OTTAWA VALLEY WILD BIRD CARE CENTRE

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT

MCARTON ROAD WILD BIRD SANCTUARY

SEPTEMBER 16, 2019

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STEPHEN JARRETT – P385

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OTTAWA VALLEY WILD BIRD CARE CENTRE

LOT 4, CONCESSION 12, FORMER TOWNSHIP OF GOULBOURN, NOW WITHIN THE CITY OF OTTAWA, PROVINCE OF ONTARIO

ORIGINAL REPORT

PROJECT NO.: 191-07278-00
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September 16, 2019

Stage 1-2 Archaeological Assessment

McArton Road Wild Bird Sanctuary

Lot 4, Concession 12, Former Township of Goulbourn, now in the City of Ottawa, Province of Ontario.

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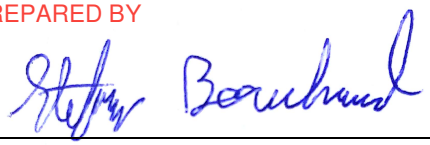

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EXECUTIVE SUMMARY

WSP Canada Inc was retained by the Ottawa Valley Wild Bird Care Centre (the Client) to conduct a Stage 1-2 Archaeological Assessment for the land to be impacted by the development of a new Wild Bird Care Centre. The development covers an area approximately 7 hectares in size and is situated within part of Lot 4, Concession 12, Former Township of Goulbourn, now in the City of Ottawa, Province of Ontario (Figure 1 and Figure 2).

This archaeological assessment is required as part of the *Planning Act* in advance of the proposed development. The City of Ottawa is the approval authority under this act to ensure that the Client is compliant with the *Ontario Heritage Act*. The assessment was conducted during the design stage of the process and a preliminary site plan was provided, which indicated the property boundary (**Appendix A**).

Archaeological activities were carried out in accordance with the Standards and Guidelines for Consultant Archaeologists (Ministry of Tourism, Culture and Sport, 2011). This study involved a review of documents pertaining to the property including historic maps, local histories, archaeological literature, property inspection, test pit survey, and pedestrian survey. All fieldwork was completed on September 13, 2019.

Archaeological recommendations have been made based on the results of the Stage 2 test pit survey and pedestrian survey. These recommendations include the following:

1 **No archaeological material was recovered and no archaeological sites were identified on the property. Therefore, no further archaeological assessment is required.**

PROJECT PERSONNEL

WSP

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1 PROJECT CONTEXT

1.1 OBJECTIVES

A Stage 1-2 Archaeological Assessment is conducted as a cost and time effective approach for assessing a property that will undoubtedly require Stage 2 Archaeological Assessment. The objective of a Stage 1-2 Archaeological Assessment is thus a combination of the objectives of a Stage 1 and Stage 2 Archaeological Assessment and are as follows:

1. to provide information regarding the property's geography, history, previous archaeological fieldwork, and current land condition;
2. to provide a detailed evaluation of the property's archaeological potential;
3. to document all archaeological resources on the property;
4. to determine whether the property contains archaeological resources requiring further assessment; and
5. to recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

A property inspection allows the archaeologist to gain first-hand knowledge of the geography, topography, and current conditions of the property that allows for a more confident determination of archaeological potential. A property survey allows for the on-site documentation and inventory of all archaeological resources through systematic means as appropriate to the characteristics of the property.

1.2 DEVELOPMENT CONTEXT

WSP Canada Inc. was retained by the Ottawa Valley Wild Bird Care Centre (the Client) to conduct a Stage 1-2 Archaeological Assessment for the land to be impacted by the development of a new Wild Bird Care Centre. The development covers an area approximately 7 hectares in size and is situated within part of Lot 4, Concession 12, Former Township of Goulbourn, now in the City of Ottawa, Province of Ontario (Figure 1 and Figure 2).

This archaeological assessment is required as part of the *Planning Act* in advance of the proposed development. The City of Ottawa is the approval authority under this act to ensure that the Client is compliant with the *Ontario Heritage Act*. The assessment was conducted during the design stage of the process and a preliminary site plan was provided, which indicated the extent of the property (**Appendix A**).

The study area lies within the boundaries of the City of Ottawa's *Archaeological Master Plan* (ASI, 1999) and identified the property as holding archaeological potential, likely because of the adjacent wetland environment and historic road (current McArton Road).

Permission to access the property was granted by the Client to conduct the property inspection and survey. No limitations were in place and fieldwork was conducted on September 13, 2019.

1.3 HISTORICAL CONTEXT

1.3.1 HISTORICAL DOCUMENTATION

The study area is located within part of Lot 4, Concession 12, Former Township of Goulbourn, now in the City of Ottawa, Province of Ontario (Figure 1 and Figure 2). The following sections provide a brief outline of the study area's history during the Pre-Contact and Post-Contact periods to provide a generalized chronological framework in which the archaeological assessment was conducted.

1.3.2 PRE-CONTACT PERIOD

The human occupation of Ontario begins following the retreat of the Laurentide Ice Sheet (LIS) during the Pleistocene Epoch. As the glacier receded northward, early pioneering vegetation began to grow on the newly released land, creating a tundra like environment that began to attract wildlife, and with them, humans. In the Ottawa Valley, however, the weight of the glacier depressed the land to the extent that seawater immediately inundated the valley from ca. 12,800 to 10,000 Before Present (BP) (Watson, 1999a). Isostatic rebound, the gradual decompression of the earth's surface, eventually raised the ground to an elevation higher than sea level to reflect the present landscape. Similar to the lands exposed during deglaciation, pioneering plants were the first to take root, although it is likely that the rich marine waters had already attracted animals and humans to the area.

The earliest peoples of Ontario inhabited the southernmost part of the province during what archaeologists' term the Early Paleoindian period (ca. 11,000 to 10,400 BP) (Ellis & Deller, 1990). There is currently no definitive archaeological evidence of an Early Paleoindian occupation of the Ottawa Valley and its immediate surroundings. However, Paleoindian populations were firmly established in other parts of the province and neighboring regions. At the western edge of the extent of the Champlain Sea, in the Rideau Lakes area, two fluted points that suggest Early Paleoindian populations were present in the area (Watson, 1999a).

The Late Paleoindian period followed and is primarily characterized by a shift in projectile point morphology from fluted to stemmed. In the Ottawa Valley, the Late Paleoindian period is understood to last until the beginning of the Archaic (see below), sometime between 9,000 to 8,000 BP. Interestingly, evidence of Late Paleoindian populations inhabiting the Champlain Sea basin also comes from the Rideau Lakes area where two Plano-style projectile points were recovered. Late Paleoindian points were also recovered from Thompson Island, an island on the St. Lawrence near Summerstown, Ontario.

The absence of archaeological evidence for the Paleo period habitation in the Ottawa Valley does not necessarily reflect an absence of human occupation for the period during that time. Relic shorelines of the Champlain Sea, particularly at its western limits, are difficult to identify and as a result, archaeological investigations have been limited. It seems more than likely that Paleoindian populations would have migrated to the shores of the sea, as they did in other areas of northeastern North America.

The Archaic period represents what archaeologists identify as a significant shift in the lifeways of North America's inhabitants that results from environmental stabilization following the transition from the Pleistocene to the Holocene Epoch. Archaeologists identify this shift by a change in the toolkits left behind by those living during this time. Several new tools have been introduced, and several older tools reconfigured into completely new morphological groups. In general, the following comprises the most significant changes to the material culture recovered so far (Ellis, et al., 1990):

1. An increase in stone tool variation and reliance on local stone sources,
2. The emergence of notched and stemmed projectile point morphologies,
3. A reduction in extensively flaked tools,
4. The use of native copper,
5. The use of bone tools for hooks, gorges, and harpoons,
6. An increase in extensive trade networks, and
7. The production of ground stone tools.

It is important to note that not all of these traits are expressed by more northern Archaic cultures (Hamilton, 1991).

It is believed that although groups continue to be nomadic, moving seasonally to follow important resources, the territories within which they moved had reduced in size. This has been interpreted as an increase in population and more established territories, but for some areas it may reflect an increased difficulty in travelling through a more densely forested area. In either case, the smaller territory resulted in an increased utilization of generally poorer quality, local materials, that were transformed into smaller and less intricately flaked tools; a product of the lower quality material, or a societal act of material conservation, or both. The smaller projectile points began to be notched and stemmed, which suggests a change in hafting techniques, that were used to hunt smaller game.

The use of bone tools for hooks and harpoons suggests an increased reliance on fish, while the introduction of ground stone tools indicates a new emphasis on woodworking, possibly even for constructing dug-out canoes. It is likely that watercraft were necessary for the transportation of goods across extensive trade networks that grew during the Archaic, such as the transportation of copper from western Lake Superior to Morrison Island on the Ottawa River near Pembroke, Ontario.

The Archaic period can be divided into an Early, Middle, and Late period for Ontario. This division more adequately expresses our current understanding of the Archaic period in southern Ontario, but unfortunately little is known of this period in the Ottawa Valley. Currently, it is understood that the Laurentian Archaic was present within the valley during the Middle Archaic period (ca. 6,000 to 5,000 BP) and extended from Lake Abitibi to the Saguenay, into northern New York State, Vermont, Maine, and eastern Ontario. The Laurentian Archaic is identified by similarities in lithic, bone and copper tools recovered from archaeological sites across the previously described area (Clermont, 1999).

The Archaic period in the Ottawa Valley is best known by the excavations conducted at the Morrison Island site and the Allumette Island site. The Morrison Island site dates to the Brewerton Phase of the Laurentian Archaic (ca. 5,500 to 5,000 BP) and has provided important insight into the ritual activities of this culture (e.g. burial practices) and everyday life (e.g. activity areas) that suggest a seasonal occupation of the site. It is hypothesized, based on the plethora of needles and faunal remains suggesting a build up of food stores, that the site was occupied in the late summer or autumn. In addition, the site yielded a large amount of copper artifacts, the source of this material originating at the western end of Lake Superior (~1,000 km west), as well as Onondaga Chert (~500 km south), which indicate the existence of an extensive trade network (Clermont, 1999).

The Woodland period begins with the introduction of pottery technology to the region ca. 2,800 BP. Like the Archaic, it is subdivided into the Early, Middle, and Late periods for Ontario. Pottery in the Early Woodland period is generally thicker and more coarsely made. In Ontario, the Meadowood Complex (ca. 2,8000 to 2,400 BP) represents the Early Woodland period (ca. 2,450 to 2,000 BP). Generally, there was little change in the lifeways between the Late Archaic and Early Woodland as people continued their nomadic way of life, travelling between short term campsites, following game, fish spawns and other resources. There is no evidence of horticulture being practiced in the Ottawa Valley during this period (Watson, 1999b).

The earliest pottery style belonging to the Meadowood Complex is known as Vinette I, which were first formed in the shape of stone (steatite) vessels that were its immediate predecessor. Vinette I is characterized by its coarse texture, which appears rather porous when the cross-section of a broken sherd is examined, and frequent coil breaks. Exterior decoration is typically vertical cord impressions, although they can be haphazardly arranged, while the interior cord impressions are nearly always horizontal. This pottery has been found in one location in the Ottawa Valley, the Chalk River Site (CaGi-1), which is located on the north shore of the Ottawa River opposite the mouth of the Chalk River. Several other sites containing different styles of pottery dating to shortly after the Meadowood Complex have been identified in the Ottawa Valley. Distinctive artifacts, such as projectile points, ground stone tools, two-hole trapezoidal gorgets, etc., are also indicative of Early Woodland sites (Watson, 1999b).

The transition from the Early to Middle Woodland Period begins with the Middlesex Complex (ca. 2,450 to 2,000 BP) who adopted new funerary practices, likely influenced by the Adena culture, which introduced the practice of burial mounds. Adena style projectile points have been recovered from the Rideau Lakes area and a Middlesex burial was excavated at the Morrison Island site. Also present during the Middle Woodland in the Ottawa Valley is the Point Peninsula Tradition, which is identified by their pottery decoration (Laliberte, 1999).

The Late Woodland Period, which began ca. 1,000 BP, is characterized by the consumption of cultivated plants (Saint-Germain, 1999). In eastern Ontario, during the late Woodland period the area was largely occupied by Algonquian groups inhabiting the South Nation River basin and the Ottawa River Valley with the St. Lawrence Iroquois along the St. Lawrence River (Day & Trigger, 1978). Information regarding Indigenous occupation specifically in and around Carleton Place is scarce. However previous archaeological assessments have identified a number of lithic sites along the shores of Mississippi Lake, Mississippi River and in and around Carleton Place which provided evidence that the area was certainly utilized by Aboriginal groups.

1.3.3 POST-CONTACT PERIOD

The history of European exploration, trade and settlement of the St. Lawrence valley is complex. The French were the first Europeans to begin westward exploration from the Atlantic coast, beginning with Jacques Cartier in 1535. The St. Lawrence Iroquois disappeared from the St. Lawrence River Valley in the sixteenth century shortly after this contact. More French explorers arrived in eastern Ontario in the early seventeenth century with Etienne Brule in 1610 and Samuel de Champlain in 1613 traversing the Ottawa River. The early French explorers documented three Algonquian groups in the region, the Matouweskarini along the Madawaska River, the Onontchataronon in the Gananoque River basin and the Weskarini, the largest of the groups, in the Petite Nation River basin (Pendergast, 1999).

Beginning in the early 1600s, exploration and trade focussed primarily on the St. Lawrence River, the Three Rivers (Ottawa, St. Maurice, and Saguenay), what is now New York state, and southern Ontario south of Lake Nipissing (Innis, 2017). Missionary work, epidemics and dispersions of Aboriginal people re-shaped the landscape during this time. A period of native resettlement began in the mid-1600s and 1700s as French Trade was increasing. The Mohawk Nation of Akwesasne established its territory around 1754 (Mohawk Council of Akwesasne, 2019)

The history of Upper Canada, now Ontario, and specifically eastern Ontario, was shaped by the arrival of migrant loyalists following the United States War of Independence/American Revolution. Those Americans who had remained loyal to the British during the war were granted lands in Canada for settlement. Around this time, there are some references to the Indigenous settlement and use of the area. Lockwood (1991: 40) has noted that Indigenous people were known to visit a wetland in Lot 20, Concession 10 of the neighbouring Beckwith Township until at least the early 19th Century. Morton Brown also wrote in 1961 of a pioneer exploration down the Mississippi River in 1821 by a group of early Scottish settlers who had encountered an Indigenous man on an island in Mississippi Lake.

The study area is situated on land surrendered during the Rideau Purchase in 1819 (confirmed in 1825), which was signed between representatives of the Crown and certain Anishinaabe groups, and land acquired through the Crawford Purchase of 1783 is situated approximately 8.5 km to the east of the study area (Surtees, 1984; Ontario Ministry of Indigenous Relations and Reconciliation, 2017).

Goulbourn Township, which is straddled by these two purchases, was first surveyed in 1817 and named after Sir Henry Goulbourn, the Undersecretary of State in the British Government, most well known for signing the Treaty of Ghent. The township is bordered by Nepean Township to the east, March and Huntley Township to the north, Marlborough Township to the south, and Beckwith Township (Lanark County) to the west. Richmond, Stittsville, Ashton, and Munster are the most prominent communities within the township.

The first Europeans to settle the county were former Irish soldiers from the 99th regiment in 1818. In order to help protect against the risk of future conflict with the United States, the British government decided to grant the soldiers land in Canada, rather than return them to Britain. The unit was granted land along the Jock River and established the town of Richmond, approximately 17 km east of the study area. Most of the remaining township was settled from 1821 to 1824 (Walker & Walker, 1968). Richmond initially flourished but declined after the construction of the Rideau Canal in 1826 to 1832. More immigrants from Ireland came afterwards, incentivised by an assisted emigration plan that granted free passage and a land grant to those who made the journey. This program was a way to implant soldiers into the general society who would take up arms should the Americans threaten to invade again. The township was amalgamated into the City of Ottawa in 2001 (Goulbourn Township Historical Society, 2019).

1.3.4 STUDY AREA SPECIFIC HISTORY

The study area is situated within part of Lot 4, Concession 12, formerly within the Geographic Township of Goulbourn, now within the City of Ottawa, Historic Carleton County. Specifically, the study area resides in the northern most corner of Lot 4, covering approximately 7 hectares with 190 m frontage along McArton Road. Two historic maps exist for the township; one dating to 1863 (Walling) and another to 1879 (H. Belden & Co.). The 1863 map does not indicate an owner of the lot, nor does it identify any buildings on the property (Figure 3). A historic road runs along the north end of the property, which turns north at the eastern end of Lot 4. The 1879 map (Figure 4) identifies John Arbuckle as the owner of the northern portion of the lot, which includes the study area. The road along the north end of the property (now McArton Road) extends further east before turning northward and a road

along the south end of the lot now provides access to that end of the property. The wetland adjacent to and within the southern part of the study area is also depicted on this map.

The historic land registry (Ontario Land Registry Access, 2019) indicates that on July 21, 1841, the northern 100 acre patent was sold by the Crown to Edward Malloch. On February 13th, 1846, the bill of sale was transferred to James Ford, who granted management rights of the land to George B. Lyon in February of 1848. George B. Lyon had purchased the Crown Patent for the southern 60 acres on December 12, 1846. It should be noted that Lot 4 is only 130 acres in size, but it would appear any clerical errors or ambiguities were resolved by 1900. In 1864 the bill of sale was sold to John Kirkwood, then back to James Ford in 1868. Note that in the 1863 County Map, no owner or structure is identified. In 1868, a bond for the land was granted to John Arbuckle for the land by James Ford, which was followed by the deed in 1873. It is John Arbuckle who is identified on the 1879 Historic County Atlas as the owner of northern section of the lot, while Agnes Ford owned the southern portion of the lot. The only structure indicated on the map belonged to John Arbuckle and was situated in its western half in the approximate location of the current house (approximately 420 m southwest of the subject property). John Arbuckle purchased the southern portion of the lot in 1895 from Agnes Ford, and then sold the entire 130 acre lot to Alex McGivern in November of 1900 for $2,900.

1.3.5 HISTORICAL SUMMARY

The Pre-Contact history of the study area is not well known, although archaeological sites from the area indicate that Indigenous groups lived and utilized the landscape. Goulbourn Township was first surveyed in 1817, but Lot 4 was not purchased from the Crown until 1841. The only historic structure identified on the property belonged to John Arbuckle and was situated on the western half of the lot and not within the study area.

1.4 ARCHAEOLOGICAL CONTEXT

1.4.1 CURRENT CONDITIONS

The study area is predominantly composed of a cleared field, surrounded on three sides by a wooded area or overgrown wetland. Although it appears to have been left fallow for some time, possibly as pasture, the land has been ploughed in the past.

1.4.2 PHYSIOGRAPHY AND ECOLOGY

The study area is located within the Smiths Falls Limestone Plain, which covers approximately 1,400 square miles of land and is the largest tract of shallow soil over limestone in southern Ontario (Chapman and Putnam, 1984). The Smiths Falls Limestone Plain region is divided almost in half at the Rideau River, and includes the United Counties of Leeds and Grenville, the Regional Municipality of Ottawa-Carleton, and Lanark County. Soils vary in texture from clays to light loams, sands, and gravels. Therefore, the region is generally not ideal for agriculture (Chapman and Putnam, 1984). Lanark County, which is situated less than 2.5 km west of the study area, is located on a somewhat deeper, smoother tract of land on a higher part of the plain that is relatively fit for cultivation (Chapman and Putnam, 1984). One of Lanark County's most notable geological features is its eskers. Eskers appear as thin, crooked ridges that stretch across the land, and they are of interest because they provide a source of gravel. An esker in Northern Lanark is an excellent source of clean, free-flowing gravel (Chapman and Putnam, 1984). The exposed rock strata in the Smiths Falls Limestone Plain region is predominantly flat and belongs to the Beekmantown group, indicating grey limestone, magnesian limestone, blue-grey dolostone, and some calcareous sandstone (Chapman and Putman, 1984). A limestone plain is present within the west part of the property, while the east is dominated by peat and muck (Figure 5) (Chapman & Putnam, 2007). The soils within the limestone plain are identified as Farmington (not differentiated), which are shallow, neutral soils over limestone bedrock (Figure 6). Within the peat and muck landform, soils are unsurprisingly muck (Hills, et al., 1944). Table 1 provides the characteristics of these soils. Large areas of bare rock are common and the terrain gently undulates. Drainage is moderate to excessive and the land is

generally used as pasture or for forestry. Agriculture is present, but uncommon as the physical characteristics of the land are the main limitations to soil fertility.

Table 1: Soils within the Study Area, adapted from Hills, et al., 1944)

NAME OF SOIL	ACREAGE*	DESCRIPTION OF SURFACE AND SUBSOIL	TOPOGRAPHY AND DRAINAGE	REACTION	PRESENT LAND USE
Farmington (not differentiated)	89,600	Shallow soils over limestone bedrock; large areas of bare rock; local areas similar to other Farmington varieties	Gently undulating; moderate to excessive drainage	Neutral	Pasture, forestry, some farming
Muck	55,400	Black, well decomposed organic material of varying depths	Almost level; drainage very poor; land subject to flooding	Slightly to strongly acidic	Forestry, recreational, wild life preservation. (Local areas of specialized crops)

*within Carleton County

Ecoregions are parts of an ecozone and are characterized by distinctive regional ecological factors including climate, flora, fauna, physiography, soil, water, and land usage. The property lies in the Mixedwood Plains Ecozone, within the Lake Simcoe-Rideau Ecoregion (Ecoregion 6E) (Crins, et al., 2009). Climatic and geological characteristics for this ecoregion are provided below, along with a brief description of dominant vegetation and wildlife species. The climate is mild and moist, with a mean annual temperature range of 4.9 to 7.8 °C. The underlying bedrock is dolomite and limestone of primarily Ordovician and Silurian ages. The surface is generally covered with ice-laid materials of varying thickness. The land cover is/was predominantly cropland, pasture and abandoned fields. Forested areas include deciduous, coniferous and mixed forest types. A large wetland is adjacent to the property on three sides.

The study area is within the Great Lakes-St. Lawrence Forest Region. The deciduous trees characterizing this region include sugar maple, beech, red maple, yellow birch, basswood, white ash, large-toothed aspen, red and burr oak, white eastern hemlock, eastern white pine, white spruce and balsam fir are among the coniferous species (Rowe, 1972). Characteristic mammals, birds, reptiles and fish include white-tailed deer, striped skunk, wood ducks, field sparrow, bullfrog, snapping turtle, white sucker, small mouth bass and pearl dace.

1.4.3 PREVIOUS ARCHAEOLOGICAL ASSESSMENTS

A search of the *Ontario Public Register of Archaeological Reports* on July 10, 2019 indicates that no archaeological assessments have been conducted on or within 50 m of the study area.

1.4.4 REGISTERED ARCHAEOLOGICAL SITES

A search of the *Ontario Archaeological Sites Database* indicates that only one registered archaeological sites within 1 km of the study area (Ministry of Tourism, Culture and Sport, 2019). This site is the Michael Cassady site (BhGa-4), which was registered in 1994. The site consists of the ruins of a Euro-Canadian log house, which was depicted on an 1879 historic map as belonging to a Michael Cassady.

To provide more context of the archaeology in the area, the search was broadened by 1 km intervals until a more representative sample was gathered (Table 2). When the search was broadened to 4 km, 2 additional sites were identified. The Stewart/Moore Homestead site (BhFx-25) is a Euro-Canadian homestead and consisted of a demolished house, barn, and associated historic artifacts. The Huston Homestead site (BhFx-24) is another Euro-Canadian homestead, consisting of a standing log home (dovetail construction), several log constructed outbuildings, and associated artifacts.

Table 2: Registered archaeological sites within 6 km of the study area

BORDEN	SITE NAME	TIME PERIOD	CULTURAL AFFINITY	SITE TYPE	CURRENT DEVELOPMENT STATUS
BhGa-4	Michael Cassady	Post-Contact	Euro-Canadian	Other, building, homestead	No Further CHVI*
BhGa-10	Appleton	Post-Contact*	Aboriginal*	-	-
BhFx-53	Brennan Farm Site	Post-Contact*	Euro-Canadian*	-	-
BhFx-46	Jinkinson/Keyes Site	Post-Contact, Pre-Contact, Woodland	Aboriginal, Euro-Canadian	Camp/ Campsite, farmstead	No Further CHVI
BhFx-34	-	-	-	-	No Further CHVI
BhFx-25	Stewart/Moore Homestead	Post-Contact	Euro-Canadian	Homestead	-
BhFx-24	Huston Homestead	Post-Contact	Euro-Canadian	Homestead	-
BgGa-4	Beckwith School Section No. 9	Post-Contact	Euro-Canadian	School	No Further CHVI*

- denotes no information listed
* denotes inferences made by author
CHVI – Cultural Heritage Value or Interest

Expanding the search to 5 km produced two additional sites. The Brennan Farm site (BhFx-53) is a Euro-Canadian site that is composed of 19th century artifacts, a potential stone foundation, and a partially filled well. BhFx-34, an unnamed site, is Euro-Canadian homestead that was fully excavated in 2006 and does not contain any further cultural heritage value or interest (CHVI).

Three additional sites were identified when the search was expanded to 6 km. The Appleton site (BhGa-10) is likely a Post-Contact Indigenous site that consists of a single glass scraper and several other stone artifacts. The Jinkinson/Keyes site (BhFx-46) is a multi-component archaeological site consisting of both Woodland period artifacts (point fragment, undecorated pottery, chert scrapers, and chert and quartz flakes) and late 19th Euro-Canadian material. The site was assessed to Stage 3 before it was determined to hold no further CHVI. The Beckwith School Section No. 9 site (BgGa-4) is a Euro-Canadian school and is composed of a concrete well and visible foundation. No further work is recommended for the site.

1.4.5 LISTED AND DESIGNATED HERITAGE PROPERTIES

A review of the City of Ottawa's heritage register indicated that there are no listed or designated heritage properties within 1 km of the study area (City of Ottawa, Heritage Services Unit, 2019).

1.4.6 ARCHAEOLOGICAL SUMMARY

The study area is situated on lightly undulating to flat terrain adjacent to a large wetland. Although few sites are registered in the area, the proximity of the wetland suggests the possibility of Pre-Contact archaeological material. Although most of the sites in the area are Post-Contact and no buildings were identified, the presence of an early historic roadway (discussed in section 1.3.4) indicates the potential for an historic site.

2 FIELD METHODS

2.1 PROPERTY INSPECTION AND SURVEY

A property inspection is a visit to the property to gain first-hand knowledge of its geography, topography, and current condition, and to evaluate and map the archaeological potential. A property survey allows for the on-site documentation and inventory of all archaeological resources through systematic means as appropriate to the characteristics of the property.

The property inspection was completed in concurrence with the property survey. All fieldwork was completed on September 13, 2019. The weather was sunny with a temperature of 24 °C, which made for excellent conditions for conducting fieldwork. The property inspection determined that the entire property could be subject to Stage 2 survey, although the eastern edge of the property may consist of saturated soils. Since the property was composed of both a previously ploughed field and wooded areas, both a pedestrian survey and test pit survey were conducted.

All referenced images are located on Figure 7 and their GPS coordinates are retained by WSP Canada Inc.

2.1.1 TEST PIT SURVEY

A test pit survey was completed in compliance with section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists* (Ministry of Tourism, Culture and Sports, 2011). The test pit survey was conducted for the wooded and heavily brushed land along the edges of the property (Image 1). Test pits were spaced at 5 m intervals since the entire property was within 300 m of features of archaeological potential (e.g. historic roadway, wetland). All test pits were 30 cm in diameter and excavated into the first 5 cm of subsoil. The excavated contents were screened through 6 mm mesh and examined for cultural material. The walls of each test pit were examined for stratigraphy, cultural features, or evidence of fill prior to being backfilled.

The southwestern edge of the property was composed of tall grass with widely spaced birch trees (Image 2). Test pits in this area tended to consist of 20 cm of moderately compact black clay loam over 20 cm of pale brown clay (Image 3). The wooded area became thicker as testing proceeded south (Image 4). The northeastern edge of the property appeared to be a dried-out wetland (vegetation consisted of reeds and tall grass), likely due to the dry summer conditions this year (Image 5). Test pits in this area varied slightly. At the northern end, test pits consisted of a 4 cm moderately compact dark brown clay loam over 25 cm of moderately compact medium brown clay loam followed by 10 cm pale brown clay (Image 6). At the southern end, test pits lacked the thin top layer and consisted of 25 cm medium brown clay loam over 10 cm pale brown clay (Image 7). The average test pit depth was between 35 to 40 cm. The southeastern end of the field (approximately 0.35 ha) was unploughed and therefore subject to a test pit survey at 5 m intervals. No archaeological material was recovered during the test pit survey.

2.1.2 PEDESTRIAN SURVEY

A pedestrian survey was completed in compliance with section 2.1.1 of the *Standards and Guidelines for Consultant Archaeologists* (Ministry of Tourism, Culture and Sports, 2011). The pedestrian survey was completed for the previously ploughed field that comprised most of the study area. The field was initially ploughed on August 9, 2019 but required harrowing to break down the larger clumps of soil. Harrowing occurred on September 4, 2019 and was sufficiently weathered by several medium to light rainfalls prior to September 13, 2019. Ploughing provided total topsoil exposure and did not go deeper than any previous ploughing. Surface visibility was >95 % (Image 8 and Image 9) and transects were conducted at 5 m intervals (Image 10). No archaeological material was observed during the pedestrian survey.

2.2 INVENTORY OF DOCUMENTATION RECORDS

The following represents all the documentation taken in the field relating to this project and is being retained by WSP Canada Inc.:

- 1 pages of field notes
- 16 digital photographs in JPG format
- GPS readings taken during fieldwork

3 ANALYSIS AND CONCLUSIONS

3.1 ARCHAEOLOGICAL POTENTIAL

A number of factors are employed in determining archaeological potential. Features indicating archaeological potential can be found in **Appendix B.**

Criteria for Pre-Contact archaeological potential is focused on physiographic variables that include distance from the nearest source of water, the nature of the nearest source/body of water, distinguishing features in the landscape (e.g. ridges, knolls, eskers, wetlands), the types of soils found within the area of assessment and resource availability. Also considered in determining archaeological potential are known archaeological sites within or in the vicinity of the study area. Historic research provides the basis for determining historic archaeological potential. Historical maps, historical records, and a property inspection of the study area assist in determining historic archaeological potential. Additionally, the proximity to historic transportation corridors such as roads, rail and water courses also affect the historic archaeological potential.

The presence of a large wetland partially within the study area, but predominantly to its north and east, indicates potential for Pre-Contact archaeological material. Although few Pre-Contact archaeological sites are registered in the area, Indigenous groups have lived and moved through the general area for centuries. The paucity of archaeological sites is more of an indication of a lack of systematic archaeological surveys for the area and the difficulty in finding archaeological sites. As per section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* (2011), the wetland is a secondary water source and therefore a feature of archaeological potential.

The presence of a historic roadway along the northern boundary of the study area (present day McArton Road) indicates potential for Post-Contact archaeological material. Although historic maps indicate the residential buildings on the west half of the property and outside of the study area, the potential for historic artifacts remains. As per section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* (2011), a historic roadway is considered a feature of archaeological potential.

Since the property is composed of a fallow field that can be subject to ploughing, it must be ploughed and significantly weathered prior to completing a pedestrian survey at 5 m intervals in accordance with section 2.1.1 of the *Standards and Guidelines for Consultant Archaeologists* (2011). Should any areas of the property be inaccessible to the plough (i.e. along the fringes of the property) a test pit survey, in accordance to section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists* (2011) must be conducted at 5 m intervals to ensure the property is fully surveyed.

3.1.1 RECORD OF FINDS AND ANALYSIS

No archaeological material was recovered during either the test pit or pedestrian surveys and no archaeological sites were identified.

3.2 CONCLUSION

Archaeological potential was identified for the entire property based on the adjacent wetland environment and historic road (McArton Road). No archaeological material was recovered during either the test pit survey or pedestrian survey and therefore no archaeological sites were identified on the property.

4 RECOMMENDATIONS

Archaeological activities were carried out in accordance with the Standards and Guidelines for Consultant Archaeologists (Ministry of Tourism, Culture and Sport, 2011). This study involved a review of documents pertaining to the property including historic maps, local histories, archaeological literature, property inspection, test pit survey, and pedestrian survey. All fieldwork was completed on September 13, 2019.

Archaeological recommendations have been made based on the results of the Stage 2 test pit survey and pedestrian survey. These recommendations include the following:

1 No archaeological material was recovered and no archaeological sites were identified on the property. Therefore, no further archaeological assessment is required.

5 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the Standards and Guidelines for Consultant Archaeologists (2011a) that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the Ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act*.

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

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7 IMAGES

Image 1: Crew test pitting in wooded areas along the edge of the property. Facing west.

Image 2: Widely spaced birch trees and tall grass along the southwest edge of the study area. Facing south.

Image 3: Representative test pit along the southwest edge of the study area. Facing north.

Image 4: More densely forested conditions further south along the southwest edge of the study area. Facing south.

Image 5: A dried out wetland was situated along the northeast edge of the study area. Facing south.

Image 6: Representative test pit from the north end of the dried-out wetland within the study area. Facing north.

Image 7: Representative test pit from the south end of the dried-out wetland within the study area. Facing north.

Image 8: Soil conditions for pedestrian survey. Surface visibility was >95 %. Facing southeast.

Image 9: Soil conditions for pedestrian survey. Surface visibility was >95 %. Facing west.

Image 10: Field crew conducting pedestrian survey using 5 m transects. Facing east.

8 FIGURES

LEGEND

Study Area

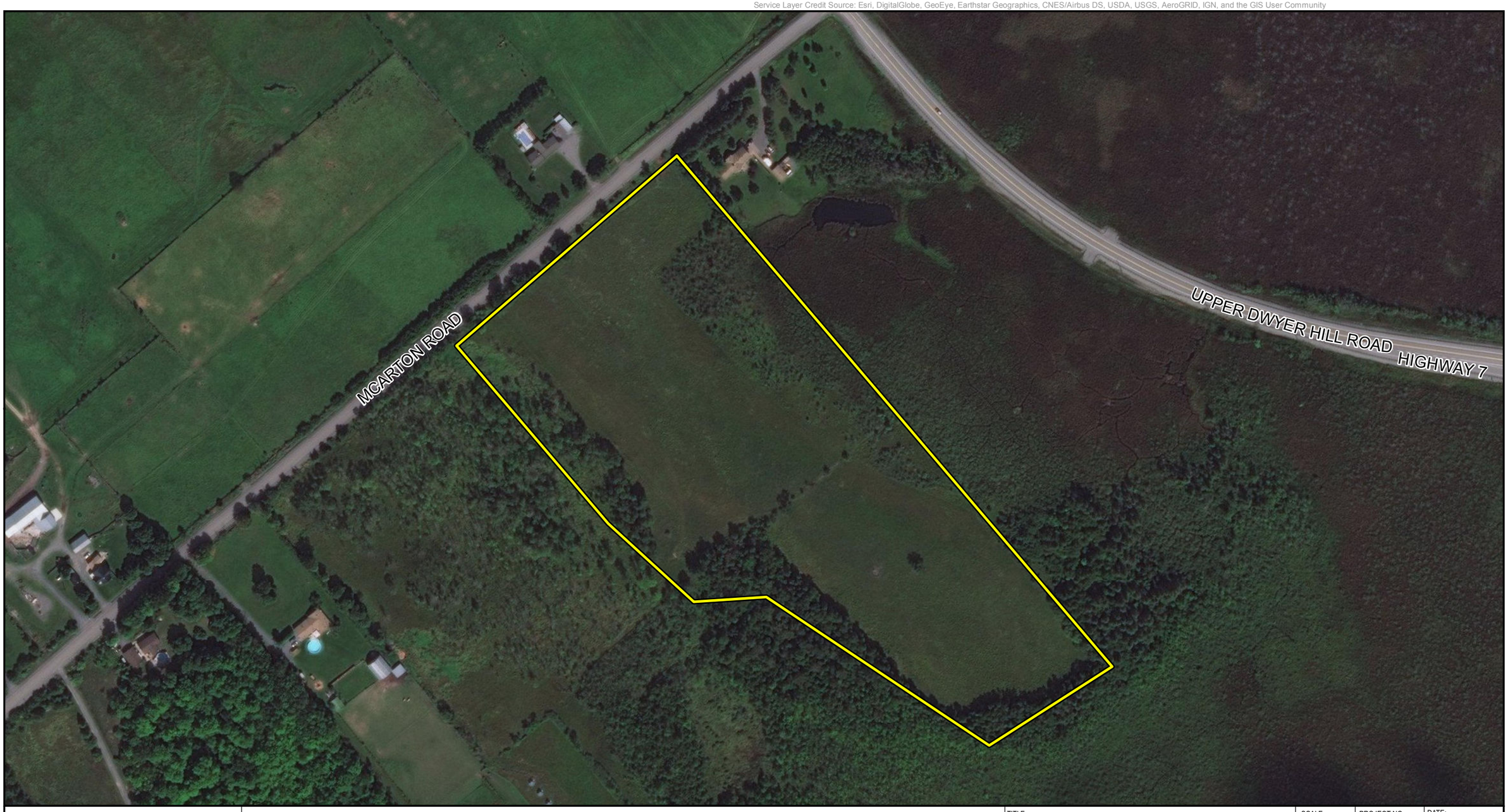
TITLE: FIGURE 1: PROJECT LOCATION	SCALE: 1:25,000	PROJECT NO: 191-07278-00	DATE: 13 AUGUST 2019
	DRAWN BY: JAS	CLIENT: OTTAWA VALLEY WILD BIRD CARE CENTRE	
PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT McARTON ROAD WILD BIRD SANCTUARY		CREDITS:	

0 500 1,000 m

N

Document Path: C:\Users\jason.stephenson\Documents\GIS\2019\Bird_Sanctuary\BirdSanctuary_Fig1_ProjectLocation.mxd

Service Layer Credit Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



wsp

LEGEND

Study Area

TITLE: FIGURE 2: STUDY AREA

PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT McARTON ROAD WILD BIRD SANCTUARY

0 50 100 m

N

SCALE:	PROJECT NO:	DATE:
1:2,500	191-07278-00	13 AUGUST 2019
DRAWN BY: JAS	CLIENT: OTTAWA VALLEY WILD BIRD CARE CENTRE	

CREDITS:

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wsp

LEGEND

Study Area

TITLE: FIGURE 3: HISTORICAL MAP (1863)

SCALE: 1:15,000

PROJECT NO: 191-07278-00

DATE: 13 AUGUST 2019

DRAWN BY: JAS

CLIENT: OTTAWA VALLEY WILD BIRD CARE CENTRE

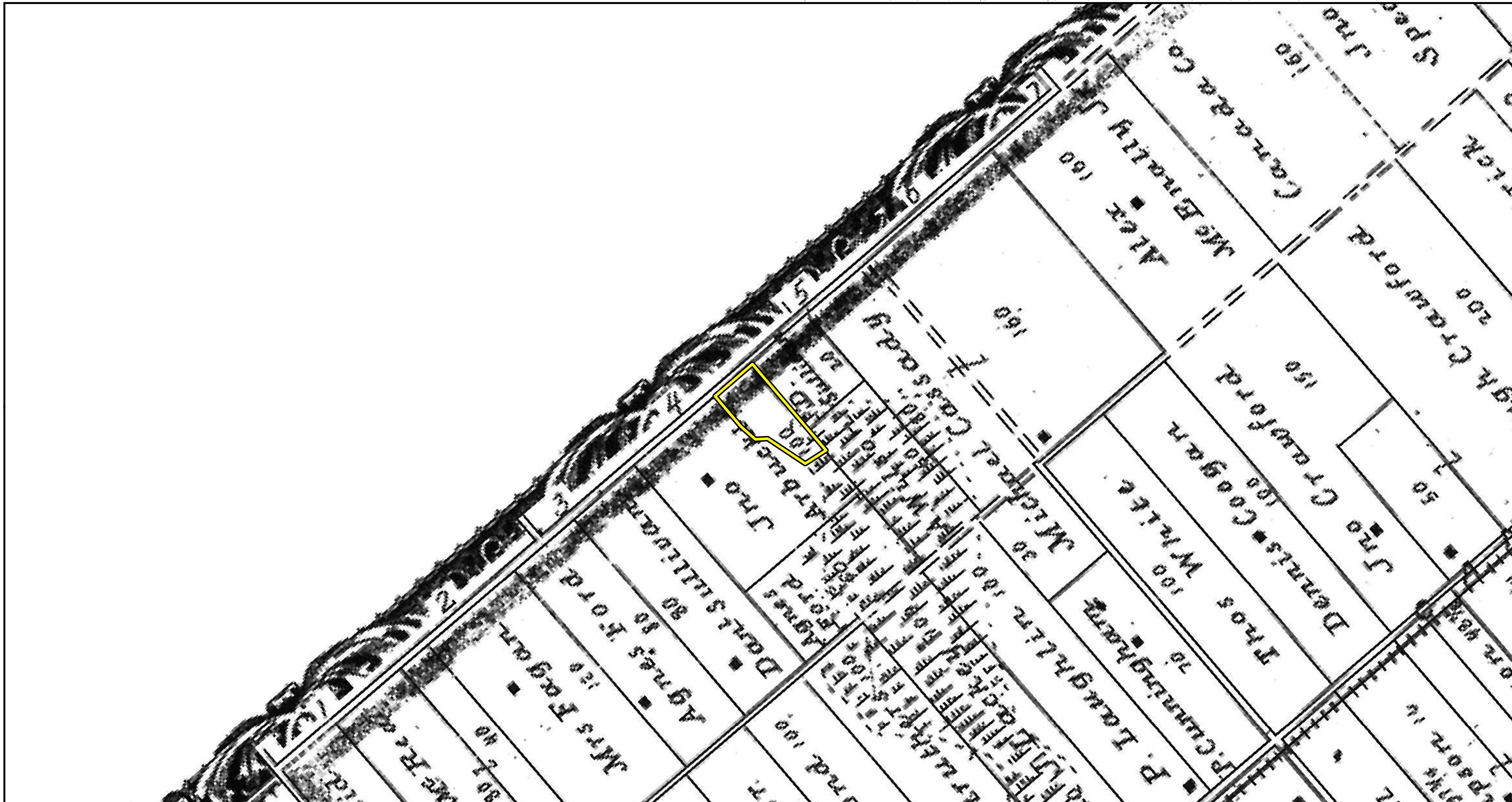
PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT McARTON ROAD WILD BIRD SANCTUARY

CREDITS: WALLING, 1863

0 200 400 800 m

N

Document Path: C:\Users\jason.stephenson\Documents\GIS\2019\Bird_Sanctuary\BirdSanctuary_Fig3_Historic1863.mxd



LEGEND

Study Area

TITLE:

FIGURE 4: HISTORICAL MAP (1879)

PROJECT:

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
McARTON ROAD WILD BIRD SANCTUARY

0 200 400 800 m

N

SCALE: 1:15,000	PROJECT NO: 191-07278-00
DATE: 13 AUGUST 2019	DRAWN BY: JAS
CLIENT: OTTAWA VALLEY WILD BIRD CARE CENTRE	CREDITS: H. BELDEN & CO., 1879

LEGEND

Study Area

Physiographic Landform

17: Peat And Muck

9: Limestone Plains

Elevation Value

High : 152.211

Low : 129.346

TITLE: FIGURE 5: PHYSIOGRAPHIC LANDFORMS AND ELEVATION

SCALE: 1:15,000

PROJECT NO: 191-07278-00

DATE: 13 AUGUST 2019

DRAWN BY: JAS

CLIENT: OTTAWA VALLEY WILD BIRD CARE CENTRE

PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT McARTON ROAD WILD BIRD SANCTUARY

CREDITS: PHYSIOGRAPHY AND DEM - LAND INFORMATION ONTARIO

0 200 400 800 m

N

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LEGEND

Study Area

F	M
FARMINGTON not differ-entiated	MUCK

TITLE: FIGURE 6: SOIL MAP

SCALE:	PROJECT NO:	DATE:
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DRAWN BY: JAS	CLIENT: OTTAWA VALLEY WILD BIRD CARE CENTRE	

PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT McARTON ROAD WILD BIRD SANCTUARY

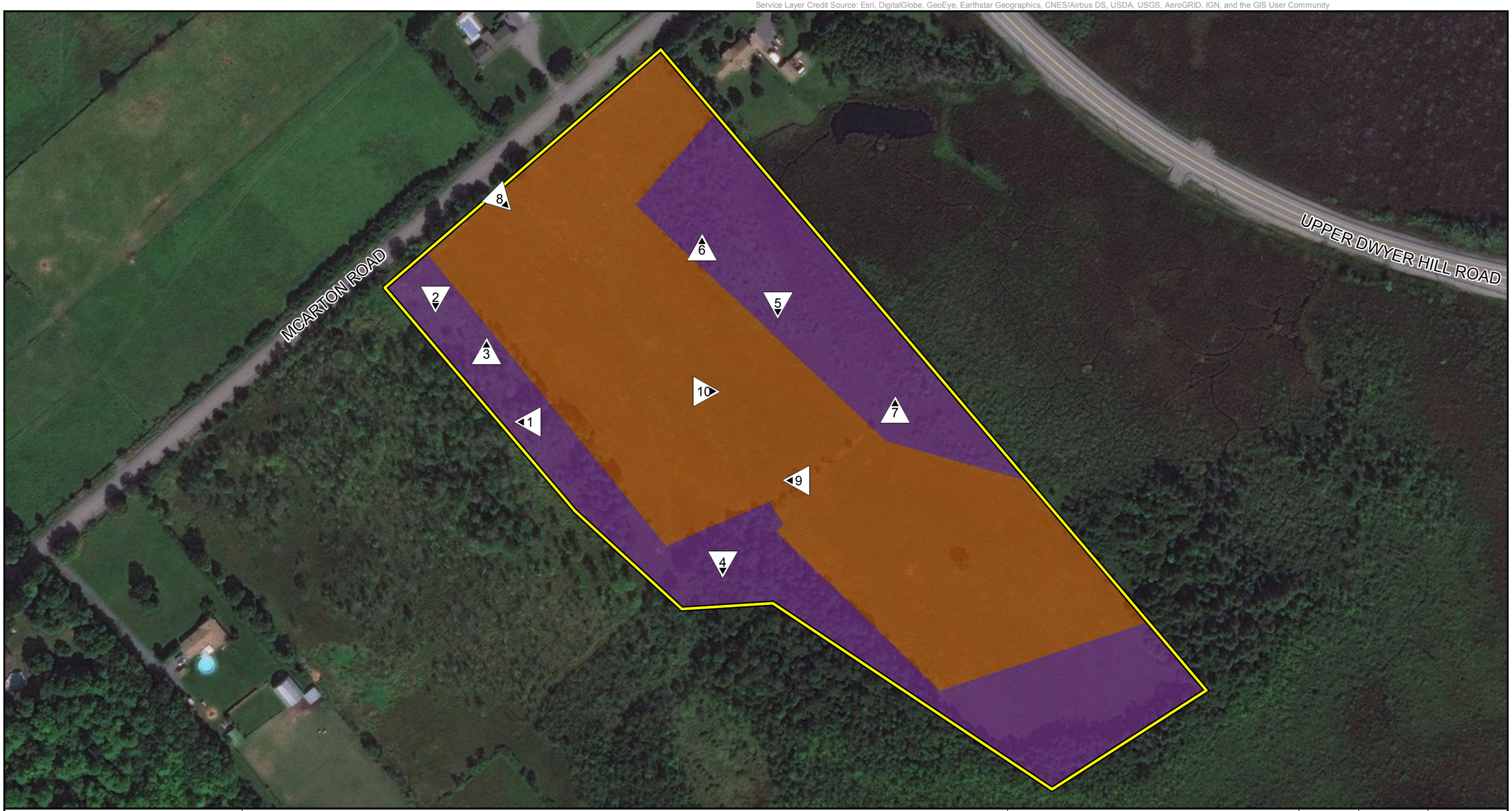
CREDITS: DEPARTMENT OF AGRICULTURE, OTTAWA

0 50 100 200 300 400 500 m

N

Document Path: C:\Users\jason.stephenson\Documents\GIS\2019\Bird_Sanctuary\BirdSanctuary_Fig6_Soils.mxd

Service Layer Credit Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



LEGEND

- Study Area
- Test Pit Survey Completed at 5 m Intervals
- Pedestrian Survey Completed at 5 m Intervals
- Photo Location

TITLE: FIGURE 7: RESULTS

SCALE: 1:2,000

PROJECT NO: 191-07278-00

DATE: 16 SEPT 2019

DRAWN BY: JAS

CLIENT: OTTAWA VALLEY WILD BIRD CARE CENTRE

PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT McARTON ROAD WILD BIRD SANCTUARY

CREDITS:

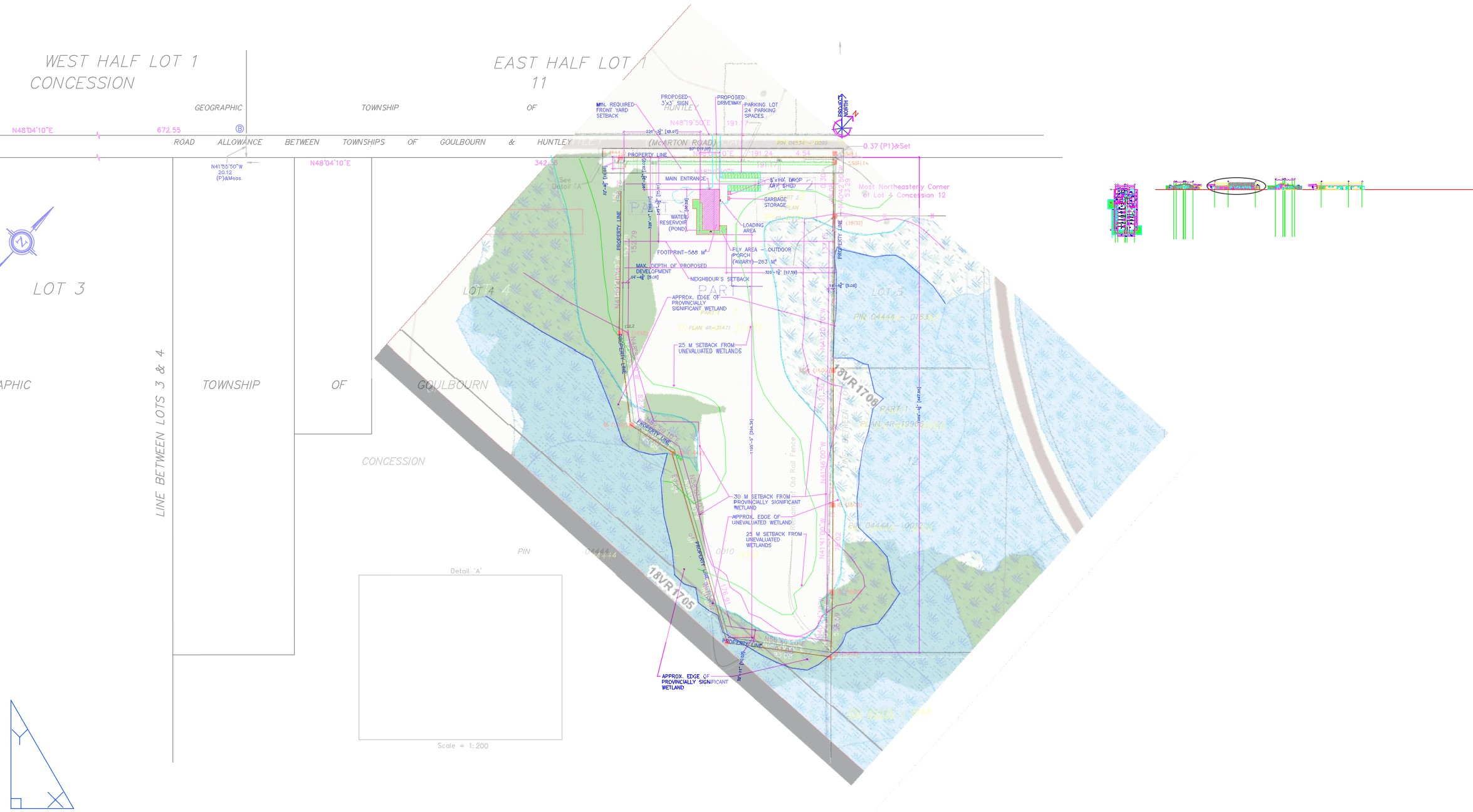
0 40 80 m

N

Document Path: C:\Users\jason.stephenson\Documents\GIS\2019\Bird_Sanctuary\BirdSanctuary_Fig7_Results.mxd

APPENDIX

A PROPERTY MAP


WEST HALF LOT 1
CONCESSION
GEOGRAPHIC
TOWNSHIP
OF
EAST HALF LOT 1
11
HUNTLEY
N48°04'10"E
672.55
ROAD ALLOWANCE BETWEEN TOWNSHIPS OF GOULBOURN & HUNTLEY
(MCARTON ROAD)
N41°55'50"W
20.12
(P)&Meas.
N48°04'10"E
342.56
LOT 3
LOT 4
LOT 5
LINE BETWEEN LOTS 3 & 4
TOWNSHIP
OF
GOULBOURN
CONCESSION
PROPERTY LINE
MIN. REQUIRED FRONT YARD SETBACK
PROPOSED 3'x3' SIGN
PROPOSED DRIVEWAY
PARKING LOT 24 PARKING SPACES
MAIN ENTRANCE
5'x10' DROP OFF SHED
GARBAGE STORAGE
WATER RESERVOIR (POND)
LOADING AREA
FOOTPRINT-588 M²
FLY AREA - OUTDOOR PORCH (W/ARY)-263 M²
MAX. DEPTH OF PROPOSED DEVELOPMENT
NEIGHBOUR'S SETBACK
APPROX. EDGE OF PROVINCIALLY SIGNIFICANT WETLAND
25 M SETBACK FROM UNEVALUATED WETLANDS
30 M SETBACK FROM PROVINCIALLY SIGNIFICANT WETLAND
APPROX. EDGE OF UNEVALUATED WETLAND
25 M SETBACK FROM UNEVALUATED WETLANDS
APPROX. EDGE OF PROVINCIALLY SIGNIFICANT WETLAND
Most Northeastery Corner of Lot 4 Concession 12
0.37 (P1)&Set
18VR1708
18VR1705
Old Rail Fence
PIN
Detail 'A'
Scale = 1:200

APPENDIX

B

FEATURES OF ARCHAEOLOGICAL POTENTIAL

APPENDIX

FEATURES INDICATING ARCHAEOLOGICAL POTENTIAL

The following are features or characteristics that indicate archaeological potential:

- Previously identified archaeological sites.
- Water sources:
- Primary water sources (lakes, rivers, streams, creeks).
- Secondary water sources (intermittent streams and creeks, springs, marshes, swamps).
- Features indicating past water sources (e.g. glacial lake shorelines, relic river or stream channels, shorelines of drained lakes or marshes, cobble beaches).
- Accessible or inaccessible shoreline (e.g. high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh).
- Elevated topography (e.g. eskers, drumlins, large knolls, plateaux).
- Pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground.
- Distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases.
- Resource areas, including:
- Food or medicinal plants (e.g. migratory routes, spawning areas, prairie).
- Scarce raw materials (e.g. quartz, copper, ochre, or outcrops of chert).
- Early Euro-Canadian industry (e.g. fur trade, logging, prospecting, mining).
- Areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g. pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries.
- Early historical transportation routes (e.g. trails, passes, roads, railways, portage routes).
- Property listed on a municipal register or designated under the Ontario Heritage Act or that is federal, provincial or municipal historic landmark or site.
- Property that local histories or informants have identified with possible archaeological sites, historic events, activities, or occupations

Source

Ontario Ministry of Tourism, Culture and Sport

2011 Standards and Guidelines for Consultant Archaeologists

Section 1.3