

TOWN OF ERIN

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT

URBAN CENTRE WASTEWATER SERVICING





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STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT

URBAN CENTRE WASTEWATER SERVICING

CORPORATION OF THE TOWN OF ERIN

PART OF LOT 13, CONCESSION 10, GEOGRAPHIC
TOWNSHIP OF ERIN, TOWN OF ERIN, REGIONAL
MUNICIPALITY OF WELLINGTON

ORIGINAL REPORT

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Stage 1-2 Archaeological Assessment

Urban Centre Wastewater Servicing

Part of Lot 13, Concession 10, Geographic Township of Erin, Town of Erin, Regional
Municipality of Wellington

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EXECUTIVE SUMMARY

WSP was retained by the Corporation of the Town of Erin (Town of Erin) to conduct a Stage 1-2 Archaeological Assessment as part of the Urban Centre Wastewater Servicing Project in the Town of Erin, Ontario. The study area for this report is focused on the land to be impacted by the construction of a Wastewater Treatment Plant. The study area is located on Part of Lot 13, Concession 10, Geographic Township of Erin, Town of Erin, County of Wellington (Figure 1 and Figure 2).

Archaeological activities were carried out in accordance with the *Standards and Guidelines for Consultant Archaeologists* (Ministry of Heritage, Sport, Tourism and Culture Industries [MHSTCI], 2011) supporting the *Ontario Heritage Act, 1990* and included a review of documents pertaining to the project area including historic maps, aerial photographs and local histories, previous archaeological assessment reports, as well as a property inspection and test pit survey. The property inspection, pedestrian survey, and test pit survey were completed on November 2, 3, and 25, 2020.

The archaeological assessment reported here was undertaken on the Treaty Lands and Territory of the Mississaugas of the Credit.

Archaeological recommendations have been made based on the background historic research, locations of known or registered archaeological sites, previous archaeological assessments, and the results of property inspection, pedestrian survey, and test pit survey as outlined in the 2011 *Standards and Guidelines for Consultant Archaeologists*. **No archaeological resources were recovered during the Stage 1-2 assessment. As such, no further archaeological assessment is required for the study area (Figure 8).**

Should previously undocumented deeply buried archaeological materials be discovered, they may constitute a new site and are therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the material must cease work immediately and a provincially licensed consultant archaeologist must assess the material's cultural heritage value or interest in accordance with Section 48 (1) of the Ontario Heritage Act.

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1 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

WSP was retained by the Corporation of the Town of Erin (Town of Erin) to conduct a Stage 1-2 Archaeological Assessment as part of the Urban Centre Wastewater Servicing Project in the Town of Erin, Ontario. The study area for this report is focused on the land to be impacted by the construction of a Wastewater Treatment Plant. The study area is located on Part of Lot 13, Concession 10, Geographic Township of Erin, Town of Erin, County of Wellington (Figure 1 and Figure 2).

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The archaeological assessment reported here was undertaken on the Treaty Lands and Territory of the Mississaugas of the Credit.

Permission to access the property to conduct the property inspection was granted by the the Town of Erin on behalf of the property owner and no limits were placed on this access during the course of the assessment. The property inspection, pedestrian survey, and test pit survey were completed between November 2 and 3, and 25, 2020.

1.2 OBJECTIVES

The objectives of a Stage 1-2 Archaeological Assessment 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 field survey allows for the on-site documentation and inventory of all archaeological resources through systematic means as appropriate to the characteristics of the property.

1.3 HISTORICAL CONTEXT

1.3.1 HISTORICAL DOCUMENTATION

The area of assessment is located on Part of Lot 13, Concession 10, Geographic Township of Erin, Town of Erin, County of Wellington. The area of assessment falls within the lands of the Ajetance Purchase (Treaty 19), 1818 (Indigenous and Northern Affairs Canada, 2016).

The following sections provide a brief outline of the study area 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

This section provides a generalized cultural history of Indigenous people within the region. Information is primarily derived from the archaeological record and the interpretations of archaeologists. Technological or temporal divisions have been defined to describe adaptations to changing climates, physiography, subsistence patterns, and geopolitical pressures, which do not necessarily provide an accurate reflection of fluid cultural practices spanning thousands of years. The following presents a sequence of Indigenous land-use from earliest human occupation following deglaciation to the recent past.

The Paleo period populations were the first to occupy what is now southern Ontario, moving into the region following the retreat of the Laurentide Ice Sheet approximately 11,000 years before present (BP) (Ellis and Deller, 1990). Early Paleo period groups are identified by their distinctive projectile point types, exhibiting long grooves, or ‘flutes’, that likely functioned as a hafting mechanism (method of attaching the point to a wooden stick). These Early Paleo projectile morphological types include Gainey (ca. 10,900 BP), Barnes (ca. 10,700), and Crowfield (ca. 10,500) (Ellis and Deller, 1990). By approximately 10,400 BP, Paleo projectile points transitioned to various unfluted varieties such as Holcombe (ca. 10,300 BP), Hi Lo (ca. 10,100 BP), and Unstemmed and Stemmed Lanceolate (ca. 10,400 to 9,500 BP).

Both Early and Late Paleo period populations were highly mobile, participating in the hunting of large game animals. Paleo period sites often functioned as small campsites (less than 200 square m in size) where stone tool production and maintenance occurred (Ellis and Deller, 1990).

By approximately 8,000 BP the climate of Ontario began to warm. As a result, deciduous flora began to colonize the region. With this shift in flora came new faunal resources, resulting in a transition in the ways populations exploited their environments. This transition resulted in a change of tool kits and subsistence strategies recognizable in the archaeological record, resulting in what is referred to archaeologically as the Archaic period. The Archaic period in southern Ontario is divided into three phases: the Early Archaic (ca. 10,000 to 8,000 BP), the Middle Archaic (ca. 8,000 to 4,500 BP), and the Late Archaic (ca. 4,500 to 2,800 BP) (Ellis et al., 1990).

The Archaic period is differentiated from earlier Paleo populations by a number of traits such as:

- 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 and an increase in larger, less portable tools

Also noted is an increase in the recovery of large woodworking tools such as chisels, adzes (a tool similar to an axe with an arched blade, used for cutting or shaping large pieces of wood), and axes (Ellis et al., 1990).

The Archaic period is also marked by population growth. Archaeological evidence suggests that by the end of the Middle Archaic period (ca. 4,500 BP) populations were steadily increasing in size (Ellis et al., 1990). Over the course of the Archaic period, populations began to rely on more localized hunting and gathering territories. By the end of the Archaic period, populations were utilizing more encampments that are seasonal. From spring to fall, settlements would exploit lacustrine/riverine locations where a broad-based subsistence strategy could be employed, while the late fall and winter months would be spent at interior sites where deer hunting was likely a primary focus with some wild edibles likely being collected (Ellis et al., 1990). This steady increase in population size and adoption of a more localized seasonal subsistence strategy eventually evolved into what is termed the Woodland period.

The Woodland period is characterized by the emergence of ceramic technology for the manufacture of pottery. Similar to the Archaic period, the Woodland period is separated into three primary timeframes: the Early Woodland (approximately 2,800 to 2,000 BP), the Middle Woodland (approximately 2,000 to 1,200 BP), and the Late Woodland (approximately 1,200 to 350 BP) (Spence et al., 1990; Fox, 1990).

The Early Woodland period is represented in southern Ontario by two different cultural complexes: the Meadowood Complex (ca. 2,900 to 2,500 BP), and the Middlesex Complex (ca. 2,500 to 2,000 BP). During this period, the life ways of Early Woodland populations differed little from that of the Late Archaic with hunting and gathering representing the primary subsistence strategies. The pottery of this period is characterized by its relatively crude construction and lack of decorations. These early ceramics exhibit cord impressions, likely resulting from the techniques used during manufacture (Spence et al., 1990).

The Middle Woodland period is differentiated from the Early Woodland period by changes in lithic tool morphologies (projectile points) and the increased elaboration of ceramic vessels (Spence et al., 1990). In southern Ontario, the Middle Woodland is observed in three different cultural complexes: the Point Peninsula Complex to the north and northeast of Lake Ontario, the Couture Complex near Lake St. Claire, and the Saugeen Complex throughout the remainder of southern Ontario. These groups can be identified by their use of either dentate or pseudo scalloped ceramic decorations. It is by the end of the Middle Woodland period that archaeological evidence begins to suggest the rudimentary use of maize (corn) horticulture (Warrick, 2000).

The Point Peninsula Complex extends from South-Central and Eastern Ontario into Southern Quebec. The northernmost borders of the complex can be found along the Mattawa and French Rivers. Ceramics are of the Vinette 2 series. These are coil constructed with conoidal or sub-conoidal bases with outflaring rims, and flat, rounded, or pointed lips. The interior surfaces of vessels are often channelled with a “comb-like” implement, leaving horizontal striations throughout the vessel. In contrast, the exteriors are smoothed, or brushed. Decoration is generally done with pseudo-scallop stamp or dentate to create impressions and occasionally has a red ochre wash (Spence et al, 1990). Other than ceramic artifacts, the most distinctive material culture associated with the Point Peninsula Complex are often associated with burials. These traits are often associated with Hopewellian influences (Spence et al., 1990).

The region where Saugeen Complex sites have been identified lies generally in south-central Ontario, but is best known for materials culture found along the east shores of Lake Huron. Vinette 2 style ceramics vessels are

characterized by their thick walls, wide necks, coil construction, poorly defined shoulders and conoidal bases. Usually, the majority of the vessel has been decorated with pseudo-scallop stamps or dentate impressions, with the latter occurring more frequently at later dates (Spence et al., 1990).

Some have suggested that the period between the Middle Woodland and the Late Woodland period of village settlement can be defined as the Transitional Woodland (approx. 500 – 1000 AD), observed as the Princess Point complex in Southern Ontario and the Riviere au Vase complex in the Western Basin (Fox, 1990). Princess Point was originally developed by Stothers in 1977, as a result of extensive research at Cootes Paradise at the Princess Point (AhGx-1) type site, located in Hamilton on the western end of Lake Ontario (Fox, 1990). Further research and excavations by Smith and Crawford (2002) within the Lower Great Lakes Region, revealed Princess Point site clusters within the lower Grand River Valley around the town of Cayuga, and on Long Point on the north shore of Lake Erie. Princess Point sites are biased in location to river flats and terraces, and have been observed as very large, diffuse artifacts scatters (Creese, 2013, p. 195).

Although there is disagreement as to whether Princess Point development took place in-situ or as a result of migration, it is clear that maize agriculture developed during this time (Smith & Crawford, 2002; Warrick, 2000). Artifact assemblages are distinct from Middle Woodland collections. Lithics are small and triangular, and heavily corded vessels that were constructed using paddle and anvil techniques are observed on all sites. Rows of punctates with interior bosses are observed on rim sherds (Smith & Crawford, 2002), and floral and faunal collections exhibit a wide range of species indicative of a complex relationship with the environment for subsistence (Fox, 1990). Creese (2013) argues that the development of village life relies on a process of territorialisation, and the large and architecturally disorganized settlement pattern of Princess Point sites indicates seasonal or occasionally year-round use preceding the permanent formation of villages in the early Late Woodland. The overlap between Princess Point sites with the Middle and Late Woodland periods re-affirms the fluidity and still relatively unknown nature of Princess Point groups (Creese, 2013; Fox, 1990; Smith & Crawford, 2002; Warrick, 2000).

There is much debate as to whether this Transitional Phase is seen throughout Ontario, but it is generally agreed that the Late Woodland period begins around 900 AD. The Late Woodland period can be divided into three sub-phases related to cultural branches of occupation: the early Late Woodland is characterized by the Glen Meyer and Pickering branches, the middle Late Woodland is characterized by Uren and Middleport branches, and the late Late Woodland is characterized by the Neutral-Erie branch and the Huron-Petun branch (Smith, 1990, p. 285).

The Pickering and Glen Meyer culture complexes co-existed within southern Ontario during the Early Late Woodland period (ca. 1250-700 BP). Pickering territory is understood to encompass the area north of Lake Ontario all the way to Georgian Bay and Lake Nipissing (Williamson, 1990). Glen Meyer is centred around Oxford and Norfolk counties (Noble, 1975), but also includes the southeastern Huron basin and the western extent is demarcated by the Ekfrid Clay Plain southwest of London, Ontario. Villages of either tradition were generally smaller in size (~ 1 ha) and composed of smaller oval houses, which were replaced by larger, longer structures over the years to resemble the traditional longhouses of the Late Woodland period.

The Glen Meyer villages were generally located inland along major tributaries with the small fishing camps located on the northern shore of Lake Erie. Evidence suggests a mixed economy where hunting and gathering played an important role, but small-scale horticulture was present, indicating a gradual shift from hunting-gathering to a horticultural economy (Williamson, 1990).

Wright (1966) hypothesized that the Pickering conquered the Glen Meyer by 700 BP, thus beginning the Middle Late Woodland stage, although this theory is viewed with much skepticism (Williamson, 1990). This theory is based upon the greater similarity between Pickering pottery and pottery on subsequent sites across Southern Ontario. The Middle Late Woodland period is essentially a brief fusion of the two cultures. The first half of this period (700-650

BP) is represented by the Uren, while the latter half (650-600 BP) is known as Middleport. The end of the period is signified by the emergence of regional varieties that became the precursors for the historically known Huron, Petun, Neutral and Erie (Dodd et al., 1990).

Uren and Middleport sites share a similar distribution pattern across much of southwestern and southcentral Ontario, indicative of the continuation of local development from the previous early Late Woodland (Dodd et al., 1990). Significant changes in material culture and settlement-subsistence patterns are noted during this short time. Iroquois Linear, Ontario Horizontal and Ontario Oblique pottery types dominate artifact assemblages (Dodd et al., 1990). By the Middleport phase, a complex clay pipe assemblage had developed, and the use of bone for tools and adornment increased as well (Dodd et al., 1990; Ferris & Spence, 1995).

More formalized, year-round village life and the appearance of ossuaries and what are thought to be semi-subterranean sweat lodges are also observed (Ferris & Spence, 1995). Long, non-overlapping longhouses found on Uren villages suggest the early organization of groups into matrilineages, and an increase in the use of deer as a staple item resulted in local scarcity in the Toronto region, resulting in the movement of groups north towards what is now Simcoe County (Warrick, 2000, p. 441). It is also clear that by Uren times, mobility of people resulted in highly dynamic village life that characterized much of the middle-Late Woodland period (Warrick, 2000). An increase in the reliance on staple crops such as maize, beans and squash has been intrinsically linked to these peoples' ability to permanently settle and establish such large population networks (Dodd et al., 1990; Warrick, 2000; Ferris & Spence, 1995).

Some Middleport sites have been recorded within the northern part of southwest Ontario, indicative of expanding trade networks and more complex changes in settlement subsistence patterns (Dodd et al., 1990). Population increase during the Middleport phase was rapid and expansive, resulting from a number of factors not limited to fertility and mortality rates, community organization and village fissioning, productive resource acquisition, and the development of trade networks with northern Algonkian peoples (Warrick, 2000). It has also been argued that a more complex relationship with social spaces influenced the movement of groups into and out of settlement areas (Creese, 2013).

The movement of Middleport groups into almost every available corner of southern Ontario resulting in a more organized social structure is thought to be the thread that ties middle Late Woodland groups to the large, socially complex village settlements of the late Late Woodland period (Warrick, 2000).

Much of southern Ontario in the fifteenth and sixteenth centuries was occupied by the ancestors of the historic seventeenth century Neutral, called that by Champlain in 1615 as they did not participate in the conflict between the Huron and the Five Nation Iroquois (Lennox & Fitzgerald, 1990, p. 405). They were known as the "Attawandaron" by the Huron, their neighbours to the north, "the people of a slightly different language." Distribution of Prehistoric Neutral sites stretches from just past the Niagara River in the east to the Detroit River in the west, Lake Erie in the south, and London and Milton represent the northern boundary. Despite the wide distribution, Neutral concentrations were primarily centered on three riverine/lacustrine areas in the fifteenth century: the Niagara Peninsula, the Grand River and the rivers to the northeast (Spencer, Bronte and Sixteen Mile Creeks), and the Thames River and the shoreline of Lake Erie (Lennox & Fitzgerald, 1990, p. 405). By the late sixteenth and early seventeenth century, the settlement patterns of the Neutral had retracted to the eastern areas with concentrations largely centered on the Niagara Peninsula. Their eastern limit was the Buffalo River while their western limit was the Grand River. Populations also continued in the area of the Spencer, Bronte and Sixteen Mile Creeks in what is now the Milton and Oakville area (Lennox & Fitzgerald, 1990, p. 411).

In terms of material culture, the lithics were most common, a sharp contrast to the Huron in the north. They were typically of Onondaga chert, with Kettle Point found occasionally. The most common tool was the unifacial

snubnose endscraper, often used in hide processing. Other tool forms included utilized flakes, retouched flake scrapers, serrated end scrapers, and spokeshaves. Projectile points of the Prehistoric Neutral are typically long, narrow isosceles triangles with side notching, though there is generally great variation and not all are side notched. Forms included Middleport Triangular, Middleport Notched, Nanticoke Triangular and Nanticoke Notched in the fifteenth and sixteenth centuries with Daniels Triangular, and Hamilton Serrated in the seventeenth (Lennox & Fitzgerald, 1990, pp. 419-421). Neutral ceramics evolved from the slightly elongated globular form of the Middleport subphase to a more globular to squat-globular form frequently with castellations in the fifteenth century. Common decorations in the during this time included Ontario Horizontal and Pound Necked incised, stamped or trailed motifs which became simpler over time. Less common vessel forms included short open bowls, double-mouthed vessels, and flat-bottomed vessels with vertical walls, which gain popularity in the seventeenth century. Conical and barrel shaped pipe bowls are the most common forms of Neutral ceramic pipes in the fifteenth century. Barrel-shaped, collared and coronet pipe bowls became the most dominant types during sixteenth century with increasing popularity in the seventeenth. Zoomorphic and anthropomorphic effigy pipes were found in the fifteenth century Neutral sites and increased in popularity in the latter centuries (Lennox & Fitzgerald, 1990, pp. 419-420).

From the Prehistoric to the Historic period, Neutral sites are typified by their use of the longhouse, elongated structures made of wood poles and covered in bark. They are quite similar to those of other Iroquoian groups. From the fifteenth to the sixteenth century, there was a notable decrease in their length (Lennox & Fitzgerald, 1990, p. 445). Many Prehistoric Neutral sites have above-ground sweat lodges within the longhouses, seen in a circular cluster of post moulds where they have been erected and dismantled on numerous occasions. Evidence of sweat lodges is not seen on seventeenth century Historic Neutral sites (Lennox & Fitzgerald, 1990, p. 450). The settlement patterns of the Neutral can be categorized into three types, large village sites, smaller hamlets or cabin sites, and special resource extraction sites. The larger villages and smaller hamlets are typically on small creeks with sandy soils suitable for agriculture. Both larger village and small cabin sites were both typically surrounded by palisades and activities were focused on subsistence. The cabin sites were occupied on a more seasonal basis and typically only had one or two longhouses. The larger villages have more evidence for trade and may have had political influence over the smaller surrounding cabin sites (Lennox & Fitzgerald, 1990, p. 441).

Early contact with European settlers at the end of the Late Woodland period resulted in extensive change to the traditional lifestyles of most populations inhabiting southern Ontario. Trade with the Europeans led to dependency on European goods and incited conflict between the First Nations in southern Ontario (Warrick, 2000).

1.3.3 POST-CONTACT PERIOD

WELLINGTON COUNTY

The study area for this project is located within Wellington County, which was named after the First Duke of Wellington, Arthur Wellesley (Wellington County, 2020). This area is part of the land purchase made by Sir John Johnson in 1784 from the Mississaugas. General Haldimand, a British army officer responsible for establishing loyalist refugees in Ontario, granted land six miles deep from each side of the Grand River (Six Nations, 2008). This land extended from the mouth of the river at Lake Erie, to the head of the river, to the Haudenosaunee (Six Nations of the Grand River, hereafter Six Nations) (Six Nations, 2019). Due to a mistake by surveyor Augustus Jones, the land east of this line was not conveyed to the Six Nations as it was meant to (Six Nations, 2019). In the late eighteenth century, the Six Nations sold blocks of land, including parts of Wellington, to land surveyors. Parts of the Crown's purchase in 1792 from the Mississaugas and, in 1827, from the Chippewas make up Wellington County (Town of Wellington, 2020).

Colonial settlement went from east to west and generally coincided with the completion of surveys and the allocation of land. The Pierpoint Settlement is dated prior to Scottish immigration and was a community of black

loyalists who had received land grants from the Crown for their service in the War (Ontario Genealogical Society, 2020). In Erin, Eramosa, and Garafraxa, the population was mainly loyalists moving from the Halton and Oakville regions (Wellington County, 2020). While the south-west was populated by settlers directly from England and Wales, towns such as Guelph and Fergus were largely populated by Scottish immigrants. There were two clusters of Scots in the Fergus area, one populating the town and the other, the Bon Accord Settlers, settling in the north-east region of Fergus/ Elora (Ontario Genealogical Society, 2020). Initial settlements in the area include Pierpoint, La Guayrans, the Paisley Block, Elora, Fergus, Salem, Bon Accord, and Queens Bush (Ontario Genealogical Society, 2020). Many of the initial settlers eventually relocated to other parts of Ontario.

The District of Wellington was set apart as a separate District and contained the counties of Wellington, Waterloo, Grey, and parts of Dufferin County in 1838 before the United Counties of Waterloo, Wellington, and Grey were formed in 1852 (Wellington County, 2020). In 1854, Wellington separated from Waterloo and became an individual entity consisting of the Townships and Towns of Amaranth, Arthur, Eramosa, Erin, Guelph, Garafraxa, Maryborough, Nichol, Peek, Pilkington, and Puslinch. The following municipalities joined the County soon after: Arthur (1857), Luther (1857), Minto (1857), Elora (1858), Fergus (1858), Orangeville (1858), Mount Forest (1866), Garafraxa separated into East and West (1869), Arthur Village (1872), Harriston (1873), Clifford Village (1874), Drayton (1875), Palmerston (1875), and Erin Village (1881). Following its establishment as an individual entity, Guelph separated and became incorporated as a City (City of Guelph, 2020). Also, Luther Township was divided into East and West, Orangeville, and Garafraxa East joined Dufferin County and were no longer represented on Wellington County Council and East Luther Township joined Dufferin County. Amalgamation in 1999 resulted in the formation of seven new municipalities, including: Township of Centre Wellington, Town of Erin, Township of Guelph/ Eramosa, Township of Mapleton, Town of Minto, Township of Puslinch, and the Township of Wellington North (Wellington County, 2020).

ERIN TOWNSHIP

The Township of Erin was surveyed immediately after the Township of Caledon in 1819, and George and Nathaniel Roszel were the first to settle in the township in November 1820 (Historical Atlas Publishing Co 1906: 5). Settlement was slow to increase at first, however by 1844 the road from Erin to Guelph was completed, and by 1850 the township had a population of 3,035 (Historical Atlas Publishing Co 1906: 5).

TOWN OF ERIN

The Town of Erin was settled by Nathaniel Roszel, a Pennsylvania man, in 1820 when he took up the land at Lot 1, Concession 7 (Town of Erin, 2007). It was this site where the hamlet of Ballinafad sprang up and eventually began the Erin Township. Erin is on the west branch of the Credit River and the “forks of the credit,” with the east branch finding its source just above Orangeville (Town of Erin, 2020). The community began to grow after mills were built on the Credit River in 1826. By 1839 a post-office that is still running today had opened and by 1846 a small settlement in the south-west of the township called McMillen’s Mills had a grist and sawmill, tavern, blacksmiths and shops (Town of Erin, 2007). The Credit Valley Railroad was built in 1879, extending from the forks of the Credit River to Elora. This route passed through Erin, Hillsburgh and Orton and was critical in the expansion of the towns, increasing local economic and transportation opportunities (Toronto Railway Historical Association, 2020). With this expansion, Erin was incorporated as a village with approximately 750 residents (Town of Erin, 2007). Initially, four passenger trains operated each day with one freight train making a round trip each weekday; however, due to the increasing use of automobiles and truck service, the passenger coach was removed in 1958 and the freight train was reduced to an irregular schedule (Toronto Railway Historical Association, 2020). The train tracks were eventually torn up in 1988 following the Erin station’s closure in 1969 and demolition in 1971 (Toronto Railway Historical Association, 2020).

In addition to the settlement of Erin, the town also includes the smaller communities of Ballinafad, Brisbane, Cedar Valley, Crewson’s Corners, Orton, Ospringle and Hillsburgh (Town of Erin, 2007). The Town covers 298 square kilometres, most of which is agricultural land (Town of Erin, 2020).

1.3.4 STUDY AREA SPECIFIC HISTORY

Two historic maps were used to aid in determining the historic land use of the study area. These maps were Leslie and Wheelock’s *Map of the County of Wellington, Canada West, 1861* (Figure 3) and Parsell and Co.’s *Illustrated Historical Atlas of the Counties of Waterloo & Wellington, Ontario, 1881* (Figure 4). The map review included determining the ownership of the land as well as any historic features of interest that may fall within, or adjacent to, the study area. It should be noted that not every feature of potential interest would have been illustrated on the historic maps, and the lack of features does not preclude their presence on the property. Documenting all property features was beyond the intended scope of Atlas Maps at the time of their production, and often only subscribers would have structures or other features on their properties illustrated. Information obtained from the historic maps is provided in Table 1.

Table 1: Historical Land Use Summary by Lot and Concession

Lot	Concession	Tremaine 1861		Parsell & Co 1881	
		Occupants	Features	Occupants	Features
13	10	Hiram Shingler	Roadway Present bisecting study area	W. Wilson	Roadway Present bisecting study area

Both the 1861 and 1881 map show a roadway bisecting the study area on an angle to meet the concession boundary to the east of the study area (Figure 3 and Figure 4). No structures are illustrated; however, as noted previously, this does not negate the possibility of their presence.

A review of 1954 aerial photography of the area demonstrates that the property was predominantly agricultural land, and that the road that once bisected the study area had been shifted to the southeast. Evidence of this historic road is still visible on the property as a tree flanked corridor (Figure 5). Currently, the study area has changed little since 1954, and is still largely agricultural.

1.4 ARCHAEOLOGICAL CONTEXT

1.4.1 CURRENT CONDITIONS

The study area covers approximately 8.3 ha, much of which is agricultural land that is bordered by scrub and fallow land. The southeastern portion of the study area is comprised of a former farm complex in overgrown scrub and a demolished farmhouse. The study area also includes the right-of-way for Wellington Road 52 and Winston Churchill Boulevard.

1.4.2 PHYSIOGRAPHY AND ECOLOGY

The study area is located within the Guelph Drumlin Field physiographic region. This physiographic region encompasses parts of the Regional Municipalities of Hamilton-Wentworth, Waterloo, Halton, and parts of Wellington County (Chapman and Putnam 1984: 137). There are approximately 300 drumlins within this region and they are fairly well dispersed; they are the result of the ice crust which radiated from the western end of the basin of Lake Ontario (Chapman and Putnam 1984: 137). Soil conditions vary across the drumlin field, but the majority of the till is stony loam with underlying red shale (Chapman and Putnam 1984: 137).

The property lies in the Mixedwood Plains Ecozone, within the Lake Simcoe-Rideau Ecozone (Ecoregion 6E). The climate is mild and moist, with a mean annual temperature range of 4.9 to 7.8 degrees Celsius. The land cover is/was predominantly cropland, pasture and abandoned fields. Forested areas include deciduous, coniferous and mixed forest types (Crins et al., 2009).

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).

The subject lands fall within the Credit River watershed (Credit Valley Conservation Authority, 2009). The Credit River watershed is 1000-square kilometers that encompasses the area drained by the Credit River and its 1500 kilometers of tributaries. Specifically, the study area falls within West Credit River sub-watershed (CVCA, 2009).

1.4.3 PREVIOUS ARCHAEOLOGICAL ASSESSMENTS

A search of the *Ontario Public Register of Archaeological Reports* on October 28th, 2020 indicates that one archaeological assessment has been conducted on or within 50 m of the study area (MHSTCI, 2020). Archaeological Services Inc. conducted a Stage 1 archaeological assessment on behalf of Ainley Group as part of the Urban Wastewater Servicing Municipal Class Environmental Assessment in the Town of Erin. This assessment included the land within the current study area and found that the study area retained archaeological potential and would require Stage 2 assessment (Figure 6).

1.4.4 REGISTERED ARCHAEOLOGICAL SITES

A search of the *Ontario Archaeological Sites Database* on October 28th, 2020 indicates that there is one registered archaeological site within 1 km of the study area (MHSTCI, 2020). AkHa-9 is a nineteenth century Euro-Canadian scatter and homestead located approximately 300 m east of the study area. It has undergone a Stage 4 mitigation of development impacts and no longer exists in the ground (Golder Associates Ltd., 2002).

1.4.5 LISTED AND DESIGNATED HERITAGE PROPERTIES

At the time of the submission of this report, a public heritage inventory for the Town of Erin was not available for review.

2 FIELD METHODS

2.1 PROPERTY INSPECTION AND SURVEY

The Stage 1-2 archaeological assessment was completed on November 2, 3, and 25, 2020. The farm complex visible on the satellite imagery in Figure 2 had been demolished prior to the Stage 1-2 assessment. The weather at the time of the assessment was sunny to overcast with a temperature of 5 and 9 degrees Celsius, respectively, which allowed for good visibility of all land features (Image 1). Intermittent snow flurries on November 2 did not result in any concerns for visibility during the test pit survey or screening of soils. Access to the property to complete the archaeological assessment was granted by the property owner.

In the areas of scrub and fallow land around the farm complex, test pits were excavated as per Section 2.1 of the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI, 2011). All test pits were a minimum of 30 cm in diameter and were excavated at least 5 cm into subsoil. All soils were screened through 6 mm mesh to look for any archaeological materials, while the test pits themselves were examined to determine their stratigraphy and look for archaeological features. The test pit survey began to the southwest of the demolished farm complex (Figure 7 and Image 2). This area was tested at 5 m intervals (Image 3). The land around the demolished farm buildings was found to be disturbed and test pit intervals were increased to 10 m intervals to determine the limits of disturbance (Image 4). The stratigraphy was inconsistent throughout this portion of the study area and ranged between approximately 25 cm of medium brown loam topsoil, followed by an orange-brown sandy subsoil, to 80+ cm of medium brown topsoil with no change, to 40 cm of medium brown topsoil followed by construction sand (Image 5 - 7). The 1861 map indicates that the historic roadway cut through this portion of the study area, which may be the cause of the observed disturbance (Figure 3).

Pedestrian survey was completed for the agricultural fields as per Section 2.1.1 of the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI, 2011). The agricultural fields subject to assessment were recently ploughed to at least 80% visibility, and sufficiently weathered to facilitate survey. The survey was completed at 5 m intervals (Image 8 – 11) across the entirety of the agricultural field.

A small area in the north east corner of the study area was determined to be low-lying and wet and was subject to photo-documentation only. The portions of the study area that fall along the east side of the house and along the right-of-way of Wellington Road 52 and Winston Churchill Boulevard were artificially sloped for the construction of the house and visually determined to be disturbed due to construction of the roadways and associated build-up/ditching, respectively (Image 11-12).

All referenced images and their directions are presented in Figure 8. Their GPS coordinates, photographs, and field notes are retained by WSP.

2.2 RECORD OF FINDS

No archaeological materials were recovered during the test pit or pedestrian survey.

2.3 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.:

- 3 pages of field notes
- 29 digital photographs in JPEG format
- GPS readings taken during the property inspection

3 ANALYSIS AND CONCLUSIONS

3.1 ARCHAEOLOGICAL POTENTIAL

The MHSTCI has established a set of criteria for determining archaeological potential (MHTSCI 2011). Features indicating archaeological potential, as outlined by the MHSTCI, can be found in **Appendix A**.

The 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 natural resource availability. The study area is located near tributaries of the Credit River, which would have provided a source of fresh water, transportation, and food resources for pre-contact populations.

Background research on the property provides the basis for determining historic archaeological potential. Historical maps, aerial photographic evidence, and a property inspection of the study area assist in determining historic archaeological potential. Additionally, the proximity to historic transportation corridors such as roads, railways, and water courses also effect the potential for the presence of historic archaeological resources. The study area is situated near areas of early Euro-Canadian settlement, specifically the Town of Erin, and was formerly bisected by an early historic road. In addition, a Euro-Canadian archaeological homestead site was previously identified in close proximity to the study area.

Based on the presence of some of a number of features within and surrounding the study area, the potential for the presence of pre-contact and historic archaeological sites was determined to be high.

3.2 CONCLUSION

The entire study area was subject to property inspection, pedestrian survey, and test-pit survey, which revealed areas of disturbance as well as areas retaining archaeological potential. All areas identified as retaining archaeological potential within the study area were tested through pedestrian and test pit survey. No archaeological resources were recovered.

4 RECOMMENDATIONS

All archaeological activities were carried out in accordance with the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI, 2011). This study involved a review of documents pertaining to the pre- and post contact history of the area as well as property specific research including reviews of historic maps, aerial photographs, and local histories. Archaeological recommendations have been made based on the background historic research, locations of known or registered archaeological sites, previous archaeological assessments, and the results of property inspection, pedestrian survey, and test pit survey as outlined in the 2011 *Standards and Guidelines for Consultant Archaeologists*. **No archaeological resources were recovered during the Stage 1-2 assessment. As such, no further archaeological assessment is required for the study area (Figure 8).**

Should previously undocumented deeply buried archaeological materials be discovered, they may constitute a new site and are therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the material must cease work immediately and a provincially licensed consultant archaeologist must assess the material's cultural heritage value or interest in accordance with Section 48 (1) of the Ontario Heritage Act.

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.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

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7 IMAGES



Image 1: Condition of study area during assessment. Facing northwest



Image 2: Test pit survey at 5 m intervals in progress. Facing southwest.



Image 3: Test pit survey at 5 m intervals in progress. Facing northeast.



Image 4: Test pit excavated to 80 cm +, no subsoil found, indicating disturbance.



Image 5: Test pit excavated to 25 cm to orange-brown sandy subsoil.



Image 6: test pit excavated to 10 cm – note mottled topsoil and subsoil indicating disturbance.



Image 7: Test pit excavated to 10 cm – note mottled topsoil and subsoil indicating disturbance.



Image 8: Pedestrian survey in progress at 5 m intervals. Facing southwest.



Image 9: Pedestrian survey in progress at 5 m intervals. Facing southwest.



Image 10: Looking down at pedestrian survey conditions – note 80+% visibility.



Image 11: Looking northeast along Wellington Road 52. Note disturbance due to road and ditch construction.

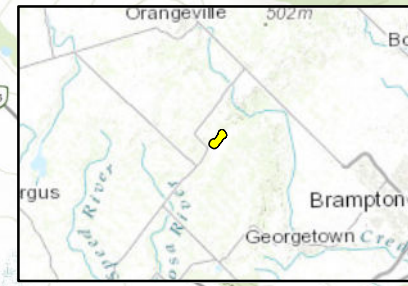
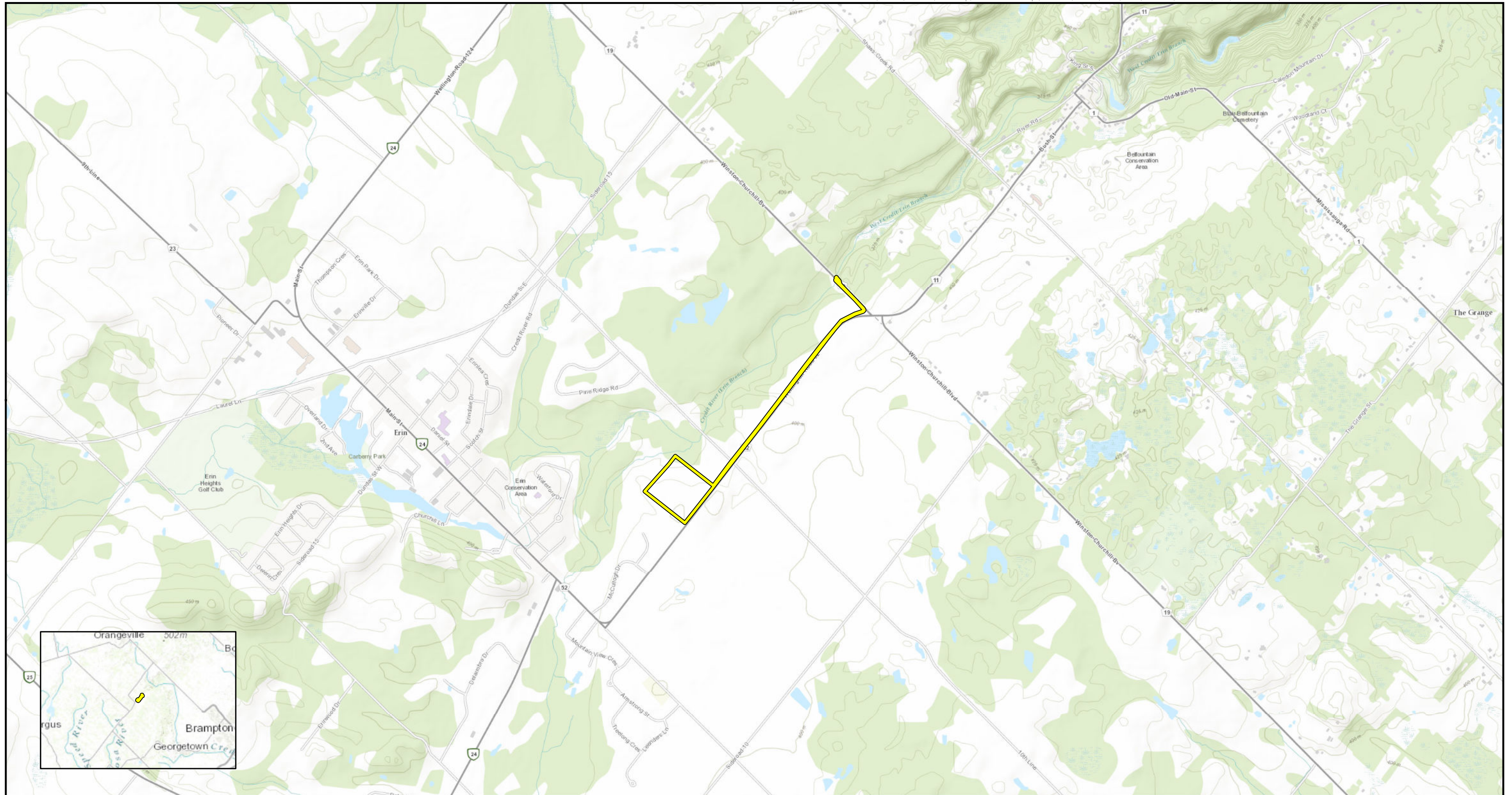


Image 12: Looking southeast along Winston Churchill Boulevard at study area. Note disturbance due to road and ditch construction.


8

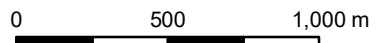

FIGURES

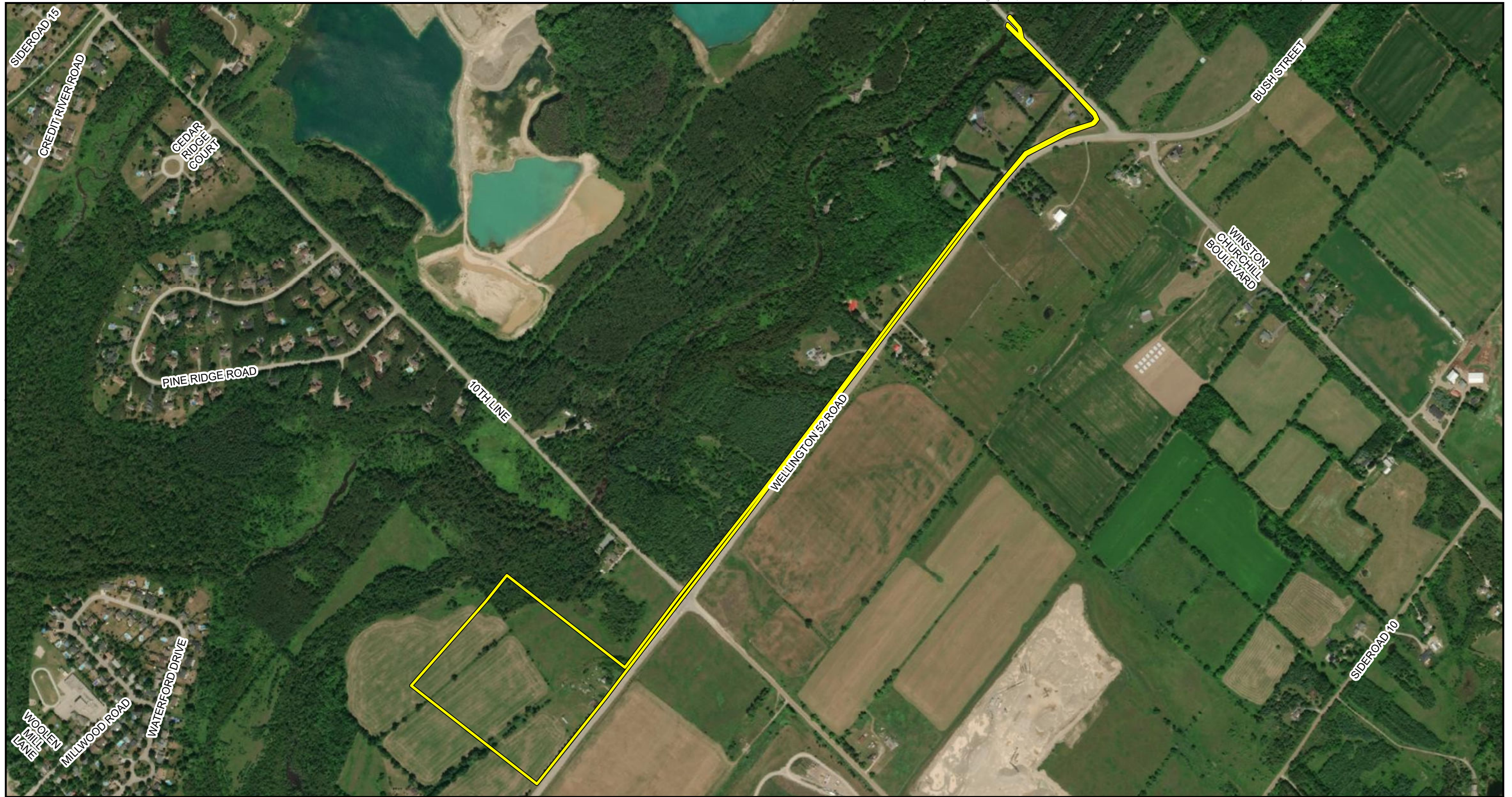





LEGEND

 Study Area

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PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING	DRAWN BY: AST	CLIENT: TOWN OF ERIN	CREDITS:
			



LEGEND

 Study Area

TITLE:
FIGURE 2: STUDY AREA

SCALE:
1:8,000

PROJECT NO:
20M-00741-00

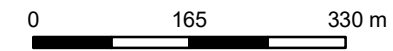
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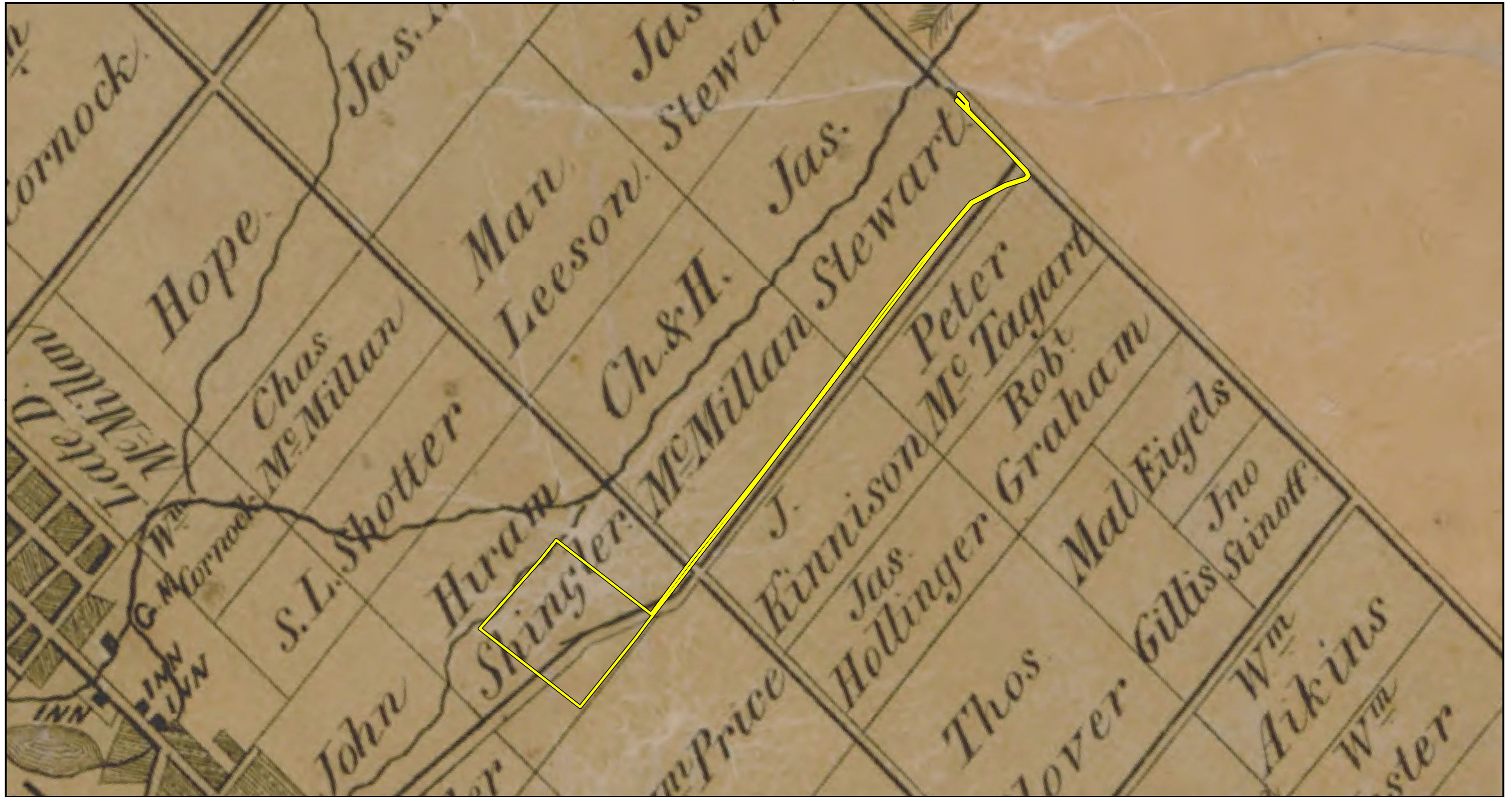
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STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING

DRAWN BY:
AST


CLIENT:
TOWN OF ERIN

CREDITS:
LAND INFORMATION ONTARIO





LEGEND

 Study Area

TITLE:

FIGURE 3: HISTORICAL MAPPING (1861)

SCALE:
1:10,000

PROJECT NO:
20M-00741-00

DATE:
NOVEMBER 2020

DRAWN BY:
AST

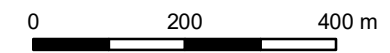
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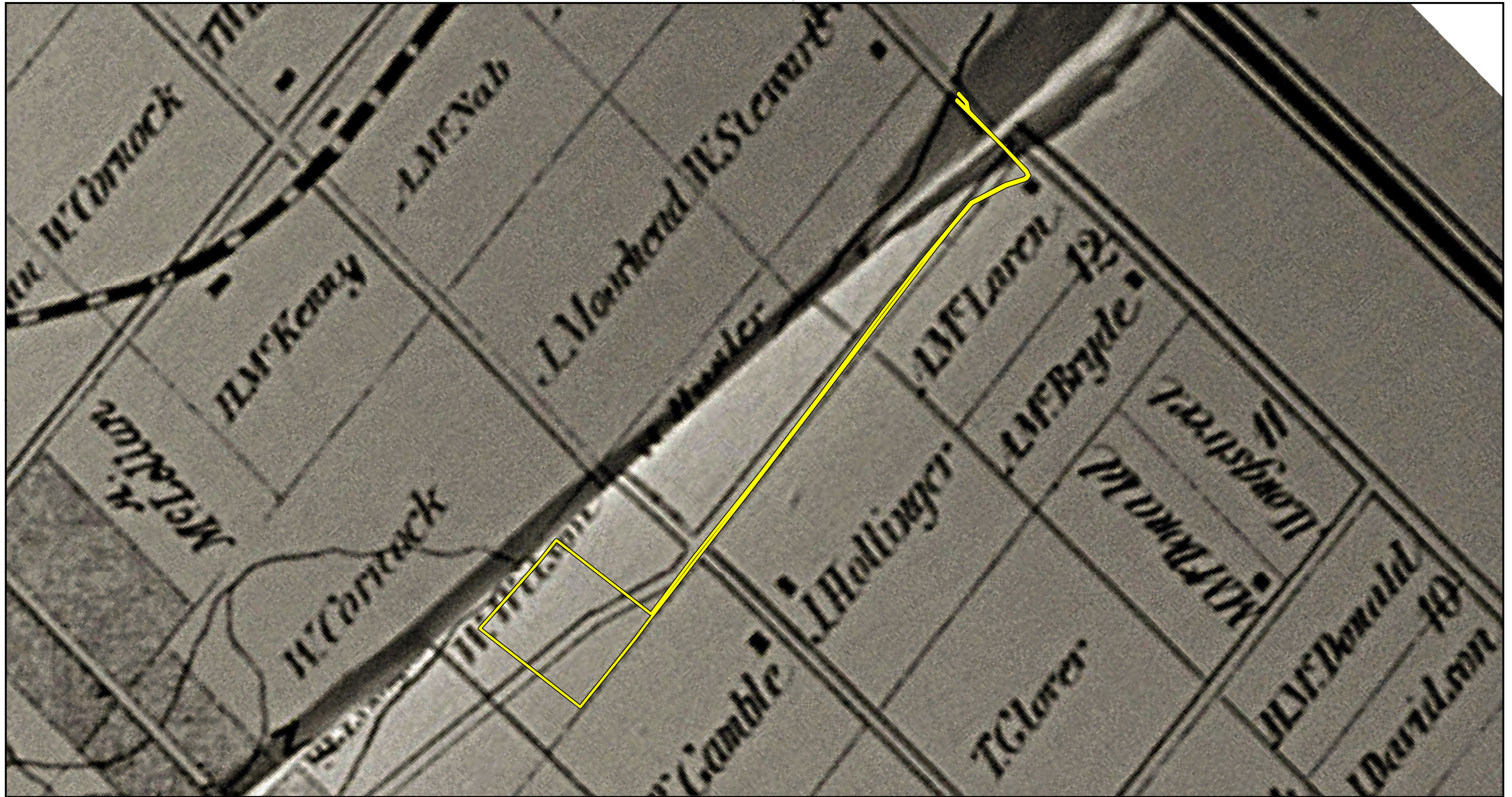
PROJECT:

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING


CREDITS:

MAP OF THE COUNTY
OF WELLINGTON
(LESLIE AND WHEELOCK, 1861)





LEGEND

 Study Area

TITLE:

FIGURE 4: HISTORICAL MAPPING (1877)

SCALE:
1:10,000

PROJECT NO:
20M-00741-00

DATE:
NOVEMBER 2020

PROJECT:

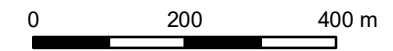
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING

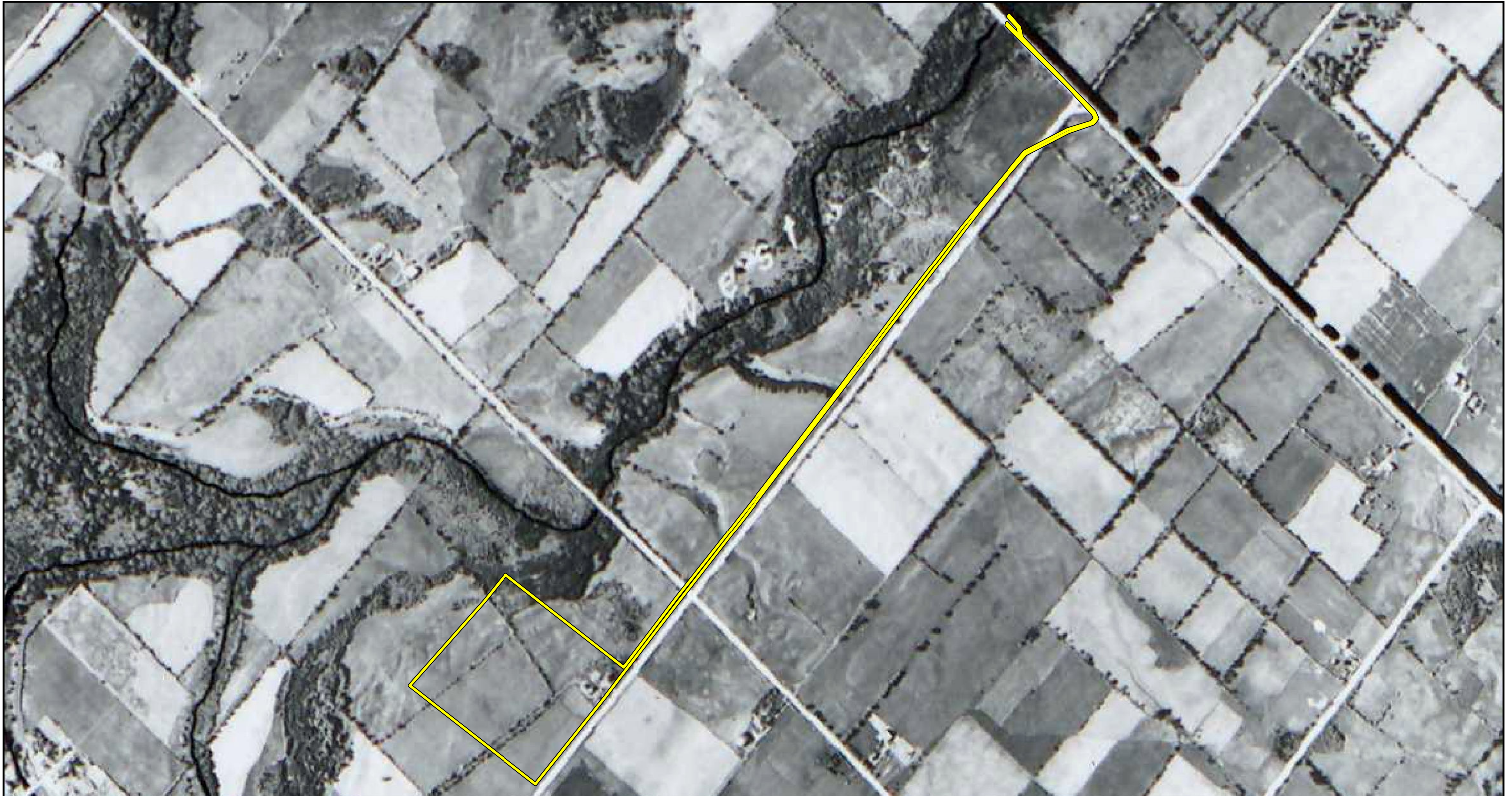
DRAWN BY:
AST

CLIENT:
TOWN OF ERIN


CREDITS:


TOWNSHIP OF ERIN FROM
ILLUSTRATED HISTORICAL ATLAS
OF THE COUNTY OF WELLINGTON,
ONTARIO (WALKER & MILES, 1877)

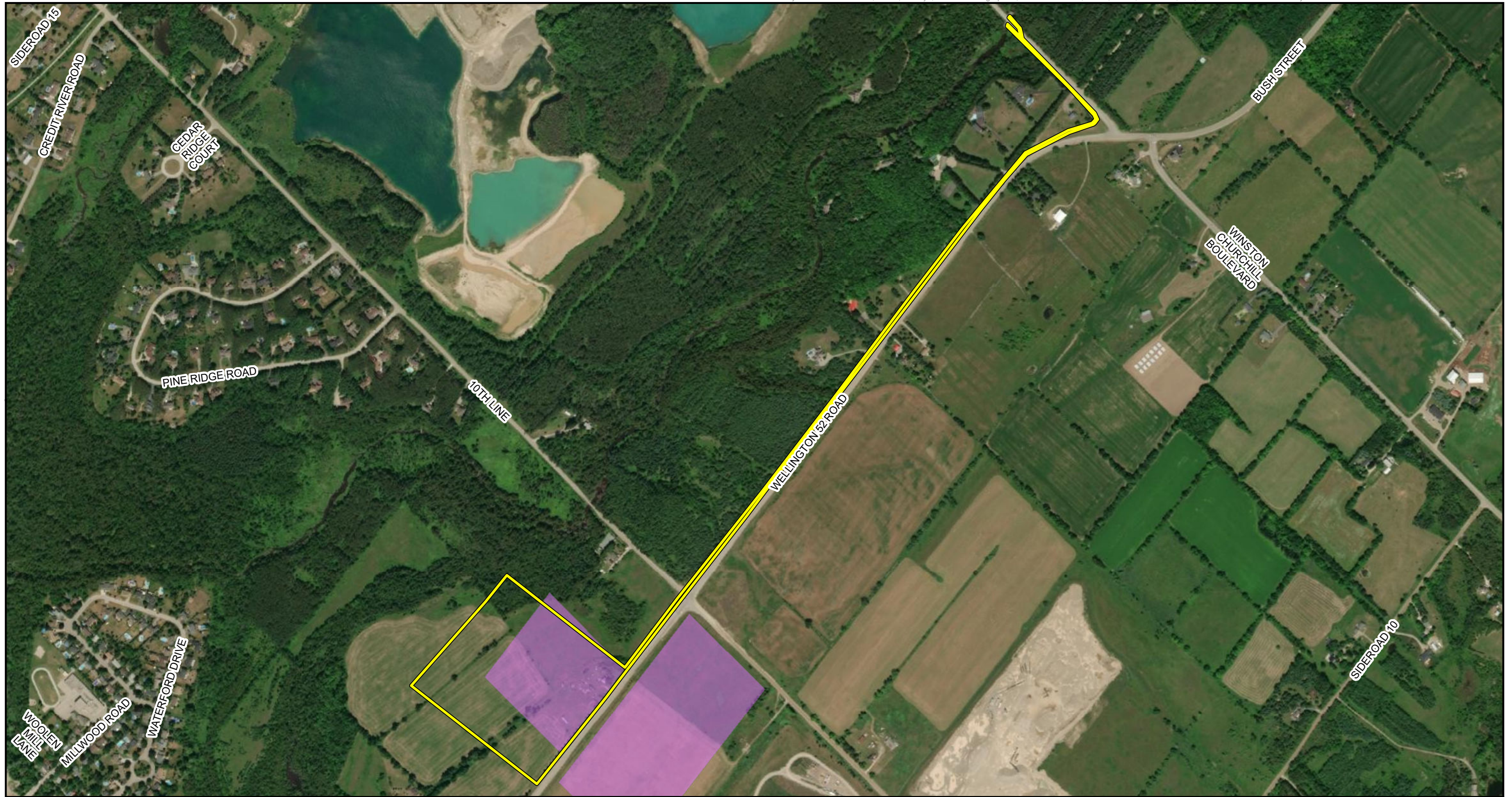




LEGEND

 Study Area

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PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING		CREDITS: AERIAL IMAGERY (1954)[432_794]	
0 162.5 325 m			



LEGEND
 [Yellow outline] Study Area
Previously Assessed:
 [Purple fill] ASI (P094-0233-2017)

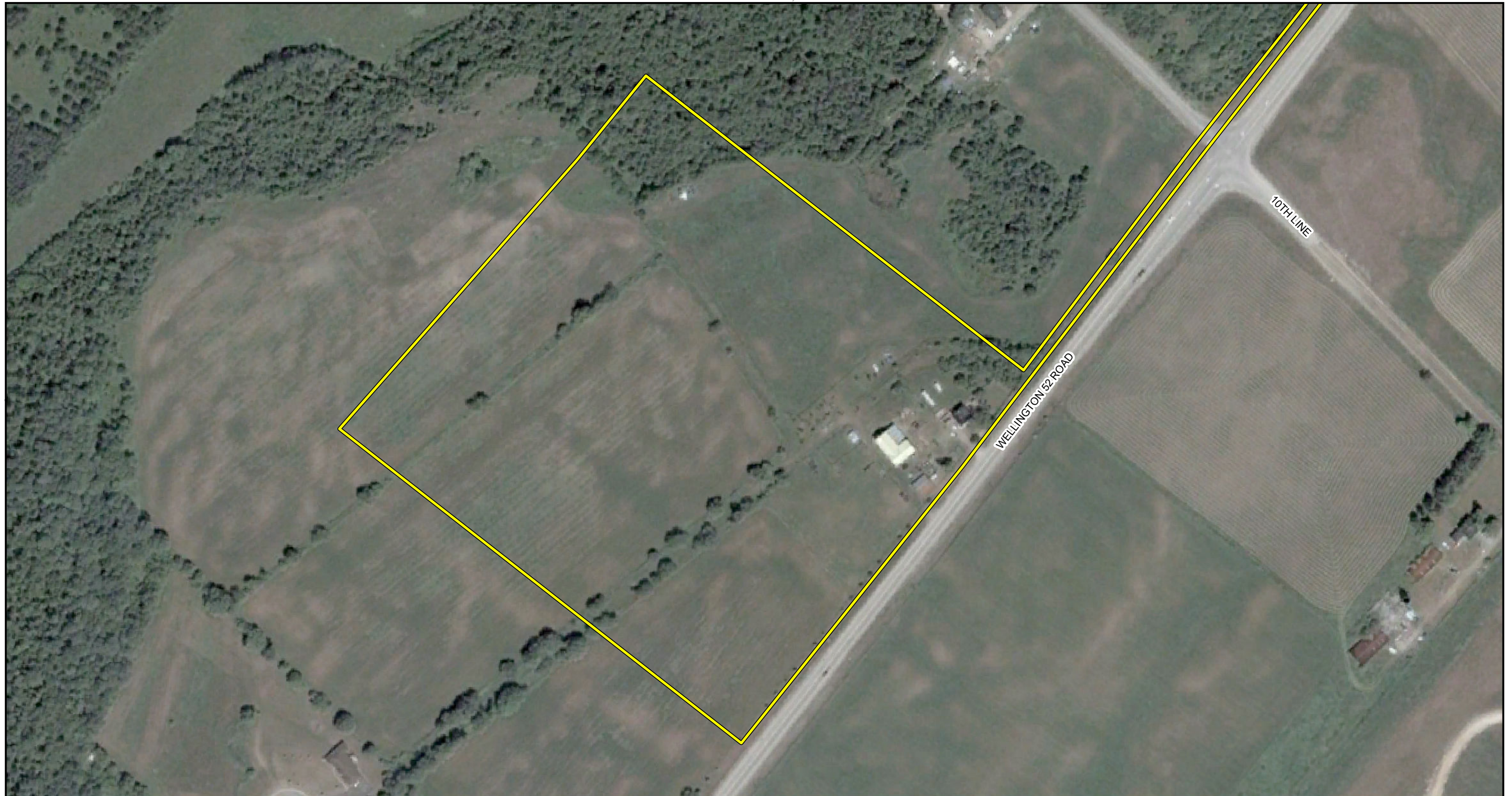
TITLE:
 FIGURE 6: PREVIOUS ASSESSMENTS

PROJECT:
 STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
 TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING


0 155 310 m


N

SCALE: 1:8,000	PROJECT NO: 20M-00741-00	DATE: NOVEMBER 2020
DRAWN BY: AST	CLIENT: TOWN OF ERIN	
CREDITS: LAND INFORMATION ONTARIO		



LEGEND

 Study Area

TITLE: FIGURE 7: AERIAL IMAGERY (2006)	SCALE: 1:2,500	PROJECT NO: 20M-00741-00	DATE: NOVEMBER 2020
	DRAWN BY: AST	CLIENT: TOWN OF ERIN	
PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING	CREDITS: LAND INFORMATION ONTARIO		
0 50 100 m		N 	



LEGEND

- Photograph Locations
- Study Area

Survey Method

- Disturbed - No Further Assessment
- Low and Wet - No Further Assessment
- Pedestrian Survey at 5 m Interval
- Test Pit at 10 m Interval to Confirm Disturbance
- Test Pit Survey at 5 m Interval

TITLE:
FIGURE 8a: RESULTS

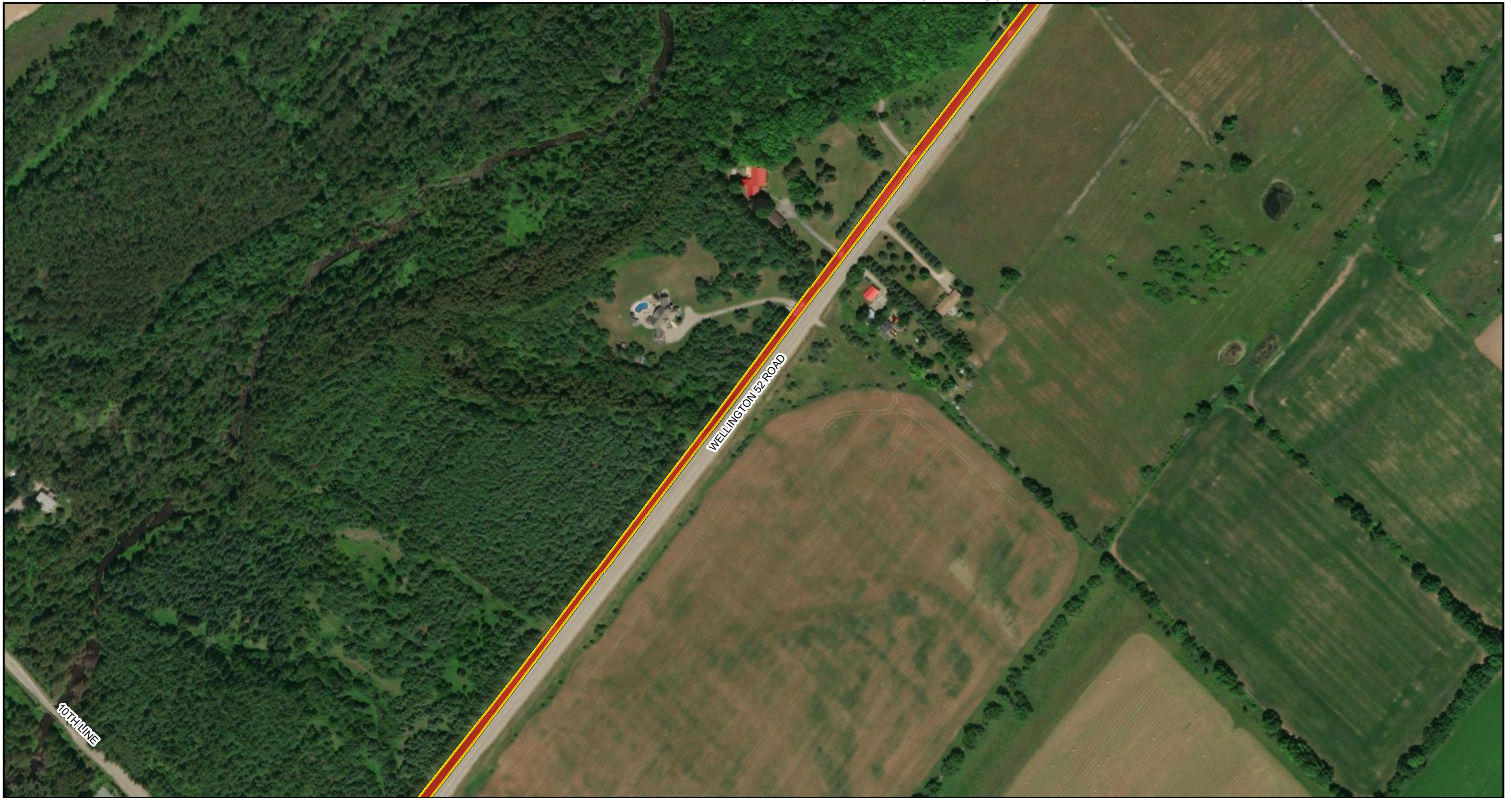
SCALE: 1:3,000
PROJECT NO: 20M-00741-00
DATE: NOVEMBER 2020

PROJECT:
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING

DRAWN BY: AST
CLIENT: TOWN OF ERIN

CREDITS:
LAND INFORMATION ONTARIO





LEGEND

- Photograph Locations
- Study Area

Survey Method

- Disturbed - No Further Assessment
- Low and Wet - No Further Assessment
- Pedestrian Survey at 5 m Interval
- Test Pit at 10 m Interval to Confirm Disturbance
- Test Pit Survey at 5 m Interval

TITLE: FIGURE 8b: RESULTS	SCALE: 1:3,000	PROJECT NO: 20M-00741-00	DATE: NOVEMBER 2020
	DRAWN BY: AST	CLIENT: TOWN OF ERIN	
PROJECT: STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING		CREDITS: LAND INFORMATION ONTARIO	
0 60 120 m		N 	



LEGEND

- Photograph Locations
- Study Area

Survey Method

- Disturbed - No Further Assessment
- Low and Wet - No Further Assessment
- Pedestrian Survey at 5 m Interval
- Test Pit at 10 m Interval to Confirm Disturbance
- Test Pit Survey at 5 m Interval

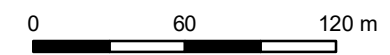
TITLE:
FIGURE 8c: RESULTS

SCALE: 1:3,000
PROJECT NO: 20M-00741-00
DATE: NOVEMBER 2020

PROJECT:
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT
TOWN OF ERIN URBAN CENTRE WASTEWATER SERVICING

DRAWN BY: AST
CLIENT: TOWN OF ERIN

CREDITS:
LAND INFORMATION ONTARIO



APPENDIX

A

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

APPENDIX

B

DEVELOPMENT PLANS



The regulated area is based on the greatest extent of the feature plus a distance. In this location the regulated area is the greater of the provincially significant wetland (highlighted in blue) plus a distance of 120m.

The MOECC's guidelines suggest that a buffer zone of 150m and not less than 100m be provided for treatment plants up to a capacity of 25,000 m³/d.



EA Recommended Outfall Location (approx.)

Existing residential property (5376 Winston Churchill Blvd, Caledon)

Existing residential property (5392 10th Line, Erin)

Effluent Discharge to Outfall 2.0 km (approx.)

Wellington Rd 52

10th Line

Existing residential property (9660 Wellington Rd 52 Erin)

150.0 m
1300.0 m
30.0 m
150.0 m