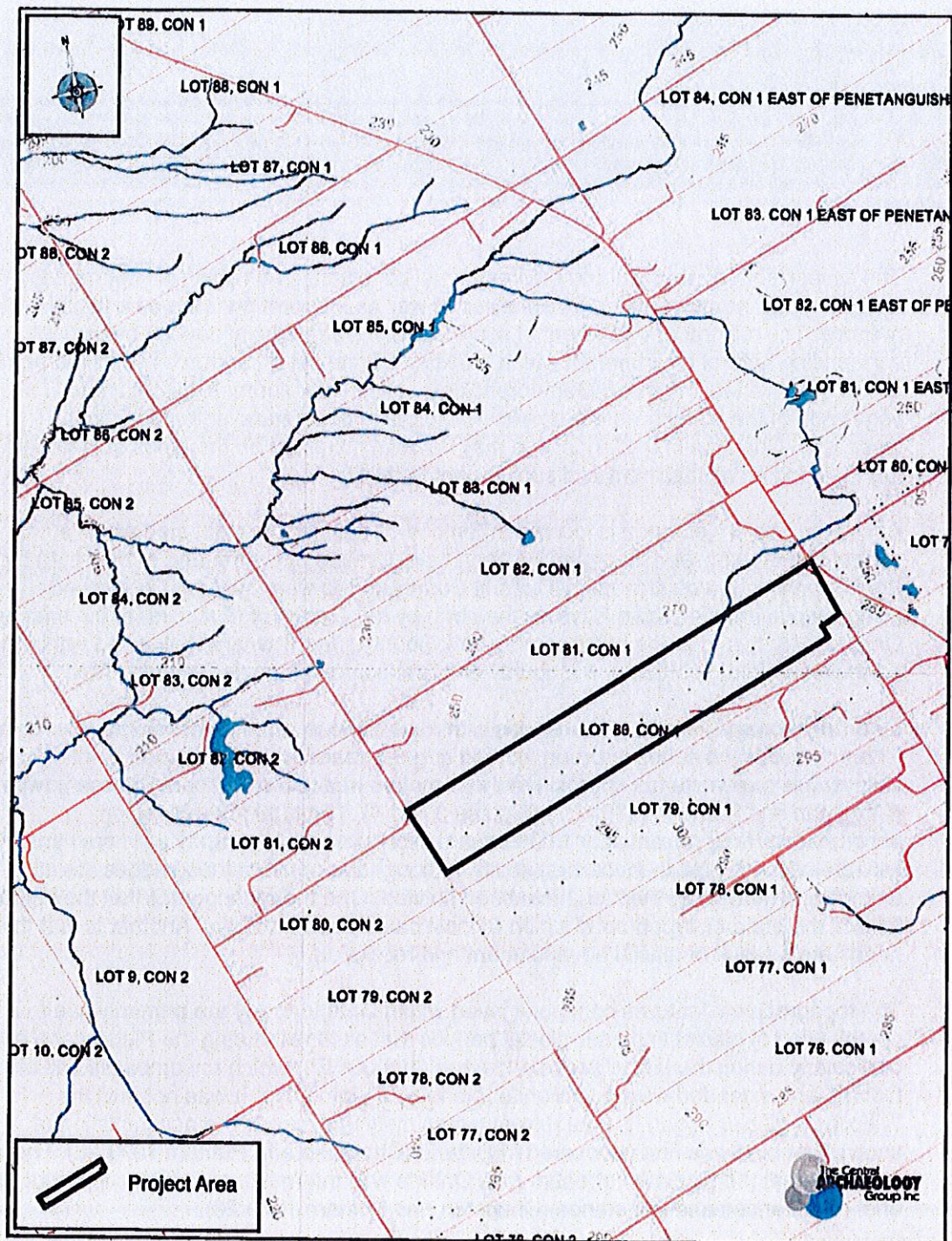


Figure 2. Project area.

Environmental Setting

The assessment of physical and environmental conditions of a region is important to analyzing past human settlement behavior as well as interpreting features and site patterns. The cultural development of every society is strongly influenced by the surrounding natural environment which provides a finite set of resources which humans use to fulfill variety of needs. Geomorphology, soils, water sources, climate, and vegetation of the study area are significant factors in understanding patterns in the landscape. Changes in the landscape may have an influence on the types of materials found during an assessment and subsequent visibility.

Location. The project area is located in Simcoe County which is situated within south-central Ontario between Georgian Bay and Lake Simcoe. It is bounded to the south by Peel County, to the southwest by Dufferin County, to the west by Grey County and Nottawasaga and Georgian Bays, to the north by the District of Muskoka, to the east by Ontario County and to the southeast by York County. Tiny Township is located within the north-westernmost portion of the county and is situated alongside Georgian Bay.

Geomorphology. The project area lies within the Simcoe Uplands physiographic region. Characterized by a series of broad, curved ridges separated by steep-sided, flat-floored valleys, this region stands approximately 61 metres above the adjacent Simcoe Lowlands (Chapman and Putnam 1966:307) (Figures 3 and 4). The total area this region encompasses is approximately 1,036 square kilometres and its sandy soils are usually well-drained, with low to moderate fertility. Although the origin of these ridges are still unknown, a number of theories have been posited. One theory suggests that the surface follows the bedrock topography which reflects paleo-stream valleys. Another is that the ridges are a result of glacial advancement and recession.

The topographical features commonly seen within Ontario today are primarily due to a combination of glacial and inter-glacial periods that occurred during the Pleistocene era, particularly during the last Wisconsin Ice Age (10,000 BP), which encompassed all of Ontario and extended west into Manitoba and south into Ohio. It was not until the Wisconsin glacier began its final retreat (when melting exceeds the accumulation of snow), that land was first uncovered in Ontario (Chapman and Putnam 1973:26). There is evidence that the glacier's retreat across Ontario was intermittent, as it was interrupted by brief re-advances and still-stands (Chapman and Putnam 1973:26).



Figure 3. Valley located at the westernmost extent of the study area.



Figure 4. Viewing northeast along the ridge.

Soils. The formation of soils is heavily influenced by its parent material, climate, vegetation, drainage and time (Leahey 1961:148). There are three soil types present within the study area: Vasey sandy loam, steep phase (Vasl-S); Sargent gravelly, sand loam (Stsl); and, Atherley clay (Ayc) (Figure 5; Table 1).

Vasey sandy loam, steep phase is a light gray, calcareous and non-calcareous sandy loam till which occurs on smooth, moderately to steeply sloping topography. The porous nature of the soil makes it susceptible to severe erosion, however, if the slopes are left with appropriate ground cover, erosion can be limited (Hoffman et al. 1962: 32). Vasey soils are included within the Brown Podzolic and Grey Brown Podzolic Great Group. Although these soils have limited agricultural use, they have been utilized for general farming such as pasture for livestock.

The second-most prevalent soil type in the study area is Sargent gravelly, sand loam. Generally located on smooth, gently sloping topography, this soil type is characterized by its stonefree nature. Derived from a parent material of pale brown calcareous outwash gravel, Sargent gravelly, sand loam has a profile characteristic of Brown Forest soils where the topsoil profile is thin and often calcareous. Also low in fertility, these soils are predominantly utilized as pasture (Hoffman et al. 1962:50).

Characteristically situated within depressions or low-lands, Atherley clay soils are also low in fertility and remain saturated for most of the year as they are very poorly drained. Typified by their profile, Atherley soils tend to develop a dark surface soil and a grey mottled subsoil layer. This is commonly found amongst soils situated within the Dark Gray Gleysolic Great Group. Although difficult to drain, if undertaken in conjunction with fertilization, Atherley soils may be used in the production of cereal crops. However, they are more commonly utilized as pasture and hay.

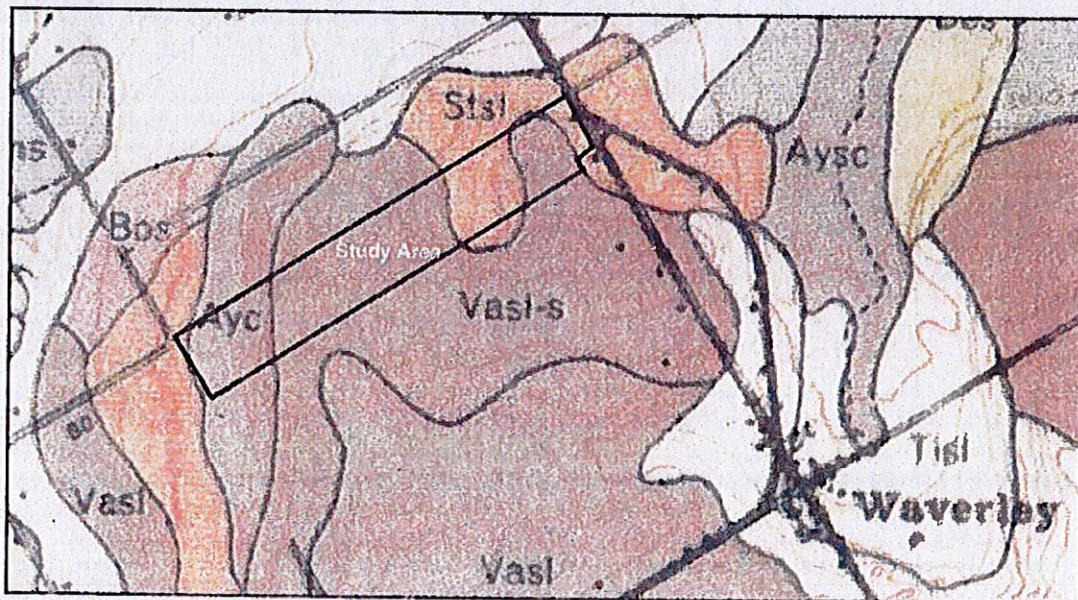


Figure 5. Soil map of the project area (Hoffman et al. 1962)).

Table 1. Soil types within the study area.

Soil Type	Drainage	Texture	Relief	Great Group
Vasey sandy loam, steep phase (Vasl-S)	good	moderate to very stoney	moderately to steeply sloping	Brown Podzolic & Grey Brown Podzolic
Sargent gravelly, sand loam (Stsl)	good	stonefree	gently sloping	Brown Forest
Atherley clay (Ayc)	poor	stonefree to very stoney	very gently sloping	Dark Gray Gleisolic

The lot to the south of the study area is currently being utilized as a aggregate pit (Figure 6). The materials currently being extracted from this area are an extension of the Vasey soil type discussed above.

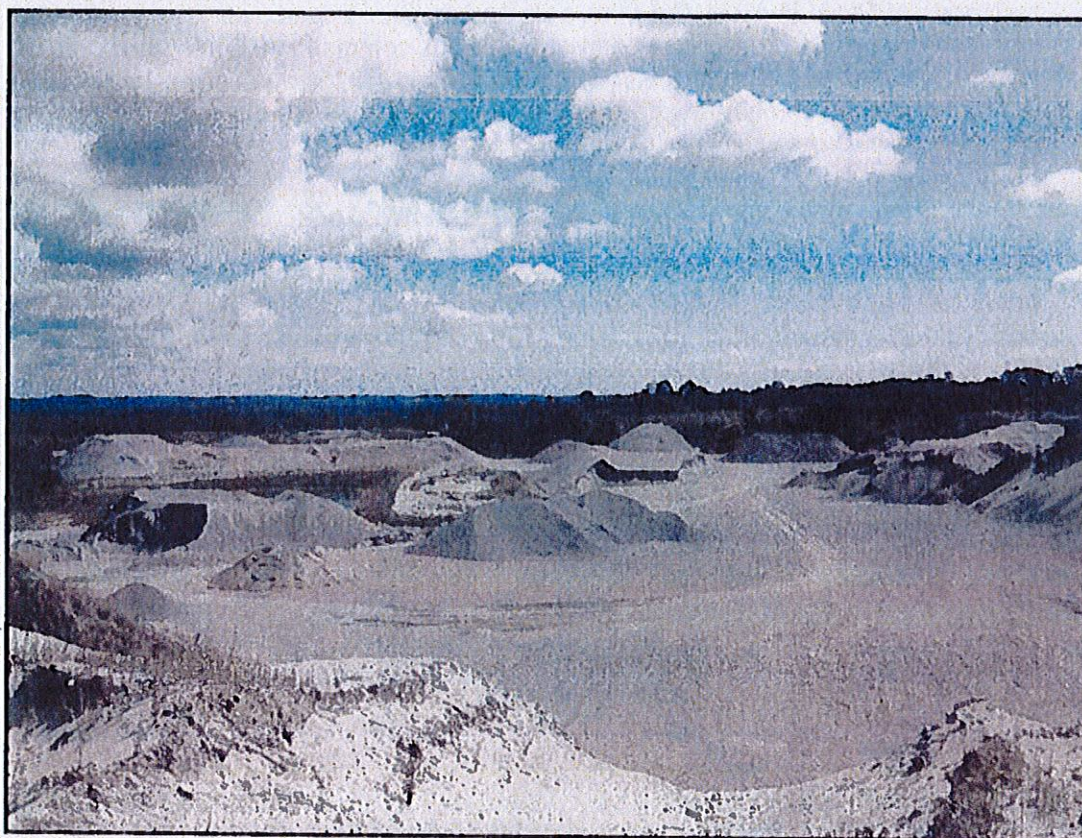


Figure 6. Aggregate pit to the south of the study area.

Historical Forest Patterns. The local distribution of a forest is strongly influenced by the bedrock, glacial deposits and soil found on the site. As the glacial ice retreated across Ontario, trees began to spread northward. Initially, species more common to tundra-like environments grew, followed by spruce and poplar woodlands. Warming temperatures encouraged coniferous growth like pine and hemlock.

The forests of this region, before it was stripped and forever altered by Euro-Canadian farmers, lumbermen and settlers, consisted of relatively dense forests interspersed with open park-like woodland. Referred to as the Southeastern Mixed Forest, it is located within the Great Lakes-St. Lawrence Forest Region, and is dominated by sugar maple (*Acer saccharum*), American beech (*Fagus grandifolia*), American basswood (*Tilia americana*), yellow birch (*Betula lutea*), eastern hemlock (*Tsuga canadensis*), eastern white pine (*Pinus strobus*), red maple (*Acer rubrum*) and white ash (*Fraxinus americana*) on upland surfaces (Dean 1994:12; Kershaw 2001). Drier stretches of land commonly exhibited white spruce (*Picea glauca*), which replaced the red and white pine (*Pinus resinosa* and *Pinus strobus*). Over thin soils and on high ground, species more representative of a Boreal Forest persisted. Species common to a Boreal environment include: white spruce and black spruce (*Picea mariana*), interspersed with balsam fir (*Abies balsamea*), scrubby stands of jack pine (*Pinus banksiana*), trembling aspen (*Populus tremuloides*), red oak (*Quercus borealis*) and paper birch (*Betula papyrifera*) (Dean 1994:12).

Modern arboreal vegetation patterns reflect two centuries of logging and land clearance, and the large numbers of balsam poplar (*Populus balsamifera*), black spruce, tamarack (*Larix laricina*), eastern hemlock, eastern white pine, red pine, eastern white cedar (*Thuja occidentalis*), American elm (*Ulmus americana*), American beech, paper birch, large-toothed aspen (*Populus grandidentata*), trembling aspen, pin cherry (*Prunus pensylvanica*), staghorn sumac (*Rhus typhina*), American basswood, sugar maple, mountain maple (*Acer spicatum*), and white ash found today are the result of disruption to the natural, mature hardwood forests indigenous to the drumlinized till plains of southern Ontario (Kershaw 2001).

Ontario wildflowers such as common yarrow (*Achillea millefolium*), purple loosestrife (*Lythrum salicaria*), oxeye daisy (*Leucanthemum vulgare*) and Canada thistle (*Cirsium arvense*) were present within the area surrounding the subject property (Kershaw 2002). Grasses present included bottle-brush grass (*Hystrix patula*), sweet vernal grass (*Anthoxanthum odoratum*), foxtail (*Alopecurus ssp.*), common plantain (*Plantago major*) and crab grass (*Digitaria sanguinalis*) (Brown 1979). Shrubs included ground hemlock (*Taxus canadensis*), sweet fern (*Comptonia peregrina*) and beaked hazel (*Corylus cornuta*) (Soper and Heimbürger 1994). These vegetation types are characteristically found within areas where the mature forest patterns have become disrupted by lumbering, accidental forest fires, and land clearance that began in the project area during the early nineteenth century and continues to this day.

Water Sources. Located approximately 4.9 kilometres north of Orr Lake, the project area is surrounded by a number primary, secondary and tertiary water sources in the form of lakes (i.e., Mud Lake, Little Lake), rivers, creeks and streams (i.e., Wye River, Hog Creek, Sturgeon River, McMahon Creek) and marshes and swamps (i.e., Wye Marsh, Craig's Swamp). The project area lies within the Severn River watershed. The headwaters of the

Severn River are located at the north end of Lake Couchiching and it forms part of the canal system known as the Trent-Severn waterway. Draining much of the area within Simcoe County, the Severn River watershed flows into Georgian Bay to the west.

Climate. Modern climatic variation depends almost entirely upon location and human impacts on the environment. Simcoe County, located in south-central Ontario, is heavily influenced by the modifying factor of the Great Lakes. The Great Lakes tend to add moisture to the air in the autumn and winter while at the same time protecting the region from the worst of the cold during the winter months, and during the spring and summer they act to moderate the temperature of the region. This produces an ideal environment for agricultural practices as the growing season tends to be longer and the cold months not as harsh as throughout the remainder of Canada.

Summary and Conclusions. Although the project area has been subject to some disturbance, the vegetation present prior to Euro-Canadian settlement would have been utilized by pre-contact First Nations communities food procurement, health and healing, and spiritual purposes. For example, the inner bark of the pine tree had numerous purposes, one of which was to pound it into a past which could be applied to ulcers, wounds, and everyday sores as a salve; the young leaves and shoots of oxeye daisy may be eaten or brewed into a tea which can be used to treat whooping cough, asthma, bronchitis, and nervous excitability; melted sap from the spruce tree was used as a plaster when setting bones; the plant heads of the common yarrow plant were made into a compress which was used to treat headaches, its leaves were chewed to assist with clotting and the roots were chewed for toothaches; infusions from the maple were used to treat tuberculosis and the inner bark of the sugar maple was used as a cough remedy and expectorant; and a compound decoction of elm bark was taken to facilitate childbirth (Angiers 1978; Mackinnon et al. 2009; Moerman 1998; Vogel 1970).

First Nations Cultural Summary

The Palaeo-Indian Period (11,500 BP to 9000 BP). The Palaeo-Indian Period represents the arrival of First Nations groups in Ontario around 11,500 years ago following the retreat of the Laurentide ice sheets that covered most of Canada and the northern United States beginning approximately 95,000 years ago. Although there is considerable debate about whether the Palaeo-Indian people were the first to cross into the Americas from Asia via Beringia, they are most likely the first culture to inhabit Ontario. The Palaeo-Indian Period is represented by two distinct cultures based on the use of different tools. The Clovis culture comprised the early Palaeo-Indian Period, whereas the Plano culture occupied the latter half of the Period.

The Clovis culture is defined by distinctive fluted chipped stone projectile points that are generally lance-shaped or lanceolate that lack notches or stems with a concave base and a grinding of the lower side edges. Although it is certain that these points were used as projectiles based on evidence of distinctive tip damage, it is unknown whether they were hafted onto long shafts and used as a thrusting spear or if they were mounted onto smaller shafts and used as hand-propelled spear or in combination with a spear-thrower.

Plano projectile points differ in that they lack the Clovis flute and they exhibit fine ripple flaking that is distinctive for the latter half of the Palaeo-Indian Period. A number of sites dating to approximately 9,000 years ago have been found along the north shore of Lake Superior and on Manitoulin Island. High quality siliceous stone quarries exploited by Plano people have also been found along the shore of Lake Huron.

The Clovis and Plano cultures likely shared a similar subsistence strategy. They hunted migrating herds of caribou (*Rangifer tarandus*) along the shores of glacial lakes that appeared as the massive ice sheets receded. They also hunted large mammals such as mammoth (*Mammuthus primigenius*) and mastadon (*Mammut americanum*). Palaeo-Indian groups likely hunted smaller mammals and fish as well, and gathered wild fruits and berries.

The Archaic Period (9000 BP to 300 BP). Solid evidence for the beginning of the Archaic Period in Ontario dates to around 4,000 years ago with the advent of the Laurentian Archaic. The early Archaic culture likely evolved from the Palaeo-Indian Period. However, there was probably an introduction of new ideas and technology as more people migrated into the region. The elaborately manufactured points representative of the Palaeo-Indian Period were abandoned in favour of cruder manufacturing techniques but with a greater variety of stone being exploited. This likely represents a change in the types of flora and fauna available for consumption. There is certainly a shift in subsistence practices by early Archaic groups from long seasonal migration movements to a focus on regionally available food sources.

The Archaic Period also represents a technological shift in the methods used in the manufacturing of stone tools with the introduction of grinding and pecking. A wide variety of axe forms are introduced indicating a shift from a ore sub-arctic environment to a temperate climate. It is also during the Archaic Period that the atlatl superseded the use handheld thrusting spears predominately used during the Palaeo-Indian Period. Elaborately polished and decorated stone tools believed to be atlatl counterweights appear in the archaeological record. Archaic people were also producing tools and ornaments manufactured from native copper found along the north shore of Lake Superior.

Based on evidence from discarded animal bones, the Laurentian Archaic people hunted predominately large mammals, such as deer, elk, and bear. However, smaller game like the beaver was also exploited. The Laurentian Archaic people also fished and gathered shellfish and plant material. The religious beliefs during the Archaic Period can also be discerned from the burial methods practiced. This included the internment of burial goods with the deceased and sprinkling of the body with red ochre.

The Woodland Period (300 BP to Early 17th Century). The Woodland Period is generally associated with the introduction of ceramic technology. Early Woodland sites in the region surrounding the project area are scarce due to the shorter duration of the period and the low visibility of sites (Ellis et al. 1990b:78). Jackson (1980) suggests that subsistence and settlement patterns during the Early Woodland Period were similar to those of the Laurentian Archaic, but with greater emphasis on processing nuts and perhaps experimentation with plant cultivation.

The Middle Woodland Period in the region is defined by a number of burial mound sites located around Rice Lake with numerous associated middens and villages (Boyles 1897; Johnston 1968; Spence and Harper 1968; Stothers 1974). The mound sites tend to be located on promontories near river mouths and may have been used to define ancestral territory. Based on the wealth and variety of burial goods, the Middle Woodland people also had access to a wide-spread network of exotic goods, which extended as far away as Ohio and Indiana (Spence et al. 1990).

During the Late Woodland Period there was a shift in the subsistence and settlement patterns which included the occupation of seasonal hunting and fishing camps on Rice Lake, often on former Middle Woodland village sites, and larger interior longhouse villages, where early domesticated corn, beans, and squash were cultivated.

The end of the Woodland Period is well known in the region due to the discovery of a number of Huron village sites (Damkjar 1990; Ramsden 1989; Ramsden 1990; Sutton 1990). These sites seem to represent both Huron and St. Lawrence Iroquois occupation, but the exact origin of the occupants is still unknown (Sutton 1990:54; Ramsden 1990). The Huron abandoned the region as a centre of occupation sometime during the late sixteenth century and afterwards it was used as a buffer zone between the Huron and New York Iroquois.

The Huron. The Huron, or the Wendat as they called themselves, are a seventeenth-century Iroquoian-speaking group that occupied an area known as Huronia between Lake

Simcoe and Georgian Bay. however, archaeologists have also extended the "Huron" designation to include pre-contact period sites found in south-central Ontario, where subsistence and settlement patterns and similar material culture indicates cultural affiliation. Pre-contact period Huron sites dating to between 1,400 and 1,600 CE have been found along the north shore of Lake Ontario, from west of Toronto to Belleville, and to the north bounded to the east by the Trent River system and to the west by the Niagara escarpment.

The Hurons of Huronia, as encountered by the French in the 1600s, consisted of a confederacy of five nations or groups. The *Attignawantan*, who occupied the region encompassing the Penetanguishene Peninsula, appear to have been the largest group, and the *Arendarhonon*, the second largest group, occupied the eastern extent of Huronia, west of Lake Simcoe. Between these two groups lived the *Attigeneongnahac*, the *Arendaronnon* and the *Tahontaenrat*. The project area lies within *Tahontaenrat* (White Ears or Deer Tribe) territory (Figure 7).

Huronia was connected to other Iroquoian-speaking groups to the south, such as the *Neutral* and the *Tionnontate*, by an extensive network of trails. Using Jesuit chronicles, late nineteenth century settler accounts, and personal observations, in 1906 Andrew F. Hunter pieced together a map outlining the probable locations of the major trails (Figure 8). However, no trails run through or near the project area. Heidenreich (1971:156) suggests that the trails followed high ground to avoid swamps.

The Huron had readily adopted agriculture, cultivating corn, beans, squash, sunflowers and tobacco. Aside from these cultigens, the Huron gathered wild plants and berries, such as plum and raspberry. Hunting and fishing supplemented the diet. The Huron hunted such animals as the white tail deer, black bear, elk, beaver and raccoon. Common bird bones found on archaeological sites include different varieties of duck, geese, grouse and pigeons (Ramsden 1990:380). Although fish are often overlooked in the archaeological record, Trigger (2000:31) suggests that it accounted as the second most exploited subsistence resource next to agriculture. Common fish species included perch, bass, sucker and catfish.

The Huron lived in longhouses, which were elongated rectangular structures made of wood beams and bark coverings, built to house several families, related matrilineally. Although internal design was related to the number and size of families and construction methods, which varied between groups, longhouses did share similar key characteristics, such as axially aligned hearths and storage pits, sleeping compartments and storage areas along the walls and communal storage areas at either end for casks of corn and other foods.

Large-scale archaeological investigations have provided information on typical characteristics associated with Huron village sites. Some common features include multiple-row palisades encircling the village and a single longhouse located outside the defensive wall to accommodate visitors or traders (Ramsden 1988). Longhouses within the village tended to be arranged around one or more larger longhouses that were associated with different areas of the village, suggesting perhaps kin-based grouping (Warrick 1984). Village sites also tended to have several phases of expansion, where the palisades were enlarged several times over (Finlayson 1985). However, sites did not

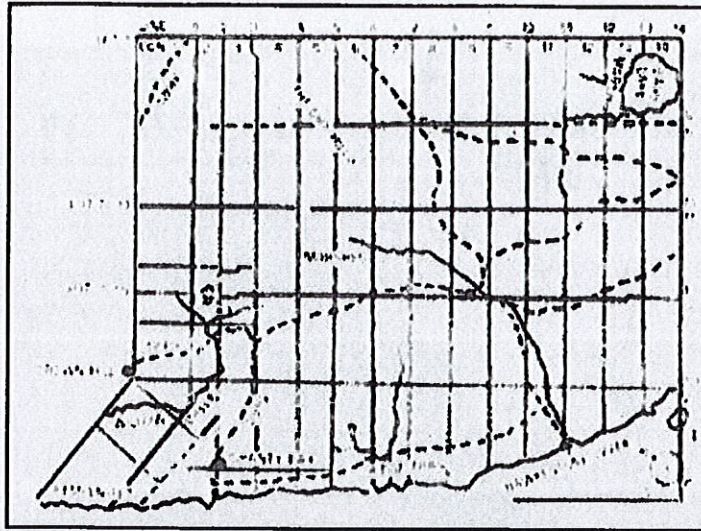


Figure 8. Location of Huron trails based on research by A.F. Hunter (McEwen 1978:1).

expand to any great size as the Huron periodically (every 8 to 30 years) moved settlement sites as soil fertility became depleted.

Huron villages tended to have large middens that contained large amounts of food refuse and discarded artifacts. Therefore, they are readily identifiable in areas that have been ploughed and often contain mounded middens when undisturbed (Ramsden 1990:373). Smaller middens also occur throughout the village and against the palisades. Village sites are typically located in areas with sandy soil that is easily defensible and in close proximity to a permanent streams. However, variation in location and preference for other geographical features is common. A visual inspection of the project area did not reveal any unnatural mounded features or the presence of large artifact scatters on the surface that would indicate the presence of a village site. Furthermore, the relatively poor soil and absence of a permanent water source would account for this finding. Non-village settlements used by the Huron include temporary hunting and fishing camps, and cabin sites associated with the tending of corn fields during the summer (Ramsden 1990:373). Small hamlets likely associated with larger village sites have also been found. These often include two or three longhouses and one to two middens (Ramsden 1990:376). By 1650, the Iroquois had driven the Huron off their territory and many fled to the security of the Algonquian-speaking groups to the north or were held captive by the Iroquois.

Euro-Canadian Cultural Summary

In the early seventeenth century, French explorers such as Samuel de Champlain and Étienne Brûlé, encountered groups of people speaking an Algonquian language along the Ottawa River Valley. These were the *Weskarini*, *Onotchataronon*, *Kichesipirini*, *Matouweskarini*, and *Otaguotouemin* Algonquians (Trigger 1976:279). The loosely aligned First Nations groups subsisted on hunting, fishing and gathering and undertook limited horticulture. Champlain first met the Algonquians in 1603 at the trading centre of Tadoussac near the mouth of the St. Lawrence River (Hessel 1993:14). Searching for the Northwest Passage in 1613, Champlain entered Algonquin territory and explored the Ottawa Valley as far north as Morrison's and Allumette Islands. The main body of the *Kichesipirini* lived on Morrison's Island and controlled the portages at the base of Allumette Lake. From their strategic location, the *Kichesipirini* collected tolls from all French trade to and from the interior nations such as the *Nipissing*, *Huron*, *Ottawa* and *Ojibway* (Hessel 1975[1881]:3).

There was little game in Huron country and the principal food of the Nation was maize (Belden 1975 [1881]:3). As there was no concept as individual ownership of land, each family cultivated a portion until the soil was exhausted and no longer fertile and firewood became scarce. Once this occurred, the village was abandoned and a new one was built in a different area. Some of the Huron villages were left open, but others located closer to the Iroquois Nations, were fortified by a trench, earthen bank and wooden palisade.

Such was the Huron lifestyle when Champlain reached their territory in 1615. Upon his return from France, Champlain brought with him four friars of the Recollets - one of the three branches of the Franciscan brotherhood - to undertake mission work among the First Nations groups of the county. One of these Franciscans, Joseph Le Caron, journeyed into Huron country with Champlain, likely landing somewhere on the northeast shore of what is now known as Tiny Township in Simcoe County.

Joseph Le Caron has the distinction of being the first missionary priest to live among the Huron Nation. His decision to live among the *Attigneaouantans* Huron was made due to his desire to learn their language so as to more effectively preach the word of God. Le Caron left Huron territory after a few years but continued his missionary work in New France until the capitulation of New France to England in 1629. Le Caron was the first of many Catholic missionary priests to inhabit and convert First Nations peoples.

The 1640s was a time of great upheaval in the region. The introduction of European trade had turned skirmishes between the Huron and Iroquois Nations into a ruthless struggle for survival. Raiding parties of Iroquois became commonplace in Huron country. They would lie in ambush along river routes, attack and carry off rich Huron flotillas; the travel routes

were extremely dangerous places (Jury and Jury 1954). Surprise attacks, massacres, capture and torture occurred more and more frequently in Huron country. In combination with European diseases, this dramatically reduced the population of the Huron Nation by the 1650s. Current estimates posit a pre-epidemic population of 22,000 compared to 10,000 by the end of the 1650s (Heidenrich 1971:369).

Unfortunately, given the dedication to archaeological and historical research of the Huron, a paucity of information exists for the period between 1650 and the Euro-Canadian settlement of Simcoe County. However, given the close proximity and friendly relations the Huron had with the Algonquian speaking groups to the north, it is likely that these groups, such as the Ojibway, moved into the region. In support of this theory, there was a French mission to the Algonquian speaking groups around Orillia at this time (Hunter 1998 [1909]: 10).

Euro-Canadian Settlement of Simcoe County. Government land surveys of the vast interior of Upper Canada began as a military endeavour to find water or an overland route through the Huron Tract to bypass the vulnerable lower Great Lakes. Lieutenant Henry Briscoe of the Royal Engineers crossed by the Madawaska Highlands from Georgian Bay to the Ottawa River in 1826, and has the distinction of being the first Euro-Canadian recorded to pass within the confines of the future Algonquin Park area (Briscoe 1826 in Wyatt 1971). Briscoe concluded that a suitable canal route was not present through the Canadian Shield, but others, notably Charles Shirreff, believed that the interior could be settled by farmers and serviced by a canal (Wyatt 1971:4). Alexander Shirreff, the son of Charles, search for a possible canal route across the uplands in 1829 (Shirreff 1831 in Wyatt 1971). In his subsequent report, Alexander considered hardwood stands to reflect fertile soils, and thus promoted the Lake Opeongo area as suitable for farming settlements. In 1836, the government passed legislation to survey the Ottawa River and the waterways of bordering lands (Wyatt 1971:22). David Thompson, the surveyor of the Thompson River in British Columbia, examined the area from Penetanguishene on Georgian Bay through the Muskoka-Madawaska region.

Prior to wishing to develop an overland route, Governor Simcoe established a naval base at Penetanguishene. Construction was initiated in 1814 and completed in 1817. The Penetanguishene Road, one of the main colonization roads of the county, completed in 1814, became the main supply route to the base. A base for over 40 years, it was re-commissioned as a reformatory prison in 1858.

Simcoe County is location in the northwestern part of Southern Ontario. It is bordered to the northeast by Ontario County, the southwest by Dufferin and Grey Counties, the south by Peel County, the east by Lake Simcoe and York County and the northwest by Georgian Bay. The total land area is 429,986 hectares of which approximately 71% is occupied by farm land (Hoffman et al. 1962:9). Originally, the county was composed of the Townships of Adjala, Essa, Flos, Innisfil, Matchedash, Medonte, Mono, Mulmur, Nottawasaga, North Orillia, South Orillia, Oro, Sunnidale, Tay, Tecumseth, Tiny, Tossorontio, Vespra, and West Gwillimbury (Figure 9). However, the Townships of Mono and Mulmur were incorporated within Dufferin County.

Settlement in Simcoe County began after the War of 1812 when military authorities of Canada decided to establish a fort near the mouth of the Nottawasaga River. This



Figure 9. Simcoe County.

decision was made due to continuing British/American hostilities and the British fear of invasion by American soldiers. Many military strategists believed that an American threat was imminent via Georgian Bay. Samuel S. Wilmot began to survey a road of communication between Kempenfeldt Bay and Penetanguishene Harbour, portion lots for settlement, and mark the outline of town plots at Kempenfeldt Bay and Penetanguishene Harbour (Hunter 1998 [1909]:39).

Settlement of the county was slow. According to Hunter (1998[1909]:55), of all the land granted to patent holders, less than one-tenth was occupied by actual settlers. The first settlers were Donald Sutherland, James Wallace and John Armstrong who took up land in the southern part of West Gwillimbury in 1815 (Belden 1975 [1881]:4). Along the Penetanguishene Road, there was an influx of settlers after 1815 but the shores of Lake Simcoe and Kempenfeldt Bay saw few settlers before 1831.

The first groups of settlers in Simcoe County are as follows (taken from Hunter 1998 [1909]:65):

1. French-Canadians, beginning in 1828, settled in Tiny and Tay Townships;
2. English, from northern counties of England beginning in 1820, settled in Oro and Vespra (25 families at first), Medonte, Tecumseth and West Gwillimbury Townships;
3. Scots, from Sutherlandshire at first and immigrants with Lord Selkirk's Red River Colonists (17 families) located here in 1819, settled in West Gwillimbury Township;
4. Scots, from Islay, Argyleshire beginning in 1832, settled in Oro and Nottawasaga chiefly, and a few families of the same migration into Medonte, Orillia and Sunnidale Townships;
5. Scot, from Lanarkshire and Renfrewshire, via Dalhousie Township, Ont. in 1832 (many Glasgow and Paisley weavers were among these), settled in Innisfil and Essa Townships;
6. Scots, Dumfriesshire from 1832 to 1850, settled in Innisfil Township;
7. Irish, beginning in 1830, Protestants from Ulster, settled in West Gwillimbury, Tecumseth, Innisfil, Essa and Tossoronotio Townships;
8. Irish Palatines, about 10 families in 1831, settled in West Gwillimbury;
9. Irish Catholics, beginning in 1828, settled in Adjala, Vespra, Flos, Medonte and Nottawasaga Townships;
10. Irish, from Londonderry in 1850, settled in Innisfil Township;
11. Germans, begun with 10 families in 1834, settled in Nottawasaga Township;
12. African Americans, begun in 1828, settled in Oro (20 families) and Sunnidale Townships, and;
13. First Nations, Ojibway (about 266), settled on Beausoliel and Christian Islands.

Eight colonization roads encouraged the settlement of Simcoe County. The first colonization road was the Nine-Mile Portage. This road ran from Kempenfeldt Bay to Willow Creek and it was once the most important road in the County. The road dates back as a a portage over which First Nations peoples used to carry their canoes (Hunter 1998 [1909]: 80, 81). During the War of 1812, the road was widened in order to allow supply wagons to pass through, unrestrained by the forest wilderness, to deliver goods to government posts on the upper lakes. This road was in active use until the construction of the Northern Railway, built to Collingwood in 1855 (Hunter 1998 [1909]: 82). The second colonization road, the Penetanguishene Road, was opened by Dr. Dunlop in December 1814 and completed in the fall of 1825 (Hunter 1998 [1909]: 84, 86). This road linked Kempenfeldt with Penetanguishene Bay. The third colonization road was the Coldwater Road. Originally a long, First Nations portage from Lake Couchiching to Coldwater on Matchedash Bay, it was cleared in 1830 and became a very important highway. The Gloucester Road, the fourth colonization road, ran from Penetanguishene Road at Hillsdale to Gloucester Bay (part of Matchedash Bay). This road opened as a government road in the winter of 1832-33 and became a the leading highway through Medonte in the early years of its settlement (Hunter 1998 [1909]: 91). The fifth colonization road was the Sunnidale Road. The first Sunnidale Road was surveyed by Charles Rankin from Kempenfeldt Bay to the Nottawasaga River, and through Sunnidale Township to Nottawasaga Bay in 1833 (Hunter 1998 [1909]: 92). The First Ridge Road, the sixth colonization road, traversed along the lakeshore through Oro Township from the head of Kempenfeldt Bay as far as Shanty Bay. It was one of the first roads in the district to be opened for vehicular use (Hunter 1998[1909]:93). The seventh colonization of the County

was the Hawkestone Pioneer's Trail. This trail began at Hawkestone Creek and ran along the west side of the streams. Hunter (1998 [1909]:94) states that First Nations people used it from the earliest times and it was also a deer path; then the early settlers used it on their way to upper Oro from Hawkestone, where there was a landing place for settlement purposes. Finally, the eight colonization road is the Centre Road, or Hurontario Street, initially surveyed in 1837.

The Settlement of the Geographic Township of Tiny. On May 22, 1798, Governor John Graves Simcoe entered into an agreement with the Ojibway Nation to purchase lands for Euro-Canadian settlement. The treaty, made at York, was followed by two additional treaties in 1815 and 1818. In all, the territory ceded by the Ojibway encompassed all lands from Lake Ontario to Georgian Bay. Three Ojibway Chiefs, Kinaybicoini, Aisance and Misquackkey, granted the tract as follows (Hunter 1909:14):

Beginning at a stone boundary, 20 chains N., 81 degrees W. from the base of Kempenfeldt Sand Point, (which is projecting about five and a half chains into Kempenfeldt Bay), thence (i.e., from the stone boundary), N. 40 degrees W., thirty-six miles and a quarter, more or less, to Lake Huron; then along the shore to the bottom of Nottawaysague Bay, at the N.W. angle of the Penetanguishene purchase; thence along its S.W. boundary seven and a half miles to a small bay called Opetequoyawsing; thence northerly out the bay, (i.e., out of Mud Lake), to Gloucester or Sturgeon Bay and following the shore of Matchedash Bay easterly, southerly and northerly until it intersects a line at or near the mouth of a small lake, being the western boundary of a purchase said to have been made in 1785, thence south along the westerly limits of the said purchase, eleven miles, more or less, until it intersects a line produced N. 78 degrees W. from the waters of Lake Simcoe near the carrying place hereinafter mentioned; then S. 78 degrees E. along the S. boundary line of the said last mentioned purchase to the waters of Lake Simcoe, near to a carrying place leading to a small lake, distant about three miles westerly; and then southwesterly along the northwestern shore of Lake Simcoe and Kempenfeldt Bay, to the place of beginning, containing about 250,000 acres of land.

The Euro-Canadian settlement of Tiny Township followed the conclusion of the 1815 Treaty and construction of the naval base at Penetanguishene (constructed between 1814 and 1817). The Penetanguishene Road, the first overland road in the region, was built in 1814 with the express purpose of supplying the naval base and land along this road opened for settlement in 1818. Much of this land was granted to displaced United Empire Loyalists (UEL's). However, a large percentage of those who received land granted in Tiny Township never actually settled and worked the land. Those who did settle received official land grants only after they cleared 10 acres, fenced their property, built their half of the road and built a house within one month of receipt of certificate.

Many who settled along the Penetanguishene Road did so in anticipation of selling their wares to the military, however, the route declined in status to that of a winter road and many families abandoned their land by 1840. Nevertheless, settlement did flourish along the Wye River. This source of power, in conjunction with the virgin inland forests, attracted lumbermen and the construction of sawmills began in earnest. Rail development advanced in the township as a result of the lumber industry and settlement and as early as 1836 railway construction was attempted. Over 40 years later, in 1878, the North Simcoe Railway was completed. Running from Barrie to Penetanguishene, this rail line witnessed and transported the decimation of mass stands of pine and the population of

Tiny Township exploded from 240 to 4,786 (Township of Tiny Historical and Heritage Committee 1995:8). The clearing of these forests were necessary to make way for cultivation and agricultural ventures which are now commonplace throughout the township.

Tiny Township (along with Tay and Flos) was so named after a pet dog of Sarah Maitland (1792-1873), wife of Sir Peregrine Maitland (1777-1854), Lieutenant Governor of Upper Canada (1818-1828). Tiny and Tay Townships were initially united for municipal purposes until 1869 when Tiny Township continued as its own municipality (Figure 10). The township was separated into five separate wards in 1884, each to be overseen by councillors, the Deputy-Reeve and Reeve with all associated finances overseen by the clerk. In the early twentieth century, 1919, the Military Reserve located within the north portion of Tiny, was purchased. New roads were constructed and lots were offered for sale. Growth continued exponentially in the township throughout the 1920s and extending into the middle to late twentieth century. Roads were built or improved, fences, homes, churches and schools erected and bridges constructed (Township of Tiny Historical and Heritage Committee 1995:15).

The closest village to the study area, Waverley, also known in the past as Bannister's Corners, French's Corners and Victoria Hill, is located approximately 1.84 kilometres to the southeast, at the intersection of Simcoe County Road 27 and Penetanguishene Road (Highway 93). The first settler, David Bannister, settled in this area in 1829. Although Waverley was a thriving village in the late 1800s and early 1900s the population decreased significantly throughout the twentieth century.

Property History. The study area is located on Lot 80, Concession 1 West of Penetanguishene Road (WPR) in the Geographic Township of Tiny, Simcoe County (Figure 10). The following section provides a history of the Euro-Canadian development of the project area and information about its occupants from the time it was first granted by the Crown to the last half of the twentieth century when it was acquired by the present property owners. This information is particularly helpful because it assists in reconstructing activities that took place on or near the project area and how these activities may have influenced the potential for the discovery of extant archaeological resources. A variety of primary and secondary historical resources were consulted including land registry abstracts, titles and deeds, Census records, tax assessments and birth, marriage and death certificates.

North Half of Lot 80, Concession 1. Lot 1, comprising 100 acres, was granted by the Crown to Joseph Ball on March 17, 1835. Unfortunately no information could be found on Joseph Ball, but on March 20, 1835, he sold the property to Peter Richard of Toronto. Later that autumn, Peter Richard sold the property to William Ross, also of Toronto. A common name, there were a number of individuals with the name of William Ross living in Simcoe County during the middle of the nineteenth century. None were identified in the Township of Tiny. Although the land registry abstracts for Lot 80 identified William Ross as being from Toronto, this may simply have referred to his place of birth or his residence at the time of purchase.

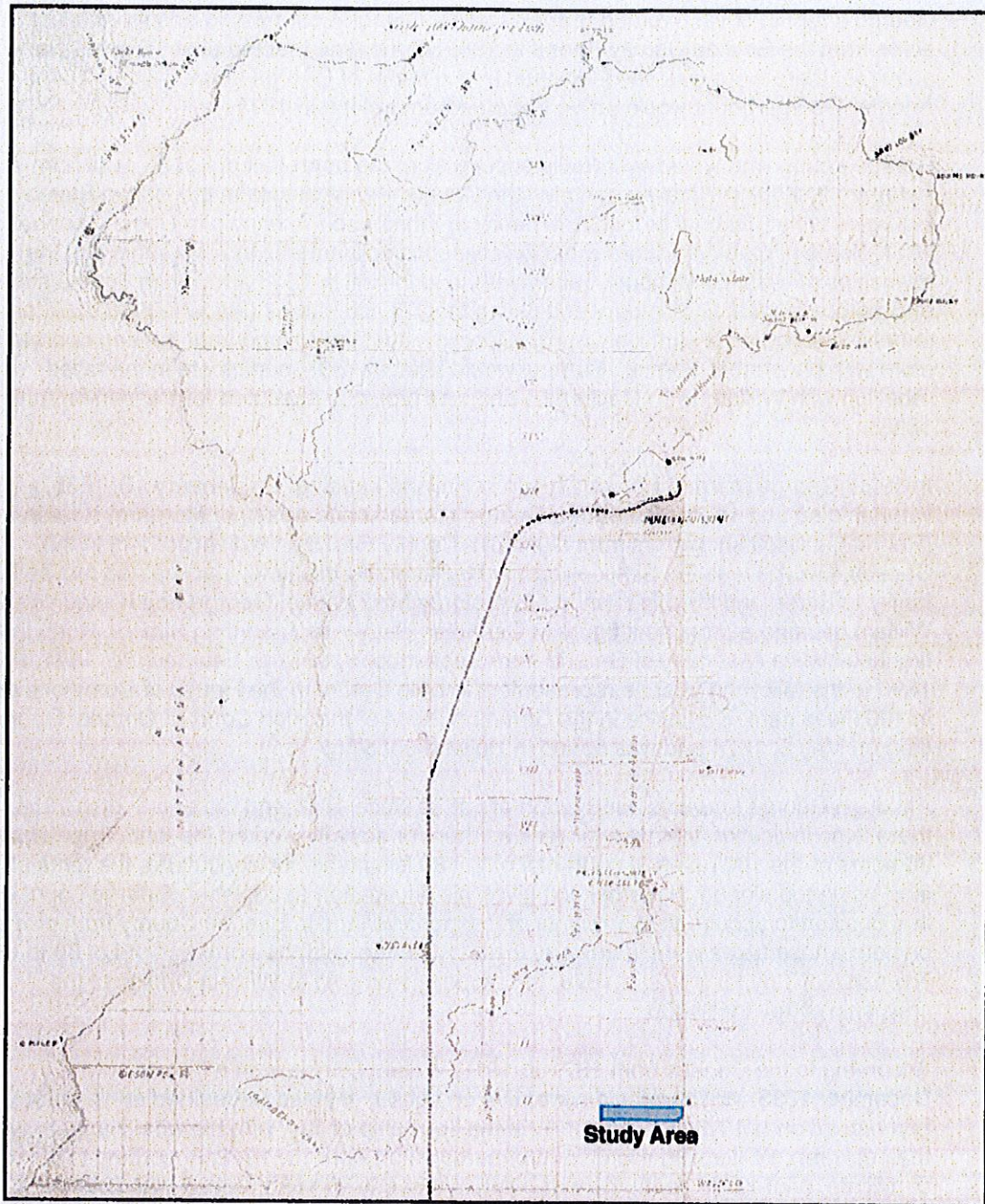


Figure 10. Tiny Township.

In 1848, William Ross ran into financial trouble and the east 75 acres of the property, which comprises the land from approximately the top of the ridge east towards the concession road (Darby Road), was seized by the Simcoe County Sheriff and sold to George Lount of Barrie to pay for overdue taxes. In 1859, the Simcoe County Sheriff seized 20 acres in the remaining west portion of Lot 80 from William Ross and sold it to

George Lount to cover overdue property taxes. George Lount would acquire the last 5 acres from the Simcoe County Sheriff in 1866. At the time that the east 75 acres was acquired, there was one individual by the name of George Lount living in Barrie. Another George Lount would arrive in Barrie from Ireland in 1871.

George Lount, who would eventually acquire all of the north half of Lot 80, was born on February 2, 1799 in Catawissa, Columbia County, Pennsylvania in the United States. George's father, Gabriel brought the family to Whitchurch Township in Upper Canada in 1811. Some of George Lount's most notable accomplishments include surveying the townships of West Gwillimbury, Tecumseth, and Innisfil in 1818 and laying out the streets of Bradford in West Gwillimbury and giving them Dutch names (Magel 1998:70). After surveying a portion of Simcoe County, George settled in Holland Landing and operated a store with his brother Samuel. Samuel would later, in 1837, participate in the failed rebellion with William Lyon Mackenzie and was promptly executed for treason on April 12, 1838.

In 1822, George married Hannah Tyson in Holland Landing. On January 16, 1835, Hannah died and shortly thereafter, George married once again, to Margaret Rannie (Rennie), a Scottish migrant from Dunlavin, County Fife. By 1861, according to the Census, George was the Simcoe County Registrar. By this time, George had moved his family to Barrie and lived in town in a two storey brick house. George and Hannah's son, William became a prominent figure in Canadian history, representing Simcoe North in the first Legislative Assembly of Ontario from September 3, 1867 to February 25, 1871. From 1896 to the following year he represented Toronto Centre in the House of Commons and in 1901 was named a justice in the Common Pleas of the High Court of Ontario. George died on May 8, 1874 and was buried in Holland Landing.

Although George Lount owned portion of Lot 80 since 1848 and the entire lot in 1866, there is no indication that he ever resided there or actively worked the land. Approximately 20 acres of the 100 acres of north half of Lot 80 is suitable for agriculture, the remaining land being too sloped. Nonetheless, given his occupation as registrar, George Lount was in a position to acquire vast amounts of inexpensive land in Simcoe County from property owners whose taxes were in arrears. In 1871 George sold the north half of Lot 80 to the Township of Tiny for \$312. In 1878, the property was sold to William Drinkle of the Township of Tay for \$1800.

According to the Census from 1871 to 1911, William Drinkle was a farmer born in December 1833. William would never live on Lot 80, instead he resided at his nearby homestead on Lot 78, Concession 1, in the Township of Tay, with his wife, Hannah, and their children. William Drinkle died of pneumonia on April 10, 1912. According to his death certificate, prior to his death, he was living in Waverly. In 1883, Lot 80 was sold to Eli Gregg (Grigg) of the Township of Tiny for \$1100.

Born in 1863, little information could be found on Eli Gregg. Eli, the son of Edward and Hannah, married Elizabeth Jane Mayne on May 20, 1887 in Hillside. William Drinkle was identified as a witness at the wedding. When the 1891 Census was conducted, Eli and Elizabeth had one child, Mabel. According to the *Farmers and Business Directory for the Counties of Haliburton, Peterboro, Simcoe, and Victoria, 1893*, Eli Gregg was residing and farming on Lot 80, Concession 1 in the Township of Tiny. The information was found in the

Farmers and Business Directory for the Counties of Bruce, Grey, Muskoka, Ontario, and Simcoe, 1896. On December 15, 1896, the north half of Lot 80 and an additional 5 acres from elsewhere, was sold to Thomas H. Gregg, presumably a relative, but not the son of Eli, for \$2000. By 1898, according to the *Farmers and Business Directory for the Counties of Bruce, Grey, and Simcoe, 1898*, Eli Gregg had moved to Lot 78, Concession 1 in the Township of Tiny and Thomas H. Gregg is listed as the occupant of Lot 80.

Thomas Gregg sold the property to Ernest Lamb in 1904. Ernest Lamb was born in 1874. However, no other information could be found. In 1908, Ernest sold the north half of Lot 80 to his brother Henry M. Lamb for \$1000 and an agreement to take over the mortgage of the property. Henry Lamb was born in 1882. On November 12, 1919, Henry sold the property to William E. Beacock for \$2800. On October 24, 1952, William's wife, Charlotte sold the property to the Director of the Veterans' Land Act for \$4700. The Director of the Veterans' Land Act granted the property to William Sibthorpe on January 21, 1977.

Past Archaeological Research

Throughout the nineteenth and early twentieth century, as Euro-Canadian settlers, miners, and loggers penetrated the forests and lakes of the region, some would encounter and collect evidence of past First Nations activities, in the form of stone and copper tools, or organic paraphernalia. This practice continued well into the twentieth century and is still carried out to this day by cottagers, tourists, and local residents.

The Ontario Ministry of Tourism and Culture maintains a database of all known and registered archaeological sites in the Province. A search of the database with a two kilometre buffer around the project limits indicated that four archaeological sites have been registered. However, the paucity of registered sites does not necessarily reflect the archaeological history of the area. Throughout the nineteenth and early twentieth century, as Euro-Canadian settlers and loggers penetrated the forests and lakes of the region, some would encounter and collect evidence of past First Nations activities, in the form of stone and copper tools, or organic paraphernalia. This practice continued well into the twentieth century and is still carried out to this day by cottagers, tourists and local residents, some who have amassed significant collections. In addition, given the cultural development of the region, including the discovery of undocumented archaeological resources, there is undoubtedly a significant potential for the discovery of more archaeological resources in the region.

Table 2. Registered archaeological sites within a two kilometre radius of the project area.

Site Name	Borden Designation	Culture	Period
Bucket	BdGw-41	Iroquoian, Huron	Woodland
-	BdGw-42	Euro-Canadian	Historic
Curry	BeGx-26	Iroquoian, Huron	Woodland

Bucket Site (BdGw-41). Consisting of 180 artifacts, including ceramics, nails, chert debitage and faunal remains, this Huron site is situated on gently rolling terrain with well-drained sandy soils (Dibb 2005).

BdGw-42. This Euro-Canadian homestead site is comprised of one artifact; an iron axe head (Dibb 2005).

Curry Site (BeGx-26). Determined by Hunter (1969) to be a Huron occupation, artifacts recorded from Curry site include pottery (i.e., castellations, shoulders, rims, discs, pipes), a celt, a beaver incisor, a cranium fragment, brass kettle fragments and an iron ring.

Aside from the presence of nearby registered archaeological sites, other indicators of the presence of extant archaeological remains are the proximity of historical plaques to the study area that commemorate important events in a region's past, whether it be the birth of an individual, the site a specific battle, or the construction of a unique building. Generally, historical plaques and markers point to a specific locale on the landscape that can be visited by the public. Although plaques and markers may not be placed in the exact location that the event has occurred, generally it is in close proximity, taking into consideration access to the public. In Ontario, historical plaques may be erected by the federal government through the Historic Sites and Monuments Board of Canada (HSMBC), the Ontario Heritage Trust (OHT), and local heritage agencies or historical societies. Although there are three historical plaques within the township, there are none located within a two kilometre radius of the study area.

Archaeological Potential

There are a number of criteria used to establish archaeological potential. The Ministry of Tourism and Culture has set guidelines that establish archaeological potential within the distance of certain natural and human-made features on the landscape. Natural features include the presence of potable water, primary water sources (i.e., lakes, rivers, streams, and creeks), secondary water sources (i.e., intermittent streams and creeks, springs, marshes, and swamps), elevated landforms (i.e., eskers, drumlins, knolls, ridges, and plateaux), especially in low and wet areas, distinctive land forms that may have special or spiritual significance (i.e., waterfalls, rock outcrops, caverns, mounds, and promontories), and soils suitable for habitation (i.e., pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground), and cultivation (i.e., fertile soil). Human-made features that can influence potential are transportation routes (i.e., portages, trails, roads, and railways), early settlement (i.e., homesteads, schools, and early industry), and known archaeological sites.

In addition, features that are no longer present on the landscape are also considered, including relic water channels (indicated by a clear dip or swale in the topography) and glacial shorelines (indicated by the presence of raised sand or gravel beach ridges). Past and present resources available on the landscape are also considered. These can include certain species of plants for food and medicinal purposes, animals, including their migratory routes and spawning areas, and raw materials (i.e., chert outcrops, quartz, copper, etc.), and early Euro-Canadian industry (i.e., logging, agriculture, and mining). There are features on the landscape that can also lower archaeological potential. These include areas that have a slope of greater than 20°, permanently wet areas (both in the past and the present), or lands that have underwent major landscaping or development involving grading below topsoil.

Using the criteria above that was gathered from various sources during the Stage 1 background study, especially the natural and human development of the project area, there are a number of areas within the study area that possess a moderate to high potential for the discovery of both extant First Nations and Euro-Canadian archaeological remains (Figure 11). Dominated by a sandy ridge, the study area likely encompasses a glacial outwash from a stream or river during the melting and recession at the end of the Wisconsin Ice Period. Therefore, these areas have the potential for the discovery of extant Palaeo-Indian cultural resources. These well-drained sandy soils atop elevated terrain were also used by First Nations throughout human history in Ontario as habitation sites prior to the arrival of Europeans, as evidence by the Bucket Site (BdGw-41) to the south.

The potential for the discovery of extant Euro-Canadian archaeological resources is limited to the proximity of concession roads built in the nineteenth century. A portion of the western limit of the subject property is bordered by Marshall Road, which now veers to the west at the northwest corner of Lot 80 to form Carpenter Side Road and connect with Baseline Road. However, during the nineteenth century, Marshall Road would have continued through to French Road to the south to form a route between the concessions. Along the east boundary of the study area is Darby Road. Prior to its diversion further to the east, Darby Road formed part of the route between Penetanguishene to the north and Waverley and the communities to the south. Although a road allowance separates Lot 80 and Lot 81, a road was never constructed.

Portions of the study area possess slopes that are greater than 20 degrees and therefore have little to no archaeological potential. The sloped areas formed the limits of the outwash at the conclusion of the last glacial period and today are the target for aggregate extraction.

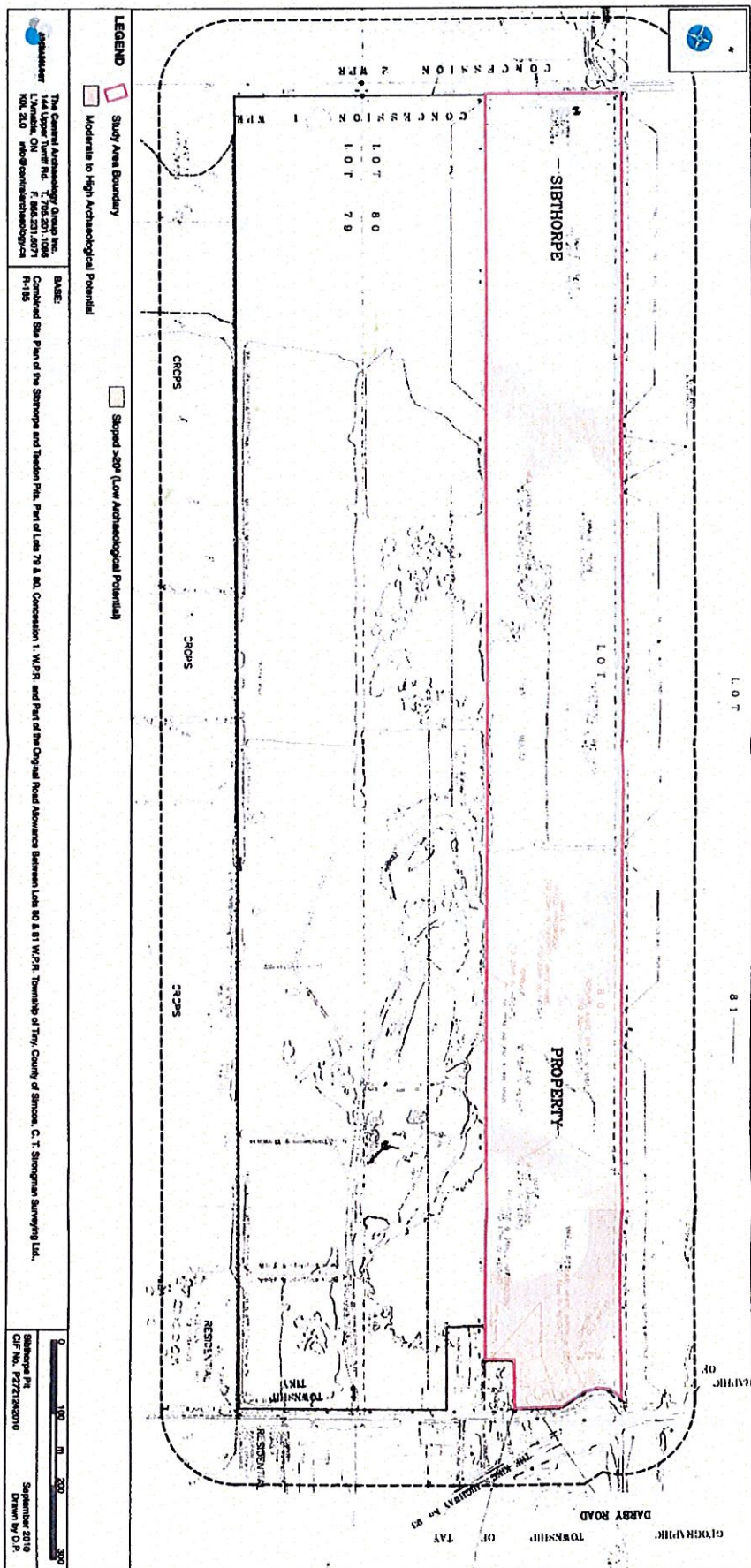


Figure 11. Archaeological potential.

THE CENTRAL ARCHAEOLOGY GROUP INC.
 STAGE 1 AND STAGE 2 ARCHAEOLOGICAL ASSESSMENT
 SIBTHORPE PIT EXPANSION
 LOT 80, CONCESSION 1 W.P.R., GEO. TOWNSHIP OF TROY, SIMCOE COUNTY

Stage 2 Methods and Results

Methods. A Stage 2 archaeological property survey was undertaken between August 20 and August 27, 2010. The Stage 2 assessment of the project area entailed shovel testing of specific portions of the property which were determined to retain moderate to high potential for archaeological resources.

A conventional test pit survey involves excavating shovel-sized pits, at least 30 cm in diameter, into the first 5 cm of subsoil to examine the pit for stratigraphy, cultural features, or evidence of fill. All soils are screened through mesh no greater than 6 mm and upon completion all test pits are backfilled. If archaeological resources are found within a test pit in an area designated to have moderate to high potential, the survey continues at a 5 metre or 2.5 metre interval to determine whether there are further positive test pits. If sufficient archaeological resources are encountered, than at Stage 3 assessment is recommended.

If insufficient archaeological resources are encountered, the distance between test pits is reduced to 2.5 m within a radius of 5 metres around the initial positive test pit. In addition, a 1 metre x 1 metre test unit may be excavated around the initial positive test pit. If it is part of a larger concentration then a Stage 3 assessment is generally recommended. Irregardless of the strategy employed, all test pits are backfilled to grade to avoid the potential of a tripping hazard.

If positive test pits are encountered during the survey they are assigned an unique number and its location recorded to less than 30 cm accuracy in the field using a Trimble XH handheld GPS and Hurricane Antenna. The co-ordinates are corrected using Automatic H-Star Carrier and Code Processing in the Trimble Pathfinder and the following GPS base stations: 1) CORS, Port Weller, ON; 2) SOPAC, Algonquin, daily; 3) CORS, Kingston, ON; 4) CORS, Capac, MI and; 5) CORS, Parry Sound, ON.

Any artifacts recovered from the project area will be bagged, cleaned with water and brush, dried numbered, analyzed, and inventoried. Using the Society for Historical Archaeology *Standards and Guidelines for the Curation of Archaeological Collections* (1993), all artifacts are stored in protected containers in a temperature (20°C) and humidity (50%) controlled storage room at the main office of The Central Archaeology Group Inc. in L'Amable, Ontario. All notes and photographs produced during the course of the project are catalogued and securely stored. Excavation notes are taken in an all weather journal and colour photographs are taken using an Olympus E-500 SLR digital camera.

Results. See Figure 12 for the results of the Stage 2 archaeological property survey on the following page.

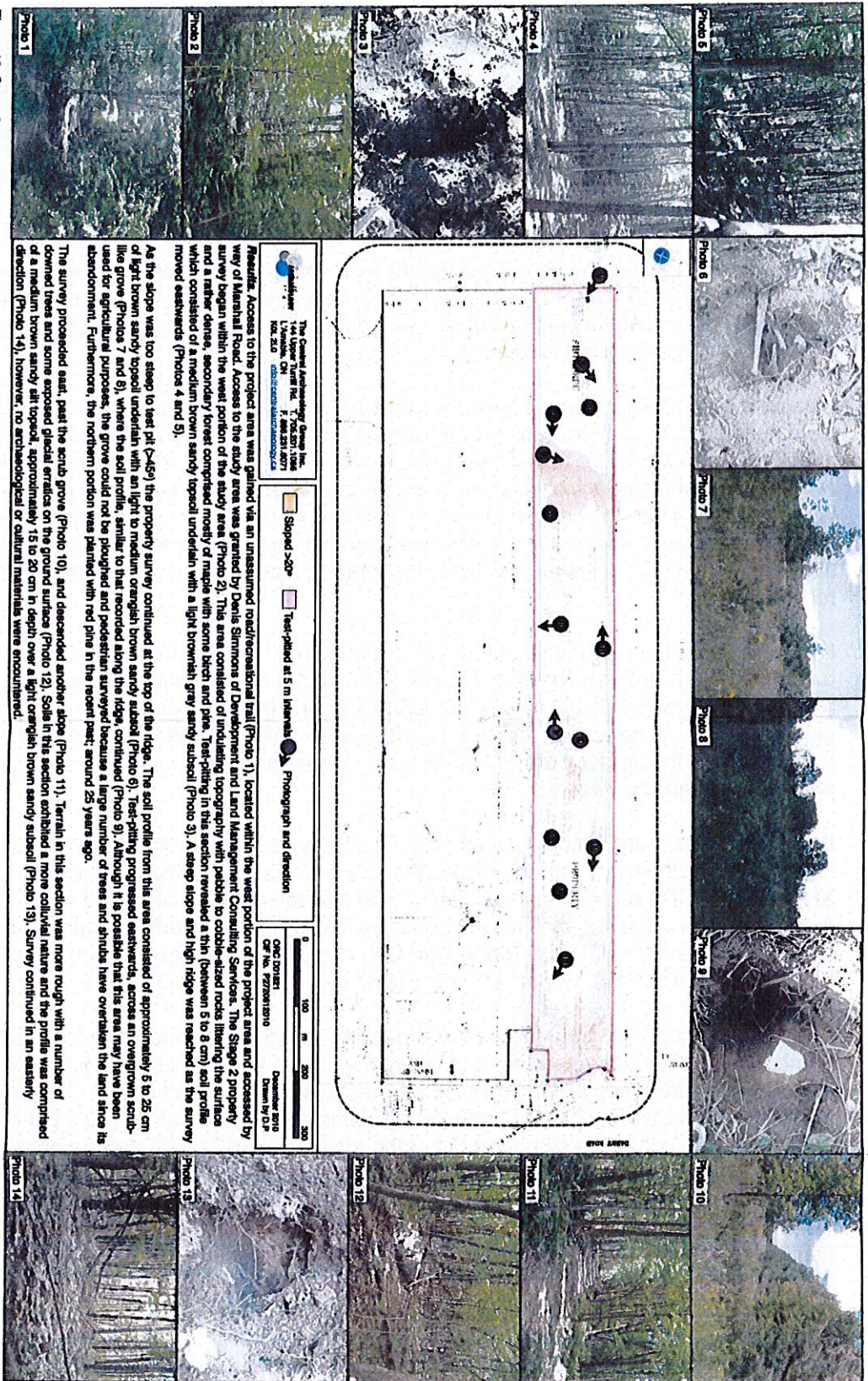


Figure 12. Stage 2 survey results.

Conclusions and Recommendations

The Central Archaeology Group Inc. was retained by Denis Simmons, Development and Land Management Consulting Services to conduct a Stage 1 and Stage 2 archaeological assessment on Lot 80, Concession 1 WPR, Geographic Township of Tiny, Simcoe County. Comprised of approximately 100 acres, the study area is bounded, in part, by Darby Road to the east, a secondary growth forest to the north, Marshall Road to the west and the existing pit and woodlots to the south. It's westernmost extent is located approximately 9.8 kilometres east of Georgian Bay and its easternmost extent is location about 1.88 kilometres north of the Town of Waverley, 15.4 kilometres west of the City of Orillia and 4.84 kilometres north of Orr Lake. The purpose of the study is to provide a baseline level of data on known and potential cultural heritage resources within the subject property and the information collected within this report is intended to inform future planning decisions regarding the study area.

Based on the results of the Stage 1 and Stage 2 archaeological assessment, the following recommendations are provided for consideration to the Ontario Ministry of Tourism and Culture and Denis Simmons, and are subject to approval by the Ontario Ministry of Tourism and Culture:

- 1) The Stage 2 archaeological assessment did not recover any material culture during survey activities. Consequently, significant pre-contact and historic First Nations or historic Euro-Canadian archaeological sites are unlikely to be found in any undisturbed ground within the project area. Therefore, there are no significant archaeological concerns associated with the remainder of this project and it is recommended that the property be cleared of archaeological concerns.
- 2) The licensee shall hold the archaeological collections, including copies of study material and original notes generated during the course of research, in trust, unless it is transferred to an appropriate public institution as per the terms and conditions of holding a professional license.
- 3) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.
- 4) The Cemeteries Act requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries, Ministry of Small Business and Consumer Services.

The Stage 1 and Stage 2 archaeological assessment was conducted under the project and field direction of Derek Paauw, under professional licence P272 issued to Mr. Paauw in accordance with the Ontario Heritage Act (R.S.O. 1990). The archaeological assessment was undertaken according to the requirements of the Ontario Heritage Act (R.S.O. 1990), the Environmental Assessment Act (R.S.O. 1990), the Ontario Ministry of Culture Standards and Guidelines for Consultant Archaeologists (2010), and the Planning Act (R.S.O. 1990).

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Appendix A - Glossary of Terms

Archaeology - is the scientific study of the physical evidence of past human societies recovered through excavation.

Archaeological Site - is a place in which physical evidence of past human activity is preserved and which has been, or may be, investigated using the discipline of archaeology.

Archaic Period - in Ontario is characterized by the appearance of ground stone tools, notched or stemmed projectile points, the predominance of less extensively flaked stone tools, increased reliance on local chert resources, a lack of pottery and smoking pipes, and an increase in the numbers and sizes of sites.

Atlatl - a tool used to throw spears faster and with more accuracy. It consists of a short pole with a handle at one end and a hook for engaging the spear in the other.

Biolumination - results in changes to the nature, form, and arrangement of archaeological deposits and sediments as a result of biological activity in the ground. This includes root action, animal activity, and the degeneration of organic matter.

BP - Before Present. Years before present (1950), used in dating sites and/or artifacts from an archaeological site.

Burial Goods or Burial Paraphernalia - items interred with an individual (or group) burial that may give clues to their social and/or economic and/or political position within their culture.

Chert - is a fine-grained, sedimentary rock, similar to flint. In antiquity, chert was one of the universally preferred materials for making stone tools.

Contact Period - refers to the period when European and First Nations peoples were first exposed to one another. In Ontario from 450 BP to 200 BP.

Cultural Resources - are sites, structures, landscapes, and objects of particular importance to a culture or community.

Diagnostic - a distinguishing characteristic serving to identify or determine the artifact.

Disarticulated - this occurs when bones are found separated at the joints.

Disturbed - refers to a study area that has recently been excavated or altered.

Environmental Assessment Act - sets up a process for reviewing the environmental impact of proposed activities prior to the granting of government funds.

Excavation - is the systematic digging and recording of an archaeological site.

Flake - is a fragment of stone removed from a core or from another flake.

Feature - is a collection of one or more contexts representing some human activity that has a vertical characteristic to it in relation to site stratigraphy.

Fluted - grooved or channelled. A fluted point is a projectile point which has had one or more long thinning flakes removed from the base along one or both faces.

Ground Stone - is a stone artifact shaped by sawing, grinding, and/or polishing with abrasive materials.

Historic Period - the period when written records become available, 300 BP to the present.

Lanceolate - lance-shaped, much longer than wide, widened at or above the base and opening to the apex.

Lithic - stone, or made of stone.

Maize - also known as corn, is a cereal grain that was first domesticated in Mesoamerica and then spread throughout the American continents.

Mitigation - measures undertaken to limit the adverse impact of construction methods on archaeological sites or cultural resources.

Ochre - used as a natural pigment, colour is commonly reddish-brown to yellow.

Ontario Heritage Act - allows municipalities and the provincial government to designate individual properties and districts in Ontario as being of cultural heritage value or interest.

Paleo-Indian Period - first evidence of human occupation in Ontario. This period is characterized by family groups hunting large game and seasonal occupation along lakeshore environments, 11,500 - 9000 BP.

Projectile Point - is an artifact used to tip an arrow, atlatl dart, spear, or harpoon. Usually made of chipped or ground stone, however, some are also made of copper.

Stage 1 Background Study - The purpose of a Stage 1 assessment is to investigate the cultural land use, archaeological history, and the present conditions of a property. The majority of the Stage 1 process is conducted in the office and involves the examination of records such as historic settlement maps, land titles, and documents, historical land use and ownership records, primary and secondary documentary sources, and the Ministry of Culture's archaeological site database. The study may also involve interviews with individuals who can provide information about the property and consultation with local First Nations communities. The background study is followed by a property inspection to examine geography, topography and current conditions, and to determine the potential for archaeological resources. Stage 1 background research is usually completed in conjunction with a Stage 2 property survey.

Stage 2 Property Survey - The Stage 2 property survey involves the documentation of archaeological resources by collecting artifacts and mapping cultural features. Depending on the nature of the property environment, two methods are employed in the survey: 1) pedestrian survey, and; 2) test-pit survey.

Strata - are layers of rock, soil, cultural material, etc. with internally consistent characteristics that distinguish contiguous.

Stratigraphy - the layering of deposits on archaeological sites. Cultural remains and natural sediments become buried over time, forming strata.

Subsistence - obtaining food and shelter necessary to support life.

Survey - is used to accurately determine the terrestrial or three-dimensional space position of points and the distances and angles between them.

Woodland Period - is a period of time following the Archaic Period. From 3000 BP to 300 BP. It is sub-divided into Early, Middle, and Late.