

# Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River

Project File Appendices - Volume 2 of 2

City of Mississauga

60701082

December 2024

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## Appendices - Volume 2 of 2

- Appendix E. Stage 1 Archaeological Assessment Report
- Appendix F. Heritage Impact Assessment: 1725 Mississauga Road, Mississauga, and Credit River Corridor Cultural Heritage Landscape
- Appendix G. Public Consultation Record
- Appendix H. Agency and Stakeholder Consultation Record
- Appendix I. Indigenous Communities Consultation Record

**AECOM**

# Appendix E

**Stage 1 Archaeological  
Assessment Report**



**Ministry of Citizenship and Multiculturalism (MCM)**

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Jun 20, 2024

Sherri Pearce (P316)  
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**RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 Archaeological Assessment, Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River, Part of Lot 11, Range 1 North of Dundas Street, Lot 21, Concession 1 North of Dundas Street, and Lots 4 and 5, Range 3 Credit River Indian Reserve, Geographic Township of Toronto, Former Peel County, Now the City of Mississauga, Regional Municipality of Peel, Ontario ", Dated Jun 5, 2024, Filed with MCM on N/A, MCM Project Information Form Number P316-0532-2023, MCM File Number 0018947**

Dear Ms. Pearce:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review.<sup>1</sup>

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cc. Archaeology Licensing Officer  
Vicky Wei, City of Mississauga  
TBD TBD, Ministry of the Environment and Climate Change

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# Stage 1 Archaeological Assessment

Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River, Part of Lot 11, Range 1 North of Dundas Street, Lot 21, Concession 1 North of Dundas Street, and Lots 4 and 5, Range 3 Credit River Indian Reserve, Geographic Township of Toronto, Former Peel County, Now the City of Mississauga, Regional Municipality of Peel, Ontario

City of Mississauga

Licensee: Sherri Pearce, MA

License: P316

PIF Number: P316-0532-2023

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## Revision History

Rev #	Revision Date	Revised By:	Revision Description
0			
1			
2			

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## Executive Summary

The City of Mississauga (“the City”) retained AECOM Canada Ltd. (“AECOM”) to conduct a Stage 1 archaeological assessment as part of the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River (“the Project”). The City has identified the need for erosion control and engineering design within the Wolfedale Creek Study Area; the upper portion of the Study Area (**Study Area 1**) extends from Burnhamthorpe Road West to Dundas Street West, including the tributary channel between 3577 and 3599 Wolfedale Road, and the lower portion (**Study Area 2**) extends from Sir Richards Road to the Credit River outlet, for an approximate total length of 2,300 metres (m). The creek is fed by storm runoff, with the outlet just south of Burnhamthorpe Road West feeding into the confined engineered channel characterized predominantly by urban land uses. Wolfedale Creek is located almost entirely within City lands; however, at various locations the creek corridor encroaches into private properties, some of which are located within existing city easements. Ongoing erosion within the corridor has resulted in vertical and unstable creek banks, as well as habitat loss. The corresponding Municipal Class Environmental Assessment (MCEA) will determine an effective long term erosion control and restoration strategy that is compatible with the natural tendencies of the creek and protects adjacent properties and infrastructure while maintaining or improving morphological form and function as well as hydraulic capacity. Additionally, it will provide environmental enhancements to improve fish habitat and passage within the watercourse. Finally, a key element of the MCEA will also be to identify and evaluate the existing conditions of the watercourse, in order to identify constraints and opportunities to minimize further ravine incision and potential threats to the surrounding infrastructure.

The two Study Areas (**Study Area 1** and **Study Area 2**) addressed within the scope of this Stage 1 archaeological assessment include the following creek segments, historically located within Part of Lot 11, Range 1 North of Dundas Street, Lot 21, Concession 1 North of Dundas Street (**Study Area 1**), and Lots 4 and 5, Range 3 Credit River Indian Reserve (**Study Area 2**), Geographic Township of Toronto, Former Peel County, Now the City of Mississauga, Regional Municipality of Peel, Ontario (**Figures 1** and **2**).

The Stage 1 archaeological assessment was also triggered by the requirements of the *Environmental Assessment Act*, in accordance with subsection 11(1) (Ontario Government 1990a). The Project is also subject to the requirements of the *Ontario Heritage Act* (Ontario Government 1990b) and *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011). All archaeological consulting activities were conducted under PIF number P316-0532-2023 issued to Professional Archaeologist Sherri Pearce, MA (P316) in accordance with the Ministry of Citizenship and Multiculturalism’s (MCM) *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011).

AECOM’s Stage 1 background study and property inspection for the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River has determined that the potential for the recovery of pre- and post-contact Indigenous and 19<sup>th</sup> century Euro-Canadian archaeological resources within portions of **Study Area 2** is high. **Based on these findings, Stage 2 archaeological assessment is recommended for all areas of potentially undisturbed land within the Study Area 2 limits addressed within the scope of this report (Figure 13).** The Stage 2 archaeological assessment must be conducted by a licensed archaeologist and must follow the requirements set out in *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011), including the standard test pit survey method at 5 m intervals to be conducted in all areas that will be impacted where ploughing is not feasible (e.g., woodlots, overgrown areas, manicured lawns). In addition to the above, it is also recommended that a marine archaeology checklist be completed, which may result in the recommendation that a marine archaeological assessment be undertaken.

Those areas cleared of archaeological concern and/or determined to have been subject to previous disturbance as part of AECOM’s property inspection and background research, including the entirety of **Study Area 1**, are also illustrated within **Figure 13**; no further work is recommended within these areas.

Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment as part of the City of Mississauga Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 archaeological assessment report should be made available to the Indigenous Nations for review prior to submission of the report to the MCM.

The MCM is asked to accept this report into the Ontario Public Register of Archaeological Reports thereby concurring with the recommendations presented herein. **As further archaeological assessment is required, archaeological concerns for the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River, Part of Lot 11, Range 1 North of Dundas Street, Lot 21, Concession 1 North of Dundas Street, and Lots 4 and 5, Range 3 Credit River Indian Reserve, Geographic Township of Toronto, Former Peel County, Now the City of Mississauga, Regional Municipality of Peel, Ontario, have not been fully addressed.**

Please note that this archaeological assessment report has been written to meet the requirements of the MCM's *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011); however, properties that are subject to archaeological assessment are not considered cleared for ground disturbance activities until the associated report has been reviewed and accepted by the MCM. In order to maintain compliance with the MCM and the *Ontario Heritage Act* (Ontario Government 1990b), no ground disturbing activities are to occur until the proponent and approval authority receive a formal letter from the MCM stating that the recommendations provided herein are compliant and that the report has been accepted into the MCM's register of archaeological reports.

## Project Personnel

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# Table of Contents

	page
<b>Executive Summary .....</b>	<b>4</b>
<b>Project Personnel.....</b>	<b>6</b>
<b>Table of Contents .....</b>	<b>7</b>
<b>1. Project Context.....</b>	<b>9</b>
1.1 Development Context.....	9
1.1.1 Objectives .....	9
1.2 Historical Context .....	10
1.2.1 Pre-Contact Indigenous Settlement.....	11
1.2.2 Post-Contact Period Settlement .....	13
1.2.3 19 <sup>th</sup> Century Municipal Settlement.....	15
1.2.4 Historical Mapping Review .....	16
1.2.5 Cultural Heritage Resources.....	18
1.3 Archaeological Context .....	19
1.3.1 Natural Environment .....	19
1.3.2 Previous Archaeological Work.....	20
1.3.3 Registered Archaeological Sites .....	20
1.3.4 Existing Conditions .....	21
<b>2. Property Inspection .....</b>	<b>23</b>
2.1 Study Area 1 .....	23
2.2 Study Area 2 .....	23
<b>3. Analysis and Conclusions.....</b>	<b>25</b>
3.1 Determination of Archaeological Potential.....	25
3.1.1 Potential for the Recovery of Pre-Contact and Contact Period Indigenous Resources and Historical 19 <sup>th</sup> Century Settler Resources.....	26
3.1.2 Conclusions .....	26
<b>4. Recommendations .....</b>	<b>27</b>
<b>5. Advice on Compliance with Legislation .....</b>	<b>28</b>
<b>6. Bibliography .....</b>	<b>29</b>
<b>7. Images.....</b>	<b>32</b>
7.1 Study Area 1 Property Inspection (July 28, 2023) .....	32
7.2 Study Area 2 Property Inspection (July 28, 2023) .....	34
<b>8. Figures.....</b>	<b>35</b>

## List of Figures

Figure 1: Study Areas Location.....	36
Figure 2: Study Areas in Detail .....	37
Figure 3: Treaties and Purchases.....	38
Figure 4: Portion of Tremaine’s 1859 <i>Map of the County of Peel</i> .....	39
Figure 5: Portion of the 1877 <i>Illustrated Historical Atlas of the County of Peel, Ont.</i> .....	40
Figure 6: 1954 Aerial Imagery.....	41
Figure 7: Construction Plan C08719 (1960s) .....	42
Figure 8: Construction Plan C08720 (1960s) .....	43
Figure 9: Construction Plan C09738 (1960s) .....	44
Figure 10: Construction Plan C21120 (1980s) .....	45
Figure 11: Construction Plan C31468 (1994) .....	46
Figure 12: Construction Plan C36912 (2000) .....	47
Figure 13: Results of the Stage 1 Archaeological Assessment.....	48

## List of Tables

Table 1: Cultural Chronology for Peel County .....	10
Table 2: 1859 and 1877 Landowners and Historical Features Located Within and Directly Adjacent to the Study Areas .....	17
Table 3: Registered Archaeological Sites Within and Within 1 km of the Study Areas .....	21
Table 4: Inventory of Documentary Records .....	23

# 1. Project Context

## 1.1 Development Context

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### 1.1.1 Objectives

The objective of the Stage 1 background study is to document the archaeological and land use history and present conditions within the Study Areas. This information will be used to support recommendations regarding cultural heritage value or interest (CHVI) as well as assessment and mitigation strategies. The results of Stage 1 archaeological assessment presented in this report are drawn in part from:

- ◆ The MCM’s Archaeological Sites Database (ASDB) for a listing of registered archaeological sites within a 1-kilometre (km) radius of the Study Areas;
- ◆ Reports of previous archaeological assessment within 50 m of the Study Areas;
- ◆ Recent and historical maps of the Study Areas;
- ◆ Archaeological management plans or other archaeological potential mapping where available;

- ◆ Municipal Registers of listed heritage properties and properties designated under the *Ontario Heritage Act* (Ontario Government 1990b), commemorative plaques, and monuments identified on or near the Study Areas; and
- ◆ An optional property inspection of the Study Areas.

This Stage 1 archaeological assessment has been conducted to meet the requirements of the MCM's *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011).

## 1.2 Historical Context

Years of archaeological research and assessments in southern Ontario have resulted in a well-developed understanding of the historical use of land in Peel County from the earliest Indigenous peoples to the more recent Euro-Canadian settlers and farmers. **Table 1** provides a breakdown of the cultural and temporal history of past occupations in Peel County.

**Table 1: Cultural Chronology for Peel County**

Archaeological Period	Time Period	Characteristics
Early Paleo	9000-8400 BC	<ul style="list-style-type: none"> <li>• Fluted Points</li> <li>• Arctic tundra and spruce parkland, caribou hunters</li> </ul>
Late Paleo	8400-8000 BC	<ul style="list-style-type: none"> <li>• Holcombe, Hi-Lo, and Lanceolate Points</li> <li>• Slight reduction in territory size</li> </ul>
Early Archaic	8000-6000 BC	<ul style="list-style-type: none"> <li>• Notched and Bifurcate base Points</li> <li>• Growing populations</li> </ul>
Middle Archaic	6000-2500 BC	<ul style="list-style-type: none"> <li>• Stemmed and Brewerton Points, Laurentian Development</li> <li>• Increasing regionalization</li> </ul>
Late Archaic	2000-1800 BC	<ul style="list-style-type: none"> <li>• Narrow Point</li> <li>• Environment similar to present</li> </ul>
	1800-1500 BC	<ul style="list-style-type: none"> <li>• Broad Point</li> <li>• Large lithic tools</li> </ul>
	1500-1100 BC	<ul style="list-style-type: none"> <li>• Small Point</li> <li>• Introduction of bow</li> </ul>
Terminal Archaic	1100-950 BC	<ul style="list-style-type: none"> <li>• Hind Points, Glacial Kame Complex</li> <li>• Earliest true cemeteries</li> </ul>
Early Woodland	950-400 BC	<ul style="list-style-type: none"> <li>• Meadowood Points</li> <li>• Introduction of pottery</li> </ul>
Middle Woodland	400 BC – AD 500	<ul style="list-style-type: none"> <li>• Dentate/Pseudo-scallop Ceramics</li> <li>• Increased sedentism</li> </ul>
	AD 550-900	<ul style="list-style-type: none"> <li>• Princess Point</li> <li>• Introduction of corn horticulture</li> </ul>
Late Woodland	AD 900-1300	<ul style="list-style-type: none"> <li>• Agricultural villages</li> </ul>
	AD 1300-1400	<ul style="list-style-type: none"> <li>• Increased longhouse sizes</li> </ul>
Contact Period	AD 1400-1650	<ul style="list-style-type: none"> <li>• Warring nations and displacement</li> </ul>
	AD 1600-1875	<ul style="list-style-type: none"> <li>• Early written records and treaties</li> </ul>

Historic

AD 1749-  
present

- European settlement (French and English)

*Notes: Taken from Ellis and Ferris (1990)*

The following sections provide a detailed summary of the archaeological cultures that have settled in the vicinity of the Study Areas. As Chapman and Putnam (1984) illustrate, the modern physiography of southern Ontario is largely a product of events of the last major glacial stage and the landscape is a complex mosaic of features and deposits produced during the last series of glacial retreats and advances prior to the withdrawal of the continental glaciers from the area. Southwestern Ontario was finally ice free approximately 12,500 years ago. With continuing ice retreat and lake regressions the land area of southern Ontario progressively increased while barriers to the influx of plants, animals, and people steadily diminished (Karrow and Warner 1990). The lands within Peel County have been extensively utilized by pre-contact Indigenous peoples who began occupying southwestern Ontario as the glaciers receded from the land, as early as 11,000 BC.

## 1.2.1 Pre-Contact Indigenous Settlement

### ***The Paleo Period***

In this period the first human settlement can be traced back to 11,000 BC; these earliest well-documented groups are referred to as “Paleo,” which literally means old or ancient. During the Paleo period, people were non-agriculturalists who depended on hunting and gathering of wild food; they moved their encampments on a regular basis to locations where these resources became naturally available. The size of the groups occupying particular locations would vary depending on the nature and size of the available food resources (Ellis and Deller 1990). The picture that has emerged for the early and late Paleo period is of groups at low population densities who were residentially mobile and made use of large territories during annual cycles of resource exploitation.

### ***The Archaic Period***

The next major cultural period following the Paleo period is termed the “Archaic,” which is broken temporally into the Early, Middle, and Late Archaic periods. There is much debate on how the term Archaic is employed; general practice bases the designation on assemblage content as there are marked differences in artifact suites from the preceding Paleo and subsequent Woodland periods. As Ellis *et al.* (1990) note, from an artifact and site characteristic perspective the Archaic is simply used to refer to non-Paleo manifestations that predate the introduction of ceramics. Ellis *et al.* (1990) stress that Archaic groups can be distinguished from earlier groups based on site characteristics and artifact content.

Early Archaic sites have been reported throughout much of southwestern Ontario and extend as far north as the Lake Huron Basin region and as far east as Rice Lake (Deller *et al.* 1986). A lack of excavated assemblages from southern Ontario has limited our understanding and inferences regarding the nature of stone tool kits in the Early Archaic, and tool forms other than points are poorly known in Ontario; however, at least three major temporal horizons can be recognized and can be distinguished based on projectile point form (Ellis *et al.* 1990). These horizons are referred to as Side-Notched (*ca.* 8,000-7,700 BC), Corner-Notched (*ca.* 7,700-6,900 BC), and Bifurcated (*ca.* 6,900-6,000 BC) (Ellis *et al.* 1990). Additional details on each of these horizons and the temporal changes to tool types can be found in Ellis *et al.* (1990).

The Middle Archaic period (6,000-2,500 BC), like the Early Archaic, is relatively unknown in southern Ontario. Ellis *et al.* (1990) suggests that artifact traits that have come to be considered as characteristic of the Archaic period, first appear in the Middle Archaic. These traits include fully ground and polished stone tools, specific tool types including banner stones and net-sinkers, and the use of local and/or non-chert type materials for lithic tool manufacture (Ellis *et al.* 1990).



The Late Archaic begins around approximately 2,000 BC and ends with the introduction of ceramics and the Meadowood Phase at roughly 950 BC. Much more is known about this period than the Early and Middle Archaic and several Late Archaic sites are known. Sites appear to be more common than earlier periods, suggesting some degree of population increase. True cemeteries appear and have allowed for the analysis of band size, biological relationships, social organization, and health. Narrow and Small point traditions appear, as well as tool recycling wherein points were modified into drills, knives, end scrapers, and other tools (Ellis *et al.* 1990). Other tools include serrated flakes used for sawing or shredding, spokeshaves, and retouched flakes manufactured into perforators, graters, micro-perforators, or piercers. Tools on coarse-grained rocks such as sandstone and quartz become common and include hammerstones, net-sinkers, anvils, and cobble spalls. Depending on preservation, several Late Archaic sites include bone and/or antler artifacts, which likely represent fishing toolkits and ornamentation. These artifacts include bone harpoons, barbs, or hooks, notched Projectile points, and awls. Bone ornaments recovered have included tubular bone beads and drilled mammal canine pendants (Ellis *et al.* 1990).

Throughout the Early to Late Archaic periods the natural environment warmed, and vegetation changed from closed conifer-dominated vegetation cover to the mixed coniferous and deciduous forest in the north and deciduous vegetation in the south that we see in Ontario today (Ellis *et al.* 1990). During the Archaic period there are indications of increasing populations and a decrease in the size of territories exploited during annual rounds. Evidence indicates there were fewer moves of residential camps throughout the year and longer occupations at seasonal campsites, repeated use of certain locations on a seasonal basis over many years, increasing attention to ritual associated with the deceased, and long-range exchange and trade systems for the purpose of obtaining valued and geographically localized resources (Ellis *et al.* 1990).

### ***The Woodland Period***

The Early Woodland period is distinguished from the Late Archaic period primarily by the addition of ceramic technology, which provides a useful demarcation point for archaeologists but is expected to have made less difference in the lives of the Early Woodland peoples. The settlement and subsistence patterns of Early Woodland people shows much continuity with the earlier Archaic, with seasonal camps occupied to exploit specific natural resources (Spence *et al.* 1990). During the Middle Woodland, well-defined territories containing several key environmental zones were exploited over the yearly subsistence cycle. Large sites with structures and substantial middens appear in the Middle Woodland, associated with spring macro-band occupations focussed on utilizing fish resources and created by repeated use of the same site (Spence *et al.* 1990). Groups would come together into large macro-bands during the spring-summer at lakeshore or marshland areas to take advantage of spawning fish; in the fall inland sand plains and river valleys were occupied for deer and nut harvesting and groups split into smaller micro-bands for winter survival (Spence *et al.* 1990). This is a departure from earlier Woodland times when macro-band aggregation is thought to have taken place in the winter (Ellis *et al.* 1990).

The period between the Middle and Late Woodland periods was both technically and socially transitional for the ethnically diverse populations of southern Ontario and these developments laid the basis for the emergence of settled villages and agriculturally based lifestyles (Fox 1990). The Late Woodland period began with some groups shifting settlement and subsistence patterns, involving an increased reliance on corn horticulture. Corn may have been introduced into southwestern Ontario from the American Midwest as early as AD 600. However, it did not become a dietary staple until at least three to four hundred years later. The first agricultural villages in southwestern Ontario date to the AD 10th century. Unlike the riverine base camps of the Middle Woodland period, Late Woodland sites are in the uplands, on well-drained sandy soils.

In the Late Woodland period, between AD 900-1300, villages tended to be small settlements with nearby camps and hamlets that served as temporary spaces for hunting game and gathering resources outside of the villages. At this time, small village sites were characterized by the presence of longhouses with villages being occupied considerably longer than later in the Woodland period. Villages tended to be moved when nearby soils had been depleted by

farming and conveniently collected firewood grew scarce. The Jesuits reported that the Huron moved their villages once every 10-15 years, as they relied less heavily on corn than did later groups, and since their villages were much smaller, there was less demand on nearby resources. Small amounts of corn appear to have been a dietary component; however, archaeological evidence suggests that its role was not as a dietary staple at this time but was possibly supplemental in nature.

Between AD 1300 and 1400, village sizes grew significantly, resulting in the development of complex community political systems. This period also marks the emergence of fully developed horticulture, including the cultivation of corn, beans, and squash. Additionally, changes in ceramic styles may reflect increasing levels of inter-community communication and integration. This is supported by Michi Saagiig (Mississauga Anishinaabeg) oral histories, which speak to the coming of the corn growers and the symbiotic relationships that Algonkian speaking groups had with the Huron-Wendat in particular. By the beginning of the fourteenth century, larger fortified village sites were often cleared to accommodate the cultivation of corn, beans, and squash because of an increasing reliance on horticulture. Longhouses also continued to grow until AD 1450 when a decrease in house length is observed. This decrease in house length may be partially attributed to large scale drops in population size associated with the introduction of European diseases.

## 1.2.2 Post-Contact Period Settlement

The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of Iroquoian-speaking peoples, including the Six Nations of the Iroquois – Mohawk, Cayuga, Oneida, Seneca, Onondaga, and Tuscarora. This was followed by the return of Algonkian-speaking groups from northern Ontario, including the Michi Saagiig, who had temporarily retreated to their wintering grounds in the mid-1600s to avoid warfare and disease as a result of colonial settlement. Algonkian-speaking Ojibwe (Chippewa), Odawa (Ottawa), and Pottawatomi, known as the Three Fires Confederacy, remained in their traditional territory that covered a vast area of southern Ontario as well as eastern Michigan.

As European settlers encroached on their territory, the nature of Indigenous population distribution, settlement size, and material culture changed. Despite these changes, it is possible to correlate historically recorded villages with archaeological manifestations. The similarity of these sites to more ancient sites reveals an antiquity to documented cultural expressions that confirms a long historical continuity to systems of Indigenous ideology and thought (Ferris 2009).

It is important to note that, when discussing the historical documentation of the movement of Indigenous peoples, what has been documented by early European explorers and settlers represents only a very small snapshot in time. Documentation of where Indigenous groups were residing during European exploration and settlement is restricted to only a very short period and does not reflect previous and subsequent movements of these groups. This brief history does not reflect the full picture of the pre- or post-contact period occupations of Indigenous groups or cultures. As such, relying on historical documentation regarding Indigenous occupation and movement across the landscape can lead to misinterpretation. For example, noting the movement of Indigenous groups into an area may incorrectly suggest to the reader that these groups had not occupied the area previously; however, this is not the case. It is clear from Indigenous oral histories and the archaeological record that pre-contact Indigenous populations were extremely mobile and not tied to any one specific area. Over the vast period prior to the arrival of Europeans, Indigenous groups, language families, and cultures were fluid across the landscape.

When Europeans arrived at the site of present-day Toronto, they encountered the Seneca, who had established villages in the Toronto area in the second half of the 17<sup>th</sup> century. In 1805, William Claus, Deputy Superintendent of Indian Affairs on behalf of the British Crown, entered into negotiations with the Mississaugas of the Credit First Nation to surrender 35,000 acres (ac) of the Mississauga Tract at the head of Lake Ontario, known as the Head-of-the-Lake Purchase (Surtees 1994). This tract of land falls under Treaty No. 13A (ratified September 5, 1806, as Treaty 14) (**Figure 3**) and is described as occurring:

...at the River Credit at Lake Ontario, between William Claus, Esquire, Deputy Superintendent General and Deputy Inspector General of Indians and of their Affairs, for and in behalf of Our Sovereign Lord the King and the Principal Chiefs, Warriors and People of the Mississague [Mississauga] Nation of Indians...described as follows: Commencing at the eastern bank of the mouth of the River Etobicoke, being in the limit of the western boundary line of the Toronto Purchase, in the year 1787; then north 22 degrees west, six miles; thence south 38 degrees west, 26 miles more or less, until it intersects a line on the course north 45 degrees west. Produced from the outlet of Burlington Bay; then along the said produced line, one mile more or less to the lands granted to Captain Brant; then north 45 degrees east, one mile and a half, then south 45 degrees east, three miles and a half more or less to Lake Ontario; then north easterly along the waters edge of Lake Ontario to the eastern bank of the River Etobicoke being the place of the beginning together with all the woods and waters thereon

Morris 1943

After this purchase, the land was divided into the Townships of Toronto, Trafalgar, and Nelson and is known as the "Old Survey" (Clarkson 1977). During the American Revolutionary War, the region saw an influx of British settlers as United Empire Loyalists fled for the unsettled lands north of Lake Ontario. In 1787, the British had negotiated the Toronto Purchase with the Mississaugas of the Credit First Nation, thereby securing more than a quarter million ac (1000 squared kilometres) of land in the Toronto area (Morris 1943). As the result of an increasing demand for land by European immigrants, on October 28, 1818, William Claus introduced Treaty 19, otherwise known as the "Second Purchase", which involved the surrender of over 600,000 ac of land, including most of what is today, the Region of Peel. This vast area was surveyed and opened for settlement in 1819. Two additional treaties were also reached with the Mississaugas of the Credit First Nation on February 28, 1820. These included Treaties 22 and 23, which saw the surrender of much of the Credit Indian Reserve lands set aside in 1805. Collectively, these land surrenders are referred to as the "Credit Treaties" (Surtees 1994).

The Credit Mission, also known as the Credit Indian Village, was historically located within what is now the Mississauga Golf and Country Club property at municipal address 1725 Mississauga Road, Mississauga, Ontario, overlooking the Credit River. The mission was erected in 1826 under the direction of Mississauga Chief Peter Jones (Kahkewāquonāby) and the Chief Superintendent of Indian Affairs, Colonel James Givins (Smith 1986; Wilkinson n.d.). Peter Jones had originally conceived the idea for the mission following an 1825 meeting with the Honourable Dr. Strachan who suggested the Mississauga establish a village (FitzGibbon n.d.). The project was funded by the sale of lands within the Credit Indian Reserve (Treaties 22 or 23) and the village comprised 200 ac, 20-30 log houses and a sawmill erected by the government, and approximately 200 inhabitants. Later, a Methodist chapel and schoolhouse (taught by Ojibwa chief and schoolteacher John Jones, brother of Peter Jones, until 1830) were built in 1829, and Methodist minister Egerton Ryerson served as a missionary (Ontario Heritage Trust n.d.). A cemetery may also have existed, potentially on the banks of the Credit River, but has not yet been discovered; there are no marked graves on the surface. By 1837, at least 50 log houses had been built with a half ac of garden space each, and the mission comprised two public stores, two sawmills, one blacksmith's shop, one carpenter's shop and a hospital (FitzGibbon n.d.).

Owing to a number of factors, including increasing pressure to relocate from Euro-Canadian settlers to the area, religious tensions between the primarily Methodist mission and the increasingly Anglican province, and a number of infectious European diseases afflicting the villagers, the mission was relocated from the Credit River in May of 1847 to the Grand River Reserve, where land was donated for settlement by the Six Nations (Smith 1987). An earlier attempt in the 1830s by Lieutenant-Governor Francis Bond Head was made to move the mission to Manitoulin Island, but this was halted by Peter Jones following his meeting with Queen Victoria and Colonial Secretary Lord Glenelg in England, as the lands on Manitoulin Island were unsuitable for agriculture (Smith 1987). Though Peter Jones was successful in halting that relocation attempt, the villagers never actually received their rightful title deeds authorized by Queen Victoria. The mission structures eventually deteriorated and were removed, with the old meeting lodge and chiefs' residence last visible structure on the site; it was removed sometime in the 1950s (Wilkinson n.d.; FitzGibbon n.d.). In 1958, the golf course also rerouted Mississauga Road.

In 1986, the Mississaugas of the Credit First Nation submitted the Toronto Purchase Specific Claim based on the 1805 revisions to the original Toronto Purchase that led to the unlawful surrender of land covering most of present-

day Toronto. The Mississaugas of the Credit First Nation were able to successfully argue that the British Crown took more land than was indicated in the 1787 Purchase and had not indicated in the 1805 agreement that the revisions covered a much greater area than the original transaction. On October 8, 2010, the Canadian Government agreed to provide compensation to the Mississaugas of the New Credit First Nation for the land dispute in the amount of \$145,000,000 (Edwards 2010).

### **1.2.3 19<sup>th</sup> Century Municipal Settlement**

#### ***Former Peel County and the Township of Toronto***

Peel County was created by an act of Parliament in 1867. Prior to this, it was part of the Nassau or Home District, which was created in 1788 after the creation of Lower and Upper Canada (Miles & Company 1877; Riendeau 2002) and originally surveyed by Deputy Surveyor Samuel Wilmot. It was comprised of the Townships of Toronto, Toronto Gore, Chinguacousy, Caledon, and Albion. By 1819 the greater part of the county had been settled, with the first settlers coming from New Brunswick, the United States following the American Revolution, and other parts of Upper Canada. The population in 1809 was recorded at 185. These early settlers were mostly in the “old survey” of Toronto Township. Peel had a total population of 1,425 by 1821.

In 1806, Wilmot completed the original survey of the Township of Toronto (Miles & Company 1877; Riendeau 2002); prior to this, the township formed a locally unincorporated part of York County. Initial settlement in the Township of Toronto was along Dundas Street, first conceptualized by Lieutenant-Governor John Graves Simcoe in the late 16<sup>th</sup> century as a military road. Dundas Street was constructed as a colonial road built by the Queens Rangers and was completed from the western end of Lake Ontario east to York by 1796. The road was constructed following a trail first established and utilized by Indigenous peoples in southern Ontario and at one time was the only major east-west roadway through the province, penetrating the dense forests of the Township of Toronto (Clarkson 1977; Riendeau 2002). Already a surveyed road at the time of the township survey, Dundas Street was also used as a proof line to survey the Township. Lots and concessions were named according to their north or south orientation from Dundas Street.

In the early 1800s, the Napoleonic Wars had slowed immigration and settlement in the Township of Toronto and by 1809, only 175 individuals are listed in the Township Census Record (Miles & Company 1877). Settlement of the Township continued along the Credit and Etobicoke Rivers and numerous mills were constructed along these waterways. Cooksville was also an important stagecoach stop along the newly constructed Dundas Street; it was originally named Harrisville after its first settler, Daniel Harris, a United States immigrant, in 1800. Harris first established his household at the southeast corner of Dundas Street and the former Centre Road (Huron Road) before selling his land; by 1830 the intersection was subdivided into village lots and shortly thereafter became known as Cooksville, where much of the early growth that occurred in the Mississauga area was based (Heritage Mississauga 2016). A fire destroyed much of Cooksville in 1852, slowing its growth as a commercial shipping hub until the 1870s. The Township became part of Peel County in 1851 and was a municipality until 1967, having been previously incorporated in 1873. The City of Mississauga was incorporated in 1974 with the amalgamation of the Town of Mississauga and the Villages of Port Credit and Streetsville, as well as portions of the Townships of Toronto Gore and Trafalgar (Heritage Mississauga 2016).

#### ***Development of the Road and Railways within the Township of Toronto***

The Credit Valley Railway was constructed between 1877 and 1879 and was originally intended to connect Toronto with Orangeville. The first section of track ran from Parkdale to Milton and was opened in 1877. Several branches were added to the line, and in 1883, the line was taken over by the Canadian Pacific Railway (Riendeau 2002; Heritage Mississauga 2016), which is still in operation today. The Great Western Railway Company began construction in 1847 with the first line connecting Hamilton to Niagara and Windsor. In 1855, the railway was

expanded to Toronto. In 1882, the Great Western Railway was taken over by the Grand Trunk Railway. Today, this line is used by the Canadian National Railway and is primarily used by the Toronto Transit Commission and GO transit (Heritage Mississauga 2016). Finally, the Grand Trunk Railway Company of Canada was incorporated by the Canadian government in 1852 and was to connect Toronto to Montreal. This was achieved through the purchase of five existing railways. One of these lines was redirected from its original route and extended to Sarnia. By 1856, the Grand Trunk Railway line had been built from Montreal to Sarnia via Toronto (Middleton and Landon 1927). For a short time, the former Toronto and Suburban Railway also passed through and along Dundas Street. Founded in 1894, the Toronto and Suburban Railway was an electric railway formed by the merging of the City and Suburban Electric Railway Company and the Davenport Street Railway Company. It was later absorbed by the Canadian National Railway in 1918 and then transferred to the Canadian National Electric Railway, a subsidiary of the Canadian National Railway. The line through Dundas Street was abandoned in 1931 and the track was removed during World War II.

Major roads running through the Township of Toronto include Mavis Road, Dundas Street, and Hurontario Street. Dundas Street was completed to the Humber River by 1796, before the townships had been surveyed, so that it served as a baseline for concessions south of Dundas Street and north of Dundas Street in Nelson, Trafalgar, and Toronto South Townships. Early land grants on the lake frontage of the new townships were issued to retired officers and soldiers (Middleton and Landon 1927). Also known as The Governor's Road, after Lieutenant-Governor Simcoe, Dundas Street was only partially opened until the early 19<sup>th</sup> century, and takes its name from Henry Dundas, a British secretary of state. Early settlement originally clustered around Dundas Street, and the road was used for military purposes to connect transportation around the Great Lakes.

Many of the major arterial roads in the City of Mississauga follow the original survey pattern laid out during the Crown survey for the Township of Toronto. Several of the north-south oriented roads that cross over Dundas Street including Mavis Road, Hurontario Street, and Cawthra Road were laid out as a result of Samuel Wilmot's original survey. However, Dundas Street was laid out prior to the survey and has been identified as the province's first east-west arterial road. In the 1920s, much of Dundas Street became a part of the Ministry of Transportation Highway 5 that ran from Cooksville to Hamilton and Port Dover, designated as a provincial highway. By the 1990s most of Highway 5 was transferred out of provincial control as a result of downgrading and has since become the responsibility of a series of municipalities (Riendeau 2002; Heritage Mississauga 2016).

#### 1.2.4 Historical Mapping Review

Tremaine's 1859 *Map of the County of Peel* (**Figure 4**) and the 1877 *Illustrated Historical Atlas of the County of Peel, Ont.* (**Figure 5**) were both reviewed to identify the presence of any historical features within and directly adjacent to the Study Areas during the 19<sup>th</sup> century settlement of the township, as the presence of historical features elevates the potential for the recovery of 19<sup>th</sup> century archaeological resources. It should be noted, however, that not all features of interest, particularly farmhouses and smaller homesteads, were mapped systematically as this would have been beyond the intended scope of the Ontario historical atlas series. In addition, given that atlases were funded by subscription, preference with regard to the level of detail included was given to subscribers. As such, the absence of structures or other features on historical atlas maps does not preclude the presence of historical features at the time the area was surveyed. **Study Area 1** is located within what is historically known as Part of Lot 11, Range 1 North of Dundas Street, and Lot 21, Concession 1 North of Dundas Street. **Study Area 2** is located within Part of Lots 4 and 5, Range 3 Credit River Indian Reserve. **Table 2** details the 1859 and 1877 landowners within or adjacent to the Study Areas' boundaries and any historical features depicted.

By 1859, very little development is visible within Lot 11, Range 1 North of Dundas Street, and Lot 21, Concession 1 North of Dundas Street; several landowners are listed within each lot, but no structures are visible. One small watercourse is visible within Lot 11. The Cooksville settlement core is visible to the northeast of **Study Area 1**, and the Credit River is visible to the south, with Dundas Street and a number of other roadways shown as open by this

time. Similarly, no structures are located within Lots 4 and 5, Range 3 Credit River Indian Reserve; the majority landowner of both lots is R. & J. Cotton, with the Credit River and several tributaries depicted within and adjacent to the lots. The Port Credit settlement core is located to the southeast, in addition to Lake Ontario. By 1877, both Lots 11 and 21 have changed landowners, and each contains at least one structure and orchard. The Credit Valley Railway line is also visible within Lot 21. Lots 4 and 5, Range 3 Credit River Indian Reserve remain relatively unchanged; no structures are visible, but there have been some changes in landowners, as indicated below.

**Table 2: 1859 and 1877 Landowners and Historical Features Located Within and Directly Adjacent to the Study Areas**

Lot	Concession	1859	1877
11	Range 1 North of Dundas Street	Daniels (watercourse)	William Wilcox (1 structure, 1 orchard, watercourse)
21	1 North of Dundas Street	John Wolfe (north 1/4) George Beckwith (centre 1/4) D.H. Messenger (south 1/2)	George Wolfe (north 1/4, 1 structure) Samuel Wolfe (centre 1/4) Samuel Ross (south 1/2, 1 structure, 1 orchard, Credit Valley Railway line)
4	Range 3 Credit River Indian Reserve	R. & J. Cotton (watercourse and Credit River)	William Collins (northeast 1/2, watercourse) J. Collins (southeast corner, watercourse) Peel Manufacturing Co. (southwest 1/2, watercourse)
5	Range 3 Credit River Indian Reserve	John Ezard (northwest corner) R. & J. Cotton (watercourse and Credit River)	R. Cotton (northeast 1/4) Peel Manufacturing Co. (watercourse and Credit River)

In addition to the historical mapping, a 1954 City of Mississauga aerial image (**Figure 6**) and a number of construction plans dating from the 1960s through 2000, which included **Study Area 1 (Figures 6-12)**, were reviewed as part of the Stage 1 background study; no construction plans were available for **Study Area 2**. By 1954, some urban development has taken place adjacent to **Study Area 1**; however, the majority of the area still appears to be situated within an agricultural context. **Study Area 2** demonstrates little development; it is situated within primarily a natural wooded context.

Construction plan C08719 (**Figure 7**) relates to proposed improvements to the creek alignment and existing channel during the 1960s. The plan shows the existing creek alignment, proposed channelization, and limits of disturbance north of, and just south of, the Canadian Pacific Railway in roughly the middle of **Study Area 1**. The inset (Key Plan) in the drawing shows the approximate location of the proposed improvements. This drawing connects to Plan C08720 to the north and Plan C09738 to the south. Construction plan **C08720 (Figure 8)** connects to Plan C08719. It shows the existing channelized creek from the drawing match line north to Burnhamthorpe Road. The plan also shows the proposed channelization of an outflow west of the main channel towards Wolfedale Road. Construction plan C09738 (**Figure 9**) connects to Plan C08719. It shows the existing channelized creek from the drawing match line south toward Highway 5, or Dundas Street West. The plan shows the existing creek alignment, proposed channelization, and limits of disturbance south of the Canadian Pacific Railway.

Construction plan C21120 (**Figure 10**) shows the location of proposed improvements conducted in the 1980s for the extension of the existing box culvert north of Central Parkway West, located roughly in the middle of **Study Area 1**. It also shows the existing channel and the culvert to the south of the roadway as of this date. Construction plan

C31468 (**Figure 11**) is a plan from 1994 for proposed rehabilitation to Wolfedale Creek. The plan shows the existing creek alignment as of this date, the proposed improvements, and limits of disturbance. This plan also shows the CPR railway spur had been constructed by this time; the spur line does not show up in the earlier plans (C08719). A note in the plan indicates that the proposed works are to match grades at the limits of the City of Mississauga's drainage easement, indicating that extensive soil movement and disturbance was conducted at part of the rehabilitation work.

Finally, construction plan C36912 (**Figure 12**) dates to 2000 and shows proposed improvements to the existing creek channel north of Dundas Street West in the southern limit of **Study Area 1**. The plan shows the proposed location for the replacement of the existing storm sewer and concrete retaining walls; it also shows the limits grading for the proposed works.

Ultimately, **Study Area 1** demonstrates considerable disturbance from the 1960s to present, mainly related to the channelization of Wolfedale Creek and subsequent rehabilitation and improvement efforts, as well as Central Parkway West and the Canadian Pacific Railway and spur line.

## 1.2.5 Cultural Heritage Resources

A review of the *Conserving Heritage Landscapes Cultural Heritage Landscape Project – Volume 3 Cultural Landscape Inventory* (ASI 2022) identified one Cultural Heritage Landscape (CHL), which is situated within both Study Areas; this is the Credit River Corridor Cultural Landscape. Additionally, a review of the City of Mississauga Municipal Heritage Register identified one property listed, but not designated; this is the Mississaugua Golf and Country Club property at municipal address 1725 Mississauga Road; it is located south of the **Study Area 2** boundaries (City of Mississauga n.d.). No other cultural heritage resources were identified within or within close proximity, and no registered cemeteries were identified within or adjacent to either Study Area. The presence of cultural heritage resources, including built heritage resources and cultural heritage landscapes, elevates potential for the presence of 19<sup>th</sup> century archaeological resources within the Study Areas' boundaries.

The Credit River Corridor Cultural Landscape boundaries include the Credit River from Port Credit to the northern boundary of Mississauga; the landscape is a greenspace core, and its topography varies from sharply sloping valley walls to wide floodplains (ASI 2022). It was previously identified in the 2005 Cultural Landscape Inventory for its landscape environment, historical associations, historical or archaeological interest, outstanding features or interest, and significant ecological interest.

Founded by the Old Highlands Golf Club in 1905, the Mississaugua Golf and Country Club property includes a Tudor Revival clubhouse built in 1912, an 18-hole championship golf course, curling facilities with six sheets, pro shop and lounge, tennis courts, fitness centre, and an active bridge club. Additional detail with regard to this property can be found in AECOM's forthcoming Heritage Impact Assessment (HIA) for the property (AECOM *forthcoming*), also to be completed as part of the Project.

Finally, south of the **Study Area 2** boundaries on the east side of Mississauga Road just north of the Queen Elizabeth Way, and beside Mississaugua Golf and Country Club entrance, exists an Ontario Heritage Trust plaque dedicated to the Credit Mission (Credit Indian Village), which is discussed in detail above in **Section 1.1.2**. The plaque reads as follows:

In 1826 the government assisted a band of Mississauga, who had recently been converted to Christianity, to settle in this vicinity, and within five years laid out a village plot and constructed log cottages and a sawmill. Methodist missionaries, notably Peter Jones and Egerton Ryerson, ministered to the converts who in 1829 built a combined schoolhouse and chapel. By 1837 about 50 houses had been erected for the Indians. Three years later they had approximately 200 ha under cultivation. Pressure from local white settlement and a decline in the Indian population led to the closing of the mission and the return of the major portion of the Mississauga to the Grand River Reserve in 1847.

Ontario Heritage Trust n.d.

## 1.3 Archaeological Context

### 1.3.1 Natural Environment

The modern physiography of Southern Ontario is largely a product of events of the last major glacial stage, the Wisconsinan and Late Wisconsinan time (ca. 25,000-10,000 BC). The landscape of Peel County is made up of a complex arrangement of features and deposits produced during the last series of glacial advances and retreats by the Simcoe Lobe and Ontario Lobe of the North American Laurentide ice sheets prior to the withdrawal of the glacier from Southern Ontario (Ellis and Ferris 1990). Those features and deposits that were formed by glacial action are represented by till plains, end moraines, and drumlins.

By 12,500 years ago, closed black and white spruce forests were well-established in southern Ontario and provided residence for many migratory animals such as caribou and deer (Ellis and Ferris 1990; Karrow and Warner 1990). By 9,000 years ago, white pine and deciduous trees dominated the forest cover, and the Toronto area was located within predominantly deciduous forest, an ecological zone described as having the most diverse forest life in Ontario. A number of species of mammals, birds, plants, and insects resided in the deciduous forest ecosystem. In pre-contact times, these dense forests would have been particularly bountiful. It is believed that the Indigenous people of the Great Lakes region relied on nearly 500 plant and animal species, since this diverse vegetation would have served as both home and food for a wide range of game animals, including white-tailed deer, wild turkey, pigeon, cottontail rabbit, elk, muskrat, and beaver. Today, relatively little of the forest cover remains standing as a result of forest clearing by early Euro-Canadian agriculturalists and the present day urban and industrial expansion (MNR 2011).

The Study Areas are located within the Lake Iroquois Plain physiographic region; the Lake Iroquois Plain was created approximately 12,500 years ago along the shores of glacial Lake Iroquois and forms the southern boundary of the South Slope, cutting across the Highland Creek watershed. When the last glacier was receding, the lowlands bordering Lake Ontario were inundated by a vast body of water known as Lake Iroquois. As a result, the old shorelines, cliffs, bars, beaches, and boulder pavements are easily identifiable. The surrounding undulating till plains stand in stark contrast to the smooth lake bottom (Chapman and Putnam 1984). The Iroquois Plain extends from the Niagara River to the Trent River around the western part of Lake Ontario, for a total distance of 305 km. As soil conditions in the plain vary greatly, it is divided into several sub-sections (Chapman and Putnam 1984). Soils in this region are comprised largely of permeable lacustrine sandy soils and clay that are well drained, allowing the ground discharge of water to surrounding creeks and rivers. Based on the strength of its shorecliffs and beaches, Lake Iroquois was much longer-lived than any of the earlier glacial lakes. The lake was essentially an enlargement of present-day Lake Ontario, which was formed as a result of the glacial blockage of the St. Lawrence River.

The single most important environmental feature necessary for extended human occupation is potable water. As such, proximity to water is regarded as a useful index for the determination of potential for the presence of archaeological resources. Portions of Stavebank Creek, Wolfedale Creek, and the Credit River are all located within and/or adjacent to **Study Area 2** and within proximity to **Study Area 1**; Lake Ontario is also located further to the southeast of the Study Areas. The Credit River Marshes Wetland Complex (Provincially Significant Wetlands) is also partially located within the **Study Area 2** boundaries.

Given the overall drainage of the area, and the proximity to the above water sources, these environmental characteristics would have provided an ideal environment for both temporary and permanent settlement throughout the pre-and post-contact periods. The water sources would have served as important pre- and post-contact transportation routes, as well as sources of potable water and riverine resources. During the 19<sup>th</sup> and 20<sup>th</sup> centuries, rapid deforestation resulted in significant land clearance and over time, the once diverse forest life and wide range of tree species and natural resources would have also been depleted, as agricultural and modern residential and commercial development continued. Over the course of the 19<sup>th</sup> century, the Study Areas and their surroundings would have been made up of agricultural land just outside of the rapidly expanding municipality along historically



surveyed road allowances. As a result of continuing development, this portion of southern Ontario is almost completely deforested today.

### 1.3.2 Previous Archaeological Work

To inform the current Stage 1 archaeological assessment and further establish the archaeological context of both Study Areas, a search of the ASDB was conducted by AECOM to determine if any previous archeological work has been completed within the Study Areas or within 50 m of their boundaries. Only one previous assessment, a preliminary salvage assessment, was located as part of this search and is detailed below.

In 1980, immediate salvage operations were conducted following the identification of an archaeological site, registered in 1981 by Annie Gould as the Maracle site (AjGv-27), during topsoil removal activities conducted by a bulldozer as part of a stream diversion project on the Mississaugua Golf and Country Club property. Scattered human remains and cultural material were noticed by a local resident and following the appropriate notifications, salvage operations were determined to be necessary at the site. The site, measuring approximately 0.3 hectares, had been partially disturbed by the bulldozer activities; the topsoil had been removed but excepting one deeper cut along the northern edge of disturbance, and the gravel layer underneath was not extensively disturbed. A total of 354 pieces of cultural material were recovered from the site, which included primarily pre-contact lithic Indigenous artifacts that could be dated to the Woodland-period Princess Point Complex of Southwestern Ontario (A.D. 600-800). The human remains consisted of two individuals: an adult male and an infant. The investigation determined that the adult male represented an intact burial, however, disturbed by the bulldozer activities, that was intrusive to the Princess Point component. Based on the associated grave goods recovered from the intact burial, it was determined that the burial dated to approximately 1760-1820. The infant remains consisted of a single maxilla (jawbone) and was an isolated surface find; as such, it was unclear if the infant remains were associated with the intact burial, or if they related to the earlier Princess Point component. Both individuals are believed to be of Mississauga ancestry. Additional detail with regard to the burial can be found in the burial report completed as part of the preliminary assessment report (O'Brien 1981). The Maracle site (AjGv-27) is located roughly 65 m southwest of the Study Area 2 boundaries. It should be noted that neither the preliminary assessment report, nor the ASDB provides recommendations for the site.

To the best of our knowledge, there are no other reports concerning archaeological work conducted within or in close proximity (i.e., within 50 m) of the Study Areas; however, it should be noted that the MCM does not maintain a database of all properties that have had past archaeological investigations and searches of the MCM's public register do not always result in a complete listing of all archaeological work conducted in a given area. In consequence, in some cases the only way a consulting archaeologist will know that a past assessment has been conducted in a given area is if they have personal knowledge of it, or if the assessment resulted in the discovery and registration of one or more archaeological sites.

### 1.3.3 Registered Archaeological Sites

In Ontario, information concerning archaeological sites is stored in the ASDB maintained by the MCM. This database contains archaeological registered sites within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on longitude and latitude. AECOM conducted a data search of the ASDB to determine if any registered archaeological sites are located within 1 km of the Study Areas. This search resulted in the identification of 11 registered archaeological sites. The sites are listed below in **Table 3**. Two sites are located within 300 m of the **Study Area 2** boundaries; one is the Maracle site (AjGv-27), and the other is the Hogsback site (AjGv-3).

**Table 3: Registered Archaeological Sites Within and Within 1 km of the Study Areas**

Borden #	Site Name	Cultural Affiliation	Site Type	Development Status
AjGv-3	Hogsback	Pre-Contact Indigenous (Archaic, Woodland), 19 <sup>th</sup> century Euro-Canadian	Camp/campsite/Scatter	Further CHVI
AjGv-4	Stillmeadow	Pre-Contact Indigenous (Middle Woodland)	Habitation	Further CHVI
AjGv-14	Mississauga Indian Village	Post-Contact Indigenous	Village	No Status Listed
AjGv-15	River Flat	Pre-Contact Indigenous (Late Archaic)	Camp/campsite	No Status Listed
AjGv-17	Nunan	Pre-Contact Indigenous	Not Provided	No Status Listed
AjGv-27	Maracle	Pre-Contact Indigenous (Woodland)	Camp/campsite	No Status Listed
AjGv-63	Collins	Euro-Canadian	Midden	Further CHVI
AjGv-70	-	Post-Contact Euro-Canadian	Church/Chapel	Further CHVI
AjGv-73	-	Pre-Contact Indigenous (Middle Woodland)	Scatter	No Status Listed
AjGv-74	Stavebank Roal	Pre-Contact Indigenous (Late Archaic, Middle Woodland)	Camp/campsite	Further CHVI
AjGv-75	-	Pre-Contact Indigenous	Scatter	No Status Listed

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (FIPPA). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MCM will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

### 1.3.4 Existing Conditions

The Study Areas are located in the central portion of the City of Mississauga, south of Highway 403, north of Queen Elizabeth Way, west of Hurontario Street, and east of the Credit River. The area surrounding the two Study Areas consists of an urban environment that is mostly developed and characterized by industrial, commercial, and residential developments. As the exception, the majority of **Study Area 2** is comprised of relatively undisturbed woodlot surrounded by residential development on three sides and the Mississauga Golf and Country Club lands to the southwest. Additionally, the CPR railway crosses the channelized Wolfedale creek between Central Parkway West and Dundas Street West within **Study Area 1**.

More specifically, as described in the RFP, the portion of Wolfedale Creek within the Study Areas originates at a storm sewer outlet south of Burnhamthorpe Road West and transitions into an open engineered channel which flows south until Dundas Street West where it is conveyed into a storm sewer. A short side tributary of the creek located between 3577 and 3599 Wolfedale Road joins the main branch near the upstream end of the creek. Wolfedale Creek reappears south of Stavebank Road at Sir Richards Road and outlets into the Credit River. The study reach consists

of a channelized creek with materials that include gabion baskets (stacked and single layered), rock rip-rap, concrete drop structures and armourstones. Majority of the channel was originally constructed approximately 40 to 50 years ago with rehabilitation completed over the years for certain segments.

## 2. Property Inspection

To assist in the evaluation of archaeological potential for the lands included as part of the Project, an optional property inspection was conducted by field supervisor Gregory Braun, PhD (P176), under PIF P316-0532-2023 issued to Professional Archaeologist Sherri Pearce, MA (P316) of AECOM. Both Study Areas were photo-documented from publicly accessible lands as permission to enter was not pursued. The ability to assess potential for archaeological resources was not impacted at any time.

The weather on July 28, 2023, was described as sunny, with a high of 26° Celsius. Weather conditions during the property inspection were ideal and at no time were conditions detrimental to the evaluation of archaeological potential. The property inspection was conducted to meet the requirements of Section 1.2 of *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011) and, in accordance with Section 1.2, s.1. of the above, the entirety of both Study Areas and periphery were subject to systematic inspection to identify the presence or absence of any features of archaeological potential.

Photographs were taken of the visible landscape features described below (**Images 1-10, Sections 7.1 and 7.2**). Photograph locations and directions, as well as the results of the Stage 1 property inspection, are provided within **Figure 13** of this report. To meet the requirements of Section 1.2, s. 4, attempts were made to document any additional features of archaeological potential not visible on the mapping. **Table 4** provides a listing of the documentary records generated by the Stage 1 assessment and indicates the location of each document type.

**Table 4: Inventory of Documentary Records**

Document Type	Quantity	Location	Additional Comments
Field Notes	~ 1 page	AECOM London Office	In original field folder and stored digitally in Project file
Site Maps	1	AECOM London Office	In original field folder and stored digitally in Project file
Proponent Maps	1	AECOM London Office	Hard copy and digital copy in Project file
Digital Photographs	65	AECOM London Office	Stored digitally in Project file

### 2.1 Study Area 1

The property inspection observed that the majority of the Study Area abutting the channelized segments of Wolfedale Creek from Burnhamthorpe Road West to Dundas Street West included industrial structures and paved parking lots. The Study Area is also bisected by Central Parkway West and the Canadian Pacific Railway and spur line. These built structures and parking lots, in addition to some gravel parking lots and pathways, no longer retain archaeological potential due to extensive disturbance as part of previous construction activities. A number of steeply sloped areas leading to the channelized creek were also identified within **Study Area 1**, in addition to graded artificial terraces and a culvert. Based on the construction plans from the 1960s to present, as described in **Section 1.1.4**, relating to the channelization of Wolfedale Creek and subsequent rehabilitation and improvement efforts, these would indicate that this segment of Wolfedale Creek is engineered and completely artificial; as such, due to the past extensive disturbance as part of the channelization of Wolfedale Creek within **Study Area 1**, this area does not retain archaeological potential (**Figure 13**).

### 2.2 Study Area 2

The property inspection observed that the majority of **Study Area 2** consisted of natural woodlot areas, areas of steep slope, and floodplain. The Study Area also contains some residential properties located off of Sir Richards

Road. Areas of steep slope, some of which were adjacent to the floodplain, were identified and do not retain archaeological potential. However, areas of woodlot and floodplain areas were identified and found to retain archaeological potential; these areas within **Study Area 2** should be subject to Stage 2 archaeological assessment by the test pit method (**Figure 13**).

## 3. Analysis and Conclusions

### 3.1 Determination of Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Criteria commonly used by the MCM to determine areas of archaeological potential are listed in Section 1.3.1 of *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011). Distance to modern or ancient water sources is generally accepted as the most important element for past human settlement patterns and when considered alone may result in a determination of archaeological potential. In addition, any combination of two or more of the listed criteria indicates archaeological potential.

Based on a review of the historical, environmental, and archaeological context of the Study Areas, it has been determined that potential for the recovery of pre- and post-contact Indigenous and 19<sup>th</sup> century Euro-Canadian archaeological resources within **Study Area 2** is high based on the presence of the following features:

- Proximity to two registered archaeological sites located within 300 m of the **Study Area 2** boundaries: the Maracle site (AjGv-27); and the Hogsback site (AjGv-3);
- Distance to various types of water sources (Stavebank Creek, Wolfedale Creek, Credit River, Lake Ontario, and Credit River Marshes Wetland Complex);
- Soil texture and drainage (Iroquois Plain physiographic region);
- Areas of early Euro-Canadian settlement within historical Peel County (Township of Toronto, proximity to Cooksville) and early transportation routes (Governor's Road/Dundas Street, former Credit Valley Railway); and,
- Heritage properties listed within the City of Mississauga's Municipal Register (Mississauga Golf and Country Club property, municipal address 1725 Mississauga Road).

Certain features indicate that archaeological potential has been removed, such as land that has been subject to extensive and intensive deep land alterations that have severely damaged the integrity of any archaeological resources. This includes landscaping that involves grading below the topsoil level, building footprints, quarrying and sewage and infrastructure development such as constructed roadways and buildings (Ontario Government 2011). Typically, the ROW can be divided into two areas: the disturbed ROW and ROW land beyond the disturbed ROW. Disturbed ROW extends outwards from either side of the centreline of the traveled lanes; it includes the traveled lands and shoulders and extends to the toe of the fill slope, the top of the cut slope, or the outside edge of the drainage ditch, whichever is furthest from the centreline. Subsurface disturbance within these lands may be considered extreme thereby negating any archaeological potential. ROW construction disturbance may be found to extend beyond the typical disturbed ROW area, generally including additional grading, cutting, and filling, additional drainage ditching, watercourse alteration or channelization, servicing, removals, intensive landscaping, and heavy construction traffic.

Based on the background research conducted by AECOM, including the review of historical mapping, 1954 aerial imagery, previous construction plans (1960s-2000), and professional judgement, it has been determined that **Study Area 1** has been extensively disturbed by previous construction activities, mainly related to the channelization of Wolfedale Creek and subsequent rehabilitation and improvement efforts, as well as Central Parkway West and the Canadian Pacific Railway and spur line. As such, archaeological potential has been removed for the entirety of **Study Area 1**.

### 3.1.1 Potential for the Recovery of Pre-Contact and Contact Period Indigenous Resources and Historical 19<sup>th</sup> Century Settler Resources

The potential for the recovery of pre-contact and contact period Indigenous archaeological resources is determined to be high based on **Study Area 2**'s proximity to Stavebank Creek, Wolfedale Creek, and the Credit River; these are all important thoroughfares and sources of riverine resources and potable water. **Study Area 2** possesses a number of environmental characteristics that would have made this area attractive to pre-contact Indigenous populations, including the once diverse forest life and well-drained, cultivable soils. Additionally, the historical documentary evidence of the first European settlers and surveyors to the area indicates a long history of occupation here by Indigenous peoples, including at the Credit Mission, also known as the Credit Indian Village, which was historically located on what is now the Mississaugua Golf and Country Club property. Finally, the presence of two registered archaeological sites, the Maracle site (AjGv-27) and the Hogsback site (AjGv-3), located within 300 m of the **Study Area 2** boundaries also significantly elevates archaeological potential.

The potential for the recovery of historical 19<sup>th</sup> century Euro-Canadian archaeological resources is also judged to be high based on the comprehensive and extensive early Euro-Canadian settlement of Peel County, and the Township of Toronto, as described in detail in **Section 1.1.3**. The Mississaugua Golf and Country Club, adjacent **Study Area 2**, is also listed in the City of Mississauga's Municipal Heritage register and dates to 1905.

### 3.1.2 Conclusions

AECOM's Stage 1 background study and property inspection for the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River has determined that the potential for the recovery of pre- and post-contact Indigenous and 19<sup>th</sup> century Euro-Canadian archaeological resources within portions of **Study Area 2** are high; archaeological potential within **Study Area 1** has been completely removed. Areas where archaeological potential has been removed include areas determined to have been subject to extensive land alterations that have significantly compromised the recovery of archaeological materials, including constructed roadways, buried infrastructure, parking lots, active construction, building footprints, not to mention the engineered construction of the segment of Wolfedale Creek within **Study Area 1**. Based on the results of the background research and property inspection, Stage 2 archaeological assessment is recommended for all areas identified as retaining archaeological potential.

## 4. Recommendations

AECOM's Stage 1 background study and property inspection for the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River has determined that the potential for the recovery of pre- and post-contact Indigenous and 19<sup>th</sup> century Euro-Canadian archaeological resources within portions of **Study Area 2** is high. **Based on these findings, Stage 2 archaeological assessment is recommended for all areas of potentially undisturbed land within the Study Area 2 limits addressed within the scope of this report (Figure 13).** The Stage 2 archaeological assessment must be conducted by a licensed archaeologist and must follow the requirements set out in *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011), including the standard test pit survey method at 5 m intervals to be conducted in all areas that will be impacted where ploughing is not feasible (e.g., woodlots, overgrown areas, manicured lawns). In addition to the above, it is also recommended that a marine archaeology checklist be completed, which may result in the recommendation that a marine archaeological assessment be undertaken.

Those areas cleared of archaeological concern and/or determined to have been subject to previous disturbance as part of AECOM's property inspection and background research, including the entirety of **Study Area 1**, are also illustrated within **Figure 13**; no further work is recommended within these areas.

Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment as part of the City of Mississauga Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 archaeological assessment report should be made available to the Indigenous Nations for review prior to submission of the report to the MCM.

The MCM is asked to accept this report into the Ontario Public Register of Archaeological Reports thereby concurring with the recommendations presented herein. **As further archaeological assessment is required, archaeological concerns for the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River, Part of Lot 11, Range 1 North of Dundas Street, Lot 21, Concession 1 North of Dundas Street, and Lots 4 and 5, Range 3 Credit River Indian Reserve, Geographic Township of Toronto, Former Peel County, Now the City of Mississauga, Regional Municipality of Peel, Ontario, have not been fully addressed.**

Please note that this archaeological assessment report has been written to meet the requirements of the MCM's *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011); however, properties that are subject to archaeological assessment are not considered cleared for ground disturbance activities until the associated report has been reviewed and accepted by the MCM. In order to maintain compliance with the MCM and the *Ontario Heritage Act* (Ontario Government 1990b), no ground disturbing activities are to occur until the proponent and approval authority receive a formal letter from the MCM stating that the recommendations provided herein are compliant and that the report has been accepted into the MCM's register of archaeological reports.



## 5. Advice on Compliance with Legislation

This report is submitted to the Ontario Ministry of Citizenship and Multiculturalism 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 Standards and Guidelines that are issued by the Ministry, 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 Citizenship and Multiculturalism, 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 fieldwork on the site, submitted a report to the Ministry stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology 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*.

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 license.

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 Ontario Ministry of Government and Consumer Services.

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## 7. Images

### 7.1 Study Area 1 Property Inspection (July 28, 2023)



**Image 1: Built up commercial/industrial structure and paved parking lot; no archaeological potential; image facing northeast**



**Image 2: Paved parking lot; no archaeological potential; image facing northwest**



**Image 3: Paved and gravel pathway and industrial area; no archaeological potential; image facing west**



**Image 4: Paved and gravel parking lot; no archaeological potential; image facing northeast**



**Image 5: Steep slope and concrete retaining wall; no archaeological potential; image facing east**



**Image 6: Graded artificial terrace and steep slope; no archaeological potential; image facing west**



**Image 7: Creek and culvert; no archaeological potential; image facing northwest**

## 7.2 Study Area 2 Property Inspection (July 28, 2023)



**Image 8: Steep slope; no archaeological potential; image facing east**



**Image 9: Steep slope leading to floodplain; no archaeological potential; image facing south**

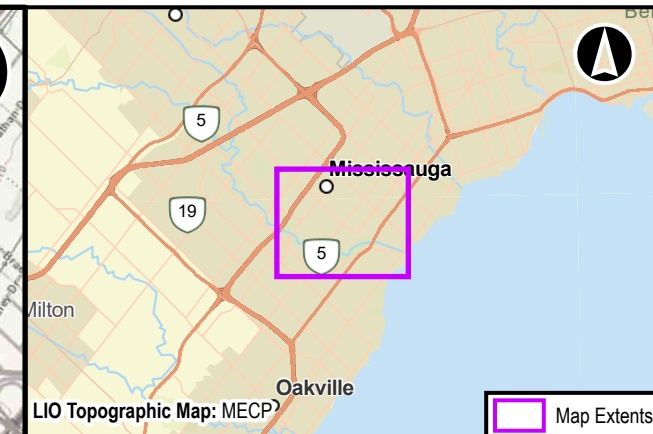
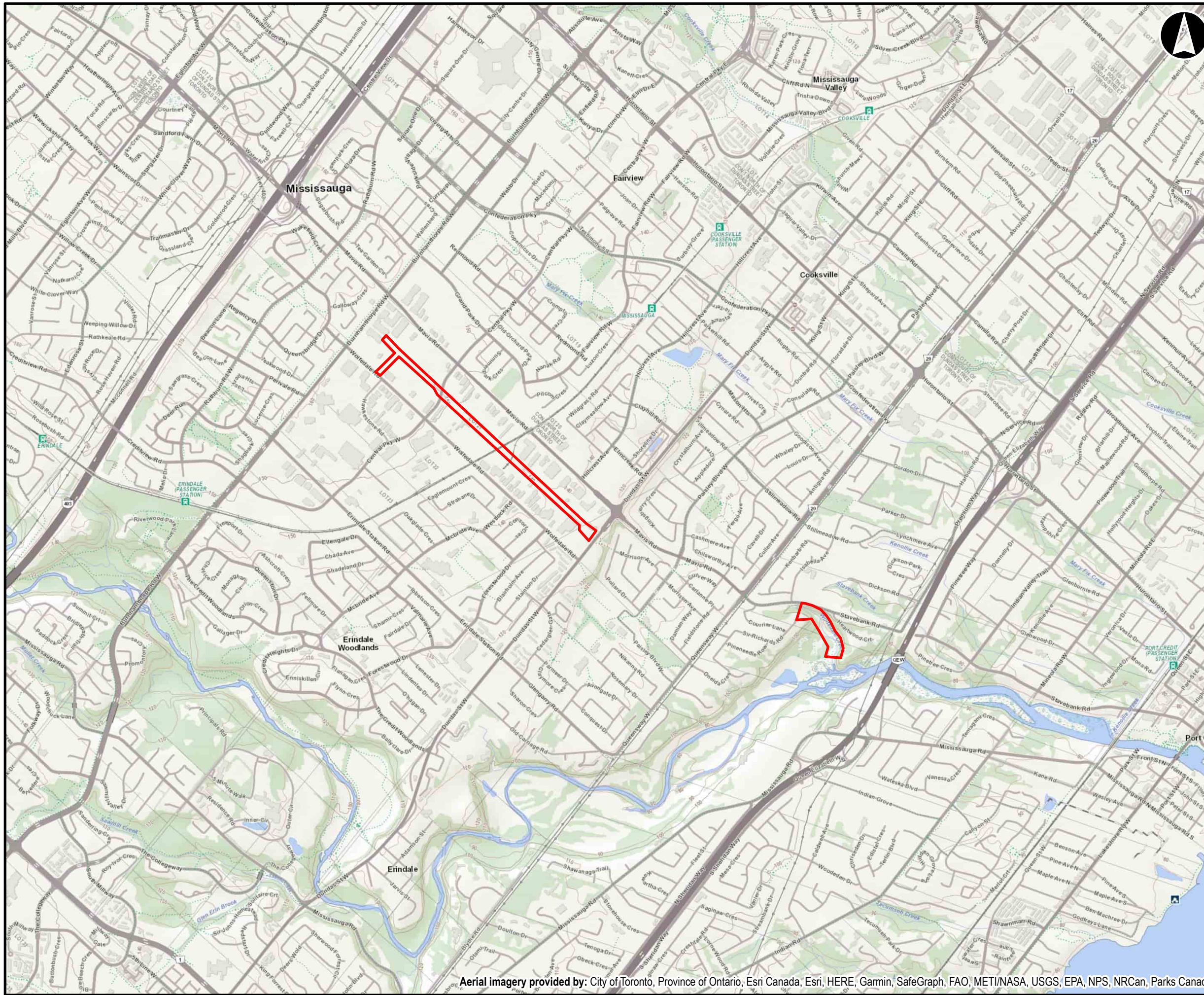


**Image 10: Typical wooded area; archaeological potential remaining; image facing south**

## 8. Figures

All figures pertaining to the Stage 1 archaeological assessment are provided within the following pages.

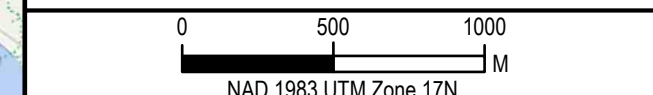




**Legend**  
 Study Area

**Wolfedale Creek Erosion Control Project:  
 Burnhamthorpe Road West to the Credit  
 River Mississauga, Ontario**

**Study Areas Location**



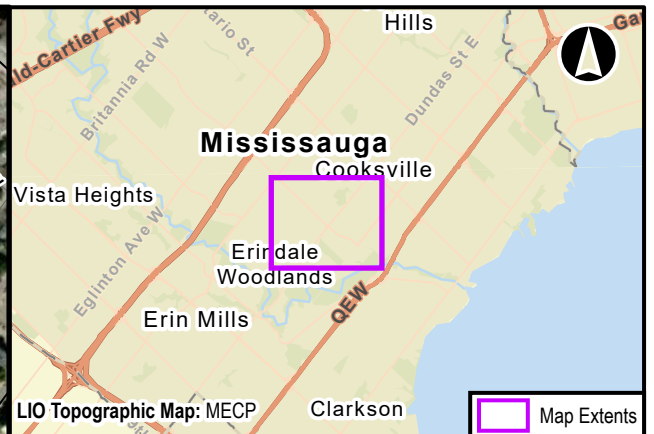
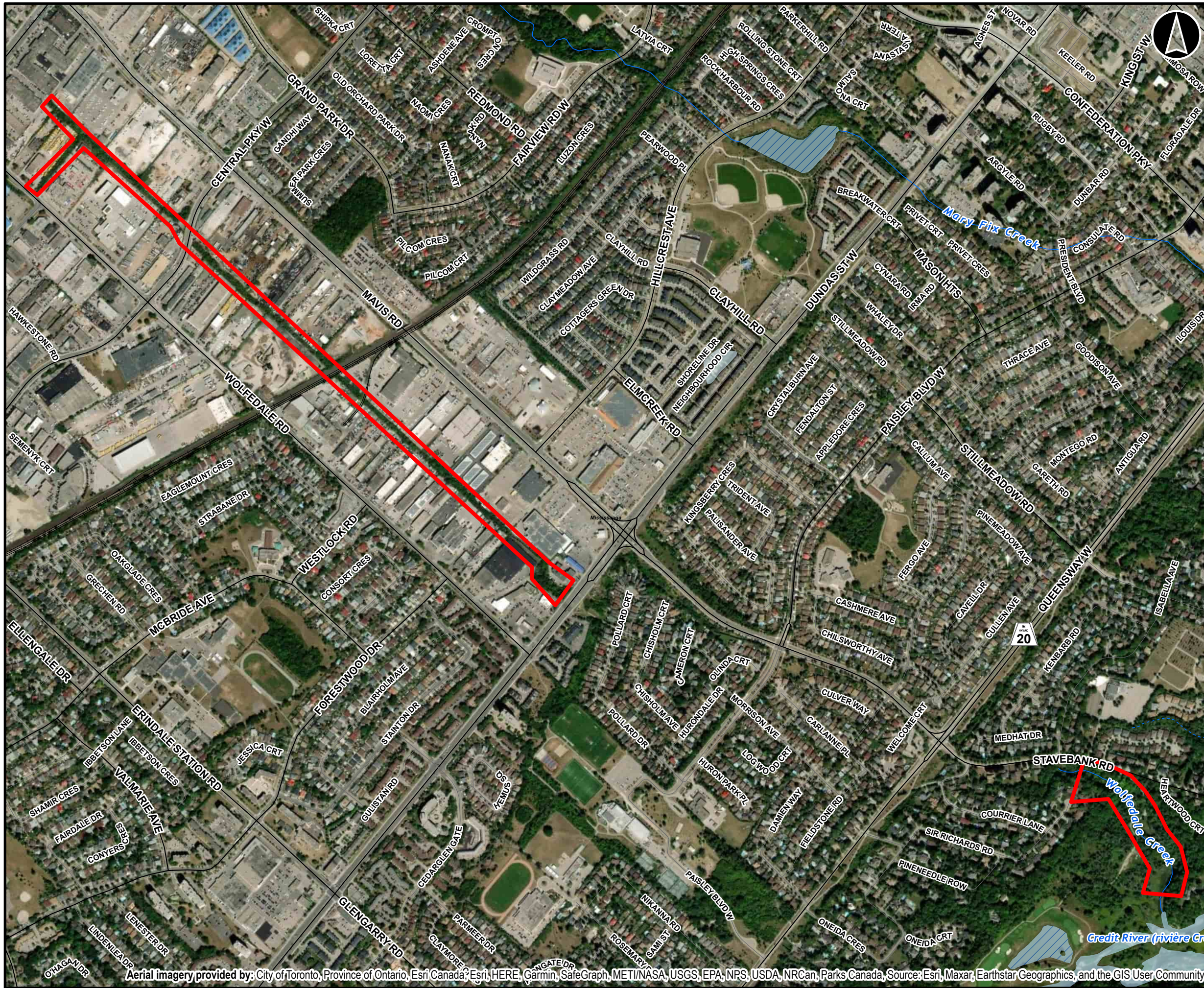
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<b>AECOM</b>	<b>Figure 1</b>
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Aerial imagery provided by: City of Toronto, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, NRCAN, Parks Canada

\\gis01\work\GIS\Projects\60701082\Map\Map\_Layout\_ACS1 - FGI\_Study Area Location

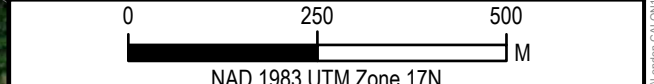


**Legend**

- Railway
- Permanent Stream
- Intermittent Stream
- Lake
- River
- Pond
- Study Area

**Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit  
River Mississauga, Ontario**

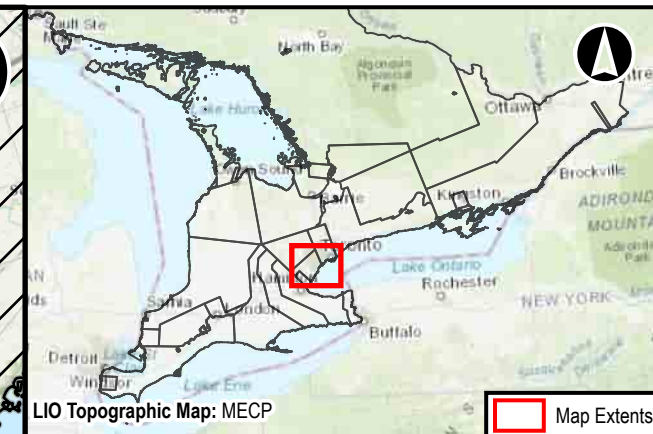
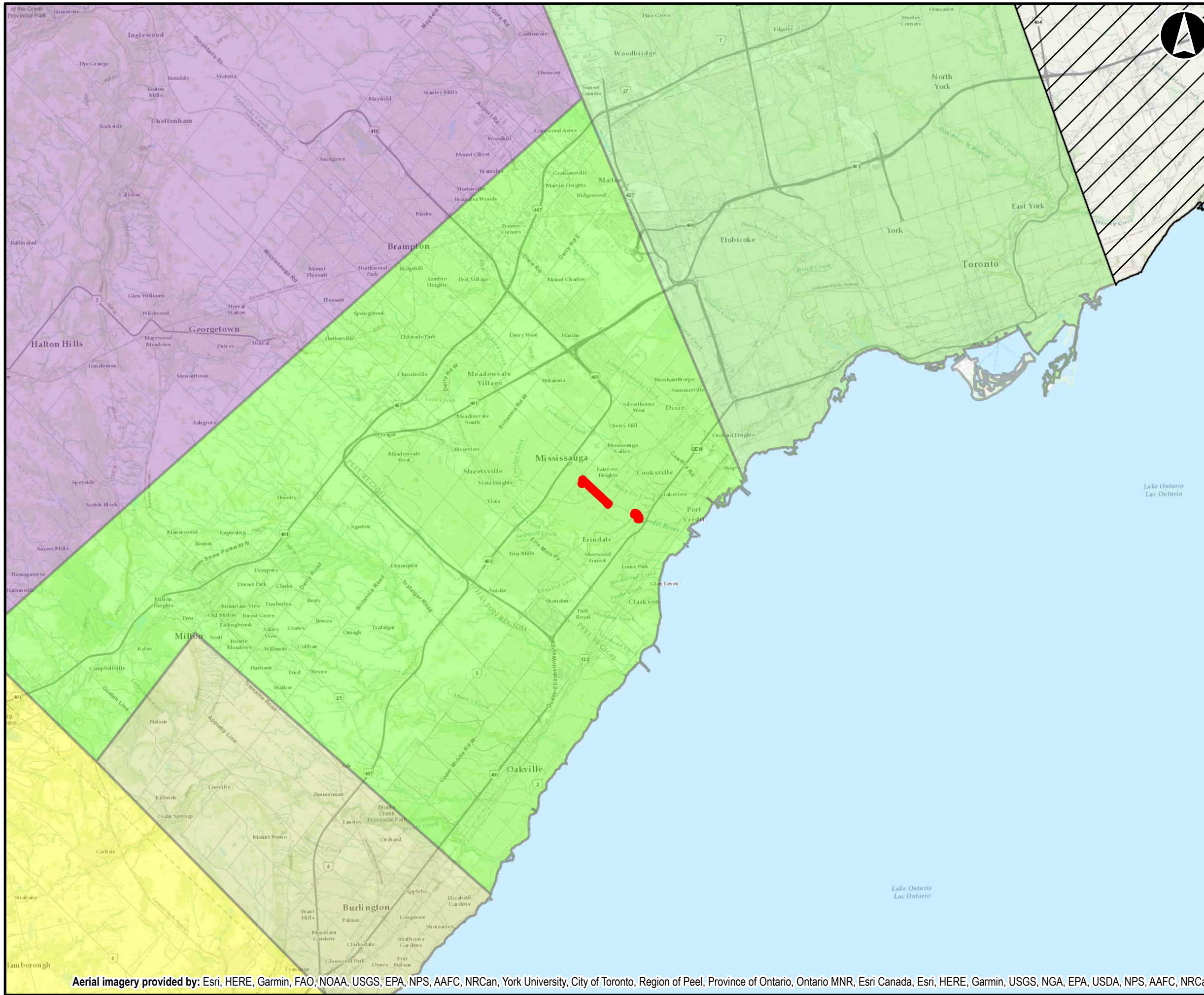
**Study Area in Detail**



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**AECOM** **Figure 2**

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**Legend**

- Study Area
- Williams Treaties, Signed: October 31, 1923 and November 15, 1923
- Treaties\_UTM17

**Treaty**

- Ajetance Purchase, Treaty 19, October 28, 1818
- Between the Lakes Purchase, Treaty 3, December 2, 1792
- Brant Tract, Treaty 3 3/4, October 24, 1795
- Head of the Lake Purchase, Treaty 14, September 5, 1806**
- Toronto Purchase, Treaty 13, August 1, 1805

**Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit  
River Mississauga, Ontario**

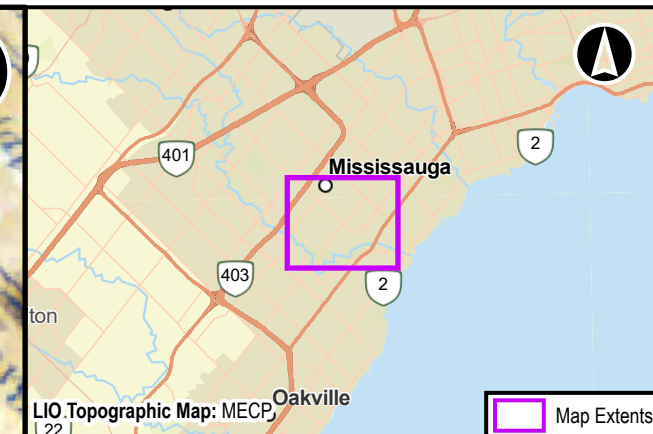
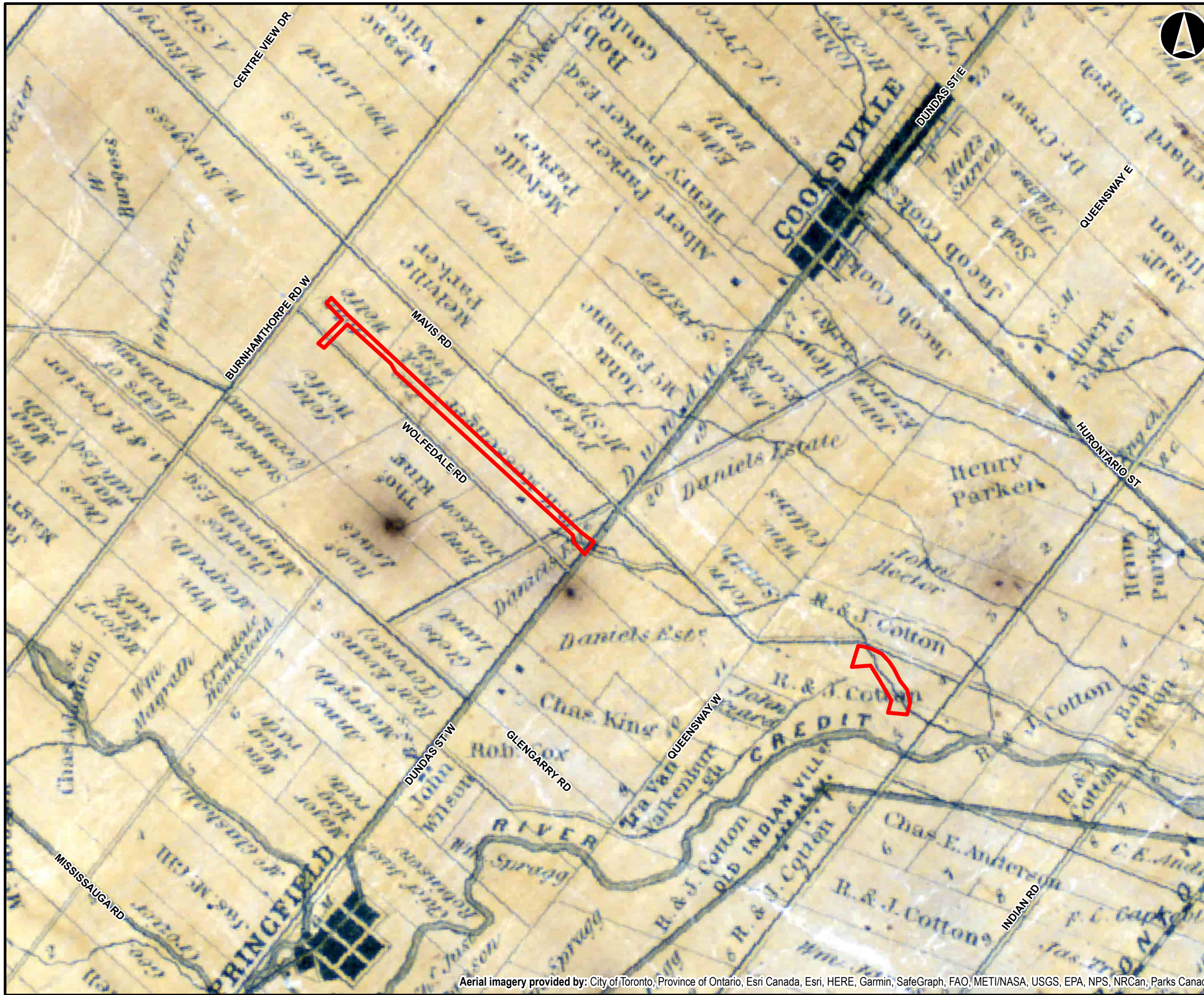
**Ontario Treaties Map**

NAD 1983 UTM Zone 17N

Aug, 2023	1:200,000	Data Sources: www.ontario.ca/ page/map-ontario-treaties-and-reserves#7
P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 3</b>
--------------	-----------------

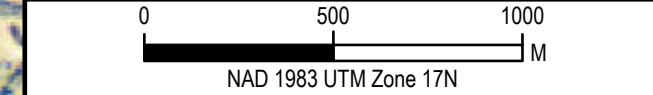
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**Legend**  
 Study Area

**Wolfedale Creek Erosion Control Project:  
 Burnhamthorpe Road West to the Credit  
 River Mississauga, Ontario**

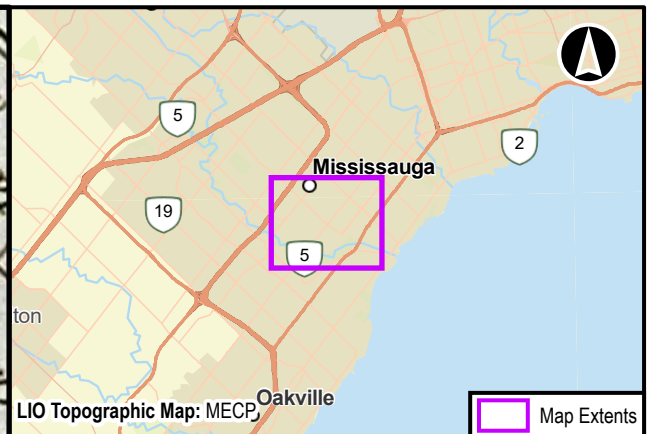
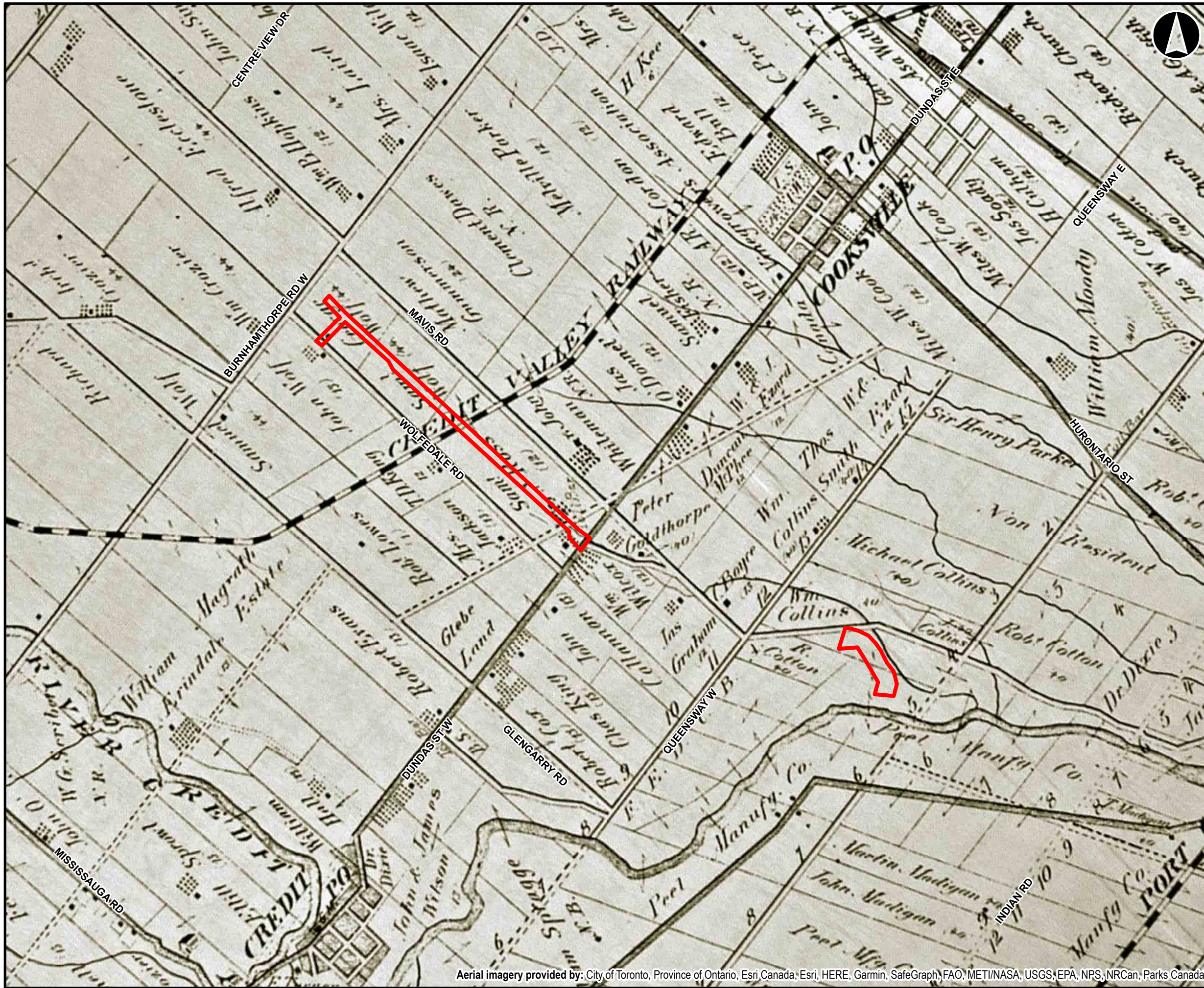
**Portion of Tremaine's 1859 Map of the  
 County of Peel**



Aug, 2023	1:20,000	Data Sources: MNRF 2023
P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 4</b>
--------------	-----------------

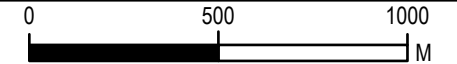
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**Legend**  
 Study Area

**Wolfedale Creek Erosion Control Project:  
 Burnhamthorpe Road West to the Credit  
 River Mississauga, Ontario**

**Portion of the 1877 Illustrated Historical  
 Atlas of the County of Peel, Ont.**



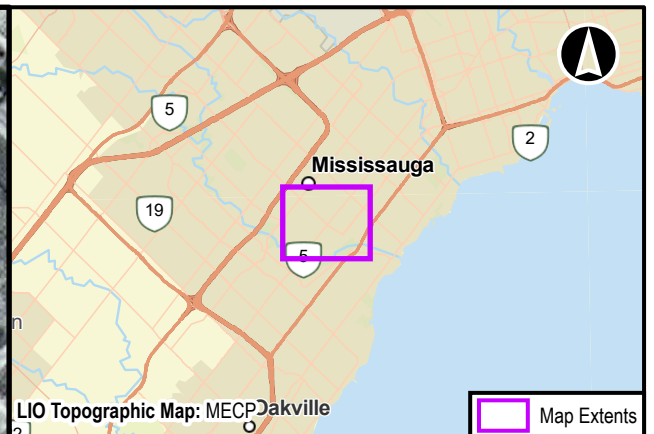
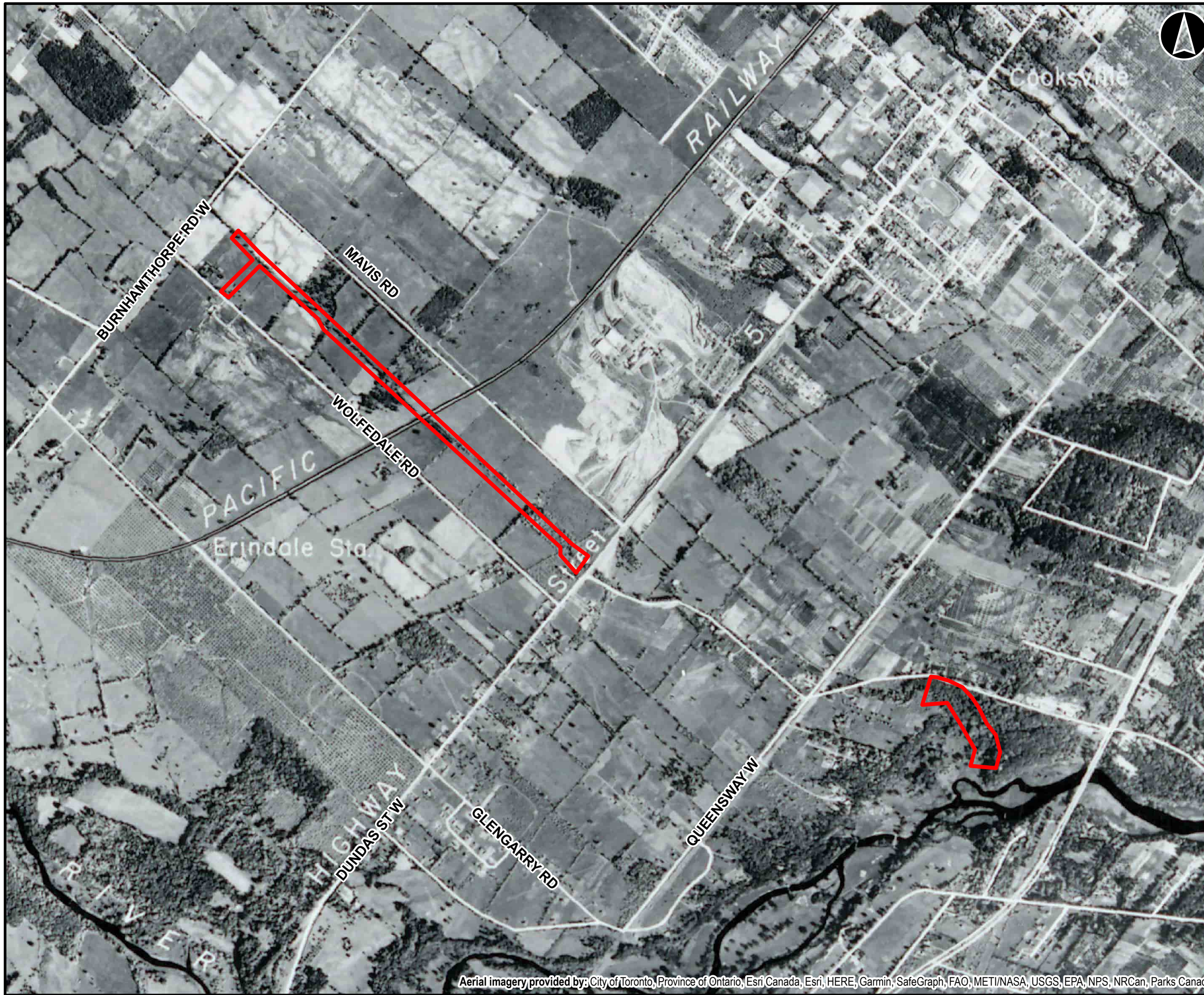
NAD 1983 UTM Zone 17N

Aug, 2023	1:20,000	Data Sources: MNR 2023
P:60701082	Rev:00	

**AECOM** **Figure 5**

Aerial imagery provided by: City of Toronto, Province of Ontario, Esri/Canada, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, NRCan, Parks Canada

C:\Users\jgibson\OneDrive\Documents\GIS\Projects\60701082\Map\60701082\_01022023\Map\60701082\_01022023.aprx; Layout: ACSI - FIG5-Historic1877  
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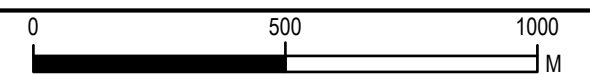
Map Extents

**Legend**

Study Area

**Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit  
River Mississauga, Ontario**

**1954 Aerial Imagery**



NAD 1983 UTM Zone 17N

Aug, 2023

1:15,000

Data Sources:  
MNR 2023

P:60701082

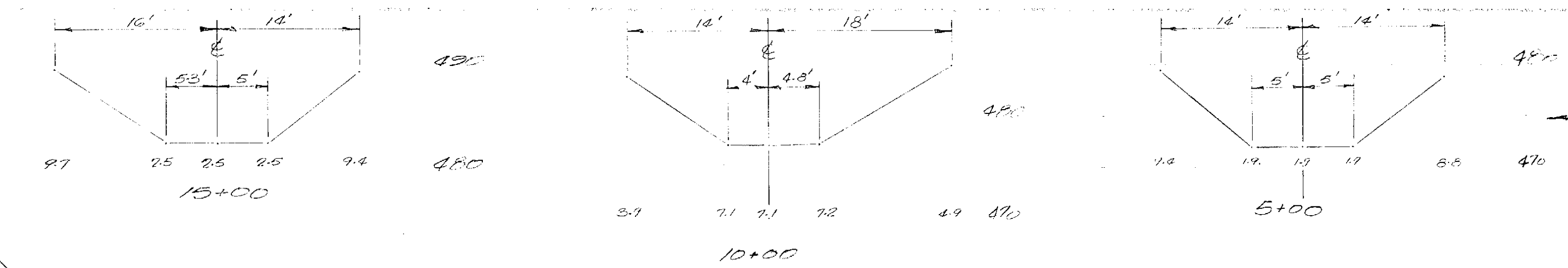
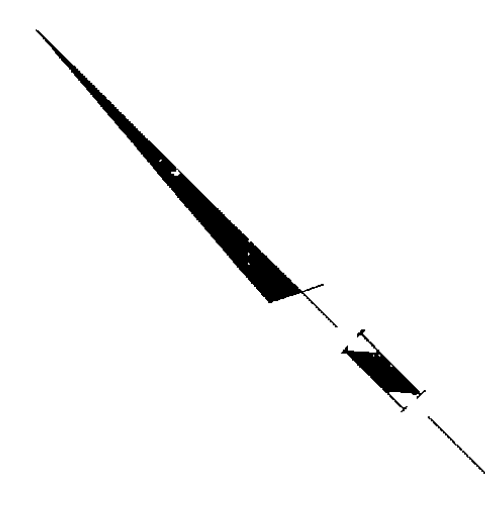
Rev:00



**Figure 6**

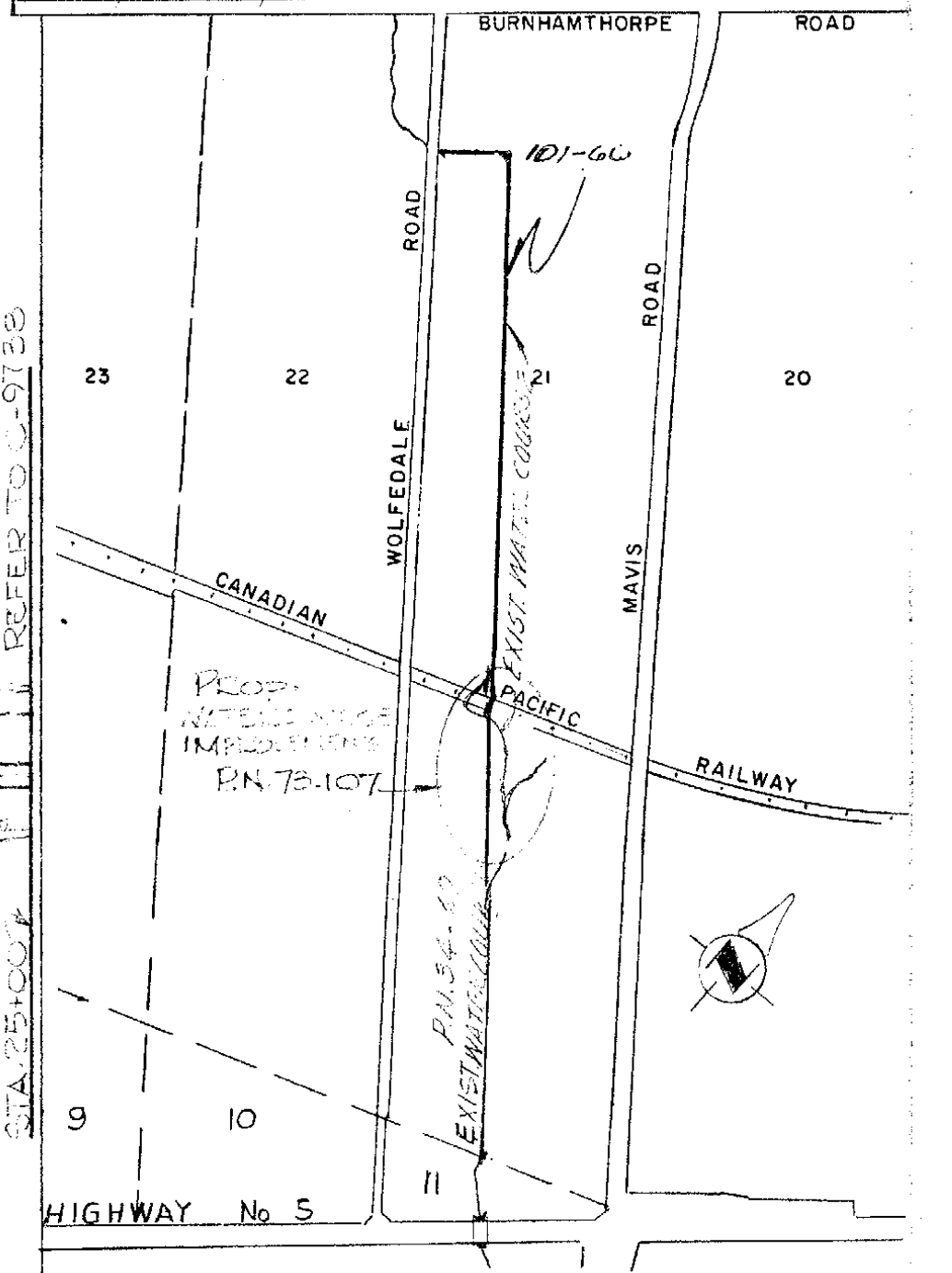
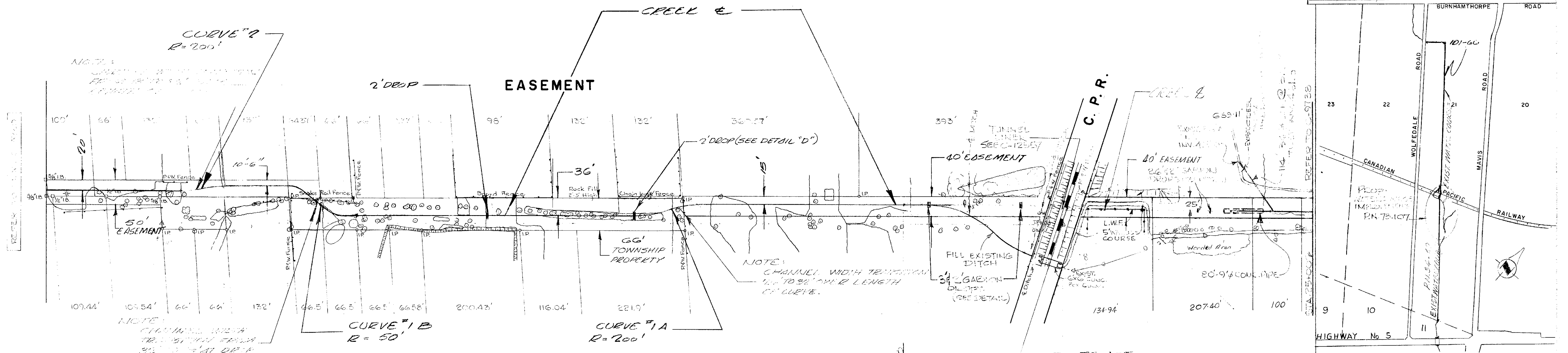
Aerial imagery provided by: City of Toronto, Province of Ontario, Esri/Canada, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, NRCAN, Parks Canada

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 Date Saved: 8/10/2023 8:04 PM User: jacob

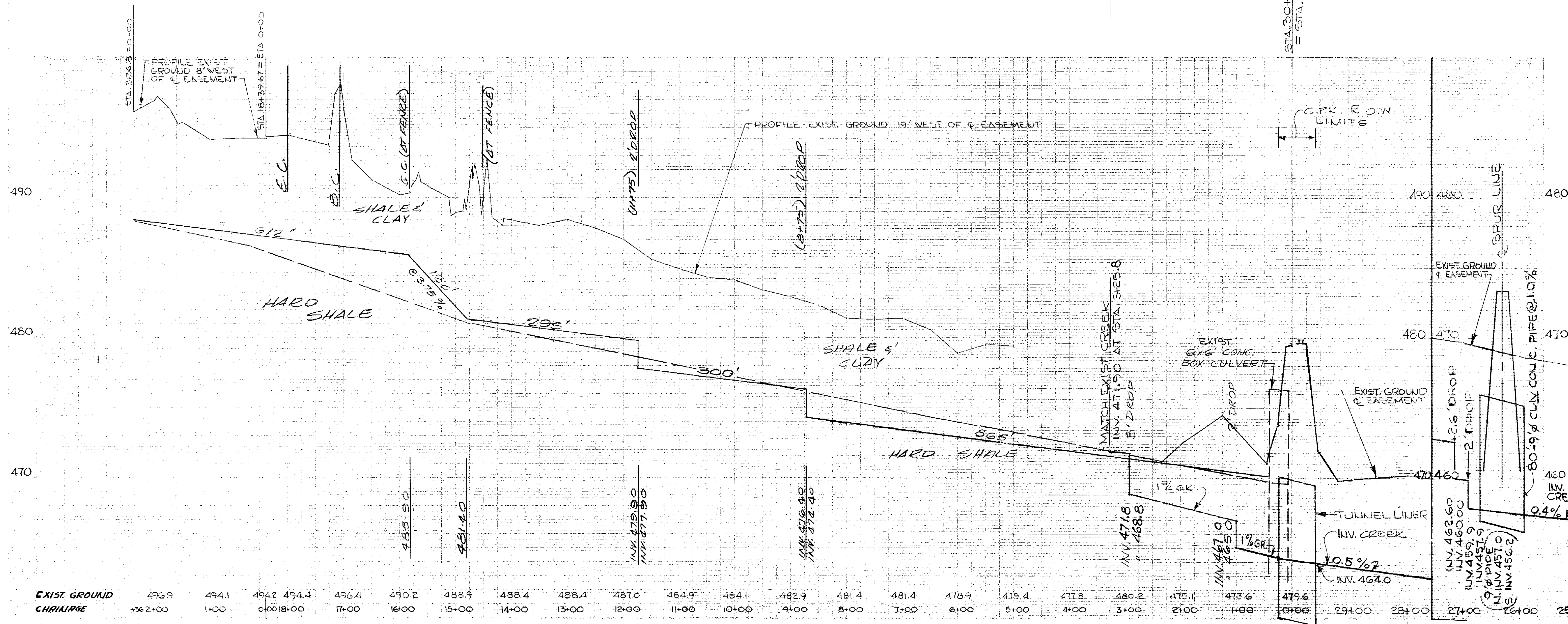


REVISIONS		
DATE	DETAILS	INIT.
MAY 17 1976	ADD NOTES	W.J.A.
SEP 17 1976	REVISE PLAN	W.J.A.

JULY 16/77 PROP. CREEK & P.N. 73-107 IN CONSTRUCTION  
 M.V. INV.  
 WOLFEDALE RD. TO BURNHAMTHORPE RD.  
 P.N. 73-107  
 STA. 27+00 TO 28+00



KEY PLAN  
SCALE 1" = 100'



REGISTERED PROFESSIONAL ENGINEER  
 W. J. ANDERSON  
 PROVINCE OF ONTARIO

REGISTERED PROFESSIONAL ENGINEER  
 C. D. LEAVENS  
 PROVINCE OF ONTARIO

REGISTERED PROFESSIONAL ENGINEER  
 W. J. ANDERSON  
 PROVINCE OF ONTARIO

REGISTERED PROFESSIONAL ENGINEER  
 W. J. ANDERSON  
 PROVINCE OF ONTARIO

DESIGNED BY  
 C. D. LEAVENS

APPROVED BY  
 W. J. ANDERSON

**WATERCOURSE RELOCATION**  
 C.P.R. N'LY. TO WOLFEDALE RD. - BURNHAMTHORPE RD.

EXIST. GROUND	496.9	494.1	494.2	494.4	496.4	490.2	488.9	488.4	488.4	487.0	484.9	484.1	482.9	481.4	481.4	476.9	479.4	477.8	480.2	475.1	473.6	479.6
CHAIRING	136 21 00	1+00	0+00	18+00	17+00	16+00	15+00	14+00	13+00	12+00	11+00	10+00	9+00	8+00	7+00	6+00	5+00	4+00	3+00	2+00	1+00	0+00

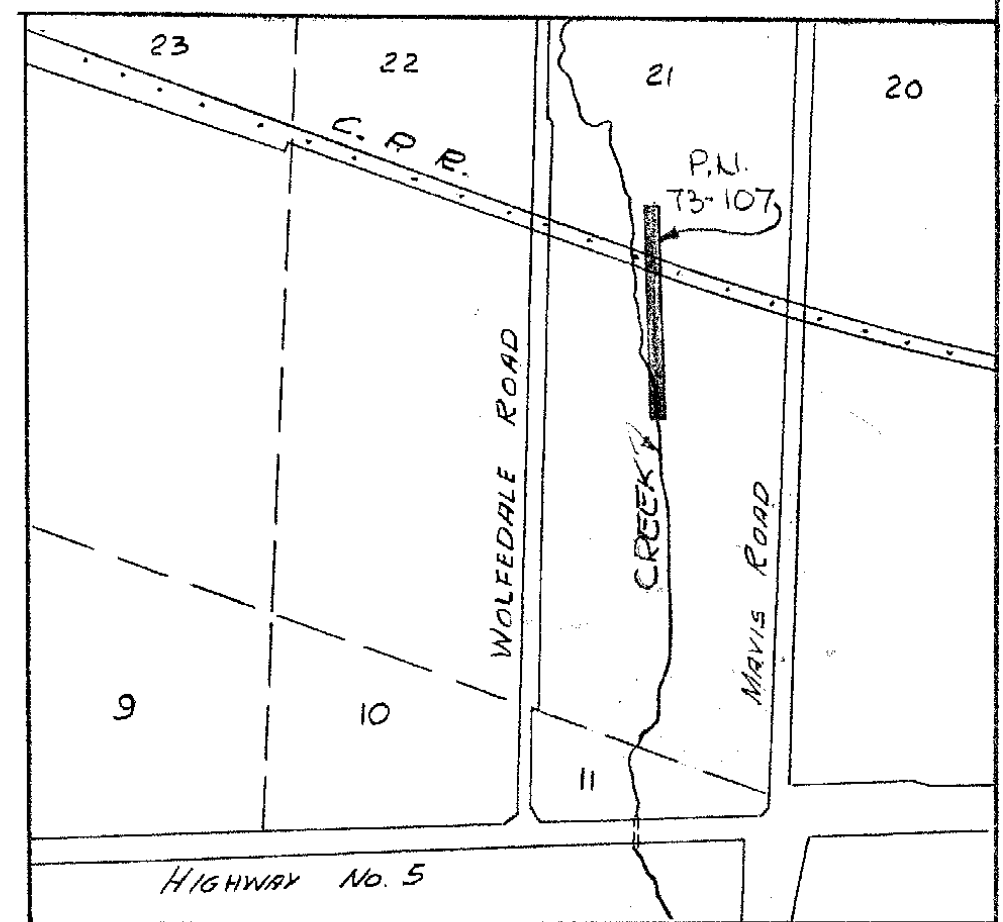




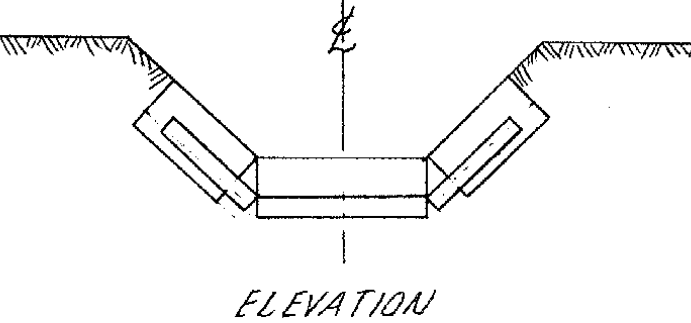
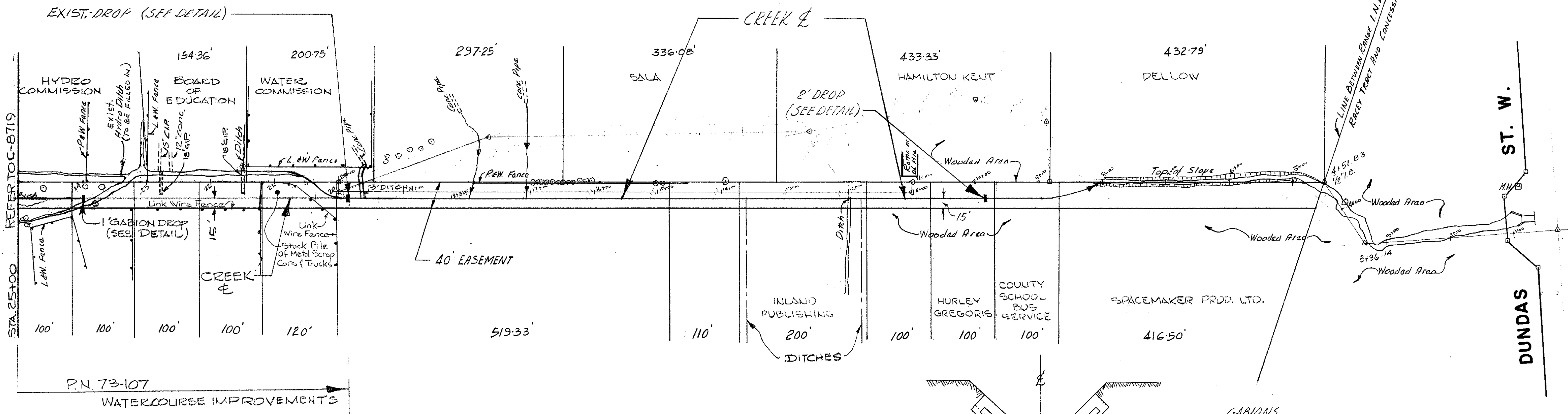
SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/S CABLE		
WATER MAINS			HYDRO U/S CABLE		

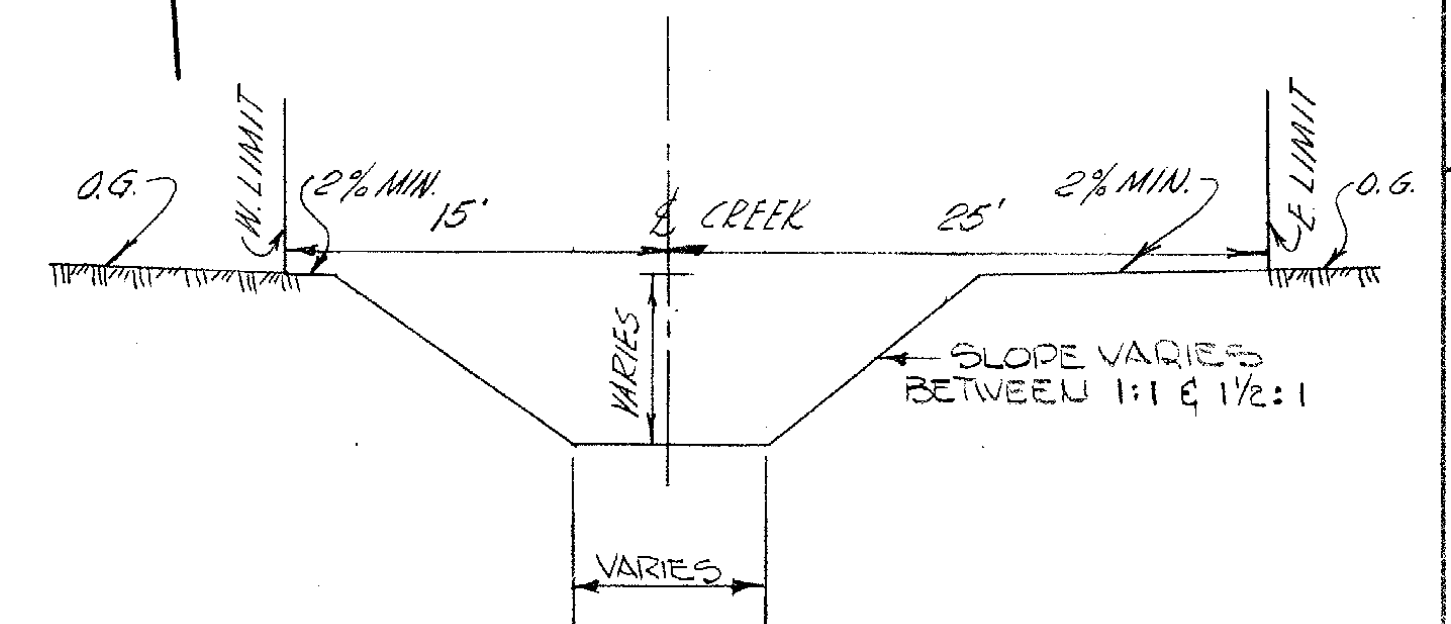
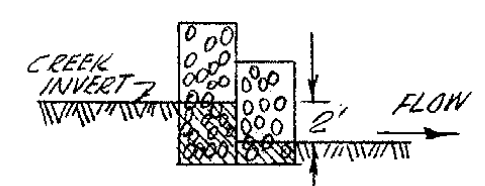
REVISIONS		
DATE	DETAILS	INIT.
MAY 15 1969	PROP. CREEK P.N. 34-69	J.P.
JUL 30 1969	INVERT - EXIST. CREEK	J.P.
JUL 31 69	GENERAL REVISIONS	Z.S.
AUG 21 69	LOCATION REVISED	Z.M.
OCT 19 69	PROP. CREEK	Z.M.
MAY 11 74	PROP. CREEK REVISED P.N. 73-107	J.C.M.
SEPT. 1974	AS CONST. P.U. 73-107	J.P.



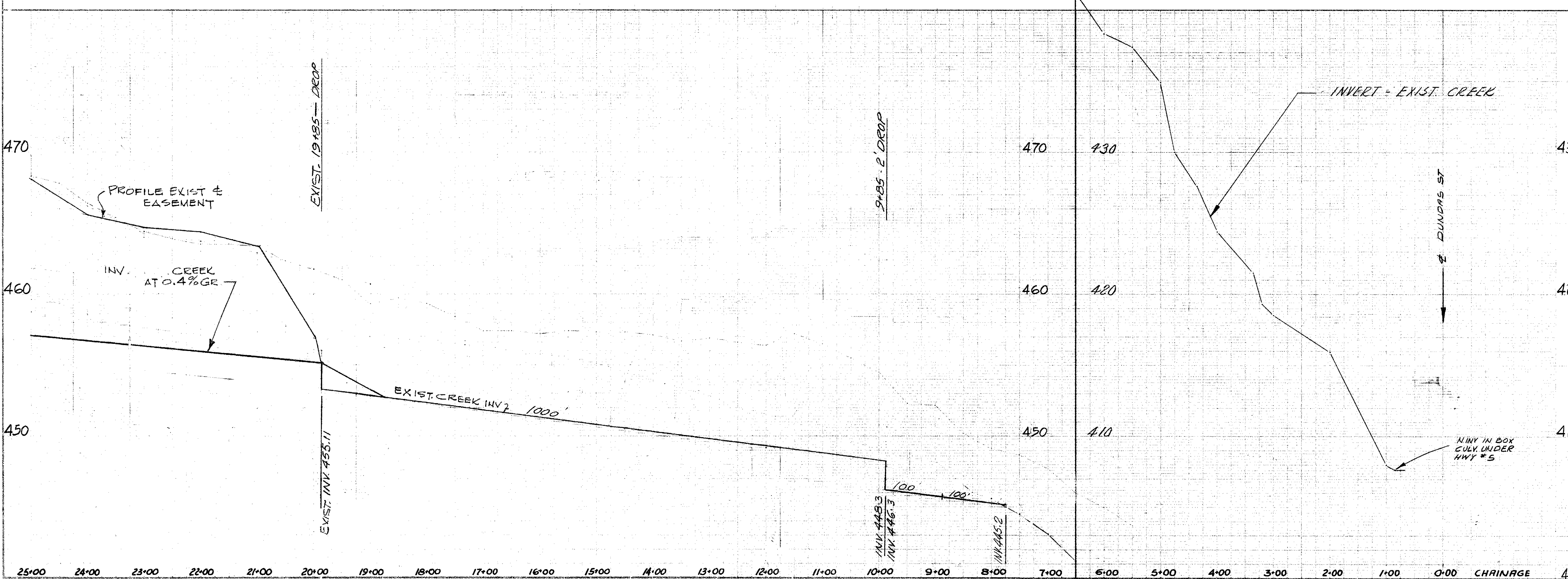
**EASEMENT**



**GABIENS**  
 2- 6'X3'X3' = 4 cu. yd.  
 1- 9'X3'X3' = 3 cu. yd.  
 2- 6'X3'X1' = 1 1/3 cu. yd.  
 1- 9'X3'X1' = 1 cu. yd.



**TYPICAL 2' DROP**



**GENERAL NOTES**

- ALL DRIVEWAYS GRAVEL UNLESS OTHERWISE NOTED.
- ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN FIELD.
- DENOTES BUILDING - NOT LOCATED.
- DENOTES BUILDING - LOCATED.
- T.T.B.M. No. ELEV.
- TEMP BENCH MARK ELEV. DESCRIPTION.

- CREEK GRADE 0.5%

P.N. 34-69

REGISTERED BY  
*C. D. Leavens*

APPROVED BY  
*W. J. Anderson*

**TOWN OF MISSISSAUGA**  
 ENGINEERING DEPARTMENT

**WATERCOURSE RELOCATION**  
 BETWEEN MAVIS RD. & WOLFEDALE RD.  
 FROM DUNDAS ST. W. TO C.P.R.  
 STN. TO STN.

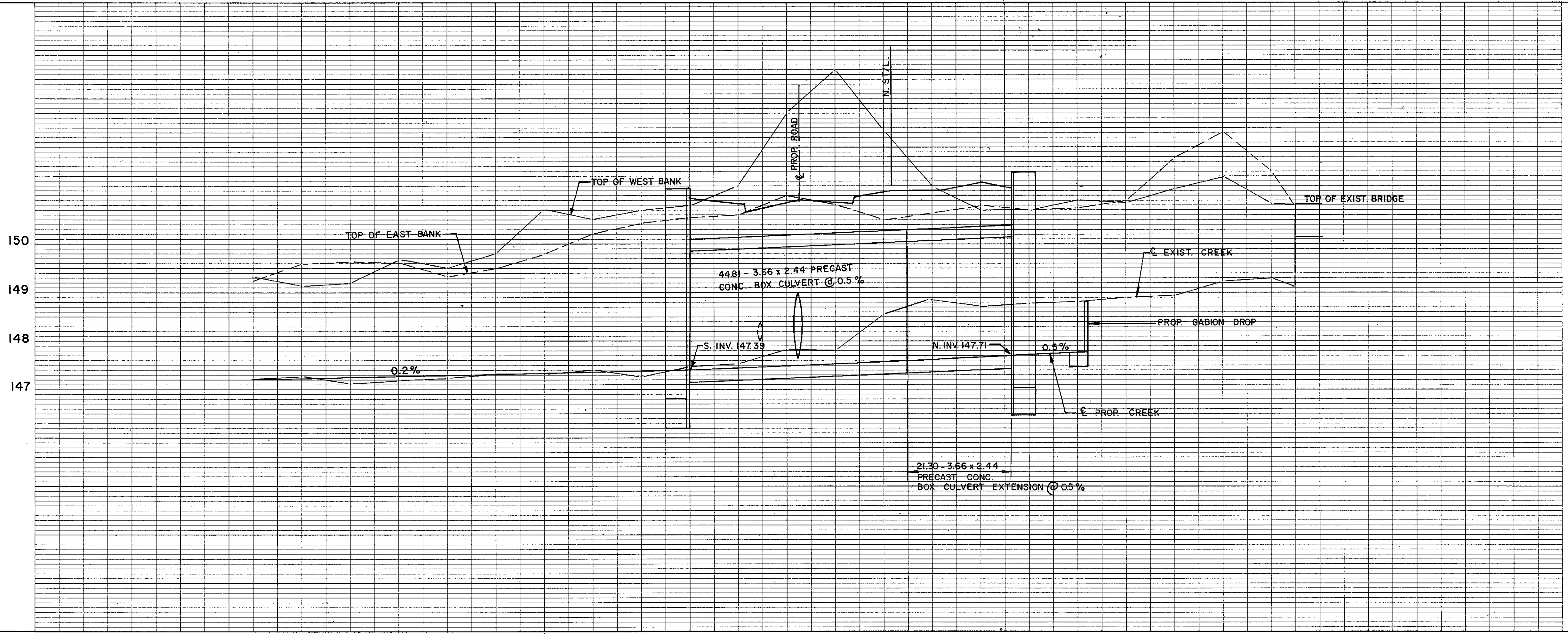
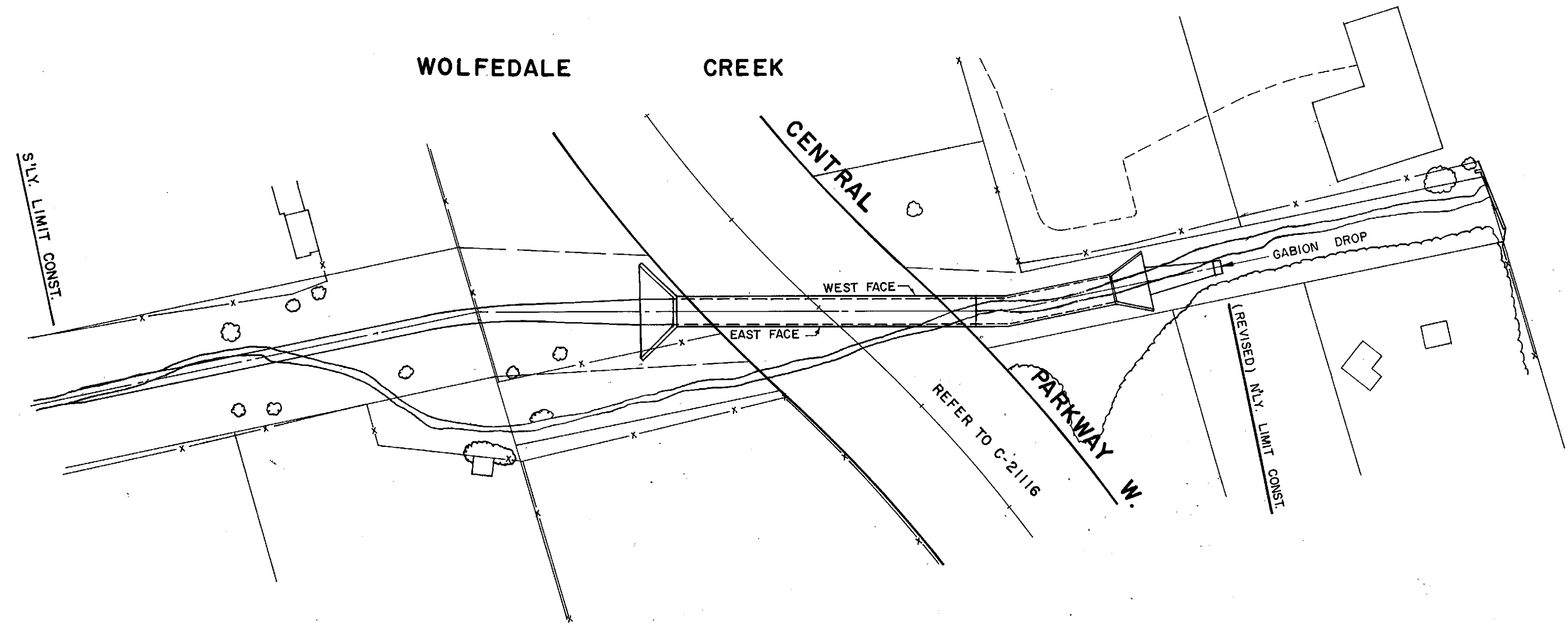
SCALE: HOR. 1"=100'	AREA: Z-23	PROJECT NO. 73-107
DRAWN BY: Z.S.	CHECKED BY:	PLAN NO.
DATE: MAY 9, 1969	SHEET: 2 OF 3	<b>C-9738</b>

C-09738

SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMANS			HYDRO U/G CABLE		

REVISIONS		
DATE	DETAILS	INIT.
FEB. 25/86	EXTENSION OF NORTH END OF CONC. BOX CULVERT	JB



- GENERAL NOTES**
- ALL DRIVEWAYS ASPHALT UNLESS OTHERWISE NOTED.
  - ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN FIELD.
  - ○ DENOTES BUILDING - NOT LOCATED.
  - □ DENOTES BUILDING - LOCATED.
  - T.T.B.M. No. ELEV.
  - TEMP BENCH MARK ELEV. DESCRIPTION.

DESIGNED BY: *R.G. Tenute*

APPROVED: *[Signature]*

**CIVIL**  
**P. G. TENUTE**  
ENGINEERING & CONSULTING

**CITY OF MISSISSAUGA**  
ENGINEERING AND WORKS DEPARTMENT

**CENTRAL PARKWAY WEST**  
WOLFEDALE CREEK  
STN. TO STN.

SCALE: HOR. 1"=500' VERT. 1"=50'  
DRAWN BY: J.C.M. CHECKED BY: P.J.D. DATE: MAR. 28 1985

AREA: Z-23  
SHEET 5 OF 9

PROJECT No: 84-158  
PLAN No:  
C-21120

147.22	147.26	147.30	147.34	147.38	147.65	148.79	148.91	149.24	149.13	147.22	147.12	147.22	147.31	147.26	147.53	147.82	148.86	148.79	148.91	149.24	149.13	
-0+060	-0+040	-0+020	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+155											

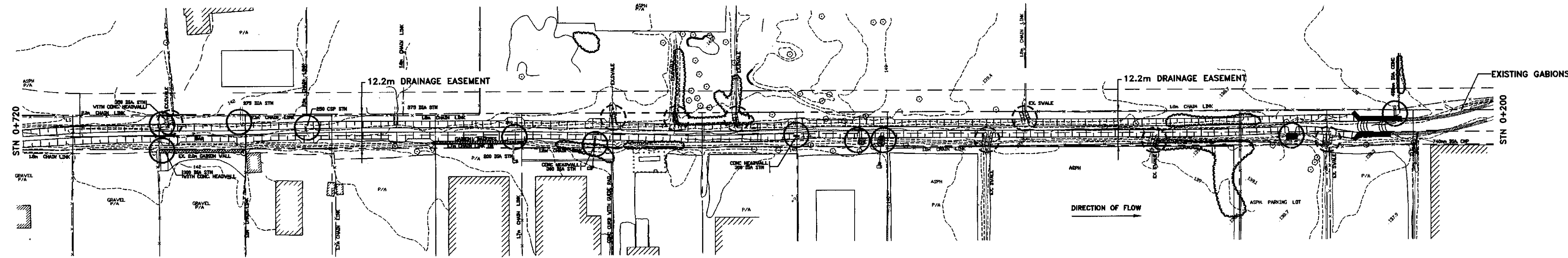
C-21120

# WOLFEDALE CREEK

ALL PROPOSED WORKS ARE TO MATCH GRADES AT LIMITS OF CITY OF MISSISSAUGA DRAINAGE EASEMENT



LIMIT OF CONSTRUCTION THIS CONTRACT  
STN 0+234 TO STN 0+540











SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN. SEWERS			GAS MAINS		
STM. SEWERS			BELL U/G CABLE		
WATERMANS			HYDRD U/G CABLE		
M.D.E.					

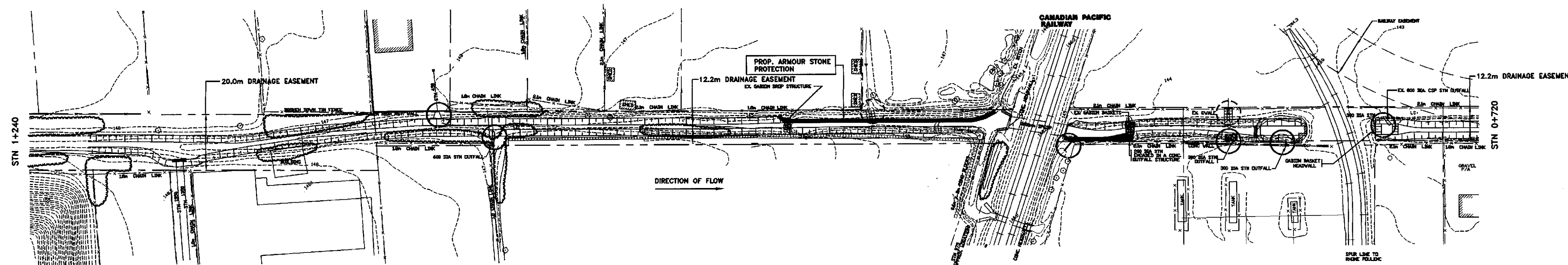
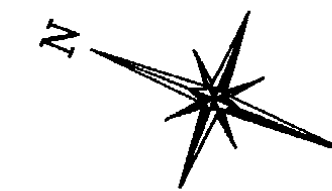
REVISIONS		
DATE	DETAILS	INIT.
31/03/94	ISSUED FOR APPROVALS	KAO
17/06/94	REVIEW COMMENTS/ISSUED FOR TENDER	KAO

## LEGEND

-  LOCATION OF SWALE OUTFALLS
-  LOCATION OF STORM SEWER OUTFALLS
-  PROPOSED ROCK CHANNEL LINING
-  PROPOSED ARMOUR STONE BANK PROTECTION
-  PROPOSED DROP STRUCTURE
-  EXISTING GABION WORKS
-  EXISTING FENCE LINE
-  CITY OF MISSISSAUGA DRAINAGE EASEMENT

# WOLFEDALE CREEK

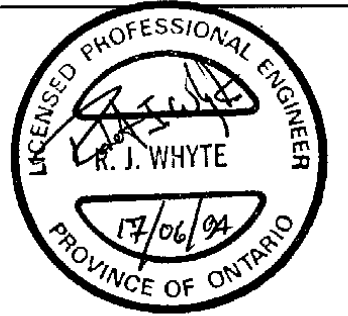
ALL PROPOSED WORKS ARE TO MATCH GRADES AT LIMITS OF CITY OF MISSISSAUGA DRAINAGE EASEMENT



EX. CHANNEL TO BE CLEARED OF DEBRIS BETWEEN STN 1+240 TO STN 1+380

## NOTE

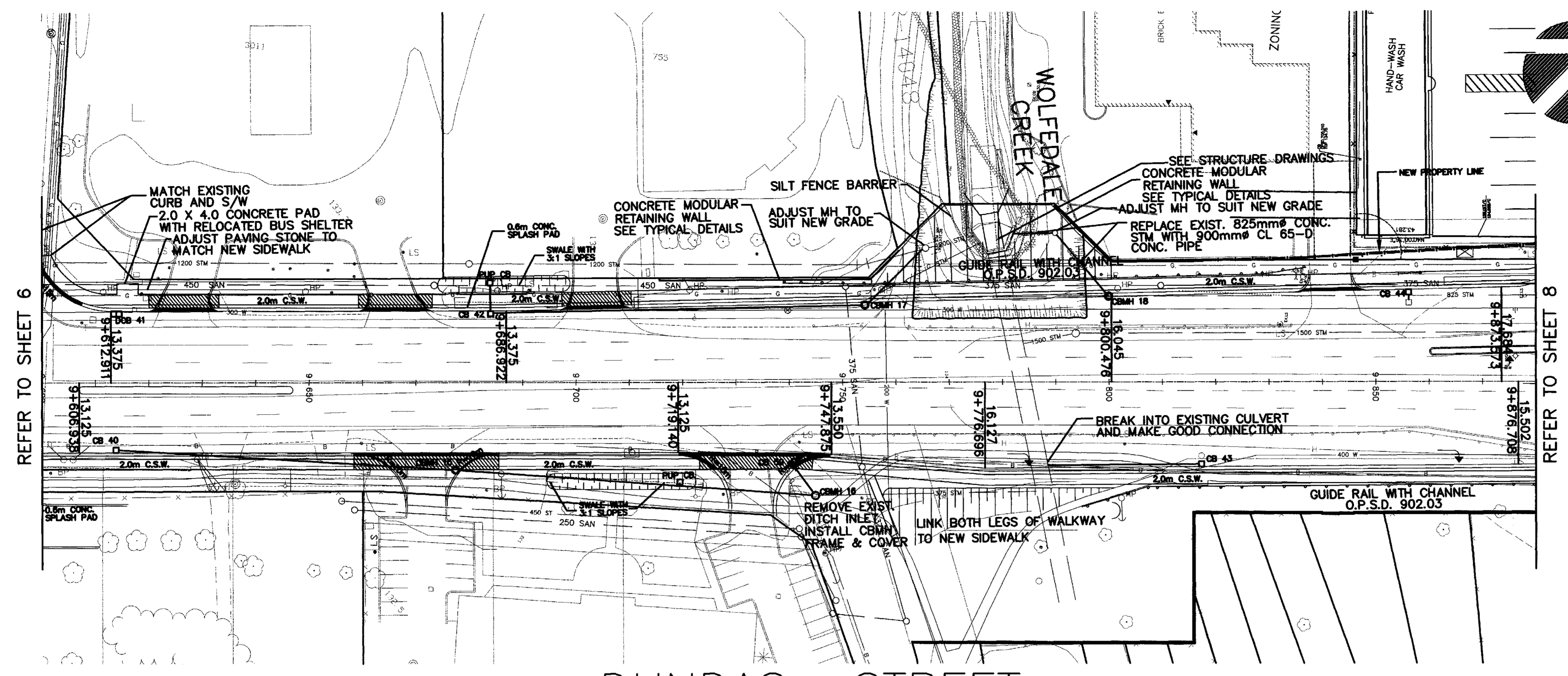
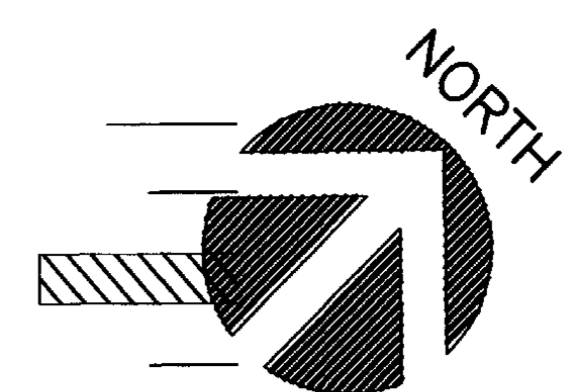
1. FOR GENERAL NOTES AND CONSTRUCTION DETAILS REFER TO DWGS 9273-A-8 AND 9273-A-9.
2. FOR LANDSCAPE REHABILITATION PLAN AND LANDSCAPE DETAILS REFER TO DWGS 9273-A-10 THROUGH 9273-A-14.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ACCOMPANYING SPECIFICATIONS.

<b>AQUAFOR ENGINEERING LIMITED</b>	
	APPROVED BY
<b>WOLFEDALE CREEK GENERAL PLAN</b>	
SCALE 1:1000	AREA
DRAWN BY DH/RJW	CHECKED BY
DATE MAR. 1994	SHEET 1 OF 14
PROJECT No. 9273	PLAN No. 9273-A

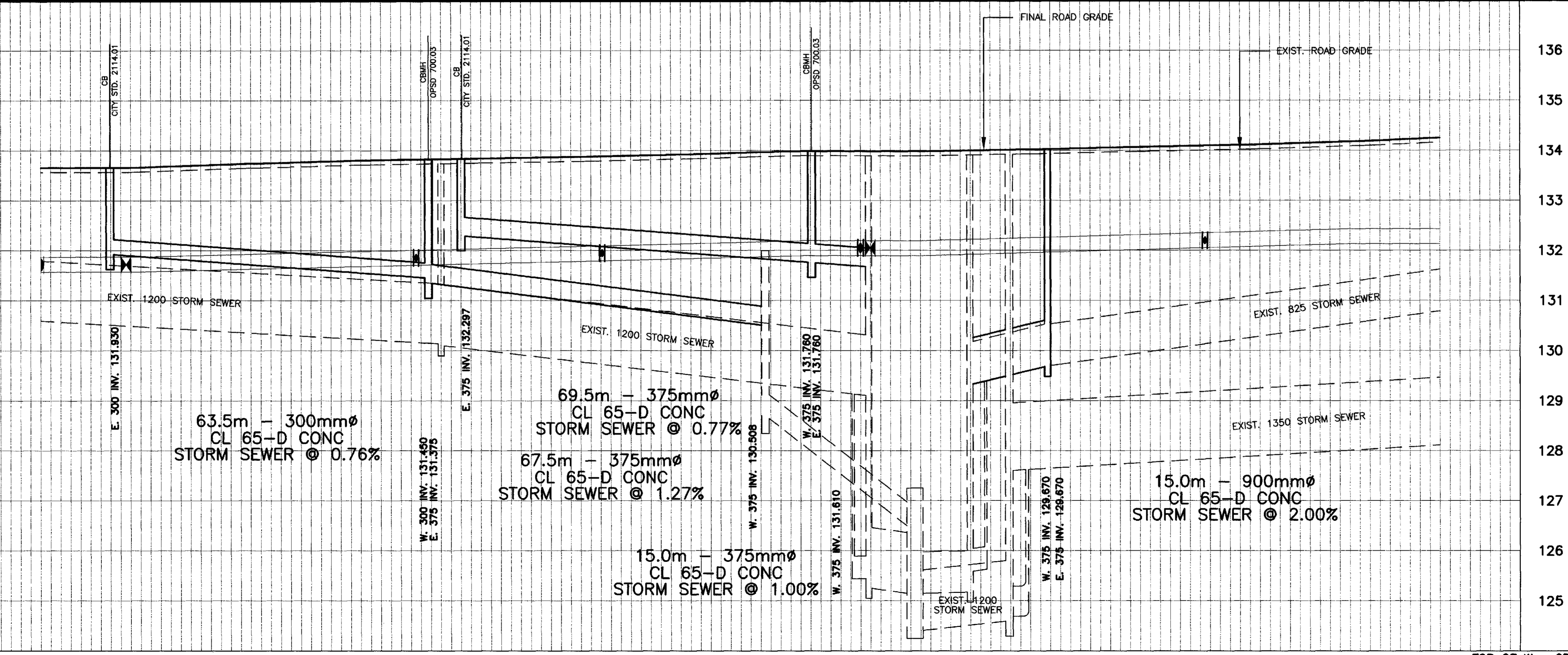
SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN. SEWERS			GAS MAINS		
STM. SEWERS			BELL U/G CABLE		
WATERMANS			HYDRO U/G CABLE		
M.O.E.					

REVISIONS		
DATE	DETAILS	INIT.



# DUNDAS STREET



- GENERAL NOTES:**
- ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN FIELD.
  - ALL MEASUREMENTS FOR THIS PROJECT ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE INDICATED.
  - ALL SINGLE C.B. LATERALS TO BE 250mm CL 65-D ALL OTHERS TO BE 300mm CL 65-D
  - ALL TREES AND SHRUBS NOT MARKED IN THE FIELD FOR REMOVAL TO BE PROTECTED.
  - ALL SEWERS AND LATERALS TO HAVE CLASS 'B' BEDDING AND SAND COVER BACKFILL UNLESS OTHERWISE INDICATED.
  - ALL UTILITY RELOCATION BY OTHERS.
  - DURING SEWER CONSTRUCTION, WATERMANS TO BE PROTECTED TO THE SATISFACTION OF THE PUBLIC WORKS DEPARTMENT OF THE REGIONAL MUNICIPALITY OF P.E.L.
  - SANITARY MANHOLES TO BE ADJUSTED TO GRADE BY MODULOC OR EQUIVALENT.
  - ALL MANHOLES AND CATCH BASINS TO BE SET FLUSH WITH HL1 FINAL GRADE.
  - CATCHBASINS ADJACENT TO CURB TO BE SIDE INLET. SEE DETAILS. TO AVOID UTILITIES CATCHBASINS MAY BE RECESSED AS SHOWN.
  - DRIVEWAY RE-INSTALLMENTS TO PROPERTY LINE UNLESS OTHERWISE DIRECTED IN THE FIELD.
  - HYDRO POLES WILL BE RELOCATED ALONG NORTH BOULEVARD DURING TENDER PERIOD AND EARLY STAGES OF CONSTRUCTION, BY OTHER.

30 Dupont Street East,  
Waterloo, Ontario N2J 2G9

DESIGNED BY

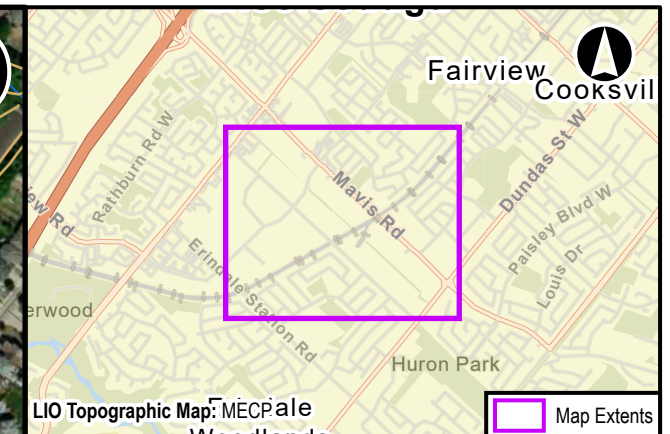
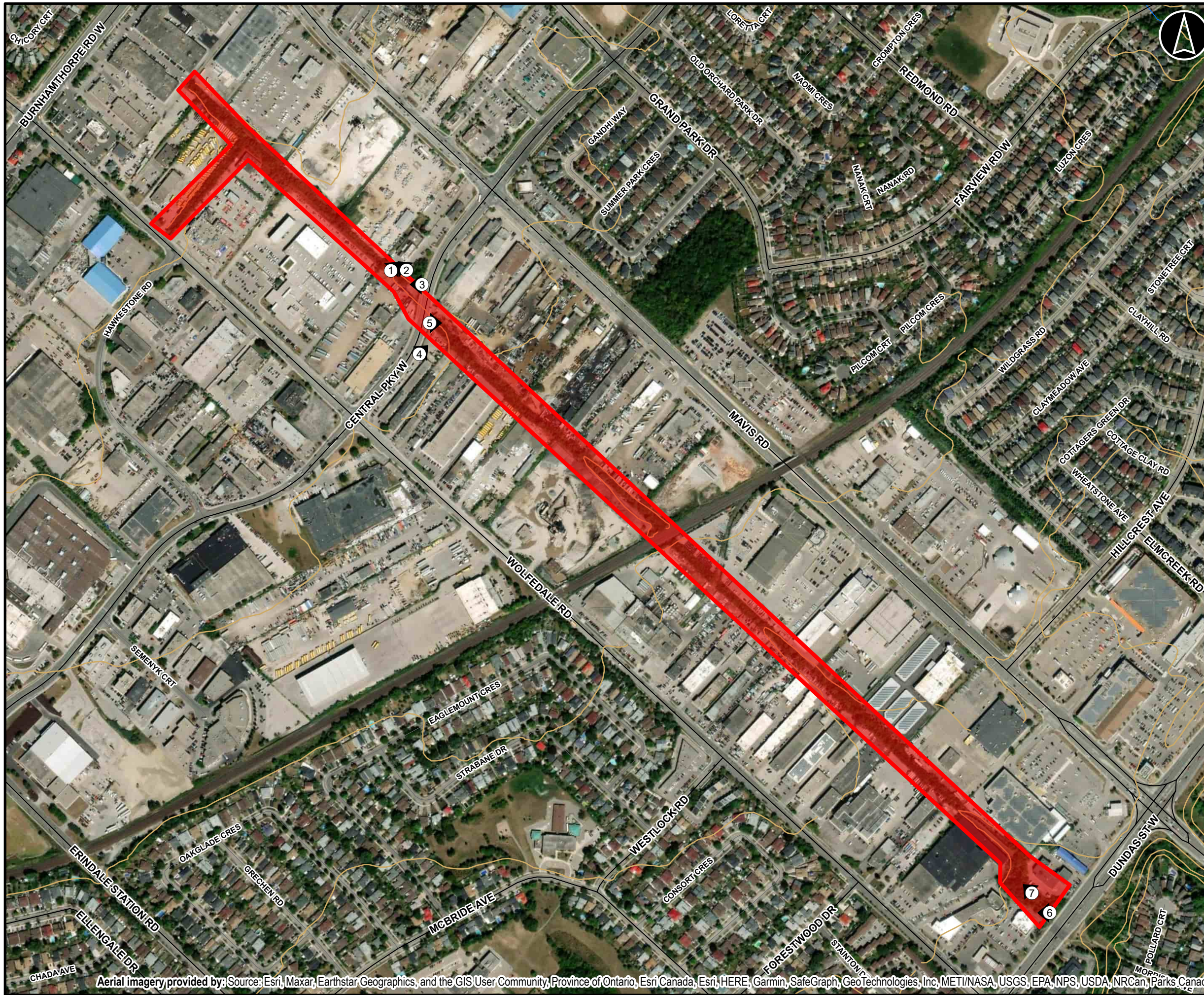
APPROVED BY

**MISSISSAUGA**  
Transportation and Works

**DUNDAS STREET WEST**  
CREDIT WOODLANDS to MASON HEIGHTS  
STATION 9+600 to STATION 9+880

TOP OF Wm. GR.														
133.660	133.670	133.739	133.795	133.831	133.864	133.905	133.957	133.987	133.991	134.026	134.071	134.112	134.172	134.255
133.57	133.58	133.65	133.71	133.74	133.77	133.82	133.87	133.90	133.90	133.94	133.98	134.02	134.08	134.17
9+600	9+620	9+640	9+660	9+680	9+700	9+720	9+740	9+760	9+780	9+800	9+820	9+840	9+860	9+880

SCALE: HOR. 1:500 VERT. 1:50	AREA: Z-16	PROJECT No. PN 99107
DRAWN BY: Rob T.	CHECKED BY: EAH	PLAN No.
DATE: MAY 2000	SHEET 7 OF 12	C-36912



LIO Topographic Map: MEC Pale Woodlands

**Legend**

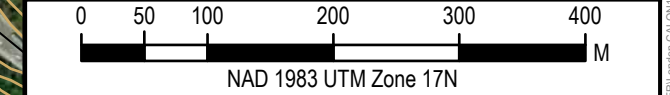
- Photo Location and Direction
- Contours
- Permanent Stream
- Study Area

**Stage 2 Recommendations**

- Previously disturbed / No further work required

**Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit  
River Mississauga, Ontario**

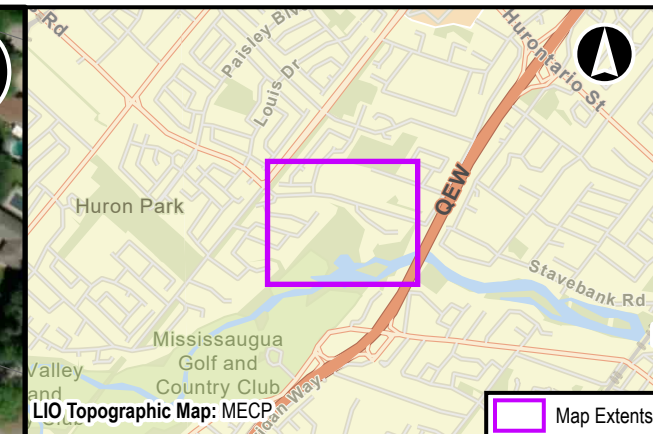
**Results of the Stage 1 Archaeological  
Assessment**



Aug, 2023	1:6,000	Data Sources: MNR 2003
P:60701082	Rev:00	

**AECOM** **Figure 13-1**

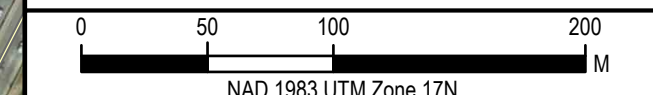
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- Legend**
- Photo Location and Direction
  - Contours
  - Permanent Stream
  - Intermittent Stream
  - River
  - Pond
  - Study Area
- Stage 2 Recommendations**
- Test Pit Survey Required

**Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit  
River Mississauga, Ontario**

**Results of the Stage 1 Archaeological  
Assessment**



Aug, 2023	1:3,000	Data Sources: MNR 2003
P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 13-2</b>
--------------	--------------------

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Sherri Pearce, MA (P316)  
Project Archaeologist  
M +1 519-280-4892  
sherri.pearce@aecom.com

AECOM Canada Ltd.  
410 – 250 York Street, Citi Plaza  
London, ON N6A 6K2 Canada

T: 519.673.0510  
F: 519.673.5975  
www.aecom.com

# Appendix F

**Heritage Impact Assessment: 1725  
Mississauga Road, Mississauga,  
and Credit River Corridor Cultural  
Heritage Landscape**





# Heritage Impact Assessment: 1725 Mississauga Road, Mississauga, and Credit River Corridor Cultural Heritage Landscape

## Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River

City of Mississauga

60701082

December 2024

## Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("AECOM") for the benefit of the Client ("Client") in accordance with the agreement between AECOM and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents AECOM's professional judgement in light of the Limitations and industry standards for the preparation of similar reports;
- may be based on information provided to AECOM which has not been independently verified;
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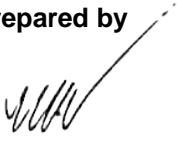
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*Heritage Impact Assessment: 1725 Mississauga Road, Mississauga, and Credit River Corridor Cultural Heritage Landscape  
Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River*

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# Table of Contents

<b>1.</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Project Context.....	1
1.2	Location and Physical Description of the Study Areas .....	1
1.2.1	Study Area 1 .....	2
1.2.2	Study Area 2 .....	2
1.2.2.1	Alternatives of Study Area 2.....	2
1.3	Cultural Heritage Status .....	2
1.4	Methodology.....	6
1.5	Community Engagement.....	6
<b>2.</b>	<b>Policy Framework.....</b>	<b>8</b>
2.1	Planning Act and Provincial Planning Statement .....	8
2.2	Ontario Heritage Act.....	8
2.3	A Place to Grow: Growth Plan for the Greater Golden Horseshoe.....	9
2.4	Region of Peel Official Plan.....	9
2.5	City of Mississauga Official Plan .....	9
<b>3.</b>	<b>Summary of Background Research and Analysis.....</b>	<b>12</b>
3.1	Historical Background – Land use History.....	12
3.1.1	Pre-Contact Indigenous Settlement.....	12
3.1.2	Post-Contact Period Settlement.....	14
3.1.3	Previous Archaeological Work .....	20
3.1.3.1	Registered Archaeological Sites.....	21
<b>4.</b>	<b>Statement of Significance .....</b>	<b>22</b>
<b>5.</b>	<b>Assessment of Existing Conditions .....</b>	<b>25</b>
5.1	Introduction .....	25
5.2	Description of Surrounding Context.....	26
5.3	Property Description – Study Area 2 .....	26
5.3.1	Natural Features.....	26
5.3.2	Human-Made Features.....	29
<b>6.</b>	<b>Impact Assessment.....</b>	<b>34</b>
6.1	Description of the Proposed Project.....	34
6.2	Alternative Options .....	34
6.2.1	Alternative 4 .....	34
6.2.1.1	Structural and Non-structural Bank Protection and Grade Control Measures.....	34
6.2.1.2	Potential Access Location .....	35
6.2.1.3	Facilitate Construction Activities .....	35
6.3	Assessment of Impacts .....	35
6.3.1	Screening for Potential Impacts .....	35
6.3.2	Impact Assessment Approach .....	36
6.3.3	Assessment of Impacts.....	36

6.3.4 Summary of Project Impacts on the Credit River Corridor CHLs .....38

**7. Development Options and Mitigation Measures .....39**

7.1 Alternative Development Options and Mitigation Measures for the Credit River Corridor CHL.....39

**8. Recommendations .....41**

**9. Sources.....42**

## Figures

Figure 1: Location of the Study Areas ..... 4

Figure 2: Location of the Study Areas on Aerial Photography..... 5

Figure 3: Study Areas Overlaid on Ontario Treaties Map ..... 45

Figure 4: Study Areas Overlaid on the Tremaine’s 1859 Map of the County of Peel ..... 46

Figure 5: Study Areas Overlaid on the 1877 Illustrated Historical Atlas of the County of Peel, Ont..... 47

Figure 6: Results Mapping..... 48

## Tables

Table 1: Results of Stakeholder's Engagement..... 6

Table 2: Impact Assessment –Credit River Corridor CHL..... 36

Table 3: Impact Assessment – 1725 Mississauga Road, The Mississauga Golf and Country Club ..... 37

## List of Photographs

Photograph 1: View of a portion of Study Area 2 (AECOM 2023)..... 3

Photograph 2: View of the channelized segment of Wolfedale Creek located in Study Area 1 (AECOM 2023)..... 25

Photograph 3: View of Wolfedale Creek located in Study Area 2 and the surrounding low-lying riparian area, looking southwest (AECOM 2023) ..... 27

Photograph 4: View of Wolfedale Creek located in Study Area 2 and the surrounding low-lying riparian area, looking northwest (AECOM 2023) ..... 27

Photograph 5: View of Wolfedale Creek located in Study Area 2 and the surrounding low-lying riparian area, looking southwest (AECOM 2023) ..... 28

Photograph 6: View of the grasslands and wildflower meadow located on the steep slopes adjacent to suburban development and associated, looking east (AECOM 2023)..... 28

Photograph 7: View of the deciduous trees and understory vegetation located on the steep slopes adjacent to suburban development, looking south (AECOM 2023) ..... 29

Photograph 8: View of Wolfedale Creek located in Study Area 2, the armour stone retaining wall and the surrounding low-lying riparian area, looking northwest (AECOM 2023)..... 30

Photograph 9: View of Wolfedale Creek located in Study Area 2, the armour stone/rock retaining wall and the surrounding low-lying riparian area, looking southeast (AECOM 2023)..... 30

Photograph 10: View of Wolfedale Creek located in Study Area 2, the armour stone/concrete retaining wall and the surrounding low-lying riparian area, looking east (AECOM 2023)..... 31

Photograph 11: View of Wolfedale Creek located in Study Area 2, the armour stone/concrete retaining wall and the surrounding low-lying riparian area, looking east (AECOM 2023)..... 31

Photograph 12: View of Wolfedale Creek located in Study Area 2, a concrete engineered culvert and the surrounding low-lying riparian area, looking north (AECOM 2023)..... 32

Photograph 13: View of Wolfedale Creek located in Study Area 2, a concrete engineered culvert and the surrounding low-lying riparian area, looking north (AECOM 2023)..... 32

Photograph 14: View of the small concrete utilitarian building located in Study Area 2, presumed to have served as a pumphouse and the scattered scrap metal and machinery, looking east (AECOM 2023)..... 33

## Appendices

Appendix A. Mapping

Appendix B. Key Qualifications

Appendix C. *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes: A Checklist for the Non-Specialist – Study Area 1 and Study Area 2*

# 1. Introduction

## 1.1 Project Context

AECOM Canada Ltd. (AECOM) was retained by the City of Mississauga to complete a Heritage Impact Assessment (HIA) for the Cultural Heritage Landscapes (CHLs) located at 1725 Mississauga Road, the Mississauga Golf and Country Club, and the Credit River Corridor CHL as they may have the potential to be impacted by the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River (the 'Project'). The requirement for this HIA was identified by the completion of the Ministry of Citizenship and Multiculturalism's (MCM) *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes: A Checklist for the Non-Specialist* (hereafter 'MCM Criteria Checklist') for each of the two study areas of this Project (for description of the study areas see **Section 1.2** below). The checklists have been included in the AECOM Municipal Class Environmental Assessment Study report for the Project (AECOM, 2024) and for ease are also attached in **Appendix C** of this HIA.

The City of Mississauga has identified the need for erosion control and engineering design within the Wolfedale Creek, which includes segments of the creek from Burnhamthorpe Road West to Dundas Street in addition to the tributary outlet to the Credit River south of Queensway and west of Stavebank (approximately 2,300 m in length). The creek is fed by storm run-off, with the outlet just south of Burnhamthorpe Road West, feeding into the confined engineered channel characterized predominantly by urban land uses.

Ongoing erosion within the corridor has resulted in vertical and unstable creek banks, as well as impacts and loss of habitat. The corresponding Municipal Class Environmental Assessment (MCEA) will determine an effective long term erosion control and restoration strategy that is compatible with the natural tendencies of the creek and protects adjacent properties and infrastructure while maintaining or improving morphological form and function as well as hydraulic capacity. Additionally, it will provide environmental enhancements to improve fish habitat and passage within the watercourse. Finally, a key element of the MCEA will also be to identify and evaluate the existing conditions of the watercourse, in order to identify constraints and opportunities to minimize further ravine incision and potential threats to the surrounding infrastructure, in addition to adjacent properties, and even in some cases structures. The creek is located almost entirely within City lands, however, at various locations the creek corridor encroaches into private property, some with existing city easements.

The Project aims to:

- mitigate the existing erosion problems
- ensure stability of the creek using natural design techniques where feasible
- protect or enhance the existing natural environment within the area

The benefits of the Project:

- Provides long-term erosion protection along the creek banks
- Increases safety and protects nearby infrastructure and property
- Improves the environmental health of the creek while enhancing aquatic habitat and vegetation
- Presents opportunities for planting of native species, and enhanced wildlife habitat where feasible

## 1.2 Location and Physical Description of the Study Areas

The Wolfedale Creek Erosion Control Project includes two Study Areas: Study Area 1 and Study Area 2.



## 1.2.1 Study Area 1

Study Area 1 is located within a channelized segments of Wolfedale Creek from Burnhamthorpe Road West to Dundas Street West in the urban core of the City of Mississauga. Study Area 1 includes 21<sup>ST</sup> century industrial structures, gravel parking lots, and pathways. The construction of these built structures, gravel parking lots, and pathways along the stretch of Wolfedale Creek have effectively removed any archaeological potential. This outcome stems from the substantial disturbance incurred during prior construction activities. As a result of this historical disruption, communication with the City of Mississauga Heritage Planner and the completion of the MCM Criteria Checklist, there are no built heritage resources (BHRs) or cultural heritage landscapes (CHLs) within or adjacent to Study Area 1. Therefore, Study Area 1, from Burnhamthorpe Road West to Dundas Street West, is excluded from the impact assessment of this HIA since there are no Project impacts to any BHRs or CHLs.

## 1.2.2 Study Area 2

Communication with the City of Mississauga Heritage Planner and the completion of the MCM Criteria Checklist identified a known CHL within Study Area 2. Study Area 2 consists of a channelized portion of Wolfedale Creek which is within a naturalized area in the City of Mississauga. Study Area 2 is located entirely within a portion of the Credit River Corridor CHL. Study Area 2 also encompasses the Credit River Marshes Wetland Complex, recognized as Provincially Significant Wetlands. In general, Study Area 2 is surrounded by low-density residential areas, natural areas, and the Mississauga Golf and Country Club at 1725 Mississauga Road (**Figure 1** and **Figure 2**). Study Area 2 and the surrounding context is thoroughly described in **Section 5.3**.

### 1.2.2.1 Alternatives of Study Area 2

AECOM, in collaboration with the City of Mississauga, developed and evaluated five (5) alternative options for the Wolfedale Creek Erosion Control Project in Study Area 2 and are outlined below:

- Alternative 1 – Do nothing.
- Alternative 2 – Full replacement of failed bank protection with structural bank protection options to maintain long term erosion protection, such as reinforced soil slope walls, cast-in-place re-enforced concrete walls, or steel sheet pile. Structural grade control could include concrete weir structures. Incorporation of a natural channel bed will be included to improve fish habitat and passage.
- Alternative 3 – Full replacement of failed bank protection with non-structural bank protection options to maintain long term erosion protection, such as rock, armour stone walls, green gabion, or geogrid retaining walls. Non-structural grade control could include rock weir structures. Incorporation of a natural channel bed will be included to improve fish habitat and passage.
- Alternative 4 – A combination of both structural and non-structural bank protection and grade control structures to maintain long term erosion protection. Incorporation of a natural channel bed will be included to improve fish habitat and passage.
- Alternative 5 – Enclose the watercourse in storm sewer and landscape a trail over top.

Alternative 4 has been identified the preferred erosion control and restoration strategy and will be the only alternative screened for potential impacts in this HIA.

## 1.3 Cultural Heritage Status

### Study Area 1

There are no known BHRs or CHLs within Study Area 1.

## Study Area 2

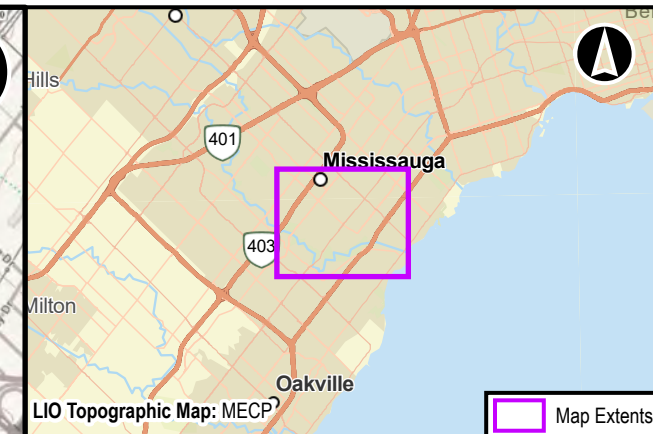
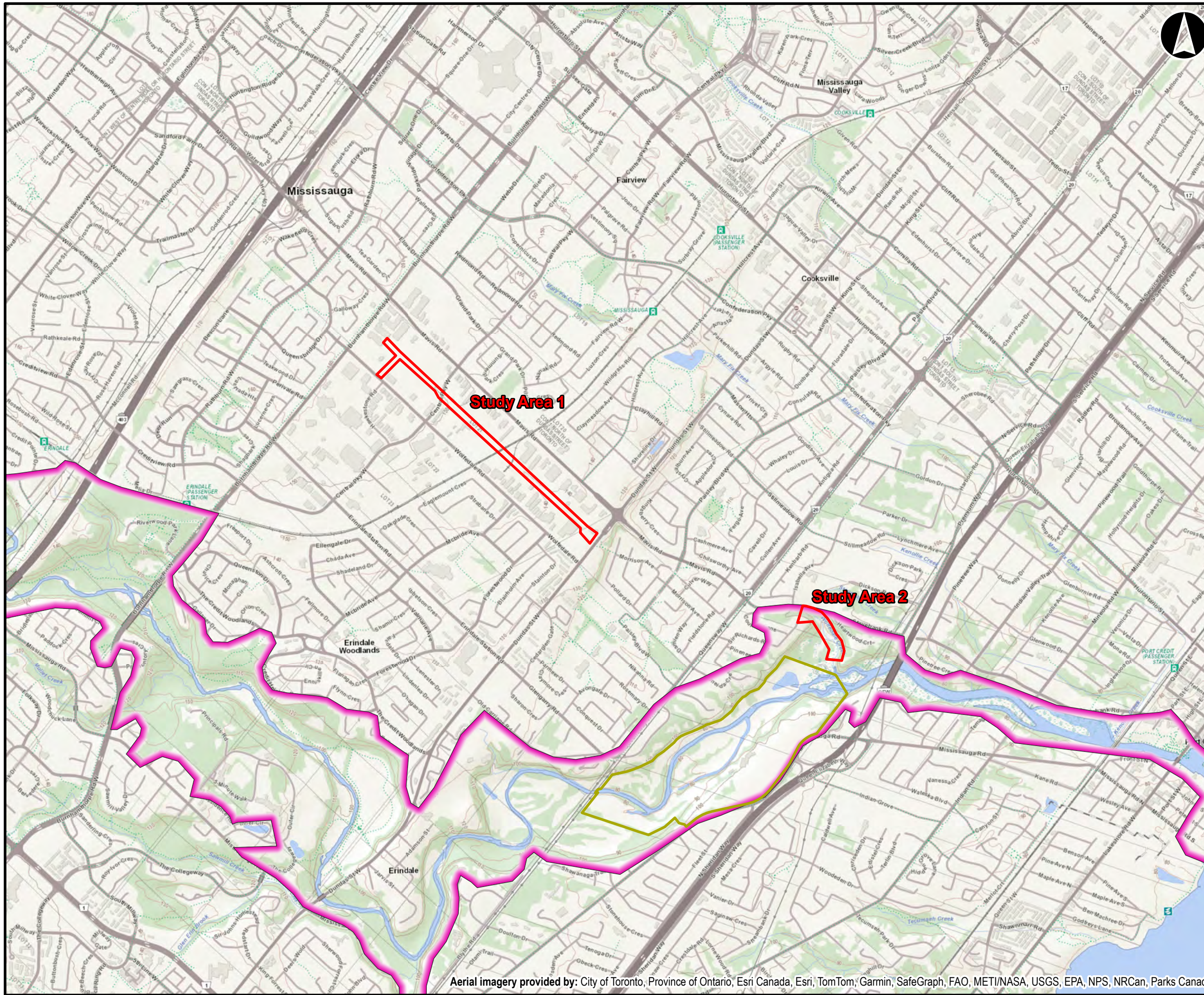
Study Area 2 is located within the Credit River Corridor CHL, which was originally identified in the 2005 Cultural Landscape Inventory for its landscape environment, historical associations, historical or archaeological interest, outstanding features or interest, and significant ecological interest (The LandPlan Collaborative Ltd. et al. 2005). Following the adoption of the Inventory, the properties within the boundary of the CHL were added to the City of Mississauga's *Heritage Register* as non-designated ("listed") properties (if they were not already listed or designated by the City).

In 2022, the Credit River Corridor CHL was evaluated by Archaeological Services Inc. (ASI) for cultural heritage value or interest as part of the *Conserving Heritage Landscapes: Cultural Heritage Landscape Project* (ASI., Final January 2022). The evaluation of the Credit River Corridor used criteria in three categories: Cultural Heritage Value or Interest (using Ontario Regulation 9/06), Community Value, and Historical Integrity. The Credit River Corridor was found to meet the criteria, including Ontario Regulation 9/06, thus establishing its significance as a Credit River Corridor CHL to the City of Mississauga. Consequently, a formalized boundary was delineated, and a Statement of Significance was written and included in **Section 4** of this HIA.

Study Area 2 is located adjacent to 1725 Mississauga Road, the Mississauga Golf and Country Club, a listed property on the *Heritage Register for Mississauga*. Study Area 2 is located within the Credit River Corridor CHL which includes listed properties that are on the *Heritage Register* for Mississauga that are associated with the Credit River Corridor CHL. Since a Statement of Cultural Heritage Value has been prepared for the Credit River Corridor CHL in ASI's report, as per the requirements of the MCM Criteria Checklist, this HIA is being undertaken to assess the impacts of the Project on the Credit River Corridor CHL.



**Photograph 1:**  
View of a portion of Study Area 2 (AECOM 2023)

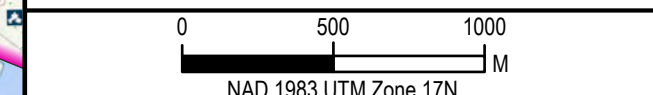


**Legend**

- Study Area
- 1725 Mississauga Road – Listed Property
- Credit River Corridor Cultural Heritage Landscape

**Heritage Impact Assessment  
WOLFEDALE CREEK EROSION CONTROL PROJECT:  
Burnhamthorpe Road West to the Credit River  
Mississauga, Ontario**

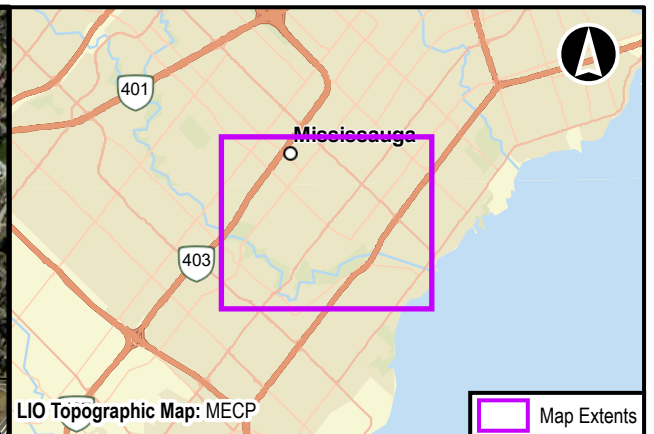
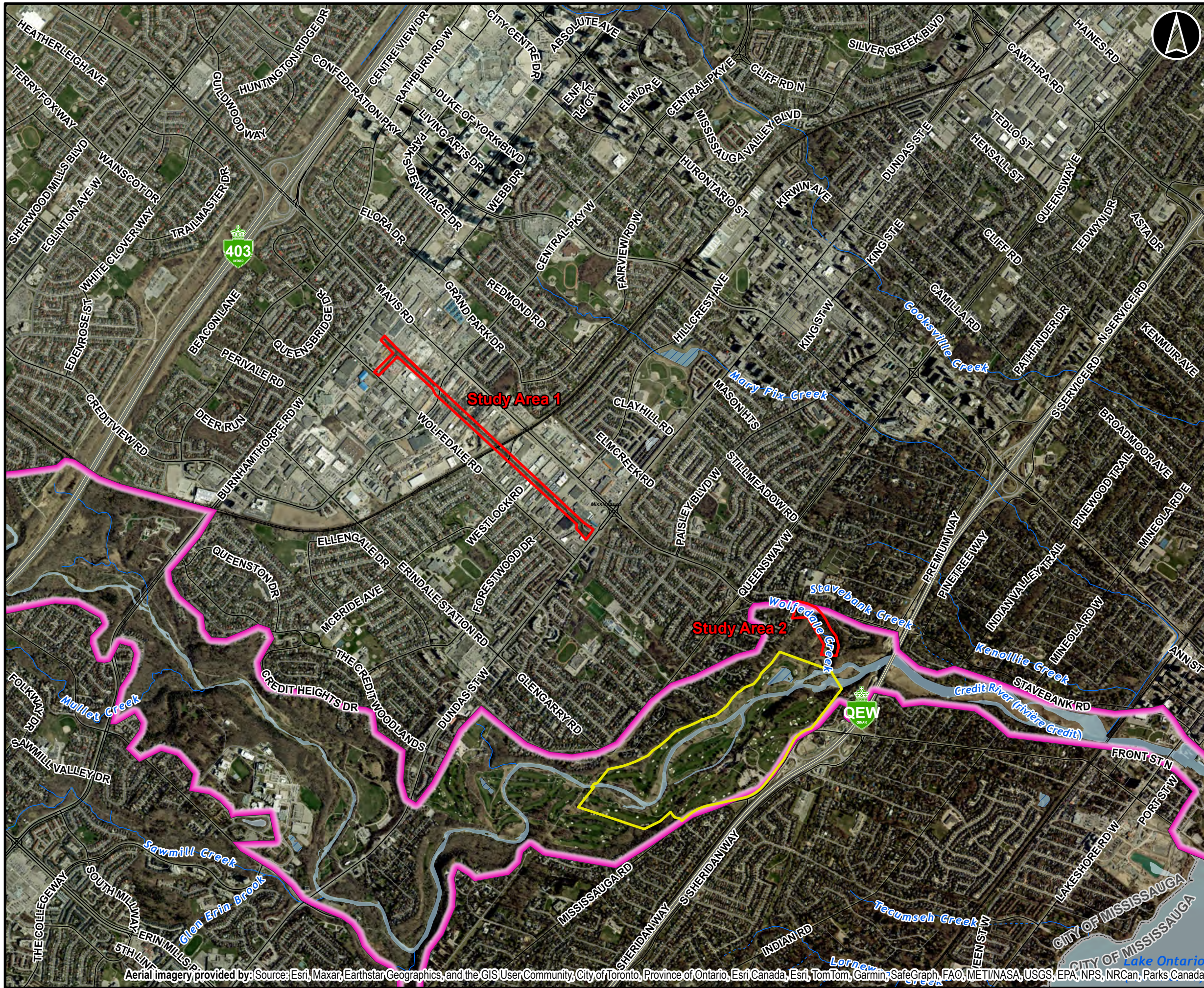
**Location of the Study Areas**



May, 2024	1:25,000	Data Sources: MNR 2023
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**AECOM** **Figure 1**

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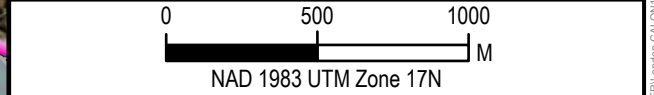
Map Extents

**Legend**

- Study Area
- 1725 Mississauga Road – Listed Property
- Credit River Corridor Cultural Heritage Landscape

**Heritage Impact Assessment  
Wolfdale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit River  
Mississauga, Ontario**

**Location of the Study Areas over an  
Aerial Photograph -**



May, 2024	1:25,000	Data Sources: MNR 2003
P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 2</b>
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## 1.4 Methodology

This HIA adheres to the guidelines set out in MCM's *InfoSheet #5 Heritage Impact Assessment and Conservation Plans* as part of the *Ontario Heritage Tool Kit* (2006) and the *City of Mississauga Heritage Impact Assessment Terms of Reference*. The HIA will assess the proposed changes to Study Area 2 and evaluate the impact on the cultural heritage value of the surrounding area. The HIA will propose mitigation options and measures if required to mitigate and limit any adverse impacts to the identified heritage attributes of the property (areas of avoidance, design measures, construction buffering, commemoration, etc.)

For the purpose of this HIA, AECOM undertook the following key tasks:

- Reviewed appropriate background documents including the:
  - *Conserving Heritage Landscapes: Cultural Heritage Landscape Project – Volume 1, Volume 2 & Volume 3*. (ASI., Final January 2022).
  - *Heritage Impact Assessment on the Pump House at the Mississauga Golf and Country Club: 1725 Mississauga Road, Mississauga, Ontario* (Dilse, October 11, 2012).
  - *Cultural Heritage Inventory* (Landplan Collaborative Ltd. et al., 2005)
- Consulted with the City of Mississauga Heritage Planner, to confirm the scope of the HIA and to provide background information on cultural heritage features that maybe impacted by the Project.
- Conducted a field review to document the existing conditions of the Study Areas, on September 7, 2023.
- Identified and prepared a description of the proposed undertaking;
- Assessed the proposed infrastructure impacts, based on the preferred erosion control and restoration strategy (Alternative 4), on 1725 Mississauga Road and the Credit River Corridor CHL; and
- Prepared mitigation options and measures with recommendations to avoid or reduce any negative impacts to the BHRs and CHLs.

## 1.5 Community Engagement

Below includes a summary of the engagement activities and feedback undertaken for the development of this HIA. The following stakeholders were contacted with inquiries regarding the background of the Study Areas (**Table 1**).

**Table 1: Results of Stakeholder's Engagement**

Contact	Contact Information	Date	Notes
Paula Wubbenhorst / City of Mississauga / Heritage Planner	Paula.Wubbenhorst @mississauga.ca	2023-03-15	AECOM cultural heritage team emailed Paula Wubbenhorst to confirm the scope of the HIA and the heritage resources that should be evaluated for Project impacts in the report.
		2023-03-20	Paula Wubbenhorst provided the AECOM cultural heritage team with valuable resources to aid the creation of the HIA.

Contact	Contact Information	Date	Notes
			<p>Among these resources was the City of Mississauga's most recent (1) <i>HIA Terms of Reference</i>, (2) <i>Conserving Heritage Landscapes: Cultural Heritage Landscape Project – Volume 2 &amp; Volume 3</i>. (ASI., Final January 2022) and (3) <i>Heritage Impact Assessment on the Pump House at the Mississauga Golf and Country Club: 1725 Mississauga Road, Mississauga, Ontario</i> (Dilse, October 11, 2012).</p> <p>The resources provided by Paula Wubbenhorst were instrumental in the development of this HIA, particularly in the drafting of Section 3 of this report.</p>

## 2. Policy Framework

The authority to request an HIA arises from the *Ontario Heritage Act*, Section 2(d) of the *Planning Act*, the Provincial Policy Statement (2020), Ontario Heritage Act, A Places to Grow: Growth Plan for the Greater Golden Horseshoe (Office Consolidation 2020), Region of Peel Official Plan (April 2022 Consolidation), and City of Mississauga Official Plan (Office Consolidation March 4, 2024).

### 2.1 Planning Act and Provincial Planning Statement

The *Planning Act* (1990) and the associated Provincial Planning Statement (2024 PPS) provide a legislative framework for land use planning in Ontario. Both documents identify matters of provincial interest, which include the conservation of significant features of architectural, cultural, historical, archaeological, or scientific interest. The *Planning Act* requires that all decisions affecting land use planning matters “shall be consistent with” the PPS. In general, the PPS recognizes that Ontario’s long-term prosperity, environmental health, and social well-being depend on protecting natural heritage, water, agricultural, mineral, cultural heritage, and archaeological resources for their economic, environmental, and social benefits.

Pursuant to Section 4.6 of the 2024 PPS, Policy 4.6.1. states a “*Protected heritage property, which may contain built heritage resources or cultural heritage landscapes, shall be conserved.*” The 2024 PPS issued under the authority of the *Planning Act* defines “conserved” as “*means the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches should be included in these plans and assessments.*”

To conserve built heritage resources or cultural heritage landscapes, a municipality or approval authority may require an HIA and/or a conservation plan to guide the approval, modification, or denial of a proposed development or site alteration that affects a cultural heritage resource. Using tools such as heritage impact assessments, municipalities and approval authorities can further enhance their own heritage preservation objectives.

Furthermore, a policy in Section 4.6 of the 2024 PPS, Policy 4.6.3., states “*Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property unless the heritage attributes of the protected heritage property will be conserved.*”

### 2.2 Ontario Heritage Act

The *Ontario Heritage Act* enables municipalities and the province to designate individual properties and/or districts as being of cultural heritage value or interest. The province or municipality may also “list” a property or include a property on a municipal register that has not been designated but is believed to be of cultural heritage value or interest. *Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest* (O. Reg. 9/06) under the *Ontario Heritage Act* provides criteria for determining cultural heritage value or interest. If a property meets one or more of the criteria it may be designated under Section 29 of the *Ontario Heritage Act*.

Under section 27(9) of the *Ontario Heritage Act* it is stated that:

If a property that has not been designated under this Part has been included in the register under subsection (3), the owner of the property shall not demolish or remove a building or structure on the property or permit

the demolition or removal of the building or structure unless the owner gives the council of the municipality at least 60 days notice in writing of the owner's intention to demolish or remove the building or structure or to permit the demolition or removal of the building or structure.

## 2.3 A Place to Grow: Growth Plan for the Greater Golden Horseshoe

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (GGH; 2020) supports the development of prosperous and complete communities across the Greater Golden Horseshoe Region. Through the Indigenous community's historic relationship with the lands and resources in this region, they have gained traditional knowledge that is of value to the planning decisions being made today. A balanced approach to the wise use and management of all resources, including those related to water, natural heritage, agriculture, cultural heritage, and mineral aggregates, will be implemented in the GGH.

The following General Cultural Heritage Policies are applicable to this project:

### Section 4.2.7

1. *Cultural heritage resources will be conserved in order to foster a sense of place and benefit communities, particularly in strategic growth areas.*

## 2.4 Region of Peel Official Plan

The Peel Region Official Plan (Office Consolidation April 2022) is the document which guides all land use planning within the municipality. As Peel Region is an upper-tier regional municipality, the policies contained within also pertain to the lower-tier municipalities within Peel Region. As the Region is continuing to experience significant population and employment growth, the Official Plan provides the Regional Council with a long-term policy framework for managing resources, directing growth, protecting the environment, and providing regional services in an efficient manner.

Specifically related to heritage conservation, Section 3.3 of the Official Plan outlines a number of policies related to the conservation of cultural heritage resources within the Region. It is noted in the Official Plan that Peel Region "encourages and supports heritage preservation and recognizes the significant role of heritage in developing the overall quality of life for residents and visitors to Peel."

Section 3.3.3.1.5 notes the requirement for, and support of cultural heritage resource impact assessments for infrastructure projects, including those initiated by Peel Region.

## 2.5 City of Mississauga Official Plan

The *Mississauga Official Plan* (Office Consolidation March 4, 2024) is the document which guides the growth and development of the city, as required by the *Planning Act*. The plans and policies of the Official Plan are intended to be achieved over the course of twenty-five years, by 2031. The Official Plan provides the basis for land use and urban design decisions in the City. Its policies address the important parts of city-building transportation, housing, culture and heritage, the environment, and the economy.

Section 7.5 of the Official Plan pertains to Heritage Planning in the City. Under Section 7.5, The following guidelines and policies are applicable and relevant for the project and the potential development therein:



*7.5.1.1 The heritage policies are based on two principles: a. heritage planning will be an integral part of the planning process; and b. cultural heritage resources of significant value will be identified, protected, and preserved.*

*7.5.1.2 Mississauga will discourage the demolition, destruction or inappropriate alteration or reuse of cultural heritage resources.*

*7.5.1.3 Mississauga will require development to maintain locations and settings for cultural heritage resources that are compatible with and enhance the character of the cultural heritage resource.*

*7.5.1.9 Character Area policies may identify means of protecting cultural heritage resources of major significance by prohibiting uses or development that would have a deleterious effect on the cultural heritage resource, and encouraging uses and development that preserve, maintain and enhance the cultural heritage resource.*

*7.5.1.10 Applications for development involving cultural heritage resources will be required to include a Heritage Impact Assessment prepared to the satisfaction of the City and other appropriate authorities having jurisdiction.*

*7.5.1.12 The proponent of any construction, development, or property alteration that might adversely affect a listed or designated cultural heritage resource or which is proposed adjacent to a cultural heritage resource will be required to submit a Heritage Impact Assessment, prepared to the satisfaction of the City and other appropriate authorities having jurisdiction.*

*7.5.1.13 Cultural heritage resources must be maintained in situ and in a manner that prevents deterioration and protects the heritage qualities of the resource.*

*7.5.1.17 Public works will be undertaken in a way that minimizes detrimental impacts on cultural heritage resources.*

*7.5.1.18 Mississauga recognizes the Credit River and Etobicoke Creek valleys as heritage corridors with both prehistoric and historical significance.*

*7.5.2.2 Prior to the demolition or alteration of a cultural heritage resource, documentation will be required of the property to the satisfaction of the City, and any appropriate advisory committee. This documentation may be in the form of a Heritage Impact Assessment.*

*7.5.2.3 Development adjacent to a cultural heritage property will be encouraged to be compatible with the cultural heritage property.*

In 2005, the City of Mississauga adopted its *Cultural Landscape Inventory*. This Inventory was based on a study prepared by The Landplan Collaborative Ltd. in association with Goldsmith Borgal and Company Ltd. Architects (G.B.C.A.), North South Environmental Inc., and Geodata Resources Inc. The study was initiated by the Community Services Department of the City of Mississauga, and analyzed landscapes within the City of Mississauga using the UNESCO definition of cultural landscapes:

*Cultural landscapes represent the combined works of nature and of man... They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.*

The Inventory identified a total of 39 cultural landscapes and 22 cultural features, which encompassed thousands of individual properties within the City. Following the adoption of the Inventory, these properties were added to the City

**City of Mississauga**

***Heritage Impact Assessment: 1725 Mississauga Road, Mississauga, and Credit River Corridor Cultural Heritage Landscape***  
*Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River*

of Mississauga's *Heritage Register* as non-designated ("listed") properties (if they were not already listed or designated by the City).

## 3. Summary of Background Research and Analysis

### 3.1 Historical Background – Land use History

#### 3.1.1 Pre-Contact Indigenous Settlement

##### *The Paleo Period*

In this period the first human settlement can be traced back to 11,000 BC; these earliest well-documented groups are referred to as “Paleo,” which literally means old or ancient. During the Paleo period, people were non-agriculturalists who depended on hunting and gathering of wild food; they moved their encampments on a regular basis to locations where these resources became naturally available. The size of the groups occupying particular locations would vary depending on the nature and size of the available food resources (Ellis and Deller 1990). The picture that has emerged for the early and late Paleo period is of groups at low population densities who were residentially mobile and made use of large territories during annual cycles of resource exploitation.

##### *The Archaic Period*

The next major cultural period following the Paleo period is termed the “Archaic,” which is broken temporally into the Early, Middle, and Late Archaic periods. There is much debate on how the term Archaic is employed; general practice bases the designation on assemblage content as there are marked differences in artifact suites from the preceding Paleo and subsequent Woodland periods. As Ellis *et al.* (1990) note, from an artifact and site characteristic perspective the Archaic is simply used to refer to non-Paleo manifestations that predate the introduction of ceramics. Ellis *et al.* (1990) stress that Archaic groups can be distinguished from earlier groups based on site characteristics and artifact content.

Early Archaic sites have been reported throughout much of southwestern Ontario and extend as far north as the Lake Huron Basin region and as far east as Rice Lake (Deller *et al.* 1986). A lack of excavated assemblages from southern Ontario has limited our understanding and inferences regarding the nature of stone tool kits in the Early Archaic, and tool forms other than points are poorly known in Ontario; however, at least three major temporal horizons can be recognized and can be distinguished based on projectile point form (Ellis *et al.* 1990). These horizons are referred to as Side-Notched (*ca.* 8,000-7,700 BC), Corner-Notched (*ca.* 7,700-6,900 BC), and Bifurcated (*ca.* 6,900-6,000 BC) (Ellis *et al.* 1990). Additional details on each of these horizons and the temporal changes to tool types can be found in Ellis *et al.* (1990).

The Middle Archaic period (6,000-2,500 BC), like the Early Archaic, is relatively unknown in southern Ontario. Ellis *et al.* (1990) suggests that artifact traits that have come to be considered as characteristic of the Archaic period, first appear in the Middle Archaic. These traits include fully ground and polished stone tools, specific tool types including banner stones and net-sinkers, and the use of local and/or non-chert type materials for lithic tool manufacture (Ellis *et al.* 1990).

The Late Archaic begins around approximately 2,000 BC and ends with the introduction of ceramics and the Meadowood Phase at roughly 950 BC. Much more is known about this period than the Early and Middle Archaic and several Late Archaic sites are known. Sites appear to be more common than earlier periods, suggesting some degree of population increase. True cemeteries appear and have allowed for the analysis of band size, biological relationships, social organization, and health. Narrow and Small point traditions appear, as well as tool recycling wherein points were modified into drills, knives, end scrapers, and other tools (Ellis *et al.* 1990). Other tools include

serrated flakes used for sawing or shredding, spokeshaves, and retouched flakes manufactured into perforators, graters, micro-perforators, or piercers. Tools on coarse-grained rocks such as sandstone and quartz become common and include hammerstones, net-sinkers, anvils, and cobble spalls. Depending on preservation, several Late Archaic sites include bone and/or antler artifacts, which likely represent fishing toolkits and ornamentation. These artifacts include bone harpoons, barbs, or hooks, notched Projectile points, and awls. Bone ornaments recovered have included tubular bone beads and drilled mammal canine pendants (Ellis *et al.* 1990).

Throughout the Early to Late Archaic periods the natural environment warmed, and vegetation changed from closed conifer-dominated vegetation cover to the mixed coniferous and deciduous forest in the north and deciduous vegetation in the south that we see in Ontario today (Ellis *et al.* 1990). During the Archaic period there are indications of increasing populations and a decrease in the size of territories exploited during annual rounds. Evidence indicates there were fewer moves of residential camps throughout the year and longer occupations at seasonal campsites, repeated use of certain locations on a seasonal basis over many years, increasing attention to ritual associated with the deceased, and long-range exchange and trade systems for the purpose of obtaining valued and geographically localized resources (Ellis *et al.* 1990).

### **The Woodland Period**

The Early Woodland period is distinguished from the Late Archaic period primarily by the addition of ceramic technology, which provides a useful demarcation point for archaeologists but is expected to have made less difference in the lives of the Early Woodland peoples. The settlement and subsistence patterns of Early Woodland people shows much continuity with the earlier Archaic, with seasonal camps occupied to exploit specific natural resources (Spence *et al.* 1990). During the Middle Woodland, well-defined territories containing several key environmental zones were exploited over the yearly subsistence cycle. Large sites with structures and substantial middens appear in the Middle Woodland, associated with spring macro-band occupations focussed on utilizing fish resources and created by repeated use of the same site (Spence *et al.* 1990). Groups would come together into large macro-bands during the spring-summer at lakeshore or marshland areas to take advantage of spawning fish; in the fall inland sand plains and river valleys were occupied for deer and nut harvesting and groups split into smaller micro-bands for winter survival (Spence *et al.* 1990). This is a departure from earlier Woodland times when macro-band aggregation is thought to have taken place in the winter (Ellis *et al.* 1988).

The period between the Middle and Late Woodland periods was both technically and socially transitional for the ethnically diverse populations of southern Ontario and these developments laid the basis for the emergence of settled villages and agriculturally based lifestyles (Fox 1990). The Late Woodland period began with some groups shifting settlement and subsistence patterns, involving an increased reliance on corn horticulture. Corn may have been introduced into southwestern Ontario from the American Midwest as early as AD 600. However, it did not become a dietary staple until at least three to four hundred years later. The first agricultural villages in southwestern Ontario date to the AD 10th century. Unlike the riverine base camps of the Middle Woodland period, Late Woodland sites are in the uplands, on well-drained sandy soils.

In the Late Woodland period, between AD 900-1300, villages tended to be small settlements with nearby camps and hamlets that served as temporary spaces for hunting game and gathering resources outside of the villages. At this time, small village sites were characterized by the presence of longhouses with villages being occupied considerably longer than later in the Woodland period. Villages tended to be moved when nearby soils had been depleted by farming and conveniently collected firewood grew scarce. The Jesuits reported that the Huron moved their villages once every 10-15 years, as they relied less heavily on corn than did later groups, and since their villages were much smaller, there was less demand on nearby resources. Small amounts of corn appear to have been a dietary component; however, archaeological evidence suggests that its role was not as a dietary staple at this time but was possibly supplemental in nature.

By the beginning of the fourteenth century, larger fortified village sites were often cleared to accommodate the cultivation of corn, beans, and squash because of an increasing reliance on horticulture. Longhouses also continued to grow until AD 1450 when a decrease in house length is observed. This decrease in house length may be partially attributed to large scale drops in population size associated with the introduction of European diseases.

### ***The Woodland Period – Oral Tradition***

Between AD 1300 and 1400, village sizes grew significantly, resulting in the development of complex community political systems. This period also marks the emergence of fully developed horticulture, including the cultivation of corn, beans, and squash. Additionally, changes in ceramic styles may reflect increasing levels of inter-community communication and integration. This is supported by Michi Saagiig (Mississauga Anishinaabeg) oral histories, which speak to the coming of the corn growers and the symbiotic relationships that Algonkian speaking groups had with the Huron-Wendat in particular.

## **3.1.2 Post-Contact Period Settlement**

### ***General Overview***

The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of Iroquoian-speaking peoples, including the Six Nations of the Iroquois – Mohawk, Cayuga, Oneida, Seneca, Onondaga, and Tuscarora, as well as the Huron Wendat. This was followed by the return of Algonkian-speaking groups from northern Ontario, including the Michi Saagiig, who had temporarily retreated to their wintering grounds in the mid-1600s to avoid warfare and disease as a result of colonial settlement. Algonkian-speaking Ojibwe (Chippewa), Odawa (Ottawa), and Pottawatomi, known as the Three Fires Confederacy, remained in their traditional territory that covered a vast area of southern Ontario as well as eastern Michigan.

As European settlers encroached on their territory, the nature of Indigenous population distribution, settlement size, and material culture changed. Despite these changes, it is possible to correlate historically recorded villages with archaeological manifestations. The similarity of these sites to more ancient sites reveal an antiquity to documented cultural expressions that confirms a long historical continuity to systems of Indigenous ideology and thought (Ferris 2009).

It is important to note that, when discussing the historical documentation of the movement of Indigenous peoples, what has been documented by early European explorers and settlers represents only a very small snapshot in time. Documentation of where Indigenous groups were residing during European exploration and settlement is restricted to only a very short period and does not reflect previous and subsequent movements of these groups. This brief history does not reflect the full picture of the pre- or post-contact period occupations of Indigenous groups or cultures. As such, relying on historical documentation regarding Indigenous occupation and movement across the landscape can lead to misinterpretation. For example, noting the movement of Indigenous groups into an area may incorrectly suggest to the reader that these groups had not occupied the area previously; however, this is not the case. It is clear from Indigenous oral histories and the archaeological record that pre-contact Indigenous populations were extremely mobile and not tied to any one specific area. Over the vast period prior to the arrival of Europeans, Indigenous groups, language families, and cultures were fluid across the landscape.

When Europeans arrived at the site of present-day Toronto, they encountered the Seneca, who had established villages in the Toronto area in the second half of the 17<sup>th</sup> century. In 1805, William Claus, Deputy Superintendent of Indian Affairs on behalf of the British Crown, entered into negotiations with the Mississaugas of the Credit First Nation to surrender 35,000 acres (ac) of the Mississauga Tract at the head of Lake Ontario, known as the Head-of-the-Lake Purchase (Surtees 1994). This tract of land falls under Treaty No. 13A (ratified September 5, 1806, as Treaty 14) (**Figure 3**) and is described as occurring:

*...at the River Credit at Lake Ontario, between William Claus, Esquire, Deputy Superintendent General and Deputy Inspector General of Indians and of their Affairs, for and in behalf of Our Sovereign Lord the King and the Principal Chiefs, Warriors and People of the Mississague [Mississauga] Nation of Indians...described as follows: Commencing at the eastern bank of the mouth of the River Etobicoke, being in the limit of the western boundary line of the Toronto Purchase, in the year 1787; then north 22 degrees west, six miles; thence south 38 degrees west, 26 miles more or less, until it intersects a line on the course north 45 degrees west. Produced from the outlet of Burlington Bay; then along the said produced line, one mile more or less to the lands granted to Captain Brant; then north 45 degrees east, one mile and a half, then south 45 degrees east, three miles and a half more or less to Lake Ontario; then north easterly along the waters edge of Lake Ontario to the eastern bank of the River Etobicoke being the place of the beginning together with all the woods and waters thereon*

Morris 1943

After this purchase, the land was divided into the Townships of Toronto, Trafalgar, and Nelson and is known as the "Old Survey" (Clarkson 1977). During the American Revolutionary War, the region saw an influx of British settlers as United Empire Loyalists fled for the unsettled lands north of Lake Ontario. In 1787, the British had negotiated the Toronto Purchase with the Mississaugas of the Credit First Nation, thereby securing more than a quarter million ac (1000 squared kilometres) of land in the Toronto area (Morris 1943). As the result of an increasing demand for land by European immigrants, on October 28, 1818, William Claus introduced Treaty 19, otherwise known as the "Second Purchase", which involved the surrender of over 600,000 ac of land, including most of what is today, the Region of Peel. This vast area was surveyed and opened for settlement in 1819. Two additional treaties were also reached with the Mississaugas of the Credit First Nation on February 28, 1820. These included Treaties 22 and 23, which saw the surrender of much of the Credit Indian Reserve lands set aside in 1805. Collectively, these land surrenders are referred to as the "Credit Treaties" (Surtees 1994).

### ***The Mississauga Nation – The Early 1600s***

The Mississaugas of the Credit First Nation is part of the Ojibway (Anishinaabe) Nation, one of the largest Aboriginal Nations in North America (MCFN, n.d). From before the Mississaugas initial contact with Europeans, they dwelled in a region located inland from the northern edge of Lake Huron, specifically to the west of Manitoulin Island and east of Sault Ste. Marie (MCFN, n.d).

Similar to other Anishinaabe communities residing along Lake Huron's northern coast, the Mississaugas adhered to a nomadic lifestyle that entailed moving frequently to collect resources in sync with the changing seasons (MCFN, n.d).

During the winter season, the Mississaugas were dispersed throughout their nation's territory, dwelling in mobile units consisting of extended family groups (MCFN, n.d). By early spring, families would relocate to the maple sugar grounds, and at the conclusion of the maple sugar harvesting period, all family groups would congregate at spring fisheries, which served as significant social and ceremonial hubs (MCFN, n.d). During the summer season, families followed a much more sedentary lifestyle relative to winter. This sedentary lifestyle included the practice of fishing, agriculture and collecting bark from birch trees which was used to construct canoes and lodges (MCFN, n.d). As autumn neared, the Mississaugas would gather their agricultural yields and various wild fruits and vegetables, followed by a final harvest at fall fishing sites, after which individuals would disperse into extended family groups and proceed to inland hunting areas in readiness for the winter season (MCFN, n.d).

The emergence of European explorers and settlers, along with the establishment of colonies by the early to mid-1600s, propelled Indigenous Nations in the eastern region of North America into political, economic, and military partnerships with the two primary competing European powers, namely France and England. The Anishinaabe

Nations allied themselves with the French fur traders, missionaries, and the French colonial government, while the Five Nations Iroquois Confederacy allied themselves with England (MCFN, n.d.).

According to the oral tradition, the Mississaugas were pivotal in the Anishinaabe's conflicts with the Iroquois, and the tradition also explains how the resettlement of the Mississaugas in southern Ontario coincided with the Iroquois' eventual departure from the area. After much success in the area, the Mississaugas then travelled "along the Severn River to Lake Simcoe where they divided into two groups. The main group continued east to Balsam Lake, (. . .) a second group of Mississaugas travelled south from Lake Simcoe" (MCFN, n.d.).

According to the oral tradition presented by Chief Robert Paudash, "after the Iroquois retreated to their homeland south of Lake Ontario, the Mississaugas negotiated a peace treaty with the Mohawks Nation. Upon returning from these negotiations, the Mississaugas decided to settle permanently in southern Ontario" (MCFN, n.d.).

The Mississaugas once again divided into two groups with the first group establishing themselves in the of the Otonabee/Trent River and the second group establishing themselves in an area between Toronto and Lake Erie. The group that established themselves in an area between Toronto and Lake Erie are the direct ancestors of the present Mississaugas of the Credit First Nation (MCFN, n.d.).

### ***The Mississaugas of the Credit – The Credit Mission***

The Mississaugas of the Credit faced challenges in the late 1700s due to the encroaching Euro-Canadian settlements in the Lake Ontario region, disrupting their seasonal movements and resource harvesting activities. Despite this, the growth of nearby towns and villages presented some opportunities for the Mississaugas to "supply this population with food and manufactured goods through barter sales" (MCFN, n.d.).

Between 1781 to 1820, the Mississaugas of the Credit engaged in treaty discussions with the British government regarding their land in Southern Ontario. The Head of the Lake Treaty of 1806 resulted in the Mississaugas of the Credit relinquishing their land between Etobicoke Creek and Burlington Bay, as well as 6 miles inland from the shoreline to the Crown for 1,000 Pounds of trade goods (ASI, 2022). In addition, the Mississaugas of the Credit "retained a one-mile strip of land on either side of the Credit River the Credit River and Twelve Mile and Sixteen Mile Creeks for six miles inland from each mouth (ASI, 2022).

Due to the encroaching Euro-Canadian settlements the Mississaugas and the Crown engaged in negotiations for the sale of all their remaining land, which resulted in Treaty 22 (1818) and Treaty 23 (1820). However, as part of Treaty 23, 200 acres were reserved for a village along the Credit River (ASI, 2022).

The Credit Mission, also known as the Credit Indian Village, was historically located within what is now the Mississauga Golf and Country Club property at municipal address 1725 Mississauga Road, Mississauga, Ontario, overlooking the Credit River. The mission was erected in 1826 under the direction of Mississauga Chief Peter Jones (Kahkewāquonāby) and the Chief Superintendent of Indian Affairs, Colonel James Givins (Smith, 1986; Wilkinson, n.d.). Peter Jones had originally conceived the idea for the mission following an 1825 meeting with the Honourable Dr. Strachan who suggested the Mississauga establish a village (FitzGibbon, n.d.). The project was funded by the sale of lands within the Credit Indian Reserve (Treaties 22 or 23) and the village comprised 200 ac, 20-30 log houses and a sawmill erected by the government, and approximately 200 inhabitants. Later, a Methodist chapel and schoolhouse (taught by Ojibwa chief and schoolteacher John Jones, brother of Peter Jones, until 1830) were built in 1829, and Methodist minister Egerton Ryerson served as a missionary (Ontario Heritage Trust, n.d.). A cemetery may also have existed, potentially on the banks of the Credit River, but has not yet been discovered; there are no marked graves on the surface. By 1837, at least 50 log houses had been built with a half ac of garden space each, and the mission comprised two public stores, two sawmills, one blacksmith's shop, one carpenter's shop and a hospital (FitzGibbon, n.d.).

For over a decade the village at the Credit Mission thrived however owing to a number of factors, including increasing pressure to relocate from Euro-Canadian settlers to the area, religious tensions between the primarily Methodist mission and the increasingly Anglican province, and a number of infectious European diseases afflicting the villagers, the mission was relocated from the Credit River in May of 1847 to the Grand River Reserve, where land was donated for settlement by the Six Nations (Smith, 1987). An earlier attempt in the 1830s by Lieutenant-Governor Francis Bond Head was made to move the mission to Manitoulin Island, but this was halted by Peter Jones following his meeting with Queen Victoria and Colonial Secretary Lord Glenelg in England, as the lands on Manitoulin Island were unsuitable for agriculture (Smith, 1987). Though Peter Jones was successful in halting that relocation attempt, the villagers never actually received their rightful title deeds authorized by Queen Victoria. The mission structures eventually deteriorated and were removed, with the old meeting lodge and chiefs' residence last visible structure on the site; it was removed sometime in the 1950s (Wilkinson, n.d.; FitzGibbon, n.d.). In 1958, the golf course also rerouted Mississauga Road.



**Image 1:** Old Credit Mission from a sketch by Mrs. E. Carey (Ryerson, 1883)

### ***Post Departure of the Mississaugas of the Credit***

Following the departure of the Mississaugas of the Credit from the reserve, the land underwent subdivision, diverging from the conventional gridded lot and concession system of the Toronto Township. This led to the division of the former reserve lands into five Ranges to the north of Dundas Street, two Ranges to the south of Dundas Street, and three Ranges of the Credit Indian Reserve further south (ASI, 2022).

By 1859, ownership of the parcel had transitioned to R. and J. Cotton (**Figure 4**). The Tremaine's 1859 Map of the County of Peel indicates the presence of ten unknown-material structures within the former Credit Mission site (**Figure 4**). Notably, none of these structures fall within the Study Area 2 boundary. The Credit River and several tributaries are depicted including Wolfedale Creek shown within Study Area 2.



A year later, in 1863, the "Peel Manufacturing Co." was established by local entrepreneur Frederick C. Capreol, who subsequently acquired a major portion of the land (ASI, 2022). Capreol's intention was to develop flax, hemp, and woollen mills, along with damming the Credit River to support industrialization in Port Credit. However, due to financial constraints, these plans remained unrealized (ASI, 2022).

The 1877 Illustrated Historical Atlas of the County of Peel, Ont. (**Figure 5**) reveals minimal change within Study Area 2, aside from the shift in ownership mentioned earlier from R. and J. Cotton to Peel Manufacturing Co.

As Capreol's industrial vision did not come to fruition, a transaction occurred wherein 208 acres were acquired from the Peel General Manufacturing Company for \$12,000, paving the way for a new golf course. This marked the establishment of the Mississauga Golf and Country Club in 1906 (ASI, 2022) (**Image 2**), with a farmhouse by the Credit River serving as its clubhouse.



**Image 2:** View of the Mississauga Golf and Country Club and the Credit River, 1913 (Mollenhauer 1981)

### ***The Mississauga Golf and Country Club***

The text presented below has been sourced verbatim from *Heritage Impact Assessment on the Pump House at the Mississauga Golf and Country Club: 1725 Mississauga Road, Mississauga, Ontario* (Dilse, October 11, 2012):

*More property was acquired in 1908; and in 1912 and 1913, a new clubhouse was built on the site of the old farmhouse. The style chosen for the clubhouse, Tudor Revival, evoked vernacular English country manor houses of the Tudor period.*

*In 1923, further improvements were undertaken – a new bungalow for the maids, a new garage, an incinerator, machine shop, locker room, shelters on the course, a sewage disposal plant and a new water system.*

*The Canadian Golfer in its March 1923 issue reported that:*

*The Mississauga Golf and Country Club early in March let a contract to the National Equipment Company, Limited, of Toronto, for the installation of an entirely new water system at Mississauga. The new system will not only take care of the 18 greens and tees but will supply water for the showers in the club house and sleeping bungalow, water for the maids' quarters, the secretary's residence, the garage and the stable, and will be powerful to take care of an additional nine-hole course which the club has in mind to build some day in the north-eastern section of its property. Having spent about \$35,000 on the building of new greens during the past two years, Mississauga should, with its fine new water system, which will cost \$10,000, soon rank as one of the very finest golf courses in Canada. Its scenic beauty is without doubt the finest of any Canadian golf club.*

*Pasted in the same club scrapbook where The Canadian Golfer article is found, an article from The Globe, entitled "O'er Fairway and Hazard," began:*

*With the approach – at last – of real spring weather, thousands of citizens are beginning to think and to plan golf. The ancient Scottish game has taken a marvellous hold on the affections of folk in this city, and The Globe is making arrangements, in so far as is possible, to "cover" the golfing activities of Torontonians during the coming season – not merely the tournaments and club matches, but stories of the clubs, incidents on the courses, happenings to individual players, and records of personal achievement.*

*The Globe article continued its report on golfing:*

*The Mississauga Club is planning some improvements to its grounds. Its purpose is to plant roses along its entire frontage of a quarter of a mile and thus make its property one of the beauty spots of the county. Its President, Hugh Johnson, discussed this on Saturday with E. G. Donaldson and Arthur Sprott of the Greens Committee. Improvements are being made to the water system and members of the club, when they play over the permanent greens, will find that the course has been practically rebuilt within the past three years. With the improvements to grounds, the clubhouse and the course, Mr. Johnson believed that the plant of the Mississauga Club would be among the best in Canada.*

*In the report of the board of directors for the year ending the 30th of November 1923, an expenditure of \$10,936.95 for the new water system was accounted for.*

*The club continued to improve its grounds in the early and mid-twentieth century. In 1928, Stanley Thompson, the head of the most active golf architectural company in North America, drew plans to lengthen the course. More adjoining land was acquired in 1931 and 1932. In 1937, an old cottage near the sixteenth fairway was removed; and a sprinkler system installed on the lower fairways. In 1940, an inclined elevator (called the inclinor) was built, linking the fifteenth and sixteenth greens. In 1948, a companion elevator was installed below the clubhouse; and the club's first permanent bridge was spanned across the river. In 1958, a curling rink was added to the grounds; the clubhouse was renovated for year-round use; Mississauga Road, which had run through the grounds, was moved farther west; a new parking lot and drive were laid out; a new halfway house was erected; stone terracing was constructed; and major plantings were set out.*

*In 1974, the president reported on an ambitious plan of upgrades:*

*During the past year, an overall plan for upgrading the golf course, the club house, and the entrance grounds has been developed. Greens Director Dick Dewson and Bryan Devereux have prepared a long range plan for the golf course improvement which includes new equipment, a new pumping station and a sprinkler system. Planning Director Bruce Johnston and Bill Sinclair have prepared a long range plan for club house renovations which makes provision for a mixed lounge and patio deck, new and enlarged locker room facilities for the men's and ladies' sections, a designated area for the Juniors, and a new better planned area for the office. A plan has also been prepared for the improvement of the entrance to the club with plantings along the driveway and in the circle in front of the club house. All plans will be ready for review by the membership as soon as a total cost and method of financing has been determined. The implementation of these plans will require a major investment of funds and must have approval of the membership before being undertaken. It should be pointed out that the planning has been done in order to protect the investment we already have in our facilities, as their depreciation is substantial each year.*

*The following year, the president reported that new pumping equipment for the watering system would be installed in the winter of 1976. And in the president's report for 1976, it was recorded that:*

*Two major course expenditures in 1976 are in reality investments which will benefit the club for many years. The rebuilding of all pumping equipment plus new water intake from the river should make further outlays unnecessary for the next one or two decades. The installation of automatic sprinkler equipment at all greens, tees, and aprons should serve the club equally well. Converting our fairway watering to the automatic system is expected to follow in the Fall of 1977.*

*In 1978-79, a significant change to the clubhouse was made with the addition of a new informal dining room overlooking the valley – the Terrace Room.*

*The pattern of continual improvement of the grounds and facilities has continued into the twenty-first century. In 2010, the pump house erected in 1976 was improved. Course superintendent, R. Brewster, announced in a "Course Update" from 19 November 2009 that:*

*Our new pump station has been ordered for 2010 golf season and should be installed in February. Our pumphouse roof has been removed in preparation for removal of existing pumps. A temporary roof has been installed. The outside of the building will look like our Half-Way House and the washroom on Hole #15 when completed next spring.*

### **3.1.3 Previous Archaeological Work**

A search of the Archaeological Sites Database (ASDB) was conducted by AECOM to determine if any previous archeological work has been completed within the Study Areas or within 50 m of their boundaries. Only one previous assessment, a preliminary salvage assessment, was located as part of this search and is detailed below.

In 1980, immediate salvage operations were conducted following the identification of an archaeological site, registered in 1981 by Annie Gould as the Maracle site (AjGv-27), during topsoil removal activities conducted by a bulldozer as part of a stream diversion project on the Mississauga Golf and Country Club property. Scattered human remains and cultural material were noticed by a local resident and following the appropriate notifications, salvage operations were determined to be necessary at the site. The site, measuring approximately 0.3 hectares, had been partially disturbed by the bulldozer activities; the topsoil had been removed but excepting one deeper cut along the northern edge of disturbance, and the gravel layer underneath was not extensively disturbed. A total of 354 pieces of cultural material were recovered from the site, which included primarily pre-contact lithic Indigenous artifacts that could be dated to the Woodland-period Princess Point Complex of Southwestern Ontario (A.D. 600-800). The human

remains consisted of two individuals: an adult male and an infant. The investigation determined that the adult male represented an intact burial, however, disturbed by the bulldozer activities, that was intrusive to the Princess Point component. Based on the associated grave goods recovered from the intact burial, it was determined that the burial dated to approximately 1760-1820. The infant remains consisted of a single maxilla (jawbone) and was an isolated surface find; as such, it was unclear if the infant remains were associated with the intact burial, or if they related to the earlier Princess Point component. Both individuals are believed to be of Mississauga ancestry. Additional detail with regard to the burial can be found in the burial report completed as part of the preliminary assessment report (O'Brien 1981). The Maracle site (AjGv-27) is located roughly 65 m southwest of the Study Area 2 boundary. It should be noted that neither the preliminary assessment report, nor the ASDB provides recommendations for the site.

To the best of our knowledge, there are no other reports concerning archaeological work conducted within or in close proximity (i.e., within 50 m) of the Study Areas; however, it should be noted that the MCM does not maintain a database of all properties that have had past archaeological investigations and searches of the MCM's public register do not always result in a complete listing of all archaeological work conducted in a given area.

### **3.1.3.1 Registered Archaeological Sites**

In Ontario, information concerning archaeological sites is stored in the ASDB maintained by the MCM. This database contains archaeological registered sites within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on longitude and latitude. AECOM conducted a data search of the ASDB to determine if any registered archaeological sites are located within the vicinity of the Study Areas. This search resulted in the identification of two archaeological sites located within 300 m of Study Area 2; one is the Maracle site (AjGv-27), and the other is the Hogsback site (AjGv-3).

## 4. Statement of Significance

The following represents the full Statement of Significance pertaining to the Credit River Corridor which a portion is situated in Study Area 2. This Statement of Significance is an unaltered excerpt extracted from the *Conserving Heritage Landscapes: Cultural Heritage Landscape Project – Volume 3* (ASI, Final January 2022).

### **Cultural Heritage Value**

*The Credit River Corridor has cultural heritage value as a cultural heritage landscape due to its physical value, historical and associative value, and contextual value.*

*The Credit River Corridor has physical value as a representative and well-preserved example of a natural cultural heritage landscape. The greenspace extends through the core of the City of Mississauga and contains one of the few remaining natural ecosystems in the city. The Credit River Valley has been identified as the most significant natural landscape and wildlife habitat within the city. The Credit River also has physical value for aesthetic and scenic reasons. In some areas of the corridor there are scenic views of towering slopes from the valley floor, and views of the lush valley. Trees and the natural landscape throughout the Credit River Valley add to the scenic qualities of this landscape. The Q.E.W. Credit River Bridge is an unusual and unique example of an inverted bowstring arch deck truss bridge and features multiple types of connections, unusual among the construction of steel bridges.*

*The Credit River Corridor has historical and associative value due to its direct associations with Indigenous and European land use and settlement activities. The Credit River played a major role in dictating both pre-contact and European settlement patterns. The abundance of fish in the Credit River provided a key component of Indigenous and early European settlers' diets, as well as a source of recreation, as settlement followed. The Credit River also provided a valuable transportation source for early communities and an energy source, first for saw and grist mills and later for steam and hydroelectric projects. The Credit River Corridor also has historical and associative value due to its contributions to an understanding of a community or culture as it has played and continues to play a significant role in the Mississaugas of the Credit First Nation community with fishing, hunting, gathering, and spiritual activities. The Q.E.W. Credit River Bridge is considered to be a notable example of a bridge designed by Joseph Hobson, Chief Engineer of the Grand Truck Railroad and built by the Canadian Bridge Co. Ltd., given its craftsmanship, technical achievement, and unusual and unique design.*

*The Credit River Corridor also has contextual value as a cultural heritage landscape that is important in defining the character of the area. The Credit River remains a core of greenspace through the heart of Mississauga and plays a large role as a passive recreational area for the city. Recommendations that protect the character of the valley have been implemented to ensure long-term protection and maintenance of the scenic qualities of the Valley. The Credit River is historically, physically, functionally, and visually linked to its surroundings. Within the City of Mississauga, the Credit River flows for approximately 24 km and has shaped the land, both physically and culturally, for the past 10,000 years. The Credit River is considered a landmark in the community. The 1979 Project Planning study highlighted the fact that the valley is the most significant natural landscape and wildlife habitat in the City of Mississauga. There is public consensus on the importance of protecting this ecosystem.*

## **Community Value**

*The Credit River Corridor is valued as a cultural heritage landscape due to its community value. The river is a landmark in the community; a greenspace core that contrasts the dense development that characterizes the city. The community exhibits pride and stewardship of the Credit River Valley. Commemorative plaques, designation of properties under Part IV of the O.H.A., heritage bridge designations, and the establishment of the Credit Valley Conservation in the mid-twentieth century signify the importance of the Credit River to the members of the community. The Credit River Valley is a large expanse of public space, used for various recreation and public events. The Credit River has played a significant role in the lives of the Mississaugas of the Credit First Nation community. Hunting, fishing, gathering, and spiritual activities continue to be carried out by band members today. The river valley is written about in many local history books and tourism in the area draws people to the parks and recreation areas along the Credit River. Finally, planning policies (The Credit River Parks Strategy and The Credit Valley Conservation Strategic Plan) and projects (The Credit Valley Trail) speak to the importance of maintaining the character and setting of the Credit River Corridor.*

## **Historical Integrity**

*The Credit River Corridor is valued as a cultural heritage landscape due to its historical integrity. The diverse ecosystem found in the Credit River Valley is the only naturally remaining example of this once vast environment. The cultural relationship of the river and the valley with local First Nations community has been continuous through time. Some band members continue to carry out fishing, hunting, gathering, and spiritual activities today. The natural features and relationships of the Credit River Valley have remained intact since the retreat of the glaciers.*

*The steep valley walls, benches, and alluvial terraces are the result of thousands of years of erosion and fluvial activities. There are 8 identified viewpoints and 13 overlook points along the corridor. To date 15 archaeological sites are recorded along the Credit River, including the ruins of the Timothy Street Mill, in Streetsville. Also in Streetsville are the ruins of the Hyde Mill which are designated under Part IV of the O.H.A.*

## **Cultural Heritage Attributes**

- *The steep valley walls, benches, and alluvial terraces of the Credit River Valley;*
- *The meandering river and meander belt;*
- *The scenic quality of the natural environment, including the river and vegetation of the Valley;*
- *Existing city and community parks;*
- *Feature sites, identified in the Credit River Parks Strategy:*
  - *Sanford Farm*
  - *Former Harris Lands*
  - *Credit Meadows*
  - *Streetsville Memorial Park*
  - *Former Pinchin Lands*
  - *Riverwood (including the Oak Savannah)*
  - *Erindale Park;*
- *Bridging points:*
  - *Queen Elizabeth Way Bridge over Credit River*
  - *Canadian National Bridge over Credit River;*
- *Existing trail systems;*
- *Public access to the river;*

- *Known and potential archaeological sites and ruins;*
- *Port Credit Pier;*
- *Wetlands;*
- *Geological formations, in particular north and south of Dundas Street along the Credit River;*
- *Port Credit Lighthouse;*
- *Identified viewpoints:*
  - *Derry Road West*
  - *Along the trails east of Glamorgan Way*
  - *West side of Mississauga Road, north of Britannia Road West*
  - *Britannia Road West*
  - *Streetsville Cemetery*
  - *Eglinton Avenue West*
  - *Burnhamthorpe Road West*
  - *Dundas Street West Bridge, east of Mississauga Road;*
- *Identified overlooks:*
  - *Along Creditview Road, south of Highway 401*
  - *Four within the Credit Meadows Park*
  - *One on each east and west bank at Streetsville Cemetery*
  - *Former Pinchin Lands, north of Highway 403*
  - *Two within the Riverwood Conservatory, south of Highway 403 and north of Burnhamthorpe Road*
  - *Two within Erindale Park, on the north and south banks*
  - *Queen Elizabeth Way, looking north;*
- *Potential overlooks:*
  - *Old Derry Road Bridge*
  - *Barbertown Road Bridge*
  - *Pedestrian bridge along the trails that intersect with Creditview Road, south of Highway 401*
  - *Port Credit Railway Bridge*
  - *Lakeshore Road Bridge*
- *Waterfront Trail Bridge*

## 5. Assessment of Existing Conditions

### 5.1 Introduction

On September 7, 2023, an on-site field review was carried out by AECOM's Cultural Heritage Planner within Study Area 1 and Study Area 2. This field review was conducted to document the existing conditions within the Study Areas. AECOM had permission to enter the Study Areas to complete the field review. Photographs of Wolfedale Creek and its adjacent landscape are located in this section for reference and have been mapped on **Figure 6**.

As mentioned above, the Project in Study Area 1 includes a channelized segments of Wolfedale Creek from Burnhamthorpe Road West to Dundas Street West (**Photograph 2**). This area includes various industrial operation buildings, gravel parking lots, and pathways that were predominantly constructed in the 20<sup>th</sup> and 21<sup>st</sup> centuries. The construction of these built structures, gravel parking lots, and pathways along the stretch of Wolfedale Creek have effectively removed any cultural heritage or archaeological potential. This outcome stems from the substantial disturbance that incurred during construction related activities to channelization of Wolfedale Creek in Study Area 1. As mentioned in **Section 1.2** of this HIA, Study Area 1 was screened for potential BHRs or CHLs and none were identified which aligns with the City of Mississauga Heritage Planner's assessment. Therefore, as a result of this historical disruption and lack of BHRs or CHLs, Study Area 1 has been excluded from requiring an impact assessment and will not be discussed in detail in this section.



**Photograph 2:** View of the channelized segment of Wolfedale Creek located in Study Area 1 (AECOM 2023)



## 5.2 Description of Surrounding Context

Study Area 2 is located adjacent to 1725 Mississauga Road, which encompasses the premises of the Mississauga Golf and Country Club. This club holds a central position within the City of Mississauga, nestled between Highway 403 to the north, Queen Elizabeth Way to the south, Hurontario Street to the east, and the Credit River to the west. The vicinity surrounding Study Area 2 is predominantly urban, marked by industrial, commercial, and residential infrastructures.

The Mississauga Golf and Country Club property is listed on the City of Mississauga Municipal Heritage Register and includes a Tudor Revival clubhouse built in 1912, an 18-hole championship golf course, curling facilities with six sheets, pro shop and lounge, tennis courts, fitness centre, and an active bridge club.

A review of the *Conserving Heritage Landscapes Cultural Heritage Landscape Project – Volume 3 Cultural Landscape Inventory (ASI 2022)* identified one Credit River Corridor CHL, which is situated within Study Area 2; this is the Credit River Corridor Cultural Landscape. The Credit River Corridor Cultural Landscape boundaries include the Credit River from Port Credit to the northern boundary of Mississauga; the landscape is a greenspace core, and its topography varies from sharply sloping valley walls to wide floodplains (ASI, 2022).

Furthermore, to the south of Study Area 2's boundary, on the eastern side of Mississauga Road, just north of the Queen Elizabeth Way and adjacent to the entrance of the Mississauga Golf and Country Club, stands an Ontario Heritage Trust plaque commemorating the Credit Mission (Credit Indian Village). The inscription on the plaque is as follows:

*In 1826 the government assisted a band of Mississauga, who had recently been converted to Christianity, to settle in this vicinity, and within five years laid out a village plot and constructed log cottages and a sawmill. Methodist missionaries, notably Peter Jones and Egerton Ryerson, ministered to the converts who in 1829 built a combined schoolhouse and chapel. By 1837 about 50 houses had been erected for the Indians. Three years later they had approximately 200 ha under cultivation. Pressure from local white settlement and a decline in the Indian population led to the closing of the mission and the return of the major portion of the Mississauga to the Grand River Reserve in 1847.*

Ontario Heritage Trust n.d.

## 5.3 Property Description – Study Area 2

Study Area 2 comprises of various notable features, which can be categorized into natural and human-made features.

### 5.3.1 Natural Features

Natural features within Study Area 2 predominantly revolve around Wolfedale Creek, flanked by steep slopes, which creates a relatively narrow and winding watercourse through the valley (**Photograph 3** and **Photograph 4**). Topographically, the area exhibits steep slopes adjacent to suburban development and associated roadways, while riparian zones along the creek are relatively level and low-lying (**Photograph 5**). The steep slopes adjacent to suburban development and roadways are characterized by deciduous trees and understory vegetation, occasionally featuring areas with grasslands or wildflower meadows (**Photograph 6** and **Photograph 7**). Additionally, the area encompasses woodlot areas, riparian zones, and natural floodplains, all of which contribute to the scenic quality of the natural environment of the Valley (**Photograph 3**, **Photograph 4** and **Photograph 5**).

The low-lying riparian zones within Study Area 2 host a diverse range of plant species, encompassing aquatic flora within the creek, such as bullrushes, and woodlots along its banks, which comprise a mix of deciduous trees and

understory vegetation. Notably, Wolfedale Creek maintains clear water with minimal accumulation of debris or sediment.



**Photograph 3:** View of Wolfedale Creek located in Study Area 2 and the surrounding low-lying riparian area, looking southwest (AECOM 2023)



**Photograph 4:** View of Wolfedale Creek located in Study Area 2 and the surrounding low-lying riparian area, looking northwest (AECOM 2023)



**Photograph 5:** View of Wolfedale Creek located in Study Area 2 and the surrounding low-lying riparian area, looking southwest (AECOM 2023)



**Photograph 6:** View of the grasslands and wildflower meadow located on the steep slopes adjacent to suburban development and associated, looking east (AECOM 2023)



**Photograph 7:** View of the deciduous trees and understory vegetation located on the steep slopes adjacent to suburban development, looking south (AECOM 2023)

### 5.3.2 Human-Made Features

Study Area 2 is primarily devoid of visible above-ground structures. Apart from a few residential properties situated along Sir Richards Road within Study Area 2, some segments of Wolfedale Creek have undergone apparent human modifications, including engineered floodplains and culverts, which function as bank protection, along with an abandoned concrete pumphouse.

Visual inspection indicates that these bank protection structures are in varying conditions, with more naturalized ones showing higher signs of erosion. Types of bank protection structures include armour stone, rock, and concrete retaining walls (**Photograph 8**, **Photograph 9**, **Photograph 10**, and **Photograph 11**) and concrete engineered culverts, (**Photograph 12** and **Photograph 13**). The most conspicuous structure within Study Area 2 is a small concrete utilitarian building, presumed to have served as a pumphouse (now abandoned) due to the scattered scrap metal and machinery, likely pumps and motors, in its vicinity (**Photograph 14**). The concrete pumphouse is in a state of disrepair and it not determined by AECOM to have cultural heritage value or interest.

While the cultural heritage field investigation did not identify any visible physical above-ground evidence of Indigenous and Euro-Canadian land use, the *Stage 1 Archaeological Assessment: Wolfedale Creek Erosion Control Project* (AECOM, 2023) indicated that the recovery of pre- and post-contact Indigenous and 19th century Euro-Canadian archaeological resources within a portion of Study Area 2 is high. This underscores the historical depth and significance of the region, further emphasizing the need for careful consideration and preservation in future work.



**Photograph 8:** View of Wolfedale Creek located in Study Area 2, the armour stone retaining wall and the surrounding low-lying riparian area, looking northwest (AECOM 2023)



**Photograph 9:** View of Wolfedale Creek located in Study Area 2, the armour stone/rock retaining wall and the surrounding low-lying riparian area, looking southeast (AECOM 2023)



**Photograph 10:** View of Wolfedale Creek located in Study Area 2, the armour stone/concrete retaining wall and the surrounding low-lying riparian area, looking east (AECOM 2023)



**Photograph 11:** View of Wolfedale Creek located in Study Area 2, the armour stone/concrete retaining wall and the surrounding low-lying riparian area, looking east (AECOM 2023)



**Photograph 12:** View of Wolfedale Creek located in Study Area 2, a concrete engineered culvert and the surrounding low-lying riparian area, looking north (AECOM 2023)



**Photograph 13:** View of Wolfedale Creek located in Study Area 2, a concrete engineered culvert and the surrounding low-lying riparian area, looking north (AECOM 2023)



**Photograph 14:** View of the small concrete utilitarian building located in Study Area 2, presumed to have served as a pumphouse and the scattered scrap metal and machinery, looking east (AECOM 2023)



## 6. Impact Assessment

### 6.1 Description of the Proposed Project

AECOM was retained by the City of Mississauga to complete an HIA for the property with the municipal address of 1725 Mississauga Road, as part of the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River.

The Wolfedale Creek area, spanning from Burnhamthorpe Road West to Dundas Street, including the tributary outlet to the Credit River, faces erosion issues, affecting both the creek's stability and surrounding habitat. To address this, the MCEA aims to devise a long-term erosion control and restoration strategy that aligns with the creek's natural dynamics while safeguarding adjacent properties and infrastructure. Additionally, environmental enhancements will improve fish habitat and passage within the watercourse.

The project objectives are to mitigate erosion problems, stabilize the creek using natural design techniques where possible, and protect or enhance the existing natural environment. Benefits include long-term erosion protection, increased safety for nearby infrastructure and property, improved environmental health of the creek, and opportunities for planting native species and enhancing wildlife habitat where feasible.

### 6.2 Alternative Options

As discussed in **Section 1**, Alternative 4 is the preferred erosion control and restoration strategy. This solution includes a combination of both structural and non-structural bank protection and grade control structures to maintain long term erosion protection. Incorporation of a natural channel bed will be included to improve fish habitat and passage. Improvements recommended as part of the preliminary preferred solution are primarily non-structural as the channel bed is degrading for the majority of the creek and armourstone could potentially loose its base support over time. The majority of erosional issues along the creek overbanks could also be addressed with non-structural measures, though in select areas cooperation with the adjacent landowners would be required to address erosional issues to address deficiencies to existing structures (for example, small section of retaining wall failing) along the property limits. As such, localized small-scale structural measures, such as retaining wall repair or replacement, would then be implemented as required in select areas. Additionally, Alternative 4 proposes the inclusion of a potential access point owned by the Mississauga Golf and Country Club situated just off Stavebank Road to facilitate the construction of the preferred erosion control and restoration strategy. This is an existing access point that offers vehicular access to Wolfedale Creek and the surrounding Valley area.

#### 6.2.1 Alternative 4

##### 6.2.1.1 Structural and Non-structural Bank Protection and Grade Control Measures

Alternative 4 (**Figure 6**) proposes the installation of potential structural and/or non-structural bank protection measures and potential structural/or non-structural grade control measures within Study Area 2 for Wolfedale Creek. These measures will replace the existing failed bank protection structures along portions of both creek banks. Structural bank protection measures may include, but are not limited to, reinforced soil slope walls, cast-in-place reinforced concrete walls, or steel sheet piles. Structural grade control measures could involve concrete weir structures.

Implementing these measures will necessitate minor alterations to a section of the creek bank to accommodate the replacement of the failed protection structures. While this will result in land disturbance of the banks of Wolfedale

Creek, it's important to note that the impacted area has already been disturbed due to the construction of existing bank protection measures.

### 6.2.1.2 Potential Access Location

Alternative 4 (**Figure 6**) identifies a potential access point to Study Area 2 through an existing access laneway that is owned by the Mississauga Golf and Country Club and located across the road from 2153 Stavebank Road. Since the Project is using an existing access point, it is not anticipated that vegetation removal is required.

### 6.2.1.3 Facilitate Construction Activities

While not identified within Alternative 4 (**Figure 6**), the Project has the potential to alter the scenic quality of the natural environment. This could occur through the removal of vegetation in the Credit River Corridor CHL to facilitate access (beyond the existing access point/laneway) for temporary staging areas, construction personnel and machinery needed to remove and replace the failed bank protection measures. The scenic quality of the natural environment of the Valley has been identified as a heritage attribute of the Credit River Corridor CHL.

## 6.3 Assessment of Impacts

### 6.3.1 Screening for Potential Impacts

To assess the potential impacts of the undertaking, identified cultural heritage resources are considered against a range of possible impacts based on the *Ontario Heritage Tool Kit, Heritage Resources in the Land Use Planning Process, InfoSheet #5 Heritage Impact Assessments and Conservation Plans* (MTCS 2006:3) which include, but are not limited to:

- Destruction, removal, or relocation of any, or part of any, significant heritage attributes or features
- Alteration that is not sympathetic, or is incompatible, with the historic fabric or appearance
- Shadows created that alter the appearance of a heritage attribute or change the exposure or visibility of a natural feature or plantings, such as a garden
- Isolation of a heritage attribute from its surrounding environment, context, or a significant relationship
- Direct or indirect obstruction of significant views or vistas from, within, or to a built or natural heritage feature
- A change in land use such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces
- Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect an archaeological resource<sup>1</sup>

The MCM document defines “impact” as a change, either positive or adverse, in an identified cultural heritage resource resulting from a particular activity. This HIA identifies *direct (physical) impacts*, *indirect impacts*, and/or *positive impacts* as the impact types that a construction component and/or activity may have on cultural heritage resources.

A direct (physical) negative impact has a permanent and irreversible negative effect on the cultural heritage value or interest of a property or results in the loss of a heritage attribute on all or part of the heritage property. Any land disturbance, such as a change in grade and/or drainage patterns that may adversely affect a heritage property,

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<sup>1</sup> This HIA only examines impacts to above-ground BHRs and CHLs. Archaeological resources are presented in a separate report.

including archaeological resources. An indirect negative impact is the result of an activity on or near the property that may adversely affect its cultural heritage value or interest and/or heritage attributes. A positive impact will conserve or enhance the cultural heritage value or interest and/or heritage attributes of the property.

### 6.3.2 Impact Assessment Approach

Based on Alternative 4, Study Area 2 has the potential to directly impact the Credit River Corridor CHL due to the potential facilitation of construction personnel and machinery needed to remove and replace the failed bank protection measures. The impact assessment of the proposed project in **Table 2**, below, presents the possible impacts in the *Ontario Heritage Tool Kit, Heritage Resources in the Land Use Planning Process, InfoSheet #5 Heritage Impact Assessments, and Conservation Plans* (MCM 2006:3).

This HIA documents the assessment of anticipated construction impacts on the Credit River Corridor CHL and 1725 Mississauga Road as related to Alternative 4.

The intention of the impact assessment contained in this HIA is to:

- Review Alternative 4 as it relates to Study Area 2;
- Identify the impacts as outlined in the *Ontario Heritage Toolkit* (MCM 2006) based on the Alternative 4, on the Credit River Corridor CHL and 1725 Mississauga Road; and
- Provide mitigation measures to avoid or mitigate potential direct and indirect adverse impacts to the Credit River Corridor CHL and 1725 Mississauga Road. The proposed mitigation measures inform the next steps of the project planning and design.

The following section presents the results of the impact assessment and outlines the potential impacts to Credit River Corridor CHL and 1725 Mississauga Road based on Alternative 4.

### 6.3.3 Assessment of Impacts

The assessment of impacts (**Table 2** and **Table 3**) for the proposed project utilizes the *Ontario Heritage Tool Kit, Heritage Resources in the Land Use Planning Process, InfoSheet #5 Heritage Impact Assessments and Conservation Plans* (MCM 2006:3):

**Table 2: Impact Assessment –Credit River Corridor CHL**

Impact	Discussion of Impacts
Destruction, removal, or relocation	<p><b>No Adverse Impact.</b></p> <p>The Project will not directly result in significant destruction, removal, or relocation of any heritage attributes within the Credit River Corridor CHL as discussed in <b>Section 6.2.1 for Alternative 4</b> above, only the previously disturbed banks of Wolfedale Creek will be impacted.</p>

Impact	Discussion of Impacts
Alteration	<p><b>Potential Adverse Impact.</b></p> <p>Although the Project is using an existing access point/laneway, the Project has the potential for temporary impacts to the scenic quality of the natural environment through the removal of select vegetation in the Credit River Valley to facilitate access (beyond the existing access point/laneway) for temporary staging areas, construction personnel and machinery needed to remove and replace the failed bank protection measures within the boundary of the Credit River Corridor CHL. The scenic quality of the natural environment which includes the vegetation of the Valley has been identified as a heritage attribute of the Credit River Corridor CHL. Therefore, potential adverse impacts in the form of alteration are anticipated.</p> <p>Mitigation strategies and recommendations have been summarized in <b>Section 7</b> below.</p>
Shadows	<p><b>No Adverse Impact.</b></p> <p>The Project will not result in any negative shadow impacts on the Credit River Corridor CHL.</p>
Isolation	<p><b>No Adverse Impact.</b></p> <p>The Project will not isolate any heritage attributes from its surrounding environment within the Credit River Corridor CHL.</p>
Direct or indirect obstruction of significant views	<p><b>No indirect adverse impact.</b></p> <p>The Project will not result in the direct or indirect obstruction of significant views within the Credit River Corridor CHL.</p>
A change in land use	<p><b>No indirect adverse impact.</b></p> <p>The current plan is to remain within the existing zoning permissions.</p>
Land disturbance	<p><b>No indirect adverse impact – Soil Disturbance</b></p> <p>There is an expected soil disturbance involved in the removal of and replacement of the failed bank protection measures. However, these lands have been previously disturbed by the construction of the existing bank protection measures. Therefore, no adverse impacts are anticipated.</p>

**Table 3: Impact Assessment – 1725 Mississauga Road, The Mississauga Golf and Country Club**

Impact	Discussion of Impacts
Destruction, removal, or relocation	<p><b>No Adverse Impact.</b></p> <p>The Project will not result in the destruction, removal, or relocation of any features associated with 1725 Mississauga Road, as the property is located adjacent and separated by approximately 150 m of woodlot and scrublands from Study Area 2.</p>
Alteration	<p><b>No Adverse Impact.</b></p> <p>The Project will not result in alteration to 1725 Mississauga Road, as the property is located adjacent and separated by approximately 150 m of woodlot and scrublands from Study Area 2.</p>

Impact	Discussion of Impacts
Shadows	<b>No Adverse Impact.</b>  The Project will not result in any negative shadow impacts on 1725 Mississauga Road.
Isolation	<b>No Adverse Impact.</b>  The Project will not result in the isolation of 1725 Mississauga Road, as the property is located adjacent and separated by approximately 150 m of woodlot and scrublands from Study Area 2.
Direct or indirect obstruction of significant views	<b>No indirect adverse impact.</b>  The Project will not result in the direct or indirect obstruction of significant views within 1725 Mississauga Road.
A change in land use	<b>No indirect adverse impact.</b>  The Project will not result in a change in land use of 1725 Mississauga Road, as the property is located adjacent to Study Area 2.
Land disturbance	<b>No indirect adverse impact – Soil Disturbance</b>  The Project will not result in any land disturbance associated with 1725 Mississauga Road, as the property is located adjacent to Study Area 2.

### 6.3.4 Summary of Project Impacts on the Credit River Corridor CHLs

#### 1725 Mississauga Road

The assessment of impacts did not identify any direct or indirect adverse impacts to the 1725 Mississauga Road; therefore mitigation options and measures and recommendations have not been developed in **Section 7** below.

#### Credit River Corridor CHL

Within Study Area 2, Alternative 4, as part of the Project, proposes the installation of potential structural and/or non-structural bank protection measures and grade control measures to replace existing failed bank protection structures along portions of both creek banks. Despite resulting in land disturbance, the impacted area has already been disturbed due to the construction of existing bank protection measures. Although the Project is using an existing access point/laneway, the Project has the potential for temporary impact to the scenic quality of the natural environment through the removal of select vegetation in the Credit River Valley to facilitate access (beyond the existing access point/road) for temporary staging areas, construction personnel and machinery needed to remove and replace the failed bank protection measures. The impact to the natural environment due to the removal of vegetation is considered an adverse impact to the heritage attributes of the Credit River Corridor CHL (Study Area 2) and requires alternative development options and mitigation measures (See **Section 7**).

## 7. Development Options and Mitigation Measures

### 7.1 Alternative Development Options and Mitigation Measures for the Credit River Corridor CHL

Alternative 4 has the potential to alter the scenic quality of the natural environment found within the Credit River Corridor CHL. This could occur through the removal of vegetation in the Credit River Valley to facilitate access for construction personnel and machinery needed to remove and replace the failed bank protection measures. Alteration of the natural environment through the removal of vegetation in the valley is a direct adverse impact to the cultural heritage value of the Credit River Corridor CHL as the scenic quality of the natural environment of the Valley has been identified as a heritage attribute of the Credit River Corridor.

Based on the results of historical research, a field review, established cultural heritage value, and analysis of impacts of the proposed undertaking, the following mitigation measures have been developed in accordance with the MCM's *Eight Guiding Principles in the Conservation of Built Heritage Properties* (2007). In addition, Parks Canada's *Standards and Guidelines for the Conservation of Historic Places* (2014) policies have been considered, and in particular that "introducing new vegetation, when required by a new use, to ensure that the heritage value of the cultural landscape is preserved" (Section 4.1.8 Guideline 16:81).

Based on the findings of the heritage assessment of impacts, the following recommendations are proposed to address potential adverse impacts on the cultural heritage value of the Credit River Corridor CHL:

#### ***Preferred Option***

Explore methods to facilitate access for construction personnel and machinery required for the replacement of failed bank protection measures while completely avoiding the removal of vegetation of the Valley, utilizing only the existing access route and open areas for staging that do not contain mature vegetation. This approach will completely preserve the scenic quality of the natural environment of the corridor. Potential measures to achieve this objective include:

- Conducting a comprehensive site assessment (i.e., Tree Preservation Plan or Landscape Plan) during the design phase to identify areas of vegetation that should be preserved due to their contribution to the scenic quality of the Valley's natural environment.
- Installing temporary fencing and establishing no-go zones on construction maps to delineate areas of vegetation that must not be removed/disturbed.

#### ***Alternative Option***

If the preferred option is not feasible, methods should be explored to facilitate access for construction personnel and machinery necessary for replacing the failed bank protection measures while minimizing the removal of significant vegetation in the Valley. Potential measures to achieve this objective include:

- Conducting a comprehensive site assessment (i.e., Tree Preservation Plan or Landscape Plan) during the design phase to identify areas of vegetation that should be preserved due to their contribution to the scenic quality of the Valley's natural environment.
- Installing temporary fencing and establishing no-go zones on construction maps to delineate areas of vegetation that must not be removed/disturbed.

- In this alternative option where instances of vegetation removal is unavoidable, prioritizing the replanting of native species to enhance the scenic quality of the Valley's natural environment.

This approach will effectively balance the requirements of construction activities, while mitigating the potential adverse impacts to the scenic quality of the natural environment of the Valley and the broader Credit River Corridor CHL.

## 8. Recommendations

The Project within Study Area 2 in the City of Mississauga is adjacent to the Listed property at 1725 Mississauga Road but is within the Inventoried Credit River Corridor CHL. Based on the results of the HIA, the mitigation strategy of this report is to recommend protective measures of the vegetation within the Study Area. The following recommendations should be considered as part of the approval of the proposed Project:

1. Ensure that the boundary of the Credit River Corridor CHL, as shown on **Figure 6-2**, is indicated on Project mapping.
2. Complete a Landscape Plan or Tree Preservation Plan for Study Area 2 to identify the contributing vegetation to the scenic quality of the landscape (i.e. native species). The plan should include a detailed vegetation protection methodology and strategies to mitigate any direct impacts to the vegetation if necessary.



## 9. Sources

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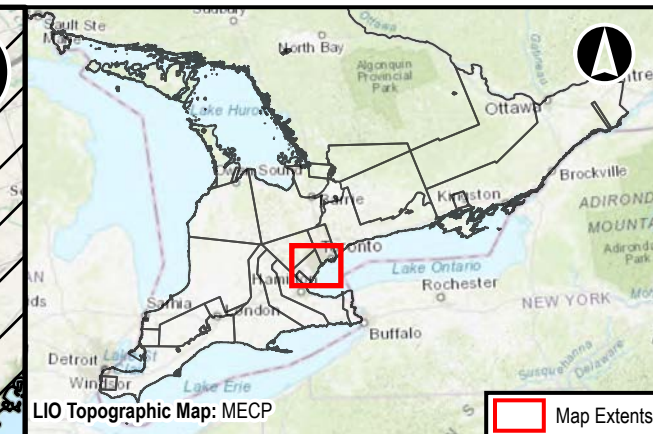
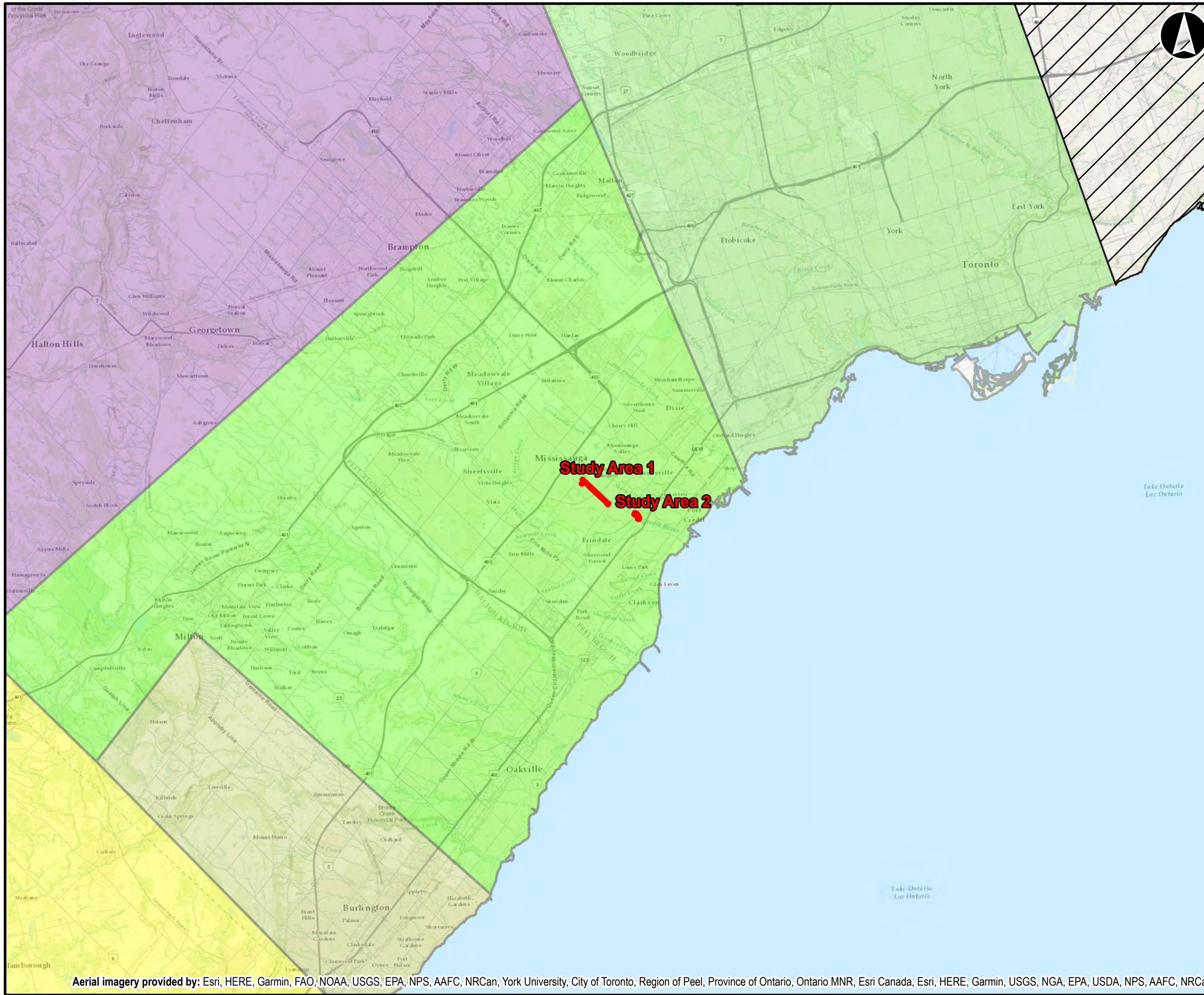
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# Appendix **A**

## Mapping



**Legend**

- Study Area
- Williams Treaties, Signed: October 31, 1923 and November 15, 1923

**Treaty**

- Ajetance Purchase, Treaty 19, October 28, 1818
- Between the Lakes Purchase, Treaty 3, December 2, 1792
- Brant Tract, Treaty 3 3/4, October 24, 1795
- Head of the Lake Purchase, Treaty 14, September 5, 1806**
- Toronto Purchase, Treaty 13, August 1, 1805

**Heritage Impact Assessment  
Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit River  
Mississauga, Ontario**

**Study Area Overlaid on the Ontario  
Treaties Map**

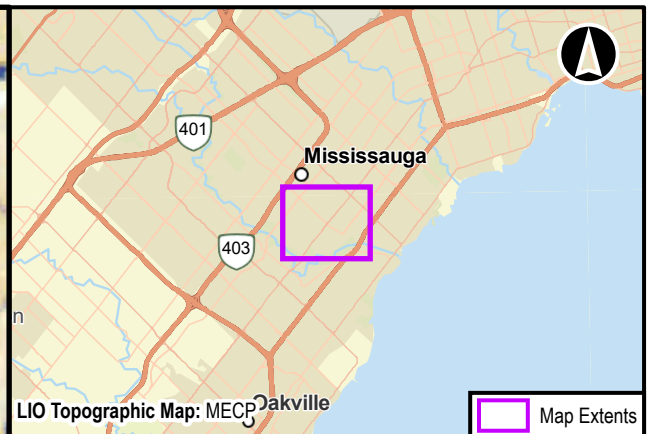
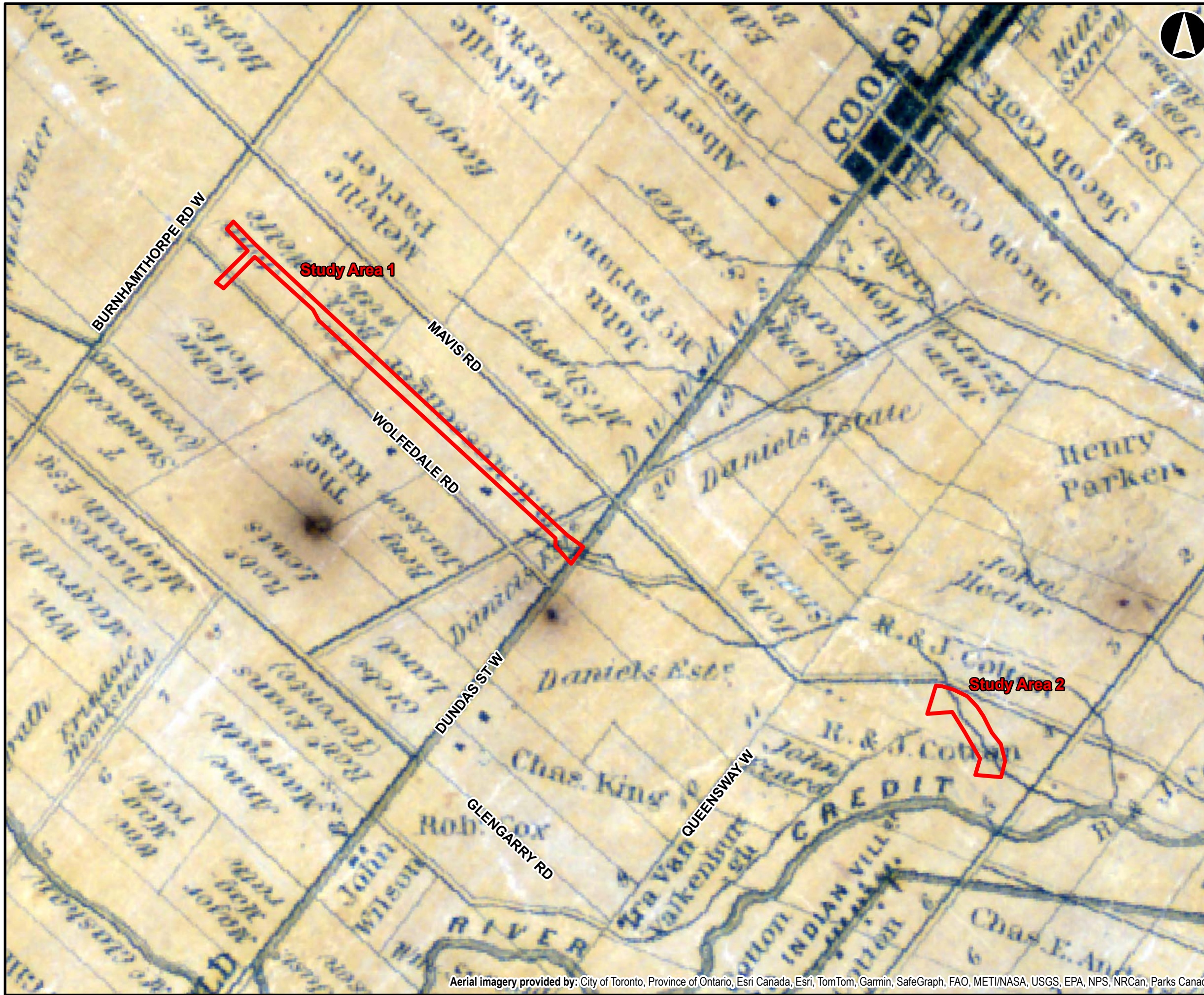
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Kilometers  
NAD 1983 UTM Zone 17N

May, 2024	1:200,000	Data Sources: www.ontario.ca/ page/map-ontario-treaties-and-reserves#7
P:60701082	Rev:00	

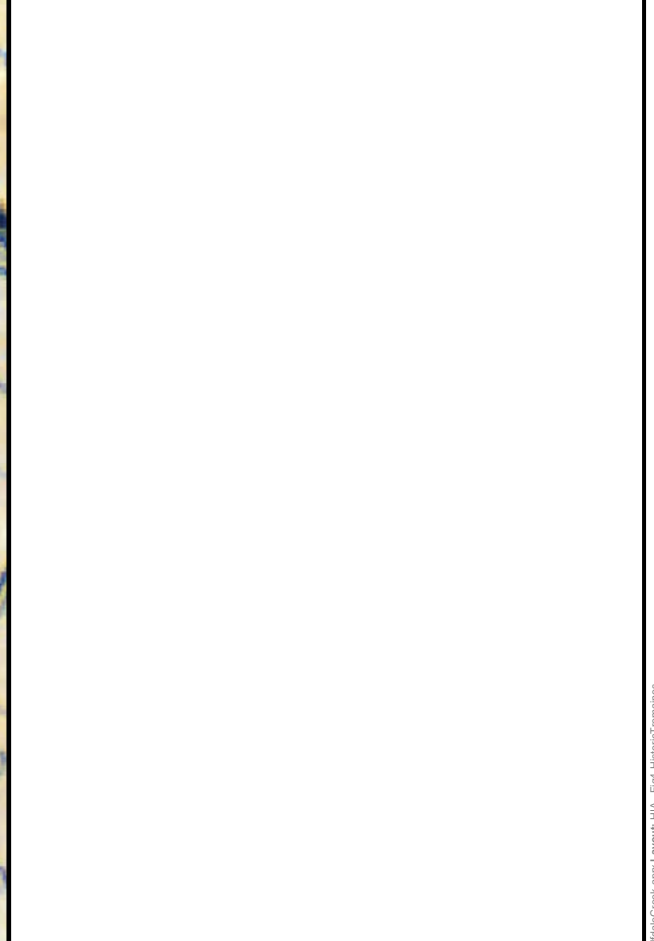
**AECOM** **Figure 3**

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Aerial imagery provided by: Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, AAFC, NRCan, York University, City of Toronto, Region of Peel, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS, AAFC, NRCan

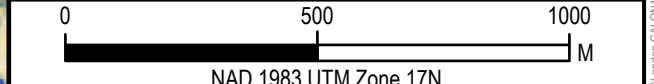


**Legend**  
 Study Areas



**Heritage Impact Assessment  
 Wolfedale Creek Erosion Control Project:  
 Burnhamthorpe Road West to the Credit River  
 Mississauga, Ontario**

**Study Areas overlaid on the Tremaine's  
 1859 Map of the County of Peel**



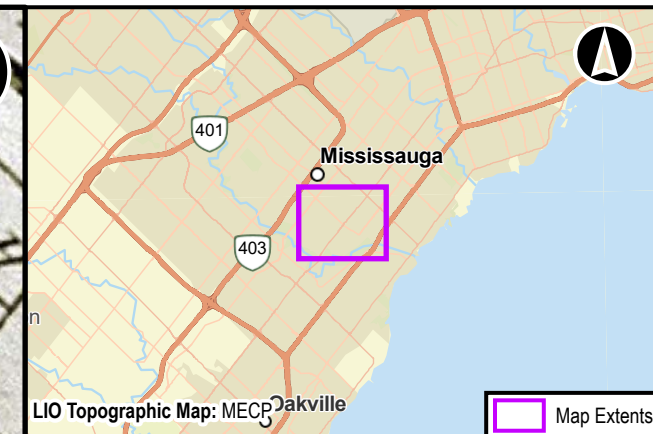
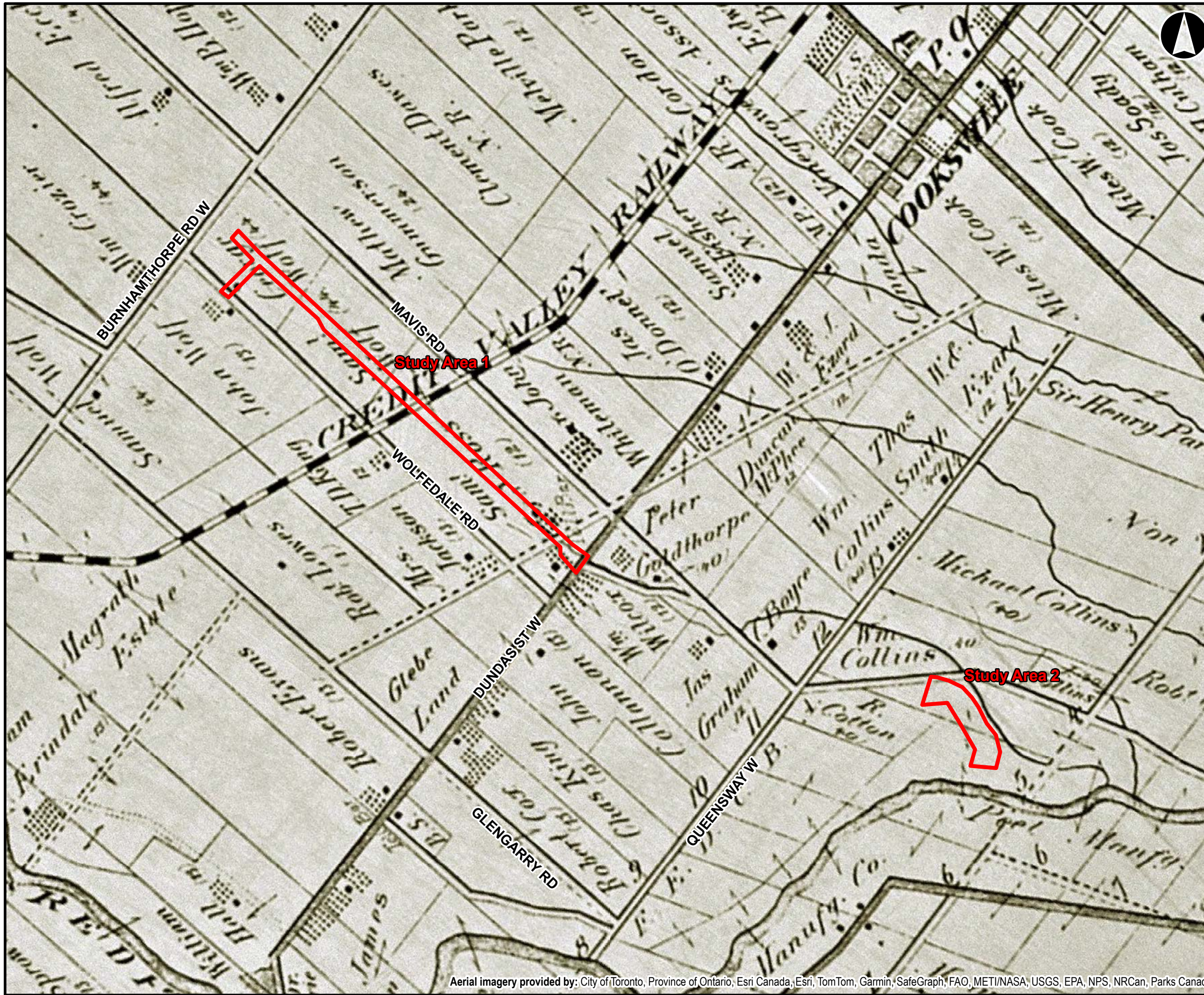
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P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 4</b>
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Aerial imagery provided by: City of Toronto, Province of Ontario, Esri Canada, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, NRCAN, Parks Canada

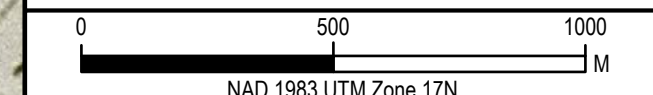
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**Legend**  
 Study Area

**Heritage Impact Assessment  
 Wolfedale Creek Erosion Control Project:  
 Burnhamthorpe Road West to the Credit River  
 Mississauga, Ontario**

**Study Areas overlaid on the 1877 Illustrated  
 Historical Atlas of the County of Peel, Ont.**



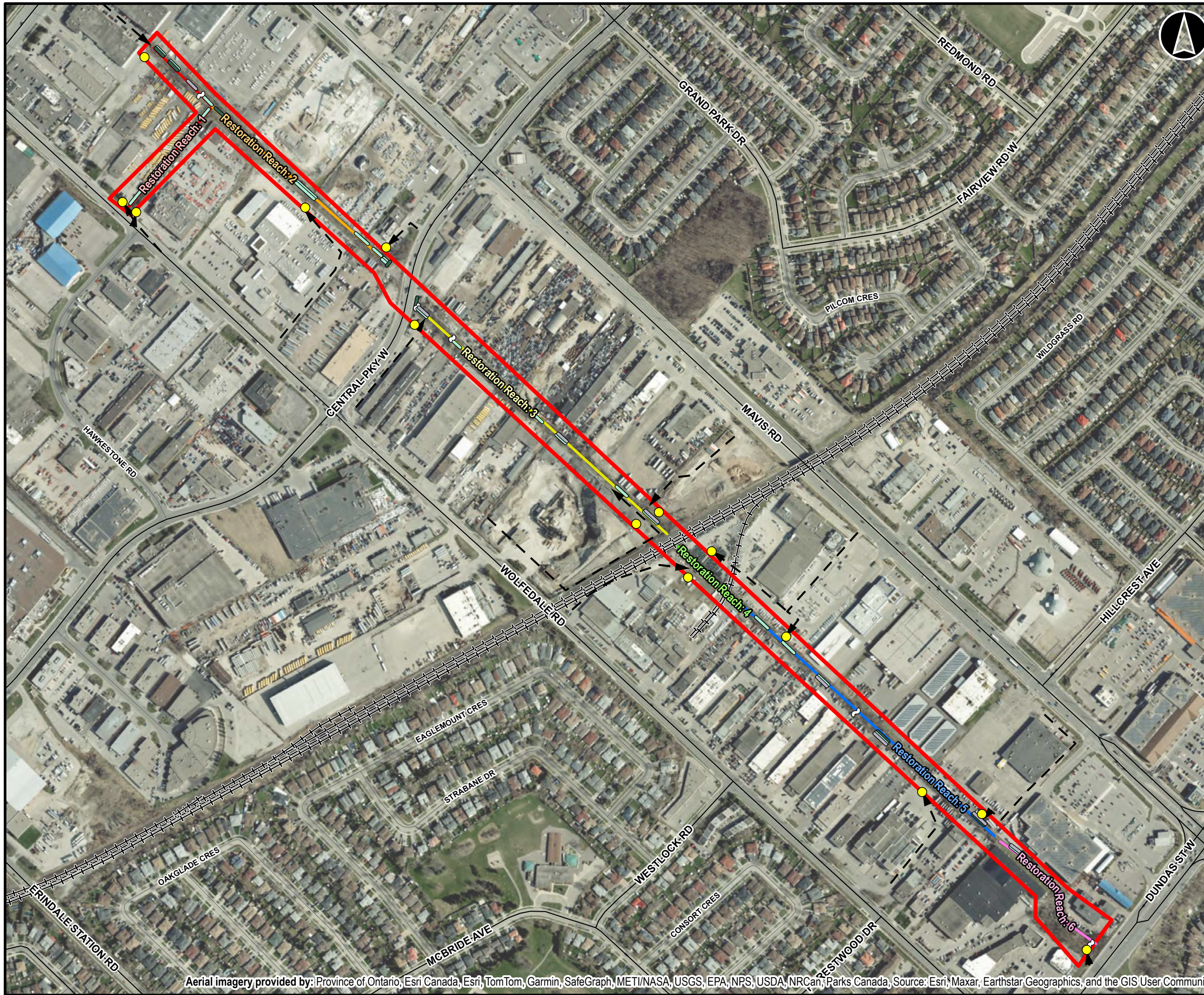
Mar, 2024	1:15,000	Data Sources: MNR 2023
P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 5</b>
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\\na\proj\GIS\Projects\2023\GIS\Projects\60701082\Map\Map\_Layout\_HA-Fig-5Historic1877



**Legend**

- Potential Access Location
- ▶ Potential Access
- ~ Potential Debris Jam Removal\*
- Potential Repair Culvert / Storm Water Outlet\*
- Potential Structural and /or Non-structural Bank Protection Measures\*
- Potential Structural and /or Non-structural Grade Control Measures\*
- Restoration Reach 1
- Restoration Reach 2
- Restoration Reach 3
- Restoration Reach 4
- Restoration Reach 5
- Restoration Reach 6
- + + + Railway
- Study Area

**Heritage Impact Assessment  
Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit River  
Mississauga, Ontario**

**Results Mapping**

0 50 100 200 300 400  
M

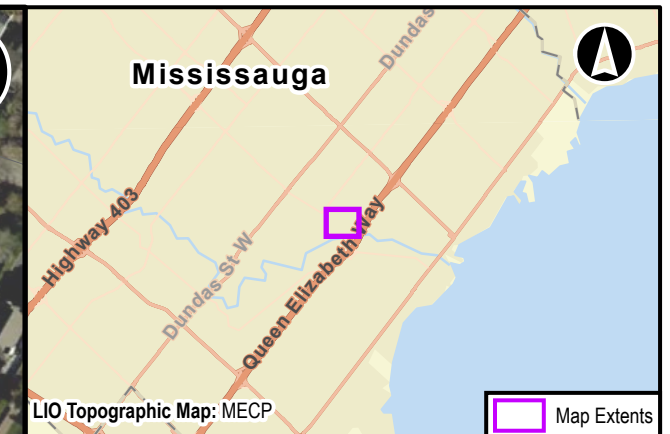
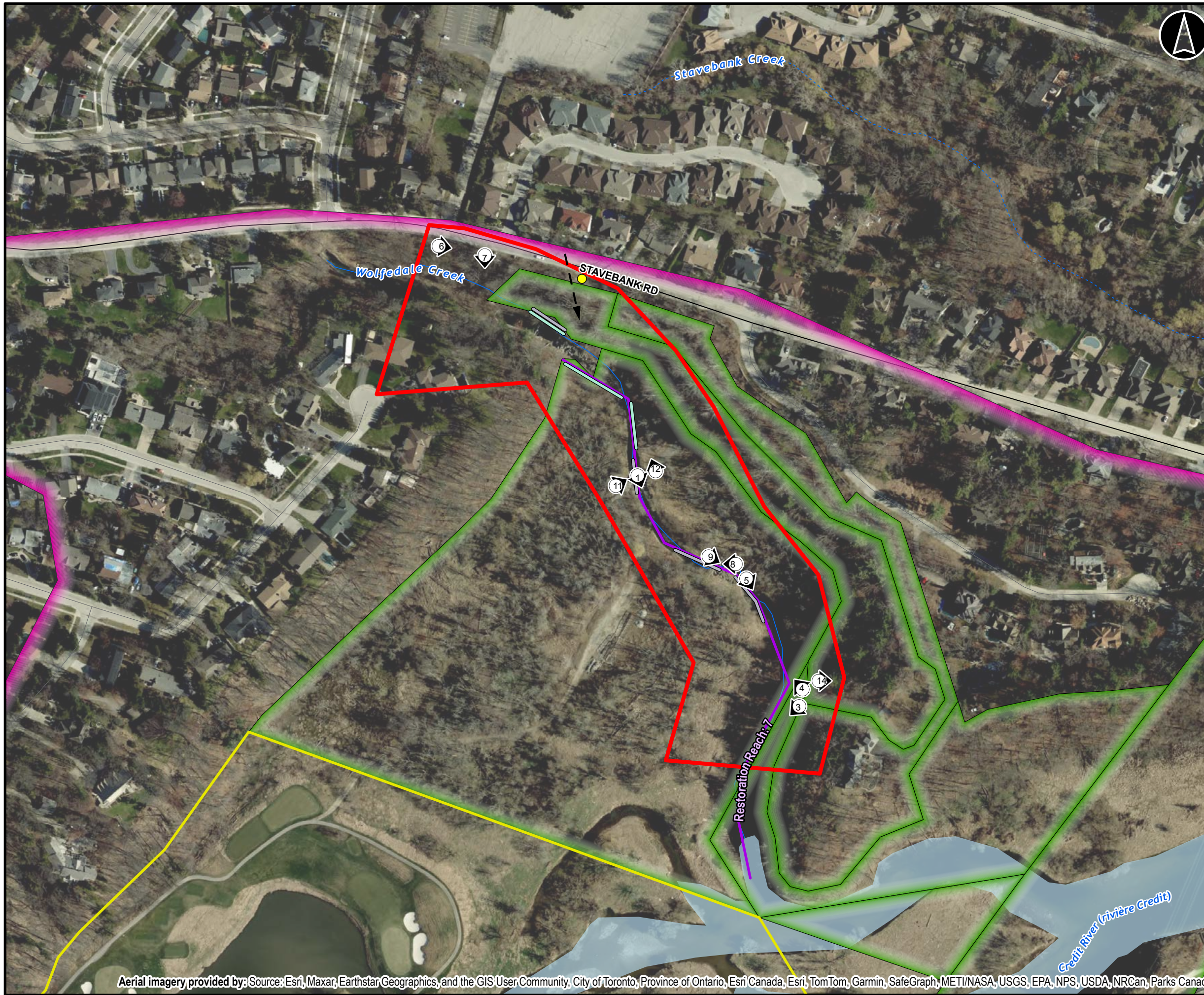
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Dec, 2024	1:5,500	Data Sources: MNR 2023, City of Mississauga 2024
P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 6-1</b>
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Aerial imagery provided by: Province of Ontario, Esri Canada, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, NRCan, Parks Canada, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

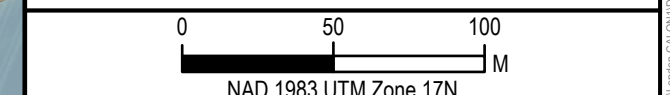


**Legend**

- Potential Access Location
- ▶ Potential Access
- Potential Structural and /or Non-structural Bank Protection Measures\*
- Potential Structural and /or Non-structural Grade Control Measures\*
- Restoration Reach 7
- ⬆ Photo Location and Direction
- Permanent Stream
- Intermittent Stream
- Waterbody
- Study Area
- Credit River Corridor Cultural Heritage Landscape
- 1725 Mississauga Road – Listed Property
- Listed Properties within the Credit River Corridor Cultural Heritage Landscape

**Heritage Impact Assessment  
Wolfedale Creek Erosion Control Project:  
Burnhamthorpe Road West to the Credit River  
Mississauga, Ontario**

**Results Mapping**



Dec, 2024	1:2,500	Data Sources: MNR 2023, City of Mississauga 2024
P:60701082	Rev:00	

<b>AECOM</b>	<b>Figure 6-2</b>
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# Appendix **B**

## Key Qualifications

**Tara Jenkins, MA., GPCertCHS., CAHP / Cultural Heritage Manager / Senior Report Reviewer.** Tara Jenkins holds a Master's Degree and a Graduate Professional Certificate in Cultural Heritage Studies- Heritage Planning Option. She has over 25 years experience working in Cultural Resource Management (CRM) and is a Canadian Association of Heritage Professionals (CAHP) member. She has gained practical experience as a Cultural Heritage Specialist and has fulfilled the role of project manager for various projects, including Cultural Heritage Evaluation Reports, Heritage Impact Assessments, and Cultural Heritage Resource Assessments. As a Project Manager, Tara provides specialized advice and expertise to clients and stakeholders on heritage matters. Project work includes the application of legislation, policy framework, and tools such as the Ontario Heritage Act, the Planning Act, the Provincial Planning Statement (2024), the Ontario Heritage Tool Kit, the Standards and Guidelines for Conservation of Provincial Heritage Properties, and other policies and processes outlined by the Ontario Ministry of Citizenship and Multiculturalism.

**Liam Ryan, MES, MCIP, RPP / Heritage Planner / Report Writer & Researcher.** Liam Ryan holds a master's degree in Environmental Studies: Planning with a specialization in both urban and regional planning and heritage planning from York University. He is currently a Register Professional Planners (RPP) and becoming a Professional Member of the Canadian Association of Heritage Professionals (CAHP). As a Heritage Planner at AECOM, Liam provides his expertise on heritage policy reviews for public and private sector clients. He has gained practical experience and managed heritage planning projects including; numerous Heritage Impact Assessments (HIA), Conservation Plans, and assisted in a policy review for a Heritage Conservation District Study, currently underway. Liam, as a dedicated Heritage Planner, has also assisted in Cultural Heritage Evaluation Reports (CHER) and Cultural Heritage Resource Assessments (CHRA) for municipal stakeholders as well as large infrastructure projects for clients such as Metrolinx and the Ontario Ministry of Transportation. He completes all deliverables to the satisfaction of the development proponent, the cultural heritage community, and all stakeholder groups.

# Appendix **C**

***Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes: A Checklist for the Non-Specialist – Study Area 1 and 2***

## Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes

### A Checklist for the Non-Specialist

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
  - is a recognized heritage property
  - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
  - the main project area
  - temporary storage
  - staging and working areas
  - temporary roads and detours

**Processes covered** under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

### Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

### Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

HIA: Wolfedale Creek Erosion Control Project - Study Area 1

Project or Property Location (upper and lower or single tier municipality)

City of Mississauga

Proponent Name

City of Mississauga

Proponent Contact Information

### Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

### Part A: Screening for known (or recognized) Cultural Heritage Value

	Yes	No
2. Has the property (or project area) been evaluated before and found <b>not</b> to be of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, do **not** complete the rest of the checklist.

The proponent, property owner and/or approval authority will:

- summarize the previous evaluation and
- add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken

The summary and appropriate documentation may be:

- submitted as part of a report requirement
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the <i>Ontario Heritage Act</i> as being of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. a National Historic Site (or part of)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. designated under the <i>Heritage Railway Stations Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. designated under the <i>Heritage Lighthouse Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to any of the above questions, you need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report, if a Statement of Cultural Heritage Value has not previously been prepared or the statement needs to be updated

If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No, continue to Question 4.

## Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has or is adjacent to a known burial site and/or cemetery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. is in a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. contains buildings or structures that are 40 or more years old?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has a special association with a community, person or historical event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. contains or is part of a cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**If Yes** to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

**If No** to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act*, *Planning Act* processes
- maintained by the property owner, proponent or approval authority

## Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
  - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

### 1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

## Part A: Screening for known (or recognized) Cultural Heritage Value

### 2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

**Note:** Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

### 3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

- i. designated under the *Ontario Heritage Act*
  - individual designation (Part IV)
  - part of a heritage conservation district (Part V)

## Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

## Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

---

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

---

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

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iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)



v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at [registrar@ontario.ca](mailto:registrar@ontario.ca).

### **3b. Is the property (or project area) a National Historic Site (or part of)?**

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

### **3c. Is the property (or project area) designated under the *Heritage Railway Stations Protection Act*?**

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

### **3d. Is the property (or project area) designated under the *Heritage Lighthouse Protection Act*?**

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada](#) website.

### **3e. Is the property (or project area) identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office?**

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

### **3f. Is the property (or project area) located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?**

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

## **Part B: Screening for potential Cultural Heritage Value**

### **4a. Does the property (or project area) contain a parcel of land that has a municipal, provincial or federal commemorative or interpretive plaque?**

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

#### **4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?**

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

#### **4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?**

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

#### **4d. Does the property (or project area) contain a parcel of land that contains buildings or structures that are 40 or more years old?**

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

**Note:** 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

## Part C: Other Considerations

### 5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

### 5b. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) has a special association with a community, person or historical event?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

### 5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

## Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes

### A Checklist for the Non-Specialist

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
  - is a recognized heritage property
  - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
  - the main project area
  - temporary storage
  - staging and working areas
  - temporary roads and detours

**Processes covered** under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

### Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

### Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

HIA: Wolfedale Creek Erosion Control Project - Study Area 2

Project or Property Location (upper and lower or single tier municipality)

City of Mississauga

Proponent Name

City of Mississauga

Proponent Contact Information

### Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

### Part A: Screening for known (or recognized) Cultural Heritage Value

	Yes	No
2. Has the property (or project area) been evaluated before and found <b>not</b> to be of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, do **not** complete the rest of the checklist.

The proponent, property owner and/or approval authority will:

- summarize the previous evaluation and
- add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken

The summary and appropriate documentation may be:

- submitted as part of a report requirement
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the <i>Ontario Heritage Act</i> as being of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. a National Historic Site (or part of)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. designated under the <i>Heritage Railway Stations Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. designated under the <i>Heritage Lighthouse Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to any of the above questions, you need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report, if a Statement of Cultural Heritage Value has not previously been prepared or the statement needs to be updated

If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No, continue to Question 4.

## Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has or is adjacent to a known burial site and/or cemetery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. is in a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. contains buildings or structures that are 40 or more years old?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has a special association with a community, person or historical event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. contains or is part of a cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**If Yes** to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

**If No** to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act*, *Planning Act* processes
- maintained by the property owner, proponent or approval authority

## Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
  - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

### 1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

## Part A: Screening for known (or recognized) Cultural Heritage Value

### 2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

**Note:** Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

### 3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

- i. designated under the *Ontario Heritage Act*
  - individual designation (Part IV)
  - part of a heritage conservation district (Part V)

## Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

## Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

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ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

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iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

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iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

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A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

## **Part B: Screening for potential Cultural Heritage Value**

### **4a. Does the property (or project area) contain a parcel of land that has a municipal, provincial or federal commemorative or interpretive plaque?**

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Plaques are prepared by:

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#### **4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?**

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
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In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

#### **4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?**

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

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If you have questions regarding the boundaries of a watershed, please contact:

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- history of the development of the area
- fire insurance maps
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Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

**Note:** 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

## Part C: Other Considerations

### 5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

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Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

### 5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
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An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

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**AECOM**

# Appendix G

**Public Consultation Record**



**AECOM**

# Notifications

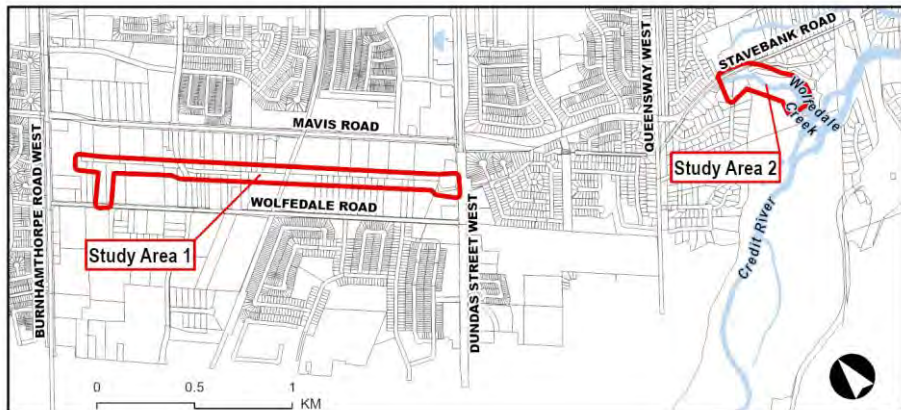


## CITY OF MISSISSAUGA – NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment Study:  
 Wolfedale Creek Erosion Control Project  
 from Burnhamthorpe Road West to the Credit River

### WHAT?

- The City of Mississauga (the City) has initiated a Schedule B Municipal Class Environmental Assessment (Class EA) Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### WHY?

- The City recognizes that these sections of Wolfedale Creek are in need of rehabilitation to remediate existing erosion issues and improve safety.

### HOW?

- The Study will characterize these sections of Wolfedale Creek to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- The Class EA process will involve identifying and evaluating various alternative solutions to determine the preferred erosion control and restoration strategy that will be presented at a Public Information Centre (PIC).
- A Project File documenting the Class EA process will be available for public review at the end of the study.

### GET INVOLVED!

- The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- A Public Information Centre (PIC) will be held to present the study findings and the alternative solutions being considered, including the preliminary preferred erosion control and restoration strategy. The PIC details will be advertised closer to the date.
- Project information will be made available on the City's project website: [www.mississauga.ca/wolfedalecreekea](http://www.mississauga.ca/wolfedalecreekea)
- If you have comments or questions, require further information or would like to be added to the study mailing list to receive future notifications, please contact:

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[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

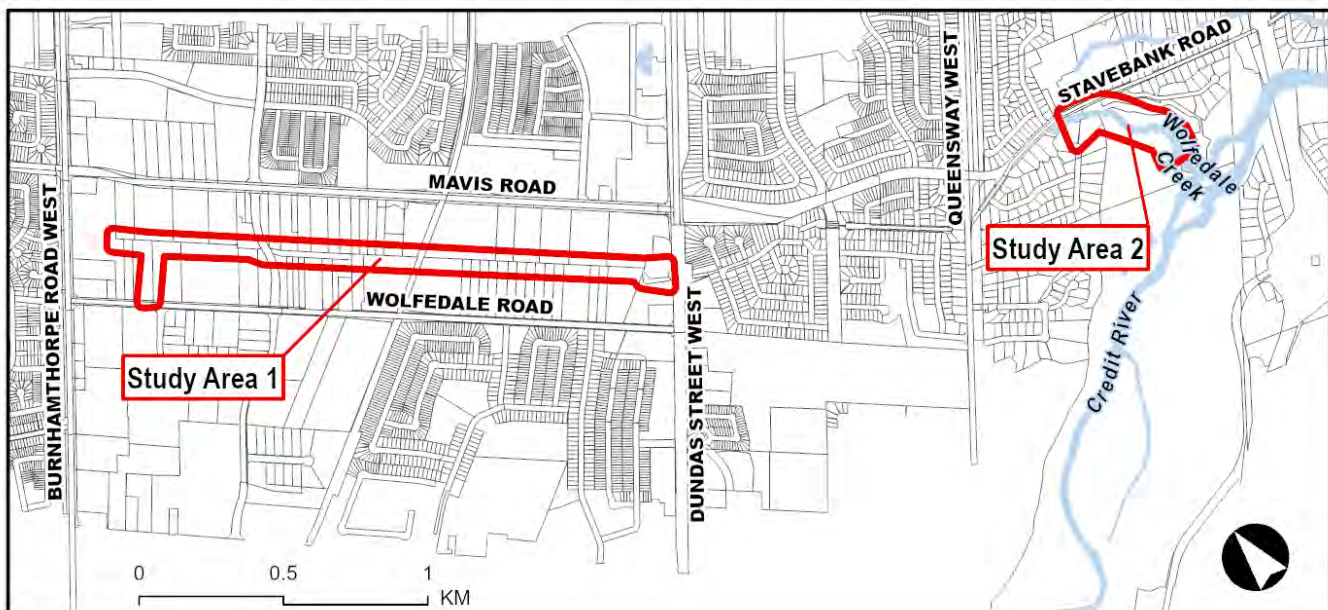
This notice signals the commencement of the Class EA, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario *Environmental Assessment Act*.

Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.

## Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

### What?

The City of Mississauga (the City) is undertaking a Schedule B Municipal Class Environmental Assessment Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### Why?

The City recognizes that the above identified sections (Study Areas 1 and 2) of Wolfedale Creek are in need of rehabilitation to remediate existing bank stability and erosion issues and to improve safety.

### How?

- The Study characterized these sections of Wolfedale Creek and associated natural resources to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- Through the Class EA process, various alternative solutions are being developed and evaluated by the Study Team and will be refined through public and agency consultation (see below). The Study Team will then select a preferred erosion control and restoration strategy and proceed with design of the recommended works
- A Project File documenting the planning process will be available for public review at the end of the Study.

### Public Consultation

- Consultation is an essential part of the EA process. The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- Online public engagement has been arranged to allow local residents, landowners and interested members



# City of Mississauga

## Notice of Public Information Centre



### Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

of the public an opportunity to review and comment on the project findings to date, the alternative solutions being considered, the evaluation process, the preliminary preferred solution, and the next steps.

- An online Public Information Centre will be made available on the City's project website below beginning **June 18th 2024**:

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

- Feedback is encouraged and comments are requested by **July 18, 2024**. A comment form is available on the project website above. Input gathered through the online public engagement will be used to support the EA study.
- If you have comments or questions, require further information or would like to be added to the Study mailing list to receive future notifications, please contact:

**Greg Frew, P.Eng.**

City Project Manager

City of Mississauga

300 City Centre Drive

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3362

[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)

**Kosta Paliouras, P.Eng.**

Consultant Project Manager

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[Kosta.Paliouras@aecom.com](mailto:Kosta.Paliouras@aecom.com)

*This notice signals the Notice of Public Information Centre for this Municipal Class Environmental Assessment, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario Environmental Assessment Act.*

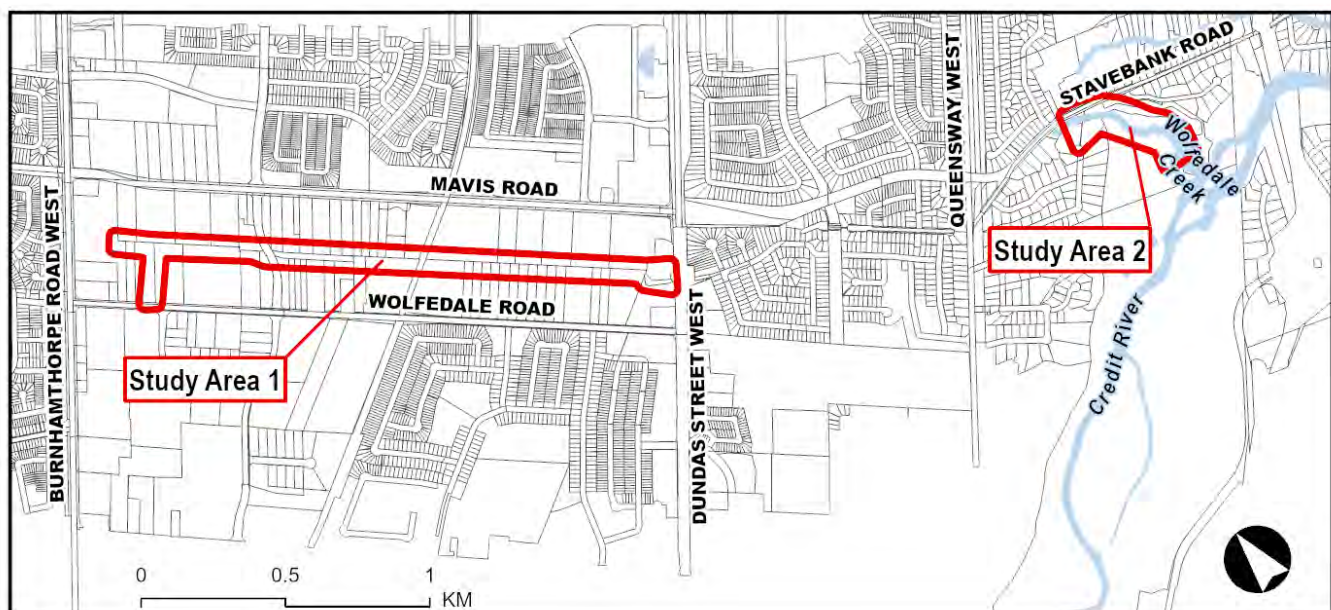
*Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.*

This notice first issued on **June 18, 2024**.

## Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

### Project Background

The City of Mississauga (the City) has completed a Schedule B Municipal Class Environmental Assessment Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



The City recognizes that the above identified sections (Study Areas 1 and 2) of Wolfedale Creek need rehabilitation to address existing bank stability and erosion issues and to improve safety.

### Study Completion

The Study has characterized these sections of Wolfedale Creek and associated natural resources to identify existing problems, potential risks, and opportunities for restoration and safety improvements.

Through the Class EA process, various alternative solutions were developed and evaluated by the Study Team with input through public and agency consultation. The preferred erosion control and restoration strategy includes a combination of structural and non-structural bank protection and grade control measures, culvert and stormwater outlet rehabilitation works and debris jam removal.

A Project File Report (PFR) documenting the planning process has been prepared and will be available for a 40-day comment period between 19 December 2024 and 27 January 2025, on the City's project webpage:

<https://www.mississauga.ca/wolfedalecreekea>

Should a member of the public request a hard copy of the report, the City will make arrangements for delivery of the PFR.

### Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

If you have any questions or comments regarding the study, please contact the Project Managers listed below by 27 January 2025:

**Greg Frew, P.Eng.**

City Project Manager  
City of Mississauga  
300 City Centre Drive  
Mississauga, ON L5B 3C1  
(905) 615-3200, ext. 3362  
[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)

**Kosta Paliouras, P.Eng.**

Consultant Project Manager  
AECOM Canada Ltd.  
5080 Commerce Blvd.  
Mississauga, ON L4W 4P2  
(905) 578-4129  
[Kosta.Paliouras@aecom.com](mailto:Kosta.Paliouras@aecom.com)

In addition, a Section 16 Order request may be made to the Ministry of the Environment, Conservation and Parks (MECP or Ministry) for an order requiring a higher level of study (i.e., requiring an individual/comprehensive Environmental Assessment approval before being able to proceed), or that conditions be imposed (e.g., require further studies), only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered. Requests are to include the requester contact information and full name.

The Section 16 Order request should be sent in writing or by email by 27 January 2025 to both contacts below with a copy to Greg Frew at the City.

**Minister of the Environment, Conservation and Parks**

Ministry of Environment, Conservation and Parks  
777 Bay Street, 5th Floor  
Toronto, Ontario M7A 2J3  
[minister.mecp@ontario.ca](mailto:minister.mecp@ontario.ca)

**Director, Environmental Assessment Branch**

Ministry of Environment, Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario M4V 1P5  
[EABDirector@ontario.ca](mailto:EABDirector@ontario.ca)

*This notice signals the Notice of Completion for this Municipal Class Environmental Assessment, a study which defines the problem, identifies/evaluates alternative solutions, and recommends a preferred design in consultation with regulatory agencies and the public. The study has been undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario Environmental Assessment Act.*

*Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records.*

This notice issued on 19 December 2024.



# Area of Concern Notification Letters





**City of Mississauga**  
Transportation and Works Department  
300 City Centre Drive  
MISSISSAUGA, ON L5B 3C1  
mississauga.ca

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June 1, 2023

██████ Wolfedale Road  
Mississauga, ON L5C 1V8

**Re: Wolfedale Creek Erosion Control Class EA (Burnhamthorpe Road West to the Credit River)  
Area of concern – Gabion Condition**

The City of Mississauga (“City”) has initiated a project for erosion control and restoration of Wolfedale between Burnhamthorpe Road West and the Credit River. The project is being carried out in accordance with the planning and design process for Schedule ‘B’ projects as outlined in the Municipal Engineers Association “Municipal Class Environmental Assessment”, (October 2000, as amended in 2015). A Notice of Commencement for this project was sent to you mid-April this year.

During our early-stage field investigation, our consultant (AECOM Canada Ltd.) identified a segment of gabion along Wolfedale Creek towards the back of your property that appears to be in poor condition and deteriorating. It is our recommendation to avoid using the backend of the property in the vicinity of the gabion including restricting heavy loading of this area.

A Public Information Centre (PIC) will be held by the City and AECOM Canada Ltd. to present the preliminary study findings and the proposed alternative solutions for restoration along the creek. The PIC details will be advertised closer to the date.

We appreciate your cooperation in this important City initiative. If you would like to be added to the study mailing list to receive future notifications, or should you have any questions, please contact myself at [Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca).

Sincerely,

Vicky Wei, P. Eng., PMP  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.



**City of Mississauga**  
Transportation and Works Department  
300 City Centre Drive  
MISSISSAUGA, ON L5B 3C1  
mississauga.ca

---

June 1, 2023

██████ Wolfedale Road  
Mississauga, ON L5C 1V8

**Re: Wolfedale Creek Erosion Control Class EA (Burnhamthorpe Road West to the Credit River)  
Area of concern – Gabion Condition**

The City of Mississauga (“City”) has initiated a project for erosion control and restoration of Wolfedale between Burnhamthorpe Road West and the Credit River. The project is being carried out in accordance with the planning and design process for Schedule ‘B’ projects as outlined in the Municipal Engineers Association “Municipal Class Environmental Assessment”, (October 2000, as amended in 2015). A Notice of Commencement for this project was sent to you mid-April this year.

During our early-stage field investigation, our consultant (AECOM Canada Ltd.) identified a segment of gabion along Wolfedale Creek towards the back of your property that appears to be in poor condition and deteriorating. It is our recommendation to avoid using the backend of the property in the vicinity of the gabion including restricting heavy loading of this area.

A Public Information Centre (PIC) will be held by the City and AECOM Canada Ltd. to present the preliminary study findings and the proposed alternative solutions for restoration along the creek. The PIC details will be advertised closer to the date.

We appreciate your cooperation in this important City initiative. If you would like to be added to the study mailing list to receive future notifications, or should you have any questions, please contact myself at [Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca).

Sincerely,

Vicky Wei, P. Eng., PMP  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.



**City of Mississauga**  
Transportation and Works Department  
300 City Centre Drive  
MISSISSAUGA, ON L5B 3C1  
mississauga.ca

---

June 1, 2023

████ Wolfedale Road  
Mississauga, ON L5C 1V8

**Re: Wolfedale Creek Erosion Control Class EA (Burnhamthorpe Road West to the Credit River)  
Area of concern – Gabion Condition**

The City of Mississauga (“City”) has initiated a project for erosion control and restoration of Wolfedale between Burnhamthorpe Road West and the Credit River. The project is being carried out in accordance with the planning and design process for Schedule ‘B’ projects as outlined in the Municipal Engineers Association “Municipal Class Environmental Assessment”, (October 2000, as amended in 2015). A Notice of Commencement for this project was sent to you mid-April this year.

During our early-stage field investigation, our consultant (AECOM Canada Ltd.) identified a segment of gabion along Wolfedale Creek towards the back of your property that appears to be in poor condition and deteriorating. It is our recommendation to avoid using the backend of the property in the vicinity of the gabion including restricting heavy loading of this area.

A Public Information Centre (PIC) will be held by the City and AECOM Canada Ltd. to present the preliminary study findings and the proposed alternative solutions for restoration along the creek. The PIC details will be advertised closer to the date.

We appreciate your cooperation in this important City initiative. If you would like to be added to the study mailing list to receive future notifications, or should you have any questions, please contact myself at [Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca).

Sincerely,

Vicky Wei, P. Eng., PMP  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.



**City of Mississauga**  
Transportation and Works Department  
300 City Centre Drive  
MISSISSAUGA, ON L5B 3C1  
mississauga.ca

---

June 1, 2023

■ Mavis Road  
Mississauga, ON L5C 1T8

**Re: Wolfedale Creek Erosion Control Class EA (Burnhamthorpe Road West to the Credit River)  
Area of concern – Concrete Wall Condition**

The City of Mississauga (“City”) has initiated a project for erosion control and restoration of Wolfedale between Burnhamthorpe Road West and the Credit River. The project is being carried out in accordance with the planning and design process for Schedule ‘B’ projects as outlined in the Municipal Engineers Association “Municipal Class Environmental Assessment”, (October 2000, as amended in 2015). A Notice of Commencement for this project was sent to you mid-April this year.

During our early-stage field investigation, our consultant (AECOM Canada Ltd.) identified a segment of the concrete retaining wall along Wolfedale Creek towards the back of your property that appears to be in poor condition and deteriorating. It is our recommendation to avoid using the backend of the property in the vicinity of the retaining wall including restricting heavy loading of this area.

A Public Information Centre (PIC) will be held by the City and AECOM Canada Ltd. to present the preliminary study findings and the proposed alternative solutions for restoration along the creek. The PIC details will be advertised closer to the date.

We appreciate your cooperation in this important City initiative. If you would like to be added to the study mailing list to receive future notifications, or should you have any questions, please contact myself at [Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca).

Sincerely,

Vicky Wei, P. Eng., PMP  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: 3355 Wolfedale Road  
R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.





# Potential Access Location Letter and Correspondence



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June 17, 2024

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Attention:** [REDACTED]

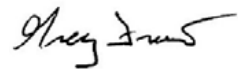
**Re: Potential Construction Access - Wolfedale Creek Erosion Control Project**  
[REDACTED] Dundas Street West

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Dundas Street West. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.

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June 17, 2024



Attention: 

**Re: Potential Construction Access - Wolfedale Creek Erosion Control Project  
Gate/Access off Stavebank Road**

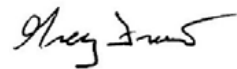
As per our discussions last year, The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. You may recall that we arranged access to the creek through yourself so that the City's engineering consultant could undertake a set of field investigations via the gate and access road off Stavebank Road.

Preliminary recommendations from the City's study include future construction activity on this section of the creek. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if the Golf Club would be amenable to allowing the City to use the access off Stavebank Road for construction activity at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.



City of Mississauga  
Transportation and Works Department  
300 City Centre Drive  
MISSISSAUGA, ON L5B 3C1  
mississauga.ca

---

June 17, 2024

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Re: Potential Construction Access - Wolfedale Creek Erosion Control Project**  
**[REDACTED] Burnhamthorpe Road West**

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Burnhamthorpe Road West. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,

A handwritten signature in blue ink that reads "Greg Frew".

Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.


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June 17, 2024



Attention: 

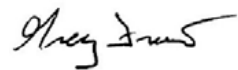
Re: **Potential Construction Access - Wolfedale Creek Erosion Control Project**  
 Mavis Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at  Mavis Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.

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June 17, 2024

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Attention:** [REDACTED]

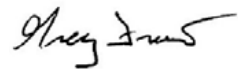
**Re: Potential Construction Access - Wolfedale Creek Erosion Control Project**  
[REDACTED] Wolfedale Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Wolfedale Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.

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June 17, 2024



Attention: [REDACTED]

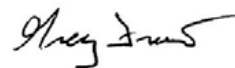
Re: **Potential Construction Access - Wolfedale Creek Erosion Control Project**  
[REDACTED] Wolfedale Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Wolfedale Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.



City of Mississauga  
Transportation and Works Department  
300 City Centre Drive  
MISSISSAUGA, ON L5B 3C1  
mississauga.ca

---

June 17, 2024

[REDACTED]  
[REDACTED]  
[REDACTED]

Attention: [REDACTED]

Re: Potential Construction Access - Wolfedale Creek Erosion Control Project  
[REDACTED] Wolfedale Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Wolfedale Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,

A handwritten signature in black ink, appearing to read 'Greg Frew'.

Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.



---

June 17, 2024



Attention: [REDACTED]

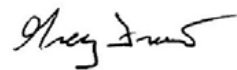
Re: **Potential Construction Access - Wolfedale Creek Erosion Control Project**  
[REDACTED] Wolfedale Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Wolfedale Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.

---

June 17, 2024

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Attention:** [REDACTED]

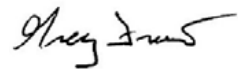
**Re: Potential Construction Access - Wolfedale Creek Erosion Control Project**  
[REDACTED] Wolfedale Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Wolfedale Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.

June 17, 2024

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Attention:** [REDACTED]

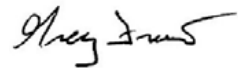
**Re: Potential Construction Access - Wolfedale Creek Erosion Control Project**  
[REDACTED] Wolfedale Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Wolfedale Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.

---

June 17, 2024

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Attention:** [REDACTED]

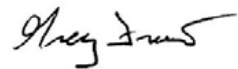
**Re: Potential Construction Access - Wolfedale Creek Erosion Control Project**  
[REDACTED] Wolfedale Road

The City of Mississauga ("City") has initiated a project for erosion control and restoration of Wolfedale Creek. A portion of the anticipated work is within the creek corridor located behind your property at [REDACTED] Wolfedale Road. Attached is a Notice providing further information about the current study and planning for the work.

We are contacting you to find out if you might be amenable to working with the City to provide construction access to the creek through your property at a future date.

I'd very much appreciate if you could please contact me at [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) where I can arrange a follow-up meeting or telephone call to share further details about the nature of the anticipated work and timing.

Sincerely,



Greg Frew, P. Eng.  
Project Manager  
Environmental Services, Infrastructure Planning and Engineering  
Transportation and Works Department

c: R. Van Riezen, AECOM Canada Ltd.  
K. Paliouras, AECOM Canada Ltd.

---

**From:** [REDACTED]  
**Sent:** Monday, June 24, 2024 12:38 PM  
**To:** Greg Frew  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] Wolfedale Creek Erosion Control Project - [REDACTED] Wolfedale Road

---

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Hello Greg,

Thank you for your letter dated June 17<sup>th</sup>, 2024 (attached) regarding the Wolfedale Creek Erosion Project. Please provide some available dates and times for a teams meeting to further discuss the project which involves work behind [REDACTED] property located at [REDACTED] Wolfedale Road.

Thanks,

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED]

[REDACTED]

---

**From:** [REDACTED] >  
**Sent:** Monday, June 24, 2024 1:27 PM  
**To:** Greg Frew; [REDACTED]  
**Subject:** [EXTERNAL] Stavebank Road access

---

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---

Hi Greg,

We got the notice you left regarding the erosion control for Wolfedale Creek and access off of Stavebank Road. We are happy to accommodate, just give [REDACTED] or me a heads up about when you'd like to come by and we'll go from there,

Thanks,

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Tuesday, June 25, 2024 10:39 AM  
**To:** Greg Frew  
**Subject:** [EXTERNAL] Wolfdale Creek Erosion Control Project - Access - [REDACTED] Burnhamthorpe Road

---

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Hi Greg, it's [REDACTED] I am the Property Manager for [REDACTED] Burnhamthorpe Road in Mississauga, please feel free to contact me on my cell [REDACTED] to discuss.

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Thursday, June 27, 2024 11:07 AM  
**To:** Greg Frew  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] FW: City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Public Information Centre  
**Attachments:** SKMBT\_C554e24062511530.pdf

---

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Hi Greg,  
I hope you are doing well. As you know the City's EA is adjacent to the [REDACTED] Wolfedale Road Works Yard and [REDACTED] Wolfedale Road Expansion Lands.

Our Real Estate team received your letter dated June 17, 2024 and you can contact [REDACTED] to arrange for access to these lands. Both [REDACTED] are copied on this email.

*Regards,*

[REDACTED]

This email, including any attachments, is intended for the recipient specified in the message and may contain information which is confidential or privileged. Any unauthorized use or disclosure of this email is prohibited. If you are not the intended recipient or have received this e-mail in error, please notify the sender via return email and permanently delete all copies of the email. Thank you.

---

**From:** Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
**Sent:** Tuesday, June 18, 2024 10:28 AM  
**Cc:** Paliouras, Kosta <kosta.paliouras@aecom.com>; greg.frew@mississauga.ca  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Public Information Centre

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Hello,



The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is now available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

Thank you for your interest in this study.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting

M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**

45 Goderich Road, Suite 201

Hamilton, ON L8E 4W8, Canada

T +1-905-578-3040

[aecom.com](http://aecom.com)

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---

**From:** [REDACTED]  
**Sent:** Tuesday, July 2, 2024 12:02 PM  
**To:** Greg Frew  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] Construction Access to Wolfedale Creek

---

**[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]**

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Greg,

Apologies for the late response to your letter regarding construction access to Wolfedale Creek. I was out of office last week and just read your letter this morning.

[REDACTED] is amenable to permitting access through our property, but we need to know more information about the scope before making a commitment. Note that the only access we have is through our rail spur gate, which I think you should be able to get a good look at from an aerial image. We'll also need to make sure we have a robust means of contact with the work crew in case of a process upset or emergency in our operations. I suggest we manage this through our safe work permit process each day in this case. I would also like some assurance that the work won't impact the integrity of our east side fence between the [REDACTED] and the creek.

Note that the hydro property on east side of the creek opposite the [REDACTED] property has access as well, and from a paved lot. We think there may be a ramp down to the creek from that side as well. Wondering if you've approached Hydro as well. It may prove to be easier access for you.

Also note that we've experienced a tick problem in our yard this year, and we are cutting the grasses and fumigating to control the ticks on our property. This is a biological hazard you'll want to be prepared for working down in the creek valley.

Please suggest a couple of times we could meet, either a phone call, zoom, or we would be happy to host you at our site for a F2F meeting, especially if you would like to get a first hand look at access from our site.

I'm copying [REDACTED], [REDACTED] as another contact for you. I've got a knee replacement surgery scheduled for July 19<sup>th</sup>, and I expect to be out of even work from home operation for a week, and likely won't be back in the office until the first week of August.

Best regards,

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Friday, June 28, 2024 12:09 PM  
**To:** Greg Frew  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] City of Mississauga - Wolfedale Creek Erosion Control Project

---

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Hi Greg,

I've received the attached notice regarding the need for potential construction access at our [REDACTED] Wolfedale Rd location in support of the Wolfedale Creek Erosion Control Project.

In principle, we support the City of Mississauga and want to assist in every reasonable possible manner but before confirming, it would be beneficial for us to have a conference call or on-site review to fully understand the scope of the project and potential impact to our site operations.

Please let me know if you're available for a site visit or a call to review and we can proceed from there.

Regards,

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

---

[REDACTED]

[REDACTED]

[REDACTED]

**AECOM**

**Public Information Centre  
Materials**

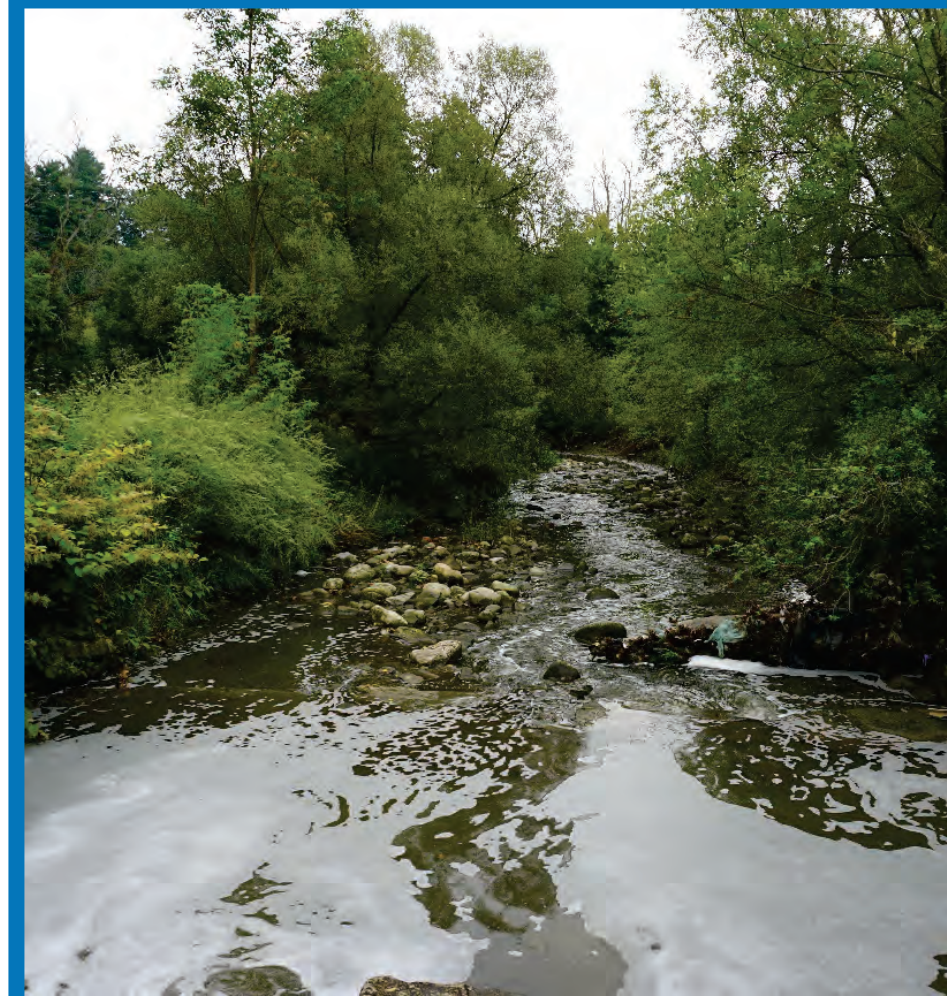


# **Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River**

**Municipal Class Environmental  
Assessment**

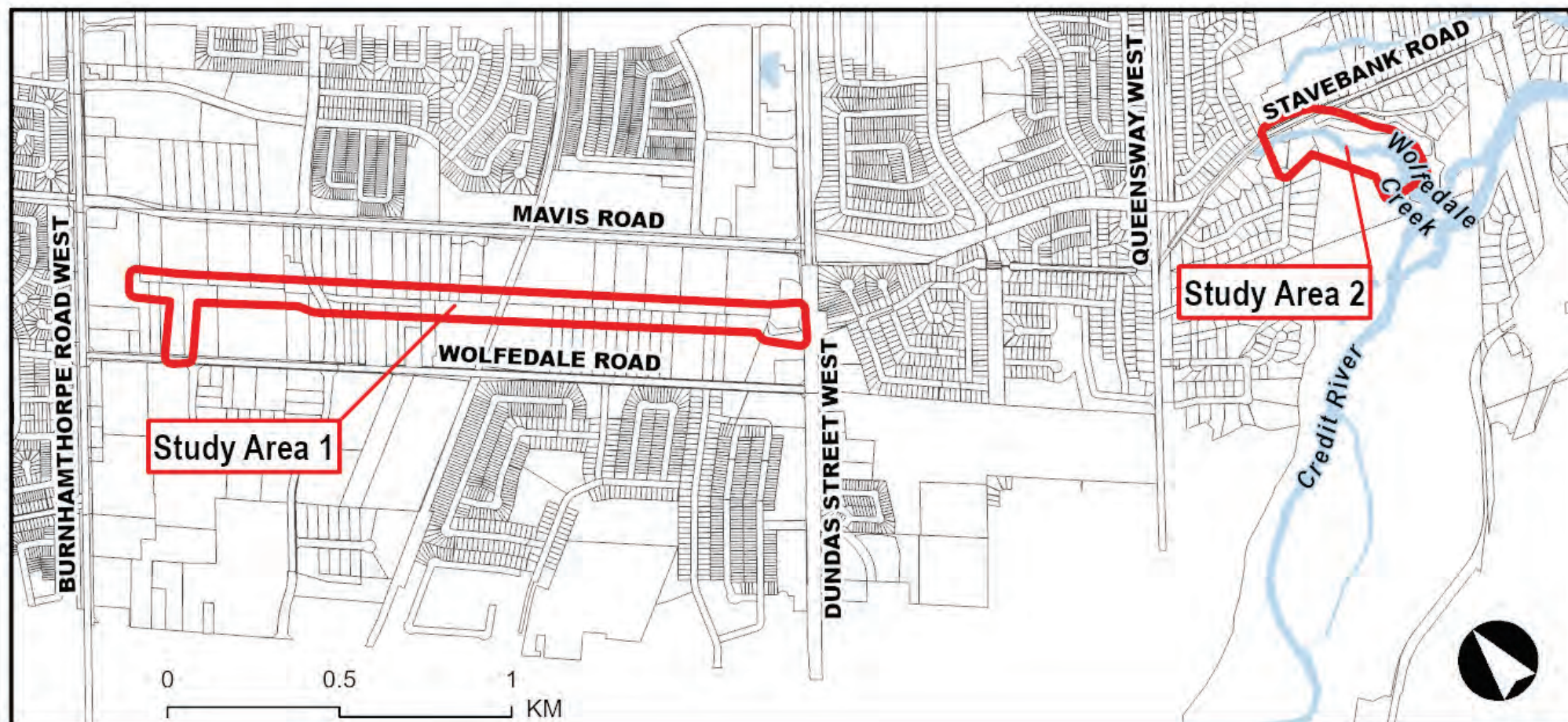
**Online Public Information Centre**

**Date: June 18, 2024**



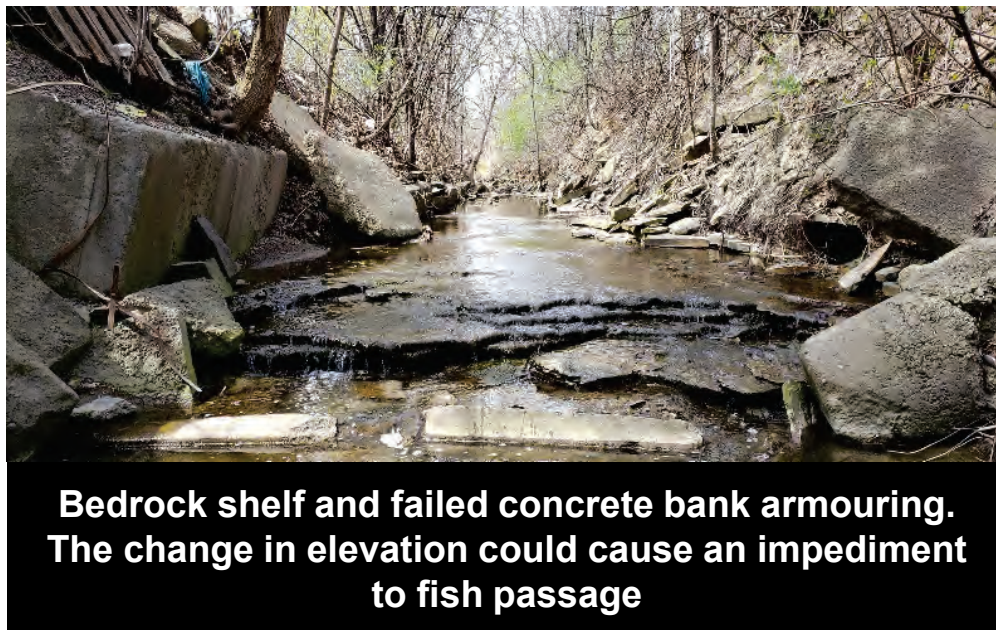
# What is the Purpose of the Online Public Information Centre?

- Introduce you to the Wolfedale Creek Erosion Control Project study, including key findings of supporting studies completed to date
- Present the alternatives considered, including the preliminary preferred erosion control and restoration strategy
- Share how potential impacts will be addressed
- Identify next steps and how to provide feedback



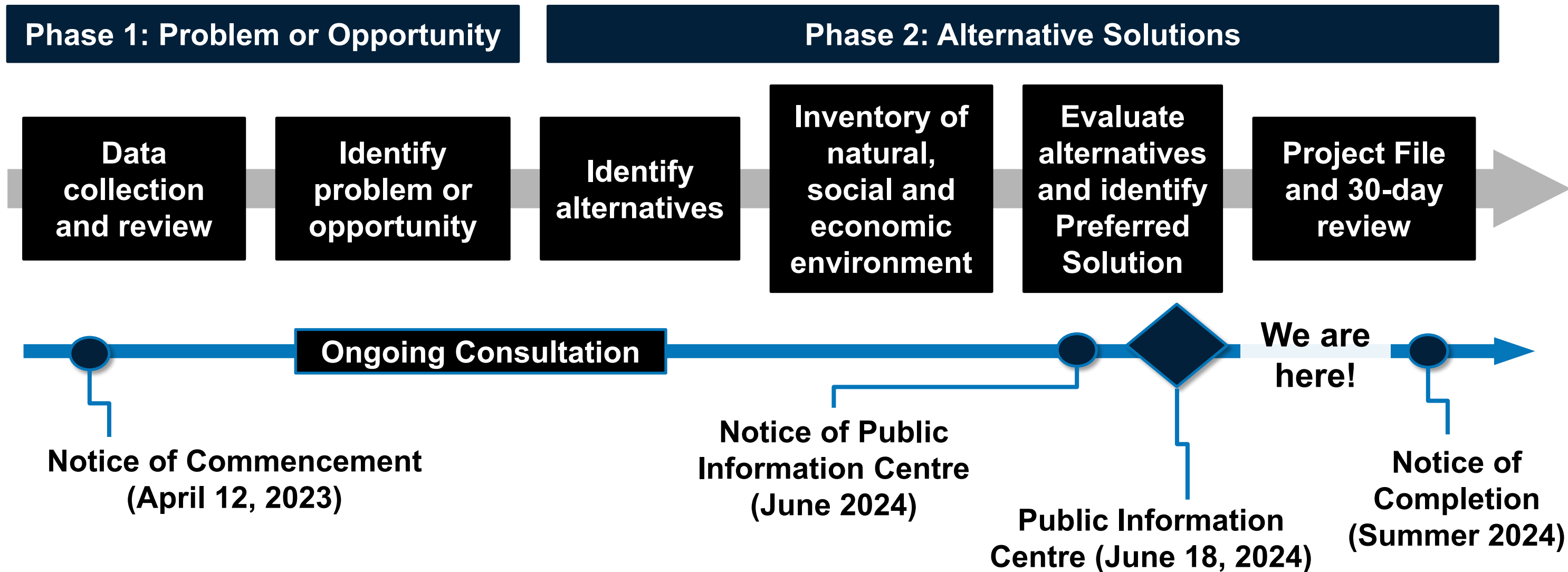
# Why this Study?

- The City recognizes that sections of Wolfedale Creek need rehabilitation to remediate existing erosion issues and improve safety
- This current study aims to:
  - mitigate the existing erosion problems
  - ensure stability of the creek using natural design techniques, where feasible
  - protect or enhance the existing natural environment within the area



# Municipal Class Environmental Assessment Process

- This study is following the Schedule B planning process, which includes Phases 1 and 2
- At the end of Phase 2 a Project File documenting the planning process, including the consultation component will be posted for 30-day public review





# Project Overview – Study Area 1

- Study Area 1 includes Wolfedale Creek from Burnhamthorpe Road West to Dundas Street West
- The land is heavily urbanized, with many industrial and commercial establishments
- Wolfedale Creek flows to Study Area 1 from a storm sewer outlet from Burnhamthorpe Road West to Dundas Street West. From there it enters another storm sewer pipe, and the flows are conveyed underground for approximately 1.5 km before outletting just West of Stavebank Road into the Study Area 2, which outlets to the Credit River



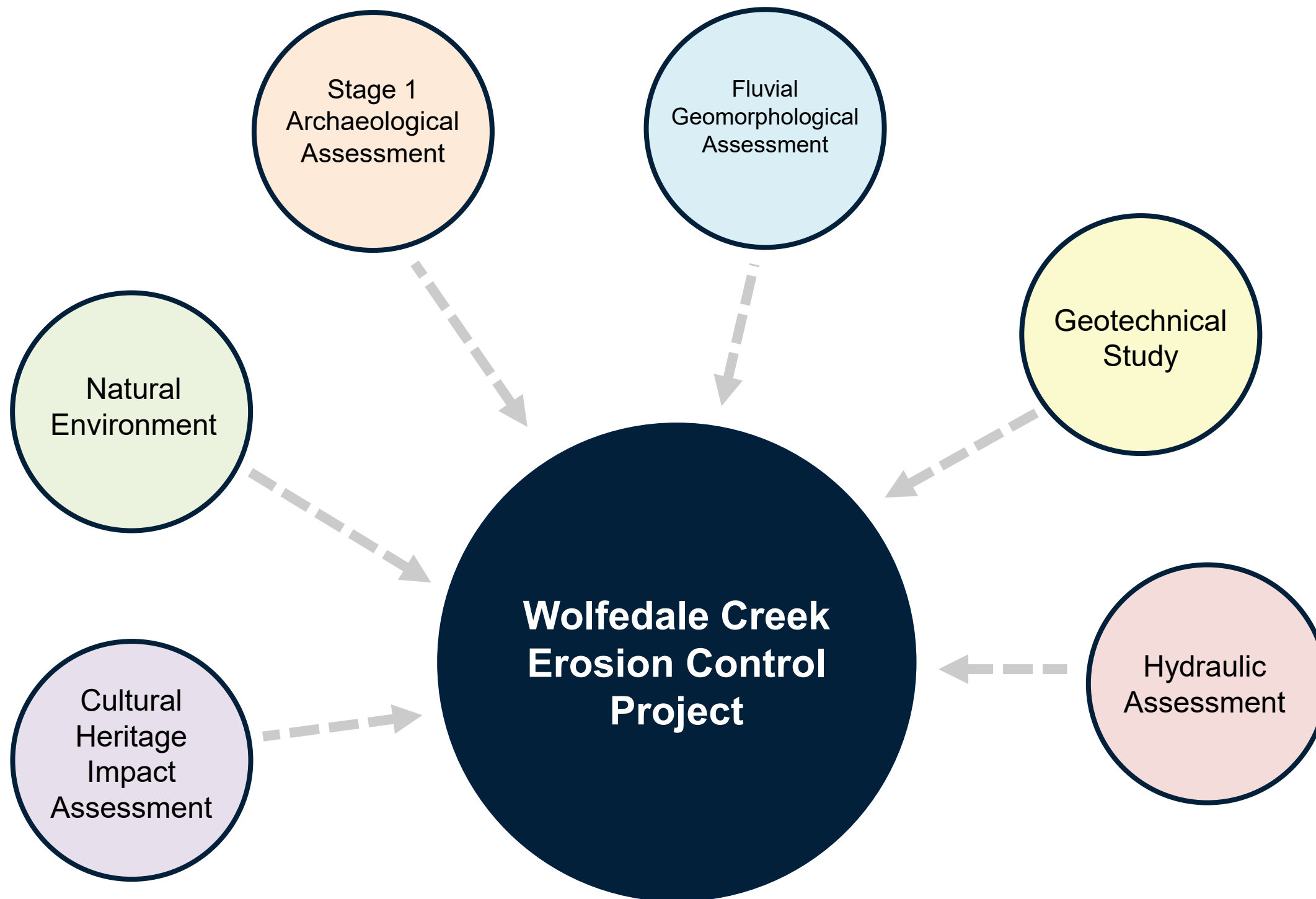
# Project Overview – Study Area 2

- Study Area 2 includes the tributary outlet to the Credit River, south of Queensway West and west of Stavebank Road
- The watercourse is surrounded by residential development to the west and east and by forested lands/ a large golf course in the south.
- The watercourse discharges into the Credit River



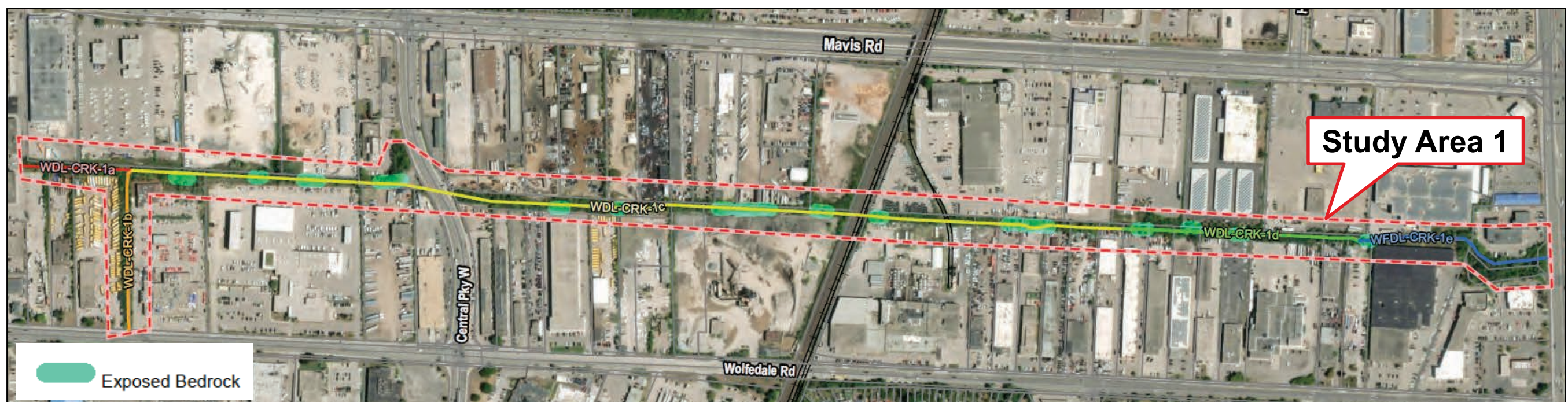
# Supporting Studies

- The following supporting studies are being undertaken to inform the Wolfedale Creek Erosion Control Project during this Environmental Assessment study



# Fluvial Geomorphic Assessment

- A Fluvial Geomorphic Assessment has been completed and below summarizes the key findings:
  - Portions of the watercourse in both study areas have been altered by human activity, which have effectively reduced the watercourse length, increased the channel gradient, and introduced obstructions to fish migration
  - Exposed bedrock along the channel banks and bed is a major constraint for the study area, impacting the watercourse shape, pattern, and susceptibility to erosion. Bedrock may also limit the type of bank protection treatment options that can be applied
  - Erosion of the creek banks was identified throughout most of the study area. Undercutting of the creek banks was observed in most areas, in addition to evidence of channel bed downcutting, and multiple woody debris jams
  - There are several bank protection structures within the creek that have been applied historically to maintain the channelized shape of the watercourse. Many of the structures are now failing
  - Slope stability concerns were identified in multiple spots in the Study Area
  - Study Area 1 is heavily urbanized, which contributes to increased stormwater runoff
  - The steep channel bed slope upstream of Study Area 2 can increase flow velocities and erosion in the watercourse



# Hydraulics

- The study area is very confined with often steep and occasionally vertical side slopes. During large storm events water levels along the creek increase quickly
- In locations where the creek is confined to a concrete lined channel with vertical side walls, flow velocities will become quite high in large storms due to the smooth surfaces
- High velocities may create erosion concerns. Hydraulic modelling for the existing conditions has been updated to reflect current conditions and will be used for comparison of the detailed design of the preferred solution
- The cross-sections of the proposed design will be reflected in the proposed conditions hydraulic model



# Geotechnical/Slope Stability

- Geotechnical investigations have been completed. Six (6) boreholes were drilled. A monitoring well was also installed
- Generally, the subsurface profile consists of topsoil overlying varying thickness of fill. The native soils underlying the fill consist of a brown sand and gravel overlying sandy silt.
- It is anticipated that seasonal fluctuations in groundwater levels will occur. It is recommended that additional groundwater level measurements and monitoring well development be completed to aid the detailed design process
- Based on the analysis results, it is noted that some of the existing conditions along the channel do not meet the recommended Factor of Safety (FS) (FS >1.3 and FS > 1.5) based on the Canadian Foundation Engineering Manual for the short-term and long-term condition, respectively
- Design options:
  - Improve Slope Drainage, as elevated groundwater and pore pressures can result in loss of shear strength of the soil.
    - Improve surface drainage
    - Installing sub-horizontal drains within slope face at critical locations
  - Re-grading & Revegetation of Slopes
  - Increase weight distribution at the toe of slope to provide extra resistance against sliding.
  - Soil Nails or Anchors in areas with limited access or tight property constraints



# Natural Environment

## Natural Heritage Features

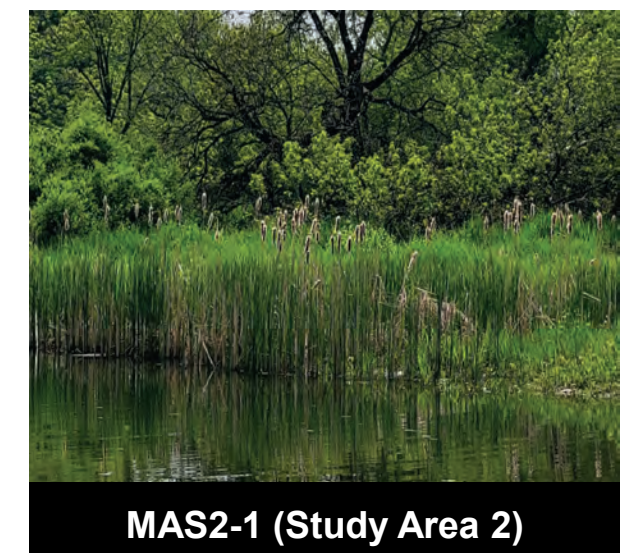
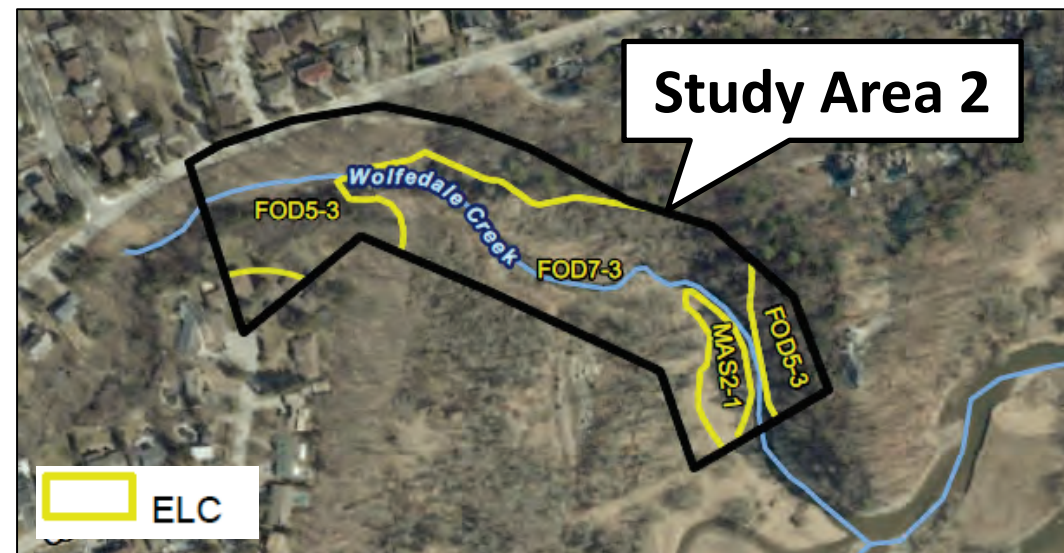
- Study Area 1: none identified
- Study Area 2: contained valleylands, Credit River Coastal Marsh Provincially Significant Wetland complex, the Credit River Marshes Regional ANSI and Stavebank Oak Woods Environmentally Significant Area

## Ecological Land Classification

- Study Area 1: all vegetation communities were disturbed and largely limited to narrow vegetation strips along Wolfedale Creek surrounded by heavily developed commercial and industrial areas
- Study Area 2: consisted of more naturalized communities that were a part of the Credit River Marshes Wetland PSW Complex and ANSI, which were surrounded by residential development and the Mississauga Golf and Country Club



ELC Code/Description
<b>CUT1:</b> Mineral Cultural Thicket Ecosite
<b>FOD7-2:</b> Fresh-Moist Ash Lowland Deciduous Forest
<b>CUW1:</b> Mineral Cultural Woodland Ecosite
<b>FOD7-3:</b> Fresh-Moist Willow Lowland Deciduous Forest
<b>MAS2-1:</b> Cattail Mineral Shallow Marsh
<b>FOD5-3:</b> Dry-Fresh Sugar Maple Deciduous Forest



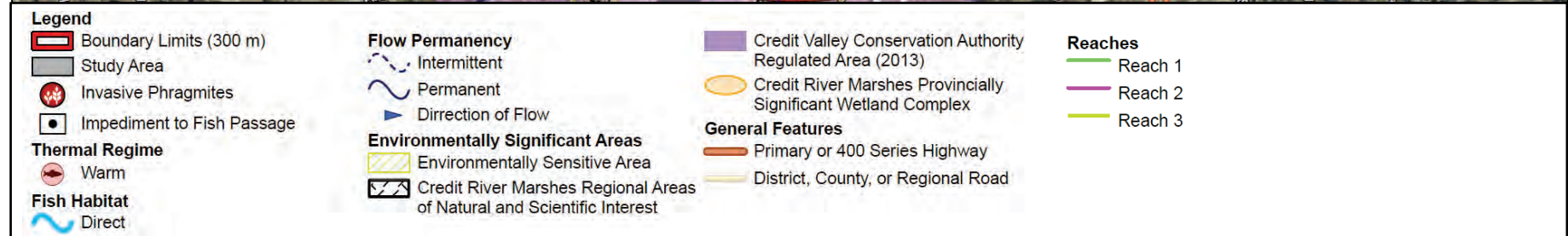
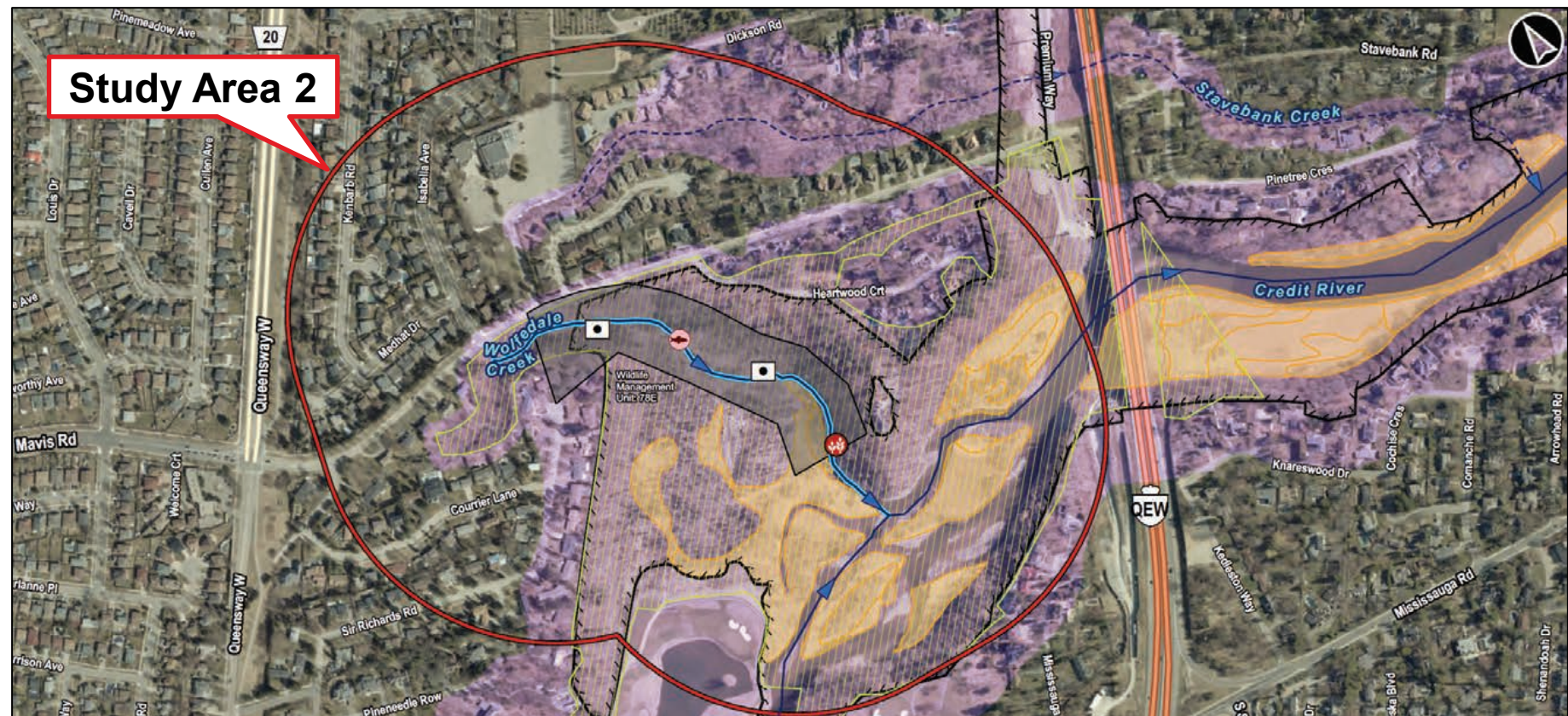
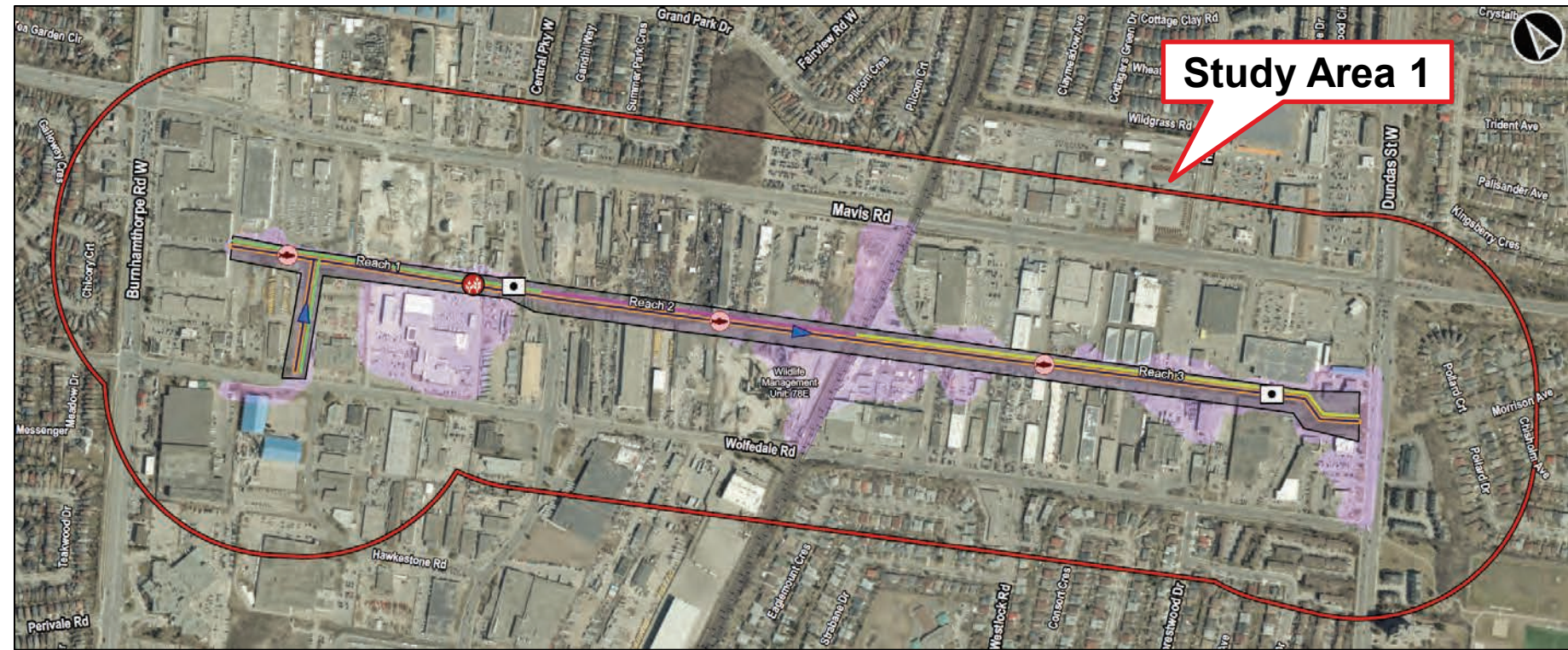
# Natural Environment

## Fish and Fish Habitat

- A detailed assessment of aquatic habitat in Wolfedale Creek was completed
- Study Areas 1 and 2 have been identified as direct fish habitat for a community that consists of warmwater and a few coolwater species
- American Eel has been determined to have a high potential to occur within Study Area 2
- Impediments to fish passage were observed along the creek

## Species at Risk (SAR)

- The SAR Habitat Assessment identified eight SAR species with the potential to occur within the Study Areas:
  - Chimney Swift, Red-headed Woodpecker, Eastern small-footed myotis, Little Brown Myotis, Northern Myotis, Tricolored bat, Black Ash and Butternut
- Species-specific surveys targeting SAR presence/absence may be required during detailed design





# Natural Environment

## Significant Wildlife Habitat – Study Area 1

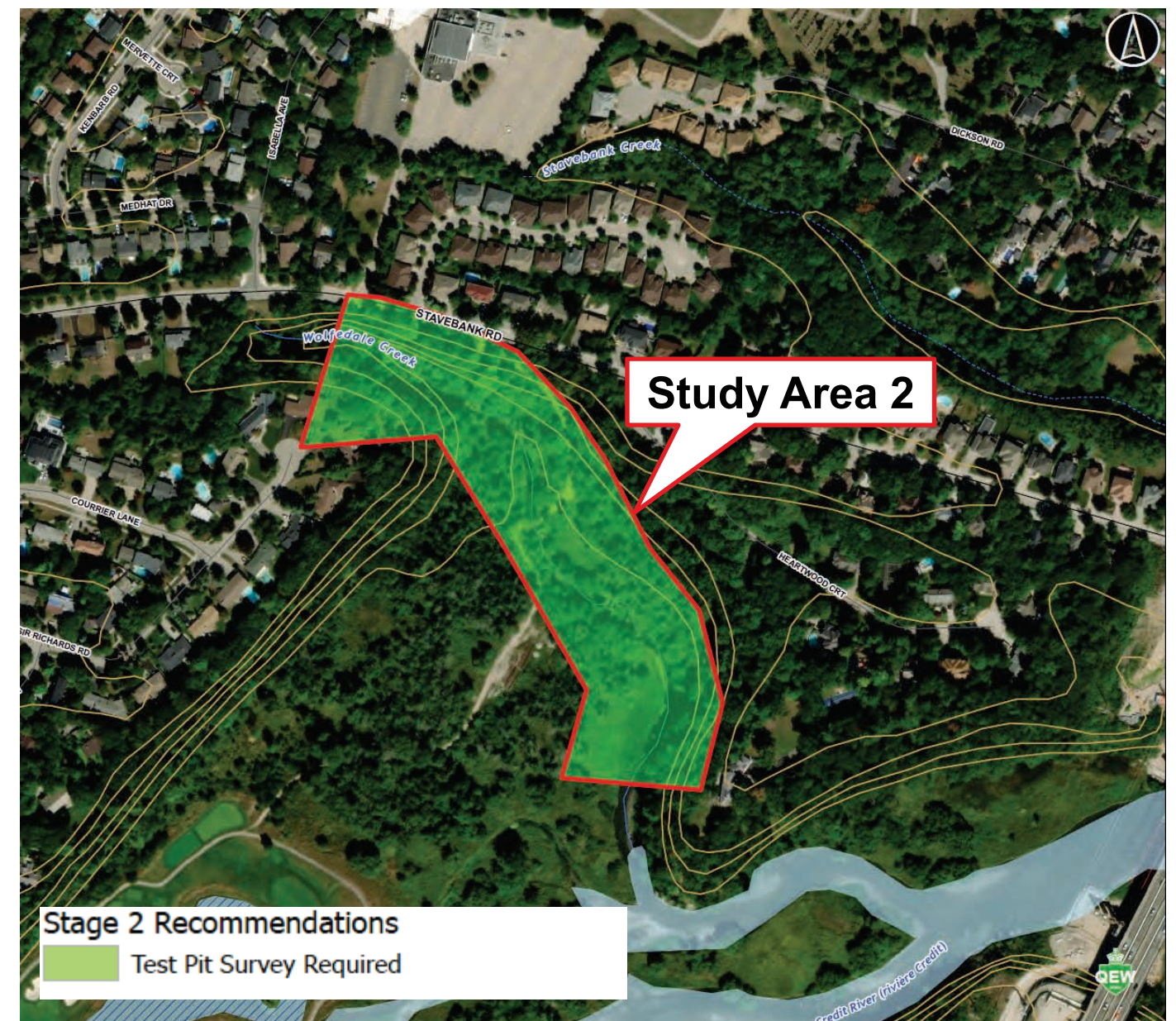
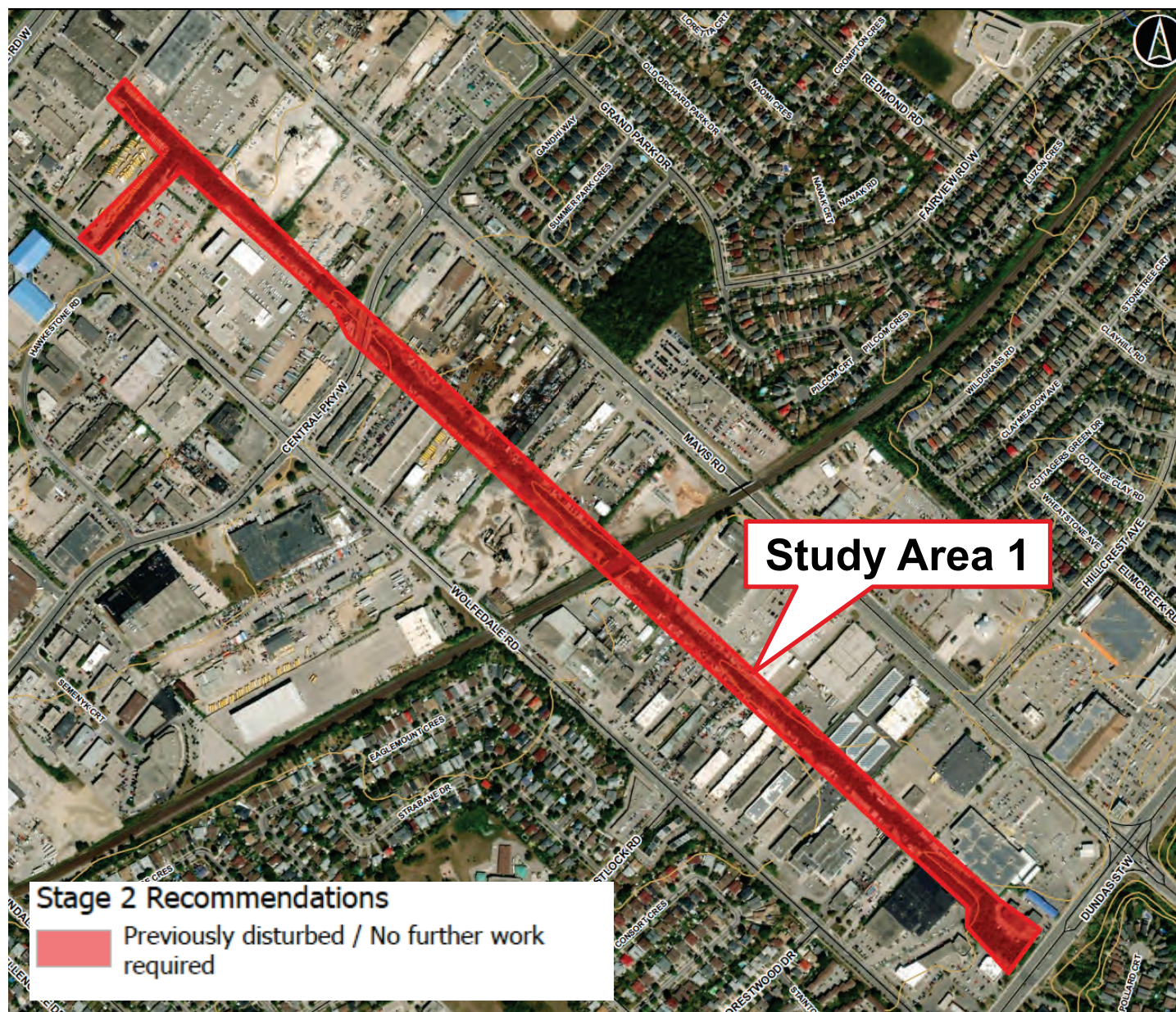
- Seasonal concentration areas:
  - Candidate Bat Maternity Colonies within the Fresh – Moist Ash Lowland Deciduous Forest Ecosite (FOD7-2) and Mineral Cultural Woodland Ecosite (CUW1)
  - Candidate Turtle Wintering Areas within Wolfedale Creek
- Habitats for the following Species of Conservation Concern (SOCC) were identified:
  - Candidate habitat for Barn Swallow (*Hirundo rustica*) on buildings
  - Candidate habitat for Common Nighthawk (*Chordeiles minor*) on flat-topped buildings
  - Candidate habitat for Snapping Turtle (*Chelydra serpentina*) in Wolfedale Creek
- Amphibian Movement Corridor may be present along Wolfedale Creek watercourse and vegetation communities associated with the creek.

## Significant Wildlife Habitat – Study Area 2

- Seasonal concentration areas:
  - Candidate Bat Maternity Colonies within the Fresh – Moist Willow Lowland Deciduous Forest Ecosite (FOD7-3) and Dry-Fresh Sugar Maple Deciduous Forest (FOD5-3)
  - Candidate Turtle Wintering Areas within Wolfedale Creek and Credit River.
- Specialized Habitats of Wildlife:
  - Candidate Woodland Raptor Nesting Habitat within forested communities
  - Candidate Amphibian Breeding Habitat (Woodland) within Moist Willow Lowland Deciduous Forest Ecosite (FOD7-3).
- Habitats for the following SOCC were identified:
  - Confirmed habitat for Eastern Wood-pewee (*Contopus virens*) within forested communities
  - Candidate habitat for Wood Thrush (*Hylocichla mustelina*) within forested communities
  - Candidate habitat for Western-chorus Frog (*Pseudacris triseriata*) within the Cattail Mineral Shallow Marsh (MAS2-1) and Fresh – Moist Willow Lowland Deciduous Forest Ecosite (FOD7-3)
  - Candidate habitat for Snapping Turtle (*Chelydra serpentina*) in Wolfedale Creek and Credit River
- Amphibian Movement Corridor may be present along Wolfedale Creek watercourse and vegetation communities associated with the creek

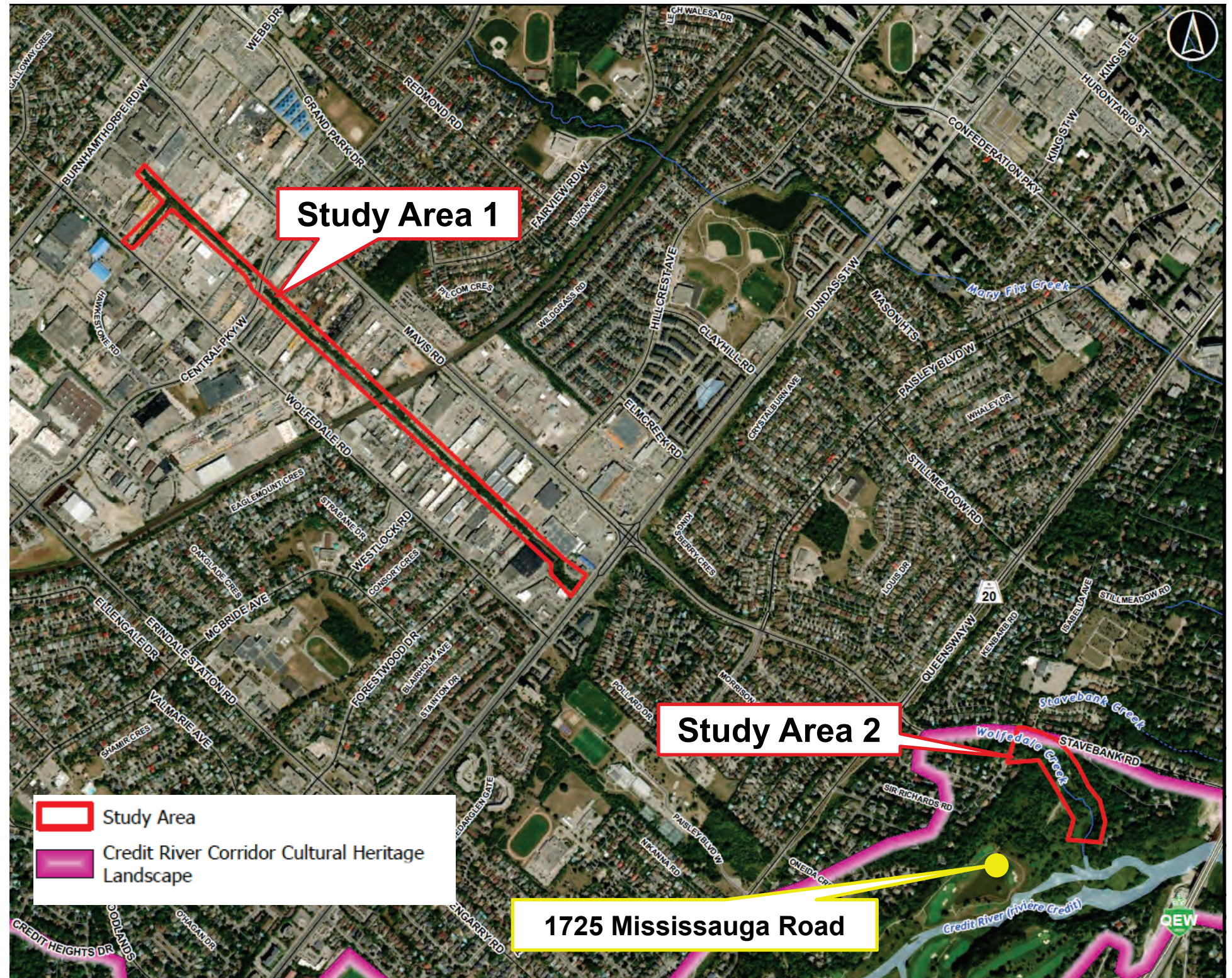
# Cultural Heritage Environment – Archaeological Resources

- A Stage 1 Archaeological Assessment has been completed and concluded:
  - Study Area 1: previously disturbed and no further archaeological works are recommended
  - Study Area 2: Stage 2 archaeological assessment is recommended for all areas of potentially undisturbed land within the Study Area 2 limits



# Cultural Heritage Environment – Cultural Heritage Landscape

- A Heritage Impact Assessment has been completed for the following Cultural Heritage Landscapes (CHLs) within Study Area 2 as they may have potential to be impacted by the erosion control and restoration strategy:
  - 1725 Mississauga Road (Mississauga Golf and Country Club) CHL. No direct or indirect impacts are anticipated to this CHL
  - Credit River Corridor CHL. Mitigation measures will be required for this CHL based on the findings of the heritage assessment of impacts
- There are no known built heritage resources (BHRs) or CHLs within or adjacent to Study Area 1



# Phase 1: Problem or Opportunity Statement

- Located in the City of Mississauga Wolfedale Creek originates at a storm sewer outlet south of Burnhamthorpe Road West, flows parallel to and between Wolfedale Road and Mavis Road and ultimately discharges into the Credit River, south of Queensway West and immediately west of Stavebank Road
- Ongoing erosion within the Wolfedale Creek corridor has resulted in vertical and unstable creek banks, loss of habitat, potential scour and sediment deposition along the channel bed, and impacts to adjacent land uses posing a risk to private property and infrastructure
- The creek bank and bed erosion happens when frequent high stormwater flows from upstream and/or adjacent urbanized catchment areas are discharged into Wolfedale Creek without adequate dissipation (i.e., natural floodplains or engineered methods)
- The majority of the channel was originally constructed in a straightened alignment approximately 40 to 50 years ago, and rehabilitation was completed over the years for certain segments
- The City has determined segments of Wolfedale Creek require rehabilitation through its ongoing erosion monitoring program and has accordingly identified the need for an erosion control and restoration strategy, including engineered bank stabilization, to help prevent further issues for the creek and neighbouring properties
- Environmental enhancement opportunities will also be explored as part of the preferred erosion mitigation strategy

## Phase 2: Alternative Solutions

The following alternative solutions have been considered:

### Alternative 1 – Do Nothing

- This will be used as a base case comparison to other more viable alternatives or strategies

### Alternative 2 – Structural Bank Protection

- Full replacement of failed bank protection with structural bank protection options to maintain long term erosion protection, such as reinforced soil slope walls, cast-in-place re-enforced concrete walls, or steel sheet pile
- Structural grade control solutions will consist of structural options, such as concrete weir structures. Incorporation of a natural channel bed will be included to improve fish habitat and passage



Example of Structural Bank Protection – Soil Nails



Example of Structural Bank Protection – Concrete Revetment and Armourstone Retaining Wall

# Phase 2: Alternative Solutions

## Alternative 3 – Non-structural Bank Protection

- Full replacement of failed bank protection with non-structural bank protection options to maintain long term erosion protection, such as rock, green gabion, or geogrid retaining walls
- Non-structural grade control could include rock weir structures
- Incorporation of a natural channel bed will be included to improve fish habitat and passage



Example of Non-structural Bank Protection – Turf Reinforcement Matting

## Alternative 4 – Combination of both Structural and Non-structural Bank Protection

- Combination of Alternatives 2 and 3

## Alternative 5 – Enclose the Watercourse in Storm Sewer

- Enclose the watercourse in storm sewer and landscape a trail over top.



Example of Enclosed Watercourse in Storm Sewer

	Criteria	Alternative 1: Do nothing	Alternative 2: Structural bank protection	Alternative 3: Non-structural bank protection	Alternative 4: Combination of both structural and non-structural bank protection	Alternative 5: Enclose the watercourse in storm sewer	
<b>Physical and Natural Environment</b>	Potential effects on terrestrial habitat and species	<ul style="list-style-type: none"> <li>No direct impacts, however potential for loss of riparian habitat and potential impacts to species.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: Low potential effects on terrestrial habitat and species given the limited removal of generally low-quality riparian vegetation. No opportunities for planting native plants as restoration.</li> <li>Study Area 2: Medium potential effects on terrestrial habitat and species given the removal of higher quality riparian vegetation and significant natural heritage features (e.g., valleyland, Credit River Coastal Marsh PSW complex, Credit River Marshes Regional ANSI, Stavebank Oak Woods Environmentally Significant Area). No opportunities for planting native plants as restoration.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: Low potential effects on terrestrial habitat and species given the limited removal of generally low-quality riparian vegetation and wildlife habitat. Opportunities for planting native species as part of non-structural bank protection could be a benefit.</li> <li>Study Area 2: Low to medium potential effects on terrestrial habitat and species given the removal of higher quality riparian vegetation habitat and significant natural heritage features. Opportunities for planting native species as part of non-structural bank protection could be a benefit.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: Low potential effects on terrestrial habitat and species given the limited removal of generally low-quality riparian vegetation and wildlife habitat. Opportunities for planting native species as part of non-structural bank protection could be a benefit.</li> <li>Study Area 2: Medium potential effects on terrestrial habitat and species given the removal of higher quality riparian vegetation habitat and significant natural heritage features. Opportunities for planting native species as part of non-structural bank protection could be a benefit.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1 and 2: Highest potential effects on terrestrial habitat and species based on the potential construction footprint and removal/alteration of habitat to entomb the watercourse and landscape the resulting space</li> </ul>	
	Potential effects on aquatic habitat and species	<ul style="list-style-type: none"> <li>Continued degradation of aquatic habitat and potential impacts to species.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: Medium potential effects on aquatic habitat and species based on potential construction footprint of structural bank protection options.</li> <li>Study Area 2: Medium potential effects on aquatic habitat and species based on potential construction footprint of structural bank protection options.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: Low to medium potential effects on aquatic habitat and species based on potential construction footprint of non-structural bank protection options based on opportunities for additional riparian plantings, in stream cover base of retaining walls.</li> <li>Study Area 2: Low to medium potential effects on aquatic habitat and species based on potential construction footprint of non-structural bank protection options based on opportunities for additional riparian plantings, in stream cover base of retaining walls.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: Medium potential effects on aquatic habitat and species based on potential construction footprint of structural and non-structural bank protection options.</li> <li>Study Area 2: Low to medium potential effects on aquatic habitat and species based on potential construction footprint of structural and non-structural bank protection options</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1 and 2: Highest potential effects on aquatic habitat and species</li> </ul>	
	Potential effects on channel morphology.	<ul style="list-style-type: none"> <li>Continued erosion along the channel bed and banks and sediment accumulation for channel morphology.</li> <li>Potential for continued failure of existing bank protection and grade control structures.</li> </ul>	<ul style="list-style-type: none"> <li>High potential effects on channel morphology as structural solutions lock the channel in place and eliminate sediment input into channel. In addition, structural solutions tend to modify channel hydraulics and could result in increased erosion potential.</li> </ul>	<ul style="list-style-type: none"> <li>Medium potential effects on channel morphology as non-structural solutions also lock channel in place but provide more opportunities to offset this through incorporation of natural features. Channel hydraulics and erosion potential can also be impacted by non-structural solutions.</li> </ul>	<ul style="list-style-type: none"> <li>Medium to high potential effects on channel morphology As structural and non-structural solutions lock channel in place but incorporating non-structural solutions provides more opportunities to offset this through the addition of natural features. Channel hydraulics and erosion potential are impacted by both options.</li> </ul>	<ul style="list-style-type: none"> <li>Highest potential effects on channel morphology.</li> </ul>	
	Potential effects on hydraulics and flooding impacts.	<ul style="list-style-type: none"> <li>Minimal flooding impacts.</li> </ul>	<ul style="list-style-type: none"> <li>Minimal flooding impacts.</li> <li>Bank protection will not require loss of flood storage.</li> </ul>	<ul style="list-style-type: none"> <li>Minimal flooding impacts.</li> <li>Bank protection will not require loss of flood storage.</li> </ul>	<ul style="list-style-type: none"> <li>Minimal flooding impacts.</li> <li>Bank protection will not require loss of flood storage.</li> </ul>	<ul style="list-style-type: none"> <li>Minimal flooding impacts.</li> <li>Bank protection will not require loss of flood storage.</li> </ul>	<ul style="list-style-type: none"> <li>Highest potential impact to flooding upstream and downstream of watercourse.</li> </ul>
	Potential effects on surface water and groundwater.	<ul style="list-style-type: none"> <li>No additional impacts to surface water and groundwater interaction.</li> </ul>	<ul style="list-style-type: none"> <li>Minor potential effects to groundwater flow paths and minimize impact to groundwater-surface interaction.</li> </ul>	<ul style="list-style-type: none"> <li>Minimal potential effects to groundwater flow paths and groundwater-surface interaction.</li> </ul>	<ul style="list-style-type: none"> <li>Minor potential effects to groundwater flow paths and minimize impact to groundwater-surface interaction.</li> </ul>	<ul style="list-style-type: none"> <li>High potential effects to groundwater flow paths and groundwater-surface interaction.</li> <li>Natural groundwater recharge would be impacted for northern portion of Study Area, with impacts to the groundwater-surface interaction.</li> </ul>	

	Criteria	Alternative 1: Do nothing	Alternative 2: Structural bank protection	Alternative 3: Non-structural bank protection	Alternative 4: Combination of both structural and non-structural bank protection	Alternative 5: Enclose the watercourse in storm sewer
<b>Physical and Natural Environment</b>	Erosion mitigation.	<ul style="list-style-type: none"> <li>Existing erosion unmitigated and increased potential for further erosion.</li> </ul>	<ul style="list-style-type: none"> <li>High degree of erosion mitigated for replacement of failed bank protection with structural bank protection options. Isolated works would stabilize and lock the channel in place</li> <li>Due to the potential for altered channel hydraulics, there is increased potential for erosion to occur in additional locations along the bed and/or channel banks.</li> <li>Structural solutions are possible in locations where banks are 1H:1V, elevated bank height is present, and consideration for weight restrictions at top of bank is required.</li> </ul>	<ul style="list-style-type: none"> <li>High degree of erosion mitigated for replacement of failed bank protection with non-structural bank protection options. Isolated works would stabilize and lock the channel in place</li> <li>Due to the potential for altered channel hydraulics, there is increased potential for erosion to occur in additional locations along the bed and/or channel banks.</li> <li>Non-structural solutions are possible where the bank slope can be graded to a stable angle, lower bank slopes are present, and vegetation used in the solution can grow.</li> </ul>	<ul style="list-style-type: none"> <li>High degree of erosion mitigated for replacement of failed bank protection with structural and non-structural bank protection options. Isolated works would stabilize and lock the channel in place</li> <li>Due to the potential for altered channel hydraulics, there is increased potential for erosion to occur in additional locations along the bed and/or channel banks.</li> <li>Structural solutions are possible in locations where banks are 1H:1V, elevated bank height is present, and consideration for weight restrictions at top of bank is required.</li> <li>Non-structural solutions are possible where the bank slope can be graded to a stable angle, lower bank slopes are present, and vegetation used in the solution can grow.</li> </ul>	<ul style="list-style-type: none"> <li>High degree of erosion mitigated for enclosure of watercourse in storm sewer.</li> </ul>
	Potential effects on Species at Risk and Species at Risk habitat.	<ul style="list-style-type: none"> <li>Continued degradation of terrestrial habitat adjacent to Wolfedale Creek and potential impacts to Species at Risk and their habitat.</li> </ul>	<ul style="list-style-type: none"> <li>Medium potential effects on Species at Risk and Species at Risk habitat, including:                             <ul style="list-style-type: none"> <li>American Eel (Study Area 2 only);</li> <li>Red-Headed Woodpecker;</li> <li>Bat SAR;</li> <li>Black Ash; and</li> <li>Butternut.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Lowest potential effects on Species at Risk and Species at Risk habitat, including:                             <ul style="list-style-type: none"> <li>American Eel (Study Area 2 only);</li> <li>Red-Headed Woodpecker;</li> <li>Bat SAR;</li> <li>Black Ash; and</li> <li>Butternut.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Low to medium potential effects on Species at Risk and Species at Risk habitat, including:                             <ul style="list-style-type: none"> <li>American Eel (Study Area 2 only);</li> <li>Red-Headed Woodpecker;</li> <li>Bat SAR;</li> <li>Black Ash; and</li> <li>Butternut.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Highest Potential effects on Species at Risk and Species at Risk habitat, including:                             <ul style="list-style-type: none"> <li>American Eel (Study Area 2 only);</li> <li>Red-Headed Woodpecker;</li> <li>Bat SAR;</li> <li>Black Ash; and</li> <li>Butternut.</li> </ul> </li> </ul>
	Anticipated environmental permitting and approval considerations.	<ul style="list-style-type: none"> <li>No permits and approvals required.</li> </ul>	<ul style="list-style-type: none"> <li>Straight forward environmental permitting and approvals that may include:                             <ul style="list-style-type: none"> <li>CVC development permit under Ontario Regulation 41/24: Prohibited Activities, Exemptions, and Permits</li> <li>A permit will be required under the City of Mississauga Public Tree Protection By-law 0020-2022 if tree removals are required.</li> <li>A request for review will be required by DFO due to construction activities occurring below the high water line.</li> <li>Permits may be required under the ESA.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Straight forward environmental permitting and approvals that may include:                             <ul style="list-style-type: none"> <li>CVC development permit under Ontario Regulation 41/24: Prohibited Activities, Exemptions, and Permits</li> <li>A permit will be required under the City of Mississauga Public Tree Protection By-law 0020-2022 if tree removals are required.</li> <li>A request for review will be required by DFO due to construction activities occurring below the high water line.</li> <li>Permits may be required under the ESA.</li> <li>Applicable permits will be identified during the Environmental Assessment phase and confirmed during Preliminary and Detailed Design based on the final construction footprint.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Straight forward environmental permitting and approvals that may include:                             <ul style="list-style-type: none"> <li>CVC development permit under Ontario Regulation 41/24: Prohibited Activities, Exemptions, and Permits</li> <li>A permit will be required under the City of Mississauga Public Tree Protection By-law 0020-2022 if tree removals are required.</li> <li>A request for review will be required by DFO due to construction activities occurring below the high water line.</li> <li>Permits may be required under the ESA.</li> <li>Applicable permits will be identified during the Environmental Assessment phase and confirmed during Preliminary and Detailed Design based on the final construction footprint.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Most difficult environmental permitting and approvals that may include:                             <ul style="list-style-type: none"> <li>CVC development permit under Ontario Regulation 41/24: Prohibited Activities, Exemptions, and Permits</li> <li>A permit will be required under the City of Mississauga Public Tree Protection By-law 0020-2022 if tree removals are required.</li> <li>A request for review will be required by DFO due to construction activities occurring below the high water line.</li> <li>An Authorization under the Fisheries Act is anticipated due to the entombment of the watercourse, which will permanently alter fish habitat and has the potential to destroy fish habitat.</li> <li>Permits may be required under the ESA.</li> </ul> </li> </ul>
	Physical and Natural Environment Evaluation Ranking	Low Constraints (More Preferred)	Medium Constraints (Moderately Preferred)	Low Constraints (More Preferred)	Low (More Preferred) to Medium Constraints (Moderately Preferred)	High Constraints (Less Preferred)



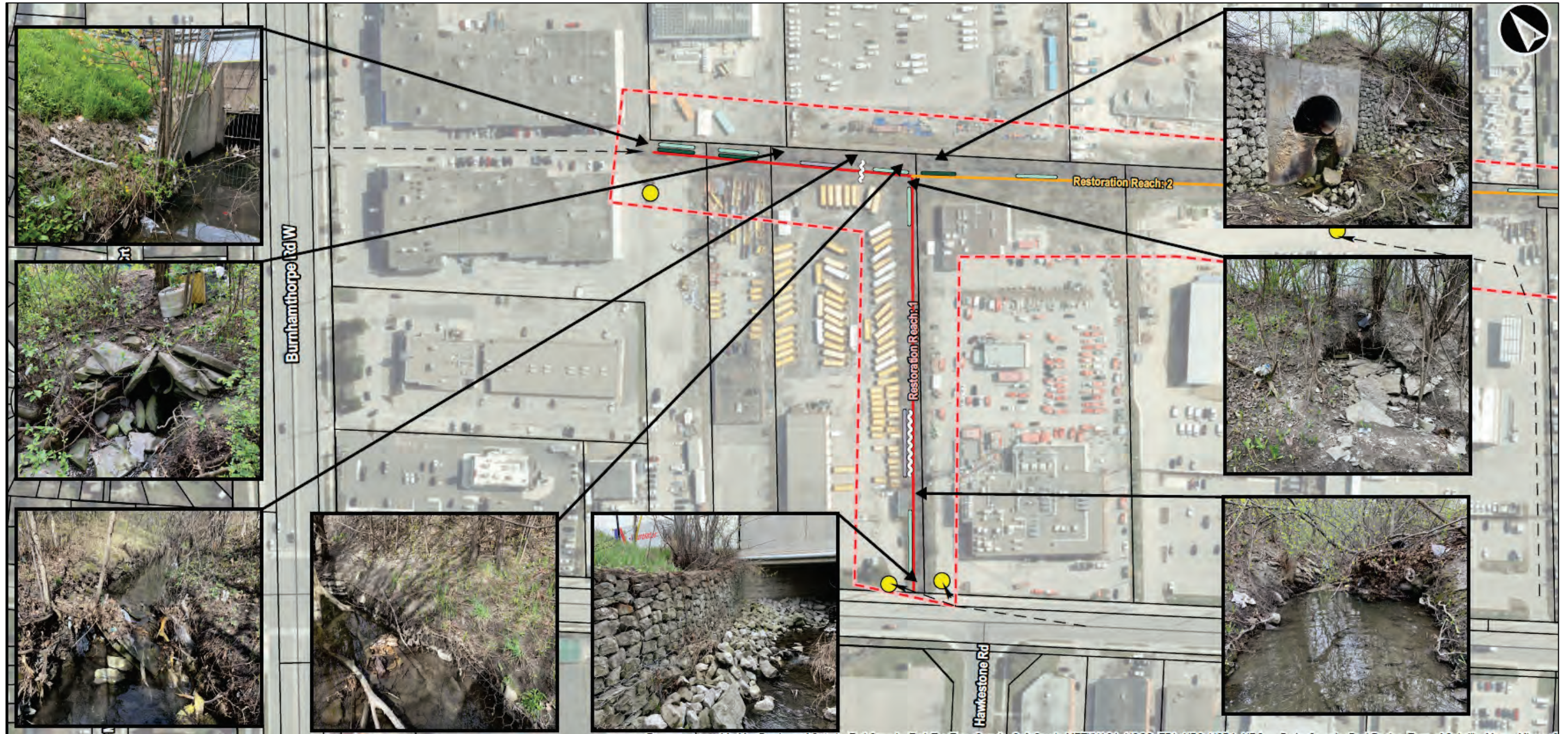
	Criteria	Alternative 1: Do nothing	Alternative 2: Structural bank protection	Alternative 3: Non-structural bank protection	Alternative 4: Combination of both structural and non-structural bank protection	Alternative 5 : Enclose the watercourse in storm sewer	
<b>Socio-Economic Environment</b>	Impact on Public Safety.	<ul style="list-style-type: none"> <li>Existing risks associated with failed bank protection and erosion unmitigated.</li> </ul>	<ul style="list-style-type: none"> <li>Mitigated erosion reduces risk to public safety.</li> </ul>	<ul style="list-style-type: none"> <li>Mitigated erosion reduces risk to public safety.</li> </ul>	<ul style="list-style-type: none"> <li>Mitigated erosion reduces risk to public safety.</li> </ul>	<ul style="list-style-type: none"> <li>Mitigated erosion reduces risk to public safety.</li> </ul>	
	Potential impacts to the community during construction (e.g. noise, air).	<ul style="list-style-type: none"> <li>No impacts to the community as no construction is proposed.</li> </ul>	<ul style="list-style-type: none"> <li>Impacts anticipated with construction area in proximity to private properties.</li> </ul>	<ul style="list-style-type: none"> <li>Impacts anticipated with construction area in proximity to private properties.</li> </ul>	<ul style="list-style-type: none"> <li>Impacts anticipated with construction area in proximity to private properties.</li> </ul>	<ul style="list-style-type: none"> <li>Largest construction area/duration with highest impacts to properties along creek.</li> </ul>	
	Potential impacts to adjacent properties and access.	<ul style="list-style-type: none"> <li>No impacts to adjacent properties and access. Existing risks associated with failed bank protection unmitigated.</li> </ul>	<ul style="list-style-type: none"> <li>Impacts to adjacent properties in key locations of proposed works.</li> <li>Access required at select locations and will require negotiation and result in temporary disruption to use of property.</li> <li>Land modifications to the top of bank required to prevent future encroachment</li> </ul>	<ul style="list-style-type: none"> <li>Impacts to adjacent properties in key locations of proposed works.</li> <li>Access required at select locations and will require negotiation and result in temporary disruption to use of property.</li> <li>Land modifications to the top of bank required to prevent future encroachment</li> </ul>	<ul style="list-style-type: none"> <li>Impacts to adjacent properties in key locations of proposed works.</li> <li>Access required at select locations and will require negotiation and result in temporary disruption to use of property.</li> <li>Land modifications to the top of bank required to prevent future encroachment</li> </ul>	<ul style="list-style-type: none"> <li>Impacts to adjacent properties in key locations of proposed works.</li> <li>Access required at select locations and will require negotiation and result in temporary disruption to use of property.</li> <li>Modification to top of bank would be required.</li> </ul>	
	Potential for property acquisition.	<ul style="list-style-type: none"> <li>No property acquisition.</li> </ul>	<ul style="list-style-type: none"> <li>No property acquisition anticipated.</li> <li>Work with select land owners to provide buffer from top of bank.</li> </ul>	<ul style="list-style-type: none"> <li>No property acquisition anticipated.</li> <li>Work with select land owners to provide buffer from top of bank.</li> </ul>	<ul style="list-style-type: none"> <li>No property acquisition anticipated.</li> <li>Work with select land owners to provide buffer from top of bank.</li> </ul>	<ul style="list-style-type: none"> <li>No property acquisition anticipated.</li> <li>Work with select land owners to provide buffer from top of bank.</li> </ul>	<ul style="list-style-type: none"> <li>No property acquisition anticipated.</li> </ul>
	Socio-Economic Evaluation Ranking	Low Constraints (More Preferred)	Medium Constraints (Moderately Preferred)	Medium Constraints (Moderately Preferred)	Medium Constraints (Moderately Preferred)	High Constraints (Less Preferred)	
<b>Cultural Heritage Environment</b>	Potential effects on archaeological resources.	<ul style="list-style-type: none"> <li>No improvements proposed – no effects on archaeological resources.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No further work is recommended,</li> <li>Study Area 2: Stage 2 archaeological assessment (and further assessments, as required) required for all areas of potentially undisturbed land</li> <li>Potential for marine archaeological impacts if creek bed is disturbed within the Study Area 2. To be confirmed based on final proposed construction footprint.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No further work is recommended,</li> <li>Study Area 2: Stage 2 archaeological assessment (and further assessments, as required) required for all areas of potentially undisturbed land</li> <li>Potential for marine archaeological impacts if creek bed is disturbed within the Study Area 2. To be confirmed based on final proposed construction footprint.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No further work is recommended,</li> <li>Study Area 2: Stage 2 archaeological assessment (and further assessments, as required) required for all areas of potentially undisturbed land</li> <li>Potential for marine archaeological impacts if creek bed is disturbed within the Study Area 2. To be confirmed based on final proposed construction footprint.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No further work is recommended,</li> <li>Study Area 2: Stage 2 archaeological assessment (and further assessments, as required) required for all areas of potentially undisturbed land</li> <li>Potential for marine archaeological impacts if creek bed is disturbed within the Study Area 2. To be confirmed based on final proposed construction footprint.</li> </ul>	
	Potential effects on built heritage resources and cultural heritage landscapes.	<ul style="list-style-type: none"> <li>Study Area 1: No improvements proposed – no effects on built heritage resources and cultural heritage landscapes.</li> <li>Study Area 2: No improvements proposed – no effects on built heritage resources and cultural heritage landscapes.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No potential effects identified on built heritage resources and cultural heritage landscapes. Scope of work limited to Heritage Impact Assessment.</li> <li>Study Area 2: High potential for direct effects on the Credit River Corridor Cultural Heritage Landscape. No potential effects anticipated on the Mississauga Golf and Country Club (1725 Mississauga Road) that is designated as a Heritage Property and is listed on the City of Mississauga Register.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No potential effects identified on built heritage resources and cultural heritage landscapes. Scope of work limited to Heritage Impact Assessment.</li> <li>Study Area 2: High potential for direct effects on the Credit River Corridor Cultural Heritage Landscape. No potential effects anticipated on the Mississauga Golf and Country Club (1725 Mississauga Road) that is designated as a Heritage Property and is listed on the City of Mississauga Register.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No potential effects identified on built heritage resources and cultural heritage landscapes. Scope of work limited to Heritage Impact Assessment.</li> <li>Study Area 2: High potential for direct effects on the Credit River Corridor Cultural Heritage Landscape. No potential effects anticipated on the Mississauga Golf and Country Club (1725 Mississauga Road) that is designated as a Heritage Property and is listed on the City of Mississauga Register.</li> </ul>	<ul style="list-style-type: none"> <li>Study Area 1: No potential effects identified on built heritage resources and cultural heritage landscapes. Scope of work limited to Heritage Impact Assessment.</li> <li>Study Area 2: High potential for direct effects on the Credit River Corridor Cultural Heritage Landscape. No potential effects anticipated on the Mississauga Golf and Country Club (1725 Mississauga Road) that is designated as a Heritage Property and is listed on the City of Mississauga Register.</li> </ul>	
	Cultural Heritage Evaluation Ranking	Low Constraints (More Preferred)	High Constraints (Moderately Preferred)	High Constraints (Moderately Preferred)	High Constraints (Moderately Preferred)	High Constraints (Moderately Preferred)	

	Criteria	Alternative 1: Do nothing	Alternative 2: Structural bank protection	Alternative 3: Non-structural bank protection	Alternative 4: Combination of both structural and non-structural bank protection	Alternative 5 : Enclose the watercourse in storm sewer
<b>Climate Change</b>	Potential for greenhouse gas emissions.	■ No potential for greenhouse gas emissions – no changes proposed.	■ Potential for increased greenhouse gas emissions based on longer construction duration and use of heavy equipment.	■ Lower potential for increased greenhouse gas emissions based on shorter construction duration and potential for use of less heavy equipment.	■ Potential for increased greenhouse gas emissions based on longer construction duration and use of heavy equipment.	■ Potential for increased greenhouse gas emissions based on longer construction duration and use of heavy equipment.
	Vulnerability of project/ infrastructure to climate change effects.	■ Infrastructure subject to climate change effects unmitigated.	■ Structural bank protection options may result in less potential vulnerability to climate change effects.	■ Non-structural bank protection options may result in slightly higher potential vulnerability to climate change effects.	■ Structural and non-structural bank protection options may result in less potential vulnerability to climate change effects.	■ Enclose the watercourse may result in less potential vulnerability to climate change effects in Study Area 1; however, there are downstream infrastructure in Study Area 2 subject to negative impacts.
	Climate Change Evaluation Ranking	Low Constraints (More Preferred)	Medium Constraints (Moderately Preferred)	Medium Constraints (Moderately Preferred)	Medium Constraints (Moderately Preferred)	High Constraints (Less Preferred)
<b>Technical Environment</b>	Ability to address Problem and Opportunity Statement.	■ Does not address the Problem and Opportunity statement.	■ Addresses the Problem and Opportunity statement.	■ Addresses the Problem and Opportunity statement.	■ Addresses the Problem and Opportunity statement with greatest design flexibility.	■ Addresses the Problem and Opportunity statement.
	Potential constructability complexities related to access and staging.	■ No complexities as no changes are proposed.	■ Moderate constructability complexities related to access and staging; however, will require heavier machinery and deeper footings to install structural bank protection.	■ Moderate constructability complexities related to access and staging.	■ Moderate constructability complexities related to access and staging.	■ Highest constructability complexities related to access and staging.
	Ability to address slope stability.	■ Existing risk to slope stability unmitigated.	■ Mitigated erosion would reduce risk to slope stability at key locations.	■ Mitigated erosion would reduce risk to slope stability at key locations.	■ Mitigated erosion would reduce risk to slope stability at key locations with greatest design flexibility.	■ New sewer would address slope stability.
	Lifespan of infrastructure.	■ Existing risk to infrastructure lifespan unmitigated.	■ Structural bank protection options may have longer lifespan than non-structural options.	■ Non-structural bank protection options may have reduced lifespan.	■ Combination approach. Structural bank protection options may have longer lifespan than non-structural bank protection options.	■ Longest lifespan compared to other alternatives; however, may reduce lifespan of infrastructure in Study Area 2.
	Potential future maintenance requirements (e.g., structural maintenance and vegetation maintenance).	■ Potential for maintenance related to ongoing erosion (e.g. tree removal, sediment accumulation).	■ Lower maintenance required for structural bank protection options compared to non-structural bank protection options.	■ Higher maintenance required for non-structural bank protection options.	■ Lower maintenance required for structural bank protection options compared to non-structural bank protection options.	■ Lowest future maintenance requirements; however, may trigger additional maintenance for infrastructure in Study Area 2.
	Technical Environment Evaluation Ranking	High Constraints (Less Preferred)	Medium Constraints (Moderately Preferred)	Medium Constraints (Moderately Preferred)	Low (More Preferred) to Medium Constraints (Moderately Preferred)	Medium Constraints (Moderately Preferred)
	Estimated capital costs.	■ None.	■ \$5 M - \$10 M.	■ \$1 M - \$5 M.	■ \$1 M - \$10 M.	■ Greater than \$10 M.
<b>Cost</b>	Estimated operation and maintenance costs.	■ Potential for maintenance costs related to ongoing erosion (e.g. tree removal, sediment accumulation).	■ Regular maintenance required and may be higher in cost compared to non-structural.	■ Regular maintenance required. ■ Incorporation of vegetation in design details may require greater maintenance.	■ Regular maintenance required.	■ Regular maintenance required. ■ Confined space access will be required.
	Cost Evaluation Ranking	Low Constraints (More Preferred)	Medium Constraints (Moderately Preferred)	Low Constraints (More Preferred)	Low (More Preferred) to Medium Constraints (Moderately Preferred)	High Constraints (Less Preferred)
	<b>Recommended Preferred Solution?</b>	No	No	No	Yes	No

# Preferred Erosion Control and Restoration Strategy

- Alternative 4 (combination of both structural and non-structural bank protection) is the overall recommended preliminary preferred solution based on the following rationale:
  - Flexibility to implement both non-structural and structural improvements
  - Lower anticipated environmental impacts
  - Constructability
  - There are no anticipated flooding impacts
  - Cost-effectiveness with primarily non-structural bank protection options being recommended with localized small-scale structural measures
- Overall, the improvements recommended are primarily non-structural with localized small-scale structural measures, such as retaining wall repairs or replacements in select areas.

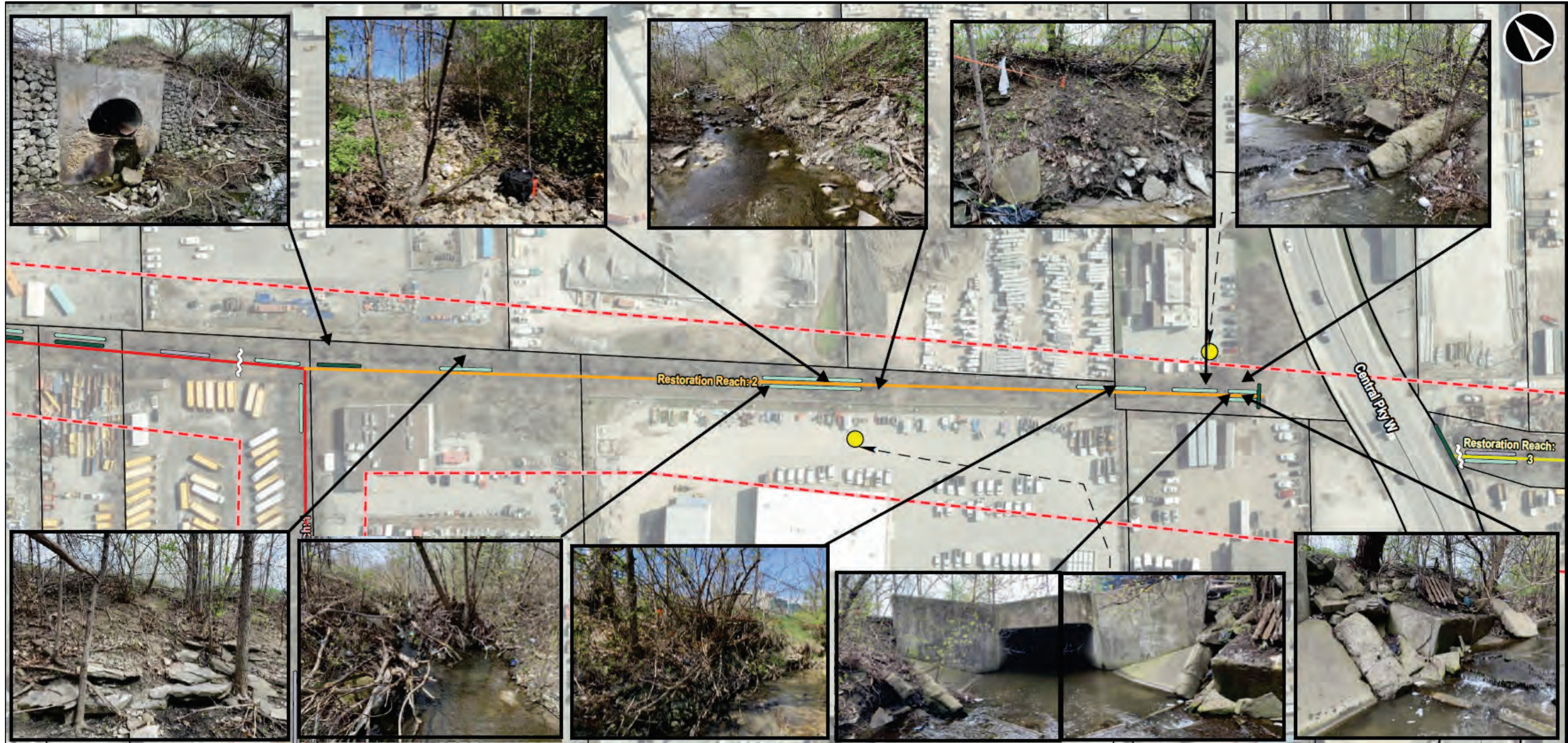
# Preliminary Preferred Solution – Study Area 1



















Legend	
	Study Area
	Potential Access
	Potential Debris Jam Removal*
	Potential Repair Culvert / Storm Water Outlet*
	Potential Structural and /or Non-structural Bank Protection Measures*
	Potential Structural and /or Non-structural Grade Control Measures*
	Property Line
	Minor Roads
	Potential Access Location
	Restoration Reach 1
	Restoration Reach 2
	Restoration Reach 3
	Restoration Reach 4
	Restoration Reach 5
	Restoration Reach 6
	Restoration Reach 7

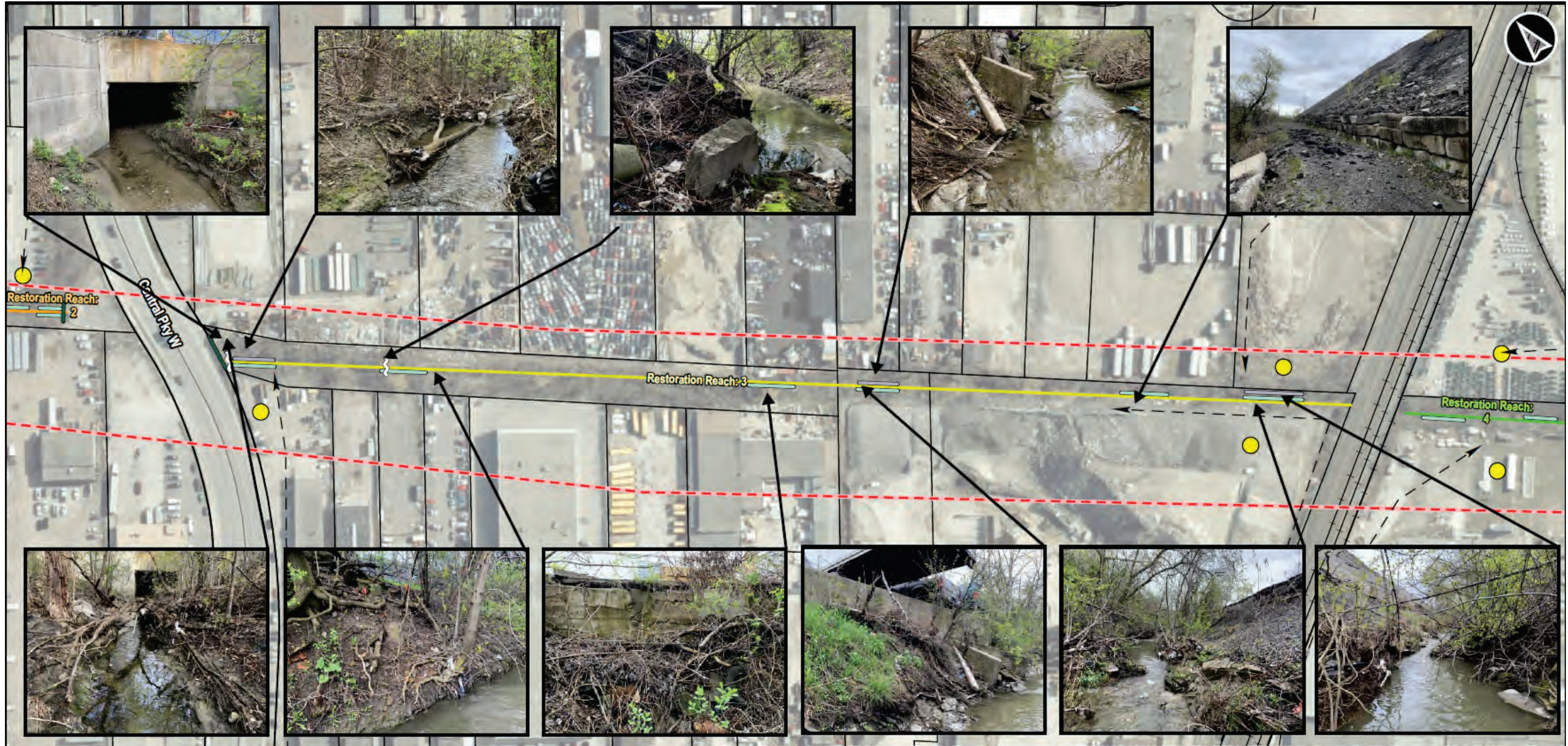
- The City is currently investigating potential access locations across Study Area 1 and Study Area 2
- Access locations are subject to change

# Preliminary Preferred Solution – Study Area 1



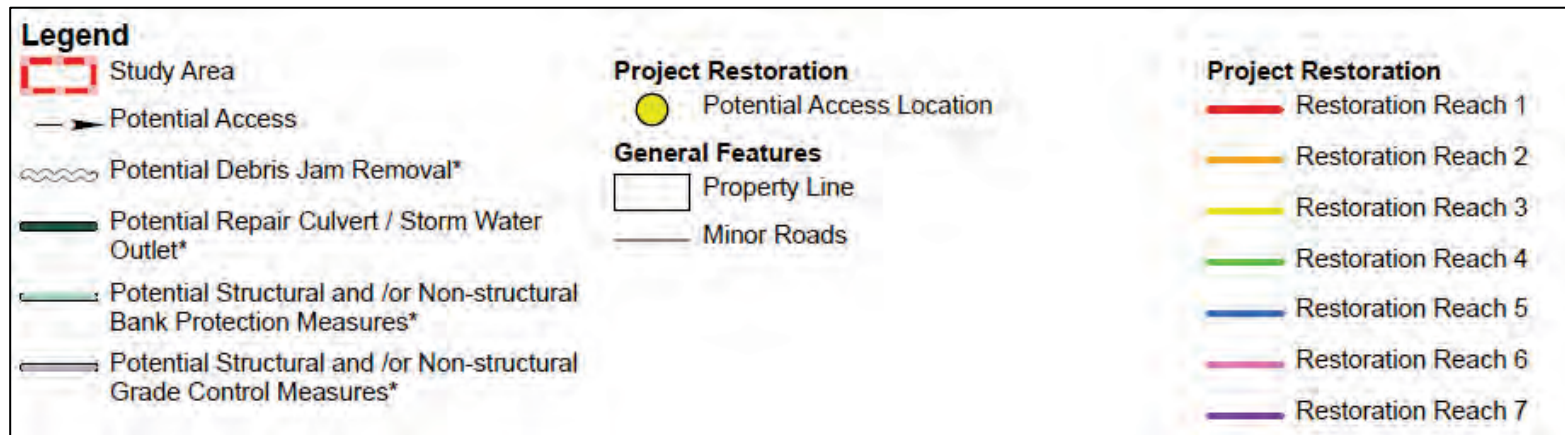
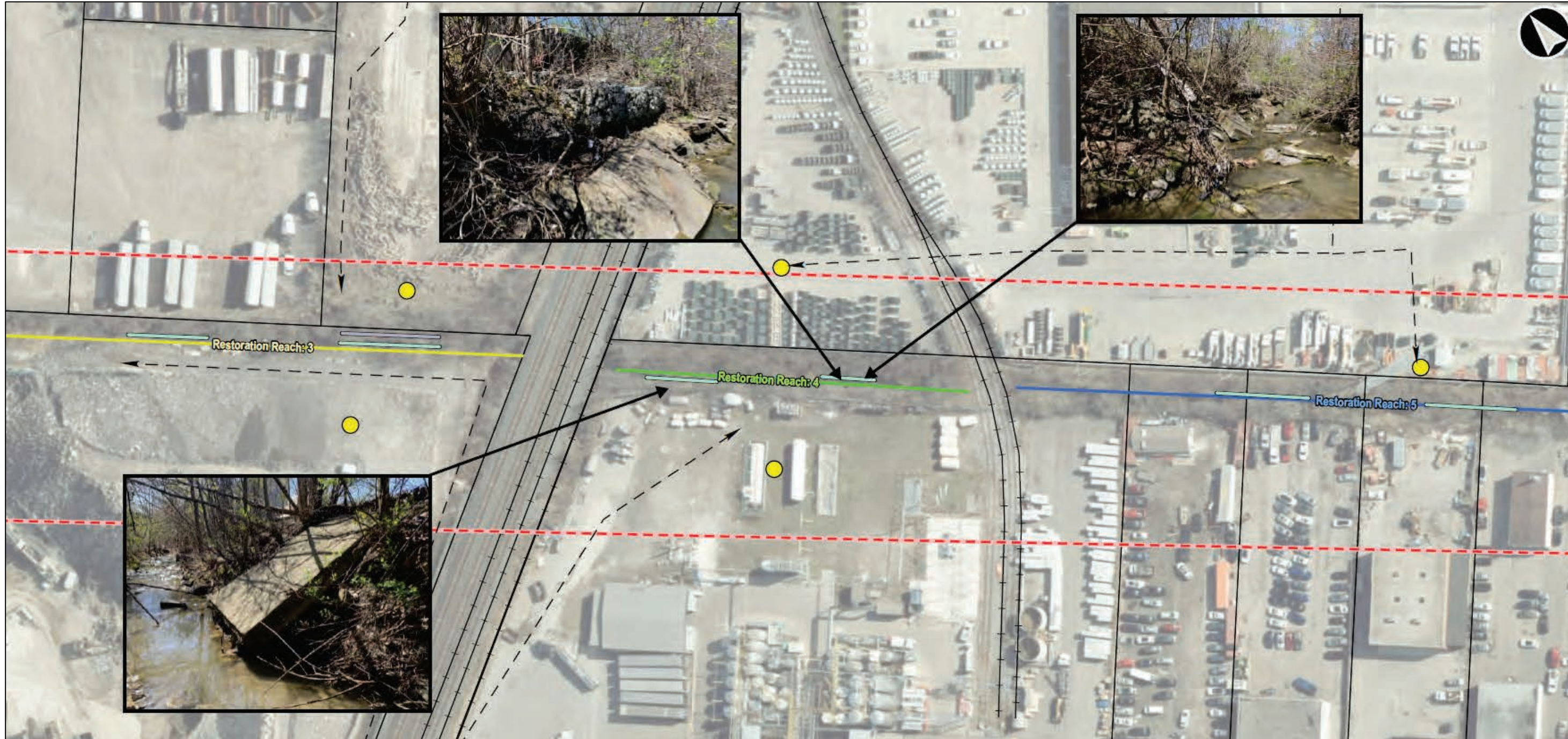
Legend		Project Restoration	
 Study Area	 Potential Access Location	 Restoration Reach 1	
 Potential Access	<b>General Features</b>	 Restoration Reach 2	
 Potential Debris Jam Removal*	 Property Line	 Restoration Reach 3	
 Potential Repair Culvert / Storm Water Outlet*	 Minor Roads	 Restoration Reach 4	
 Potential Structural and /or Non-structural Bank Protection Measures*		 Restoration Reach 5	
 Potential Structural and /or Non-structural Grade Control Measures*		 Restoration Reach 6	
		 Restoration Reach 7	

# Preliminary Preferred Solution – Study Area 1

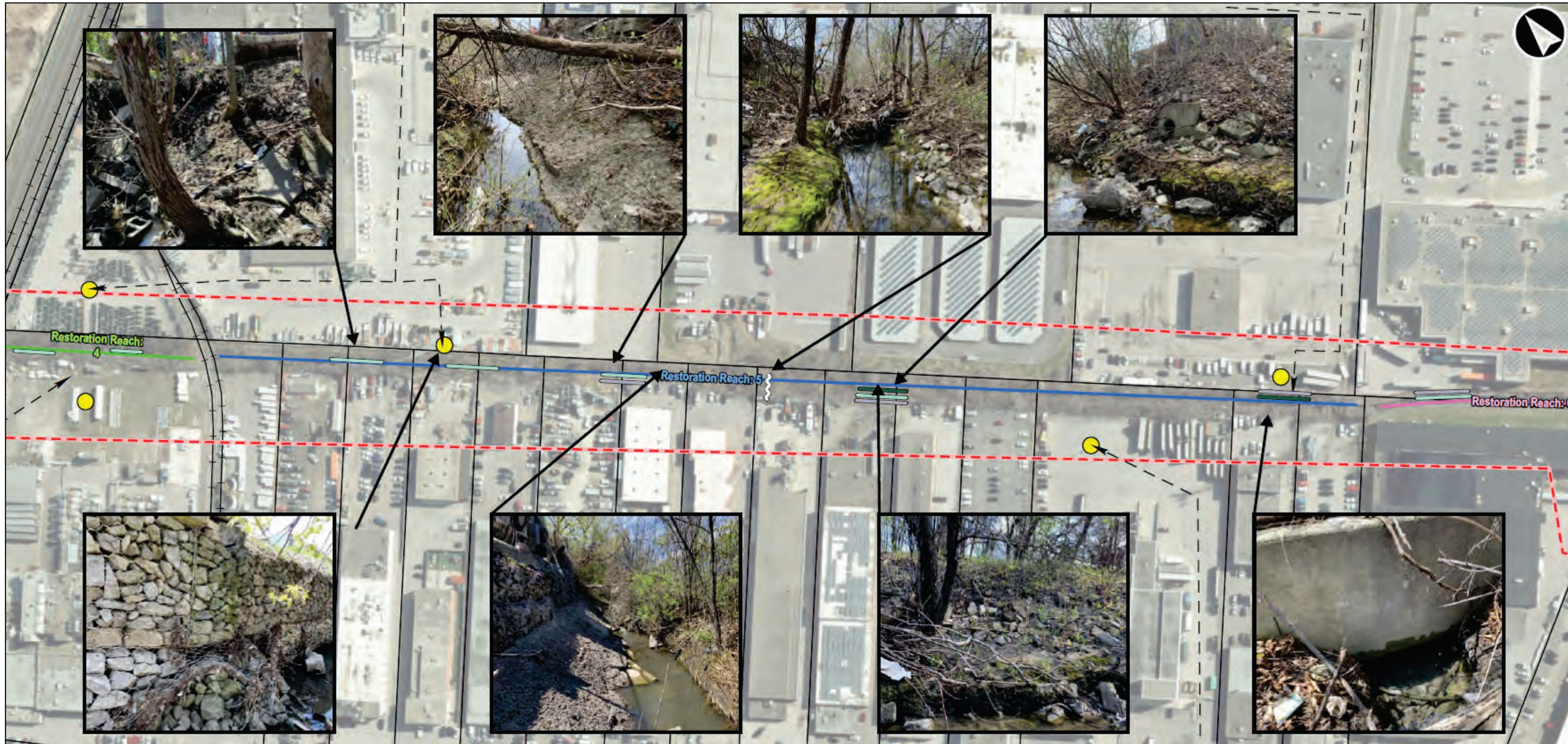


















Legend	
	Study Area
	Potential Access
	Potential Debris Jam Removal*
	Potential Repair Culvert / Storm Water Outlet*
	Potential Structural and /or Non-structural Bank Protection Measures*
	Potential Structural and /or Non-structural Grade Control Measures*
	Potential Access Location
	Property Line
	Minor Roads
	Restoration Reach 1
	Restoration Reach 2
	Restoration Reach 3
	Restoration Reach 4
	Restoration Reach 5
	Restoration Reach 6
	Restoration Reach 7

# Preliminary Preferred Solution – Study Area 1



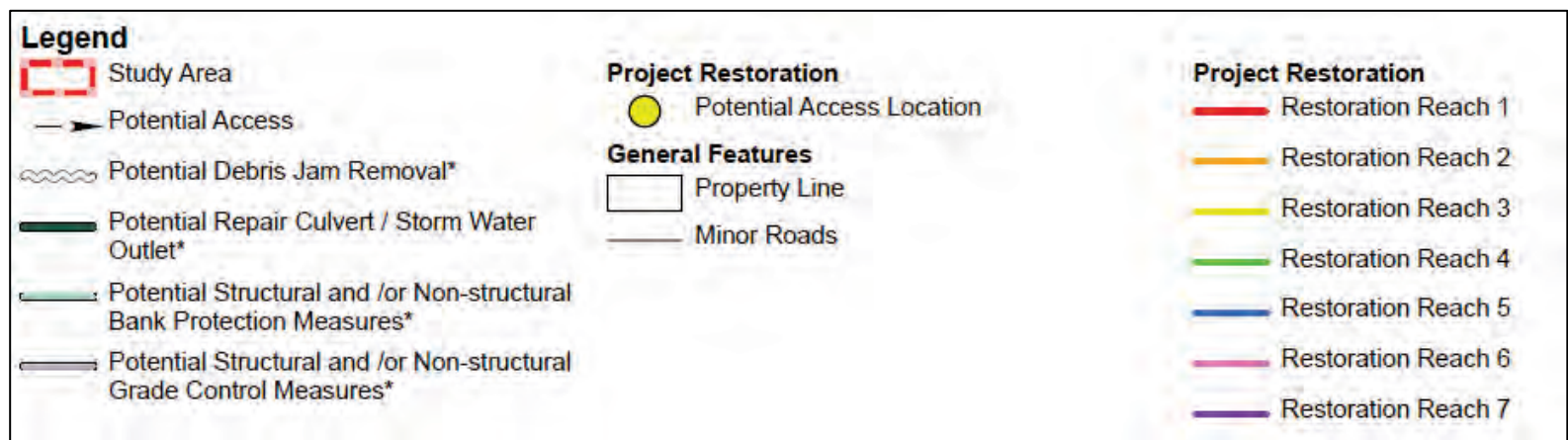
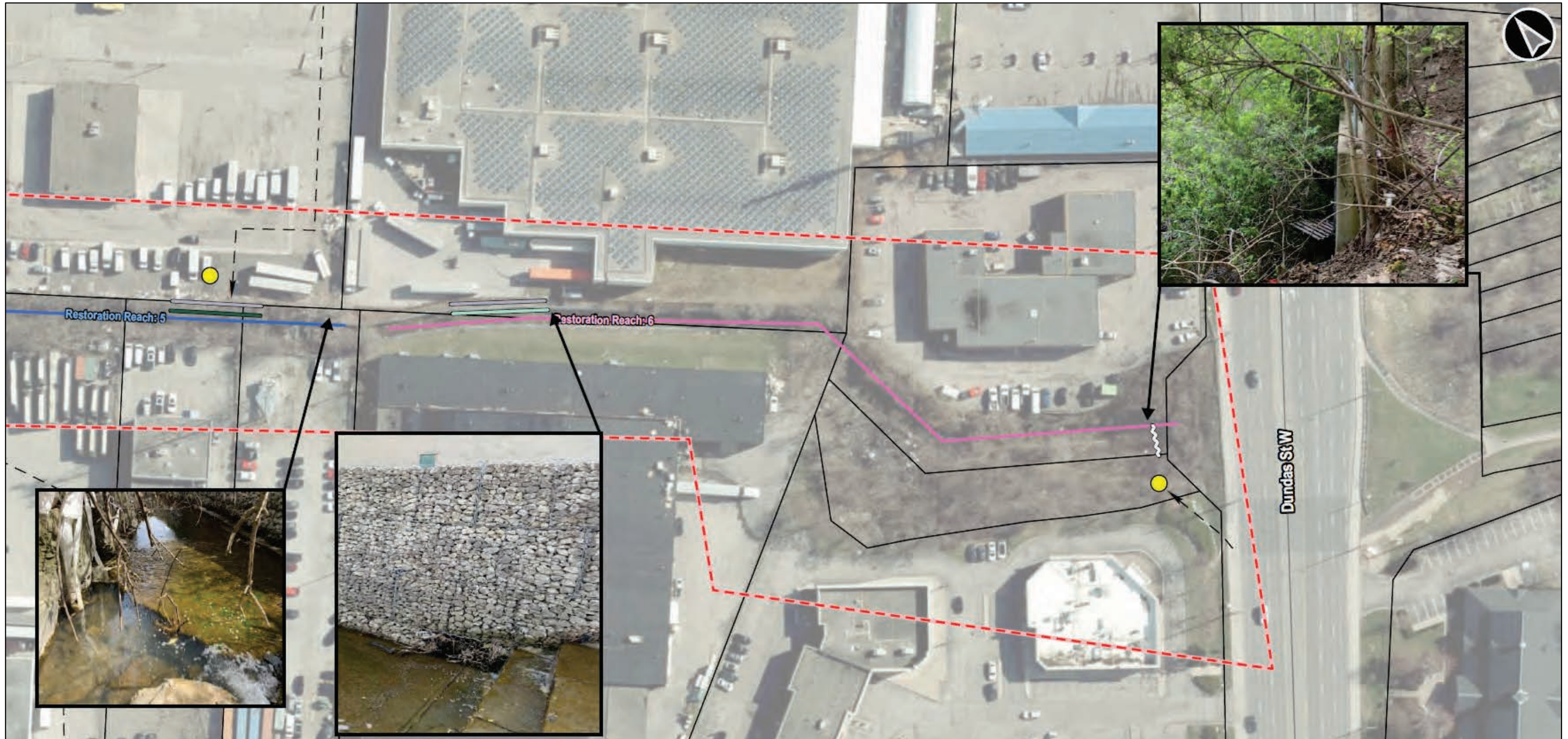
# Preliminary Preferred Solution – Study Area 1



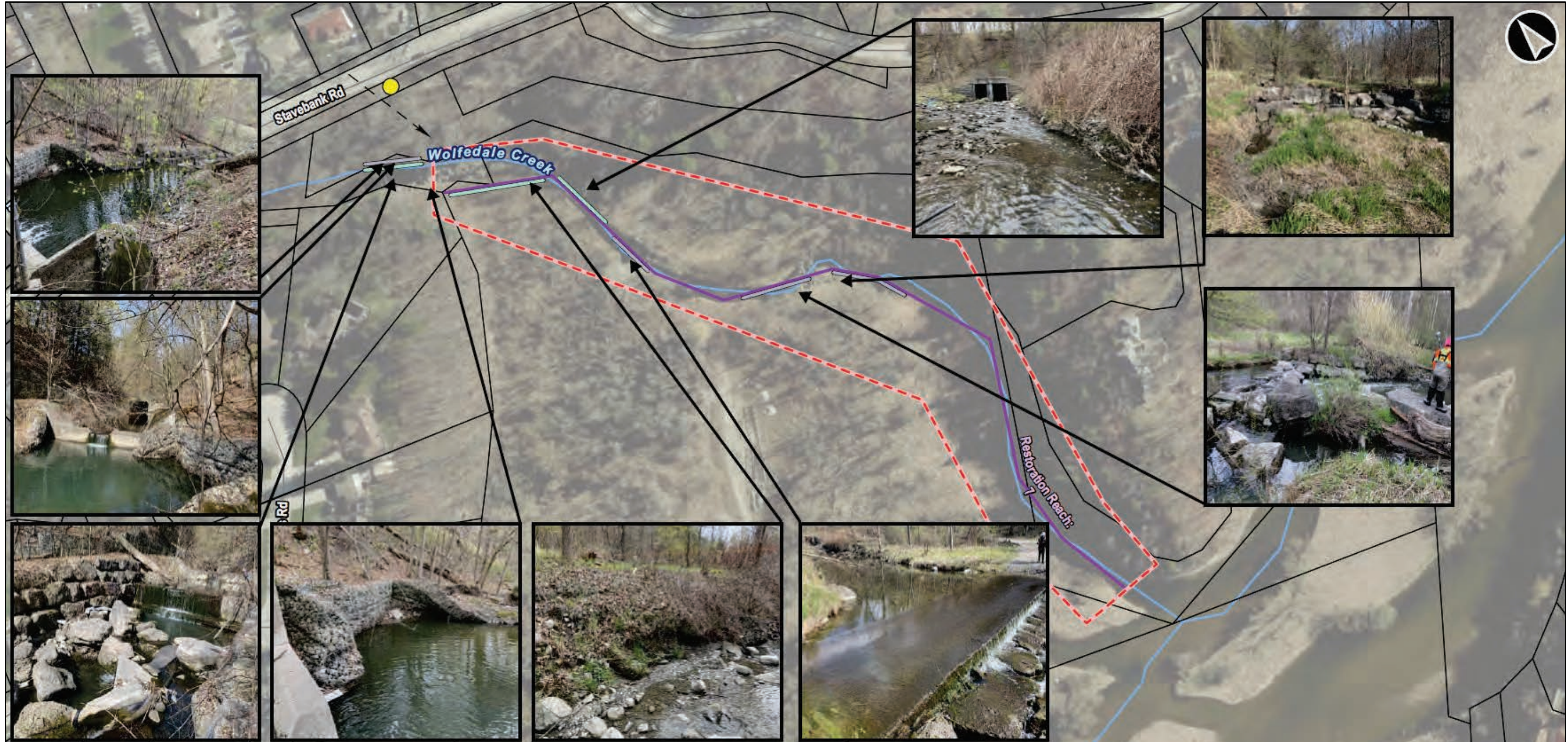
Legend		Project Restoration	
	Study Area		Potential Access Location
	Potential Access		Property Line
	Potential Debris Jam Removal*		Minor Roads
	Potential Repair Culvert / Storm Water Outlet*		Restoration Reach 1
	Potential Structural and /or Non-structural Bank Protection Measures*		Restoration Reach 2
	Potential Structural and /or Non-structural Grade Control Measures*		Restoration Reach 3
			Restoration Reach 4
			Restoration Reach 5
			Restoration Reach 6
			Restoration Reach 7



# Preliminary Preferred Solution – Study Area 1



# Preliminary Preferred Solution – Study Area 2



Legend		
	Study Area	
	Potential Access	
	Potential Debris Jam Removal*	
	Potential Repair Culvert / Storm Water Outlet*	
	Potential Structural and /or Non-structural Bank Protection Measures*	
	Potential Structural and /or Non-structural Grade Control Measures*	
	Potential Access Location	
	Property Line	
	Minor Roads	
	Restoration Reach 1	
	Restoration Reach 2	
	Restoration Reach 3	
	Restoration Reach 4	
	Restoration Reach 5	
	Restoration Reach 6	
	Restoration Reach 7	

# Preliminary Construction Impact Mitigation



## Natural Environment

- Minimize vegetation removals to the extent possible. Vegetation removal activities should be limited to outside of the breeding bird nesting season (April 1 to August 31) and bat active season (April 1 to September 1)
- Comply with in-water timing window
- Avoid impacts to Species at Risk (e.g. American Eel) and their habitats. Authorization under the Endangered Species Act, 2007 may be required if impacts cannot be avoided.
- Avoid encroachment within the Natural Designated Areas (Credit River Coastal Marsh PSW complex, the Credit River Marshes Regional ANSI and Stavebank Oak Woods Environmentally Significant Area) to the extent possible and allow for a vegetation protection buffer of at least 30 m to PSWs where possible.
- Implement wildlife-specific mitigation measures
- Implement erosion and sediment control measures to prevent sediment from entering neighbouring properties and natural areas during construction



## Socio-Economic Environment

- Implement Best Management Practices for dust control and vibration monitoring during construction
- Comply with the City's Noise Bylaw restrictions
- Provide advance notice to adjacent property owners and the community, prior to construction. General project information and updates will be provided through the City's website



## Cultural Heritage Environment

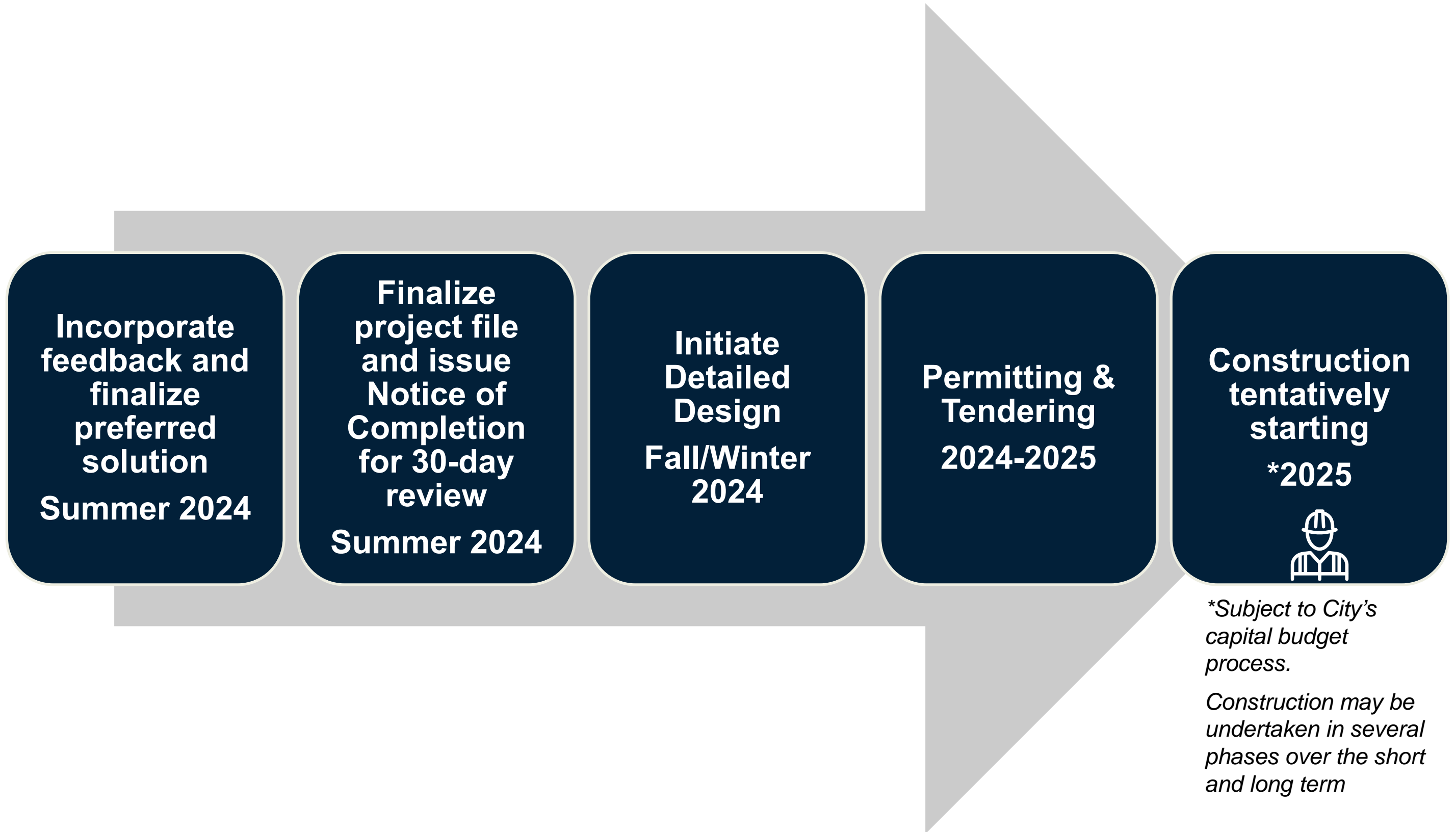
- Complete a Stage 2 Archaeological Assessment (and further assessments, if required)
- Implement mitigation measures for the Credit River Corridor Cultural Heritage Landscape to preserve the scenic quality of the natural environment of the corridor. Potential measures include:
  - Conducting a comprehensive site assessment (i.e., Tree Preservation Plan or Landscape Plan) to identify areas of vegetation that should be preserved due to their contribution to the scenic quality of the Valley's natural environment. Where vegetation removal is unavoidable, prioritizing the replanting of native species is recommended.
  - Installing temporary fencing and establishing no-go zones on construction maps to delineate areas of vegetation that must not be removed/disturbed.



## Property Access (Refer to Slides 23-29)

- Temporary access from select adjacent properties is required to construct the proposed erosion control works
- The City will be engaging the identified landowners to discuss potential access through the identified properties during construction and for purposes of future monitoring and maintenance.

# Project Timeline and Next Steps



*\*Subject to City's capital budget process.*

*Construction may be undertaken in several phases over the short and long term*

# Questions? Would you like to be added to the Contact List?

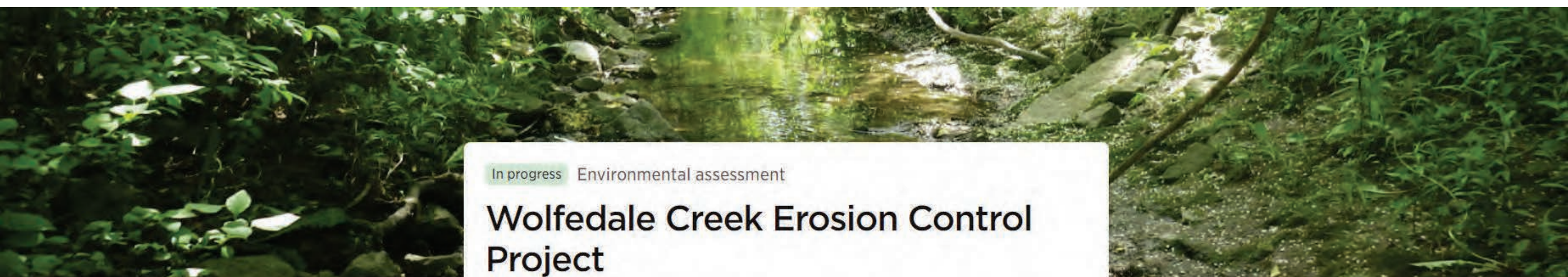
## Please Contact:

**Greg Frew, P.Eng.**  
City Project Manager  
City of Mississauga  
300 City Centre Drive  
Mississauga, ON L5B 3C1  
Greg.Frew@mississauga.ca

**Kosta Paliouras, P.Eng.**  
Consultant Project Manager  
AECOM Canada Ltd.  
5080 Commerce Blvd.  
Mississauga, ON L4W 4P2  
kosta.paliouras@aecom.com

**Project website:** [www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control](http://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control)

**Comment form:** We want to hear from you! A [comment form](#) is available for your feedback. Please submit comments by **July 18, 2024**



In progress Environmental assessment

## Wolfedale Creek Erosion Control Project

The City of Mississauga is undertaking a Schedule B Class Environmental Assessment Study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

Wolfedale Public Information Centre - Comment Form Submissions

ID	Are you a	Would you like to be added to the project mailing list to receive future notifications?	The Study Team is recommending Alternative 4 as the preliminary preferred erosion control and restoration strategy. This is a combination of both structural and non-structural bank protection and ...	Are you satisfied with the with the proposed erosion control and restoration strategy for Study Areas 1 and 2?	Do you have any other comments or questions regarding this study?
1	Property owner or tenant living in the Study Area	Yes	In my opinion and experience I prefer the concrete or permanent retaining wall as a long term solution. In other words, money well spent. I also like the idea of an enclosed watercourse in the storm sewer. If possible, I would support either solution at the rear of my property.	Unsure	The creek has had work done in the past and has lasted only temporarily. I think it is time to consider a more permanent option.

**AECOM**

# Public Correspondence



---

**From:** Vicky Wei <Vicky.We@mississauga.ca>  
**Sent:** Wednesday, May 17, 2023 9:33 AM  
**To:** [REDACTED]  
**Cc:** Van Riezen, Rhonneke; Paliouras, Kosta; Zandvliet, Samantha  
**Subject:** RE: Wolfedale Creek

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Report Suspicious

Hi [REDACTED]

Thanks for your email. We will add you to the list.

Regards,

**Vicky Wei, P.Eng., PMP**

Environmental Coordinator, Site Assessment

Environmental Service, T&W

T [905-615-3200](tel:905-615-3200) ext.3017

---

**From:** [REDACTED]  
**Sent:** Tuesday, May 16, 2023 9:46 AM  
**To:** Vicky Wei <Vicky.We@mississauga.ca>  
**Subject:** Wolfedale Creek

Good Morning Vicky,

Can I please be added to receive information on the Wolfedale Creek study?

Thanks,

[REDACTED]  
Mississauga, Ontario.  
L5C 1V8



# Appendix H

## Agency and Stakeholder Consultation Record





# External Agency and Stakeholder Contact List



**Consulting Services for the Wolfedale Creek Erosion Control Project: Burnhamthorpe Road West to the Credit River – Municipal Class Environmental Assessment**  
**External Agency and Stakeholder Contact List**

Federal Agencies	Organization	First Name	Last Name	Position	Address	City	Province	Postal Code	Email
	Fisheries and Oceans Canada				867 Lakeshore Road	Burlington	ON	L7S 1A1	info@dfo-mpo.gc.ca
	CP Rail	Jack	Carello	Manager Utilities Engineering Services	1290 Central Parkway W Suite 800	Mississauga	ON	L5C 4R3	jack_carello@cpr.ca
	CP Rail	Orest	Rojik	Area Manager Support - CPR Real Estate	1290 Central Parkway W Suite 800	Mississauga	ON	L5C 4R3	orest_rojik@cpr.ca
Ontario Ministries	Organization	First Name	Last Name	Position	Address	City	Province	Postal Code	Email
	Ministry of Citizenship and Multiculturalism	Karla	Barboza	Heritage Land Use Planning	Suite 1700, 401 Bay Street	Toronto	ON	M7A 0A7	karla.barboza@ontario.ca
	Ministry of Citizenship and Multiculturalism	Erika	Leclerc	Heritage Land Use Planning	Suite 1700, 401 Bay Street	Toronto	ON	M7A 0A7	erika.leclerc2@ontario.ca
	Ministry of Natural Resources and Forestry	Adam	Kennedy	Regional Planner / Southern Region					Adam.Kennedy@ontario.ca
	Ministry of Natural Resources and Forestry	Steve	Varga	Management Biologist	50 Bloomington Road	Aurora	ON	L4G 0L8	steve.varga@ontario.ca
	Ministry of the Environment, Conservation and Parks			Central mailbox					eanotification.cregion@ontario.ca
		Chunmei	Liu	Environmental Resource Planner & EA Coordinator	135 St. Clair Ave. W., 8th Floor	Toronto	ON	M4V 1P5	Chunmei.Liu@ontario.ca
	Ministry of the Environment, Conservation and Parks								SARontario@ontario.ca
	Infrastructure Ontario	Katherine	Hotrum						Katherine.Hotrum@infrastructureontario.ca
	Infrastructure Ontario								noticereview@infrastructureontario.ca
Conservation Authorities	Organization	First Name	Last Name	Position	Address	City	Province	Postal Code	Email
	Credit Valley Conservation	Iftekhar	Ahmad	Planner, Environmental Assessment	1255 Old Derry Road	Mississauga	ON	L5N 6R4	iftekhar.ahmad@cvc.ca
	Credit Valley Conservation	Jakub	Kilis	Senior Manager, Infrastructure & Regulations	1255 Old Derry Road	Mississauga	ON	L5N 6R4	jakub.kilis@cvc.ca
	Credit Valley Conservation	Lori	Cook		1255 Old Derry Road	Mississauga	ON	L5N 6R4	lori.cook@cvc.ca
	Credit Valley Conservation	Matteo	Destefano	Environmental Assessment Engineering Analyst	1255 Old Derry Road	Mississauga	ON	L5N 6R4	matteo.destefano@cvc.ca
	Credit Valley Conservation								planning@cvc.ca
Region	Organization	First Name	Last Name	Position	Address	City	Province	Postal Code	Email
	Region of Peel	Nicholas	Gan	Manager, Engineering, Condition Assessment & Rehabilitation Engineering Services Division, Public Works	10 Peel Centre Drive, Suite B	Brampton	ON	L6T 4B9	Nicholas.Gan@peelregion.ca
	Region of Peel	Asha	Saddi	Technical Analyst, Infrastructure Programming and Studies	10 Peel Centre Drive, Suite B	Brampton	ON	L6T 4B9	asha.saddi@peelregion.ca
First Nations	Organization	First Name	Last Name	Position	Address	City	Province	Postal Code	Email
	Mississaugas of the New Credit First Nation	Adam	LaForme	Archaeological Operations Supervisor	6 First Line R.R.#6	Hagersville	ON	N0A 1H0	adam.laforme@mncfn.ca
	Mississaugas of the New Credit First Nation	Abby	LaForme	Acting Consultation Coordinator	6 First Line R.R.#6	Hagersville	ON	N0A 1H0	Abby.LaForme@mncfn.ca
	Six Nations of the Grand River	Lonny	Bomberry	Director, Six Nations Lands and Resources	2498 Chiefswood Road P.O. Box 5000	Ohswéken	ON	N0A 1M0	lonnybomberry@sixnations.ca
	Six Nations of the Grand River	Peter	Graham	Land Use Officer	2498 Chiefswood Road P.O. Box 5000	Ohswéken	ON	N0A 1M0	LRCS@sixnations.ca
	Six Nations of the Grand River	Tanya	Hill-Montour	Archaeology Supervisor	2498 Chiefswood Road P.O. Box 5000	Ohswéken	ON	N0A 1M0	tanyahill-montour@sixnations.ca
	Haudenosaunee Development Institute								info@hdi.land
	Huron-Wendat Nation				255, place Chef Michel Laveau	Wendake	QC	G0A 4V0	consultations@wendake.ca
	Huron-Wendat Nation	Mario	Gros-Louis		255, place Chef Michel Laveau	Wendake	QC	G0A 4V0	mario.gros-louis@wendake.ca
	Huron-Wendat Nation	Lori-Jeanne	Bolduc	Analyste en aménagement du territoire	255, place Chef Michel Laveau	Wendake	QC	G0A 4V0	lori-jeanne.bolduc@wendake.ca
	Huron-Wendat Nation	Dominic	Ste-Marie		255, place Chef Michel Laveau	Wendake	QC	G0A 4V0	dominic.ste-marie@wendake.ca
Utilities	Organization	First Name	Last Name	Position	Address	City	Province	Postal Code	Email
	Alectra Inc.	Mark	Jakubowski	Supervisor, Design, Customer Capital					mark.jakubowski@alecrautilities.com
	Hydro One								SecondaryLandUse@HydroOne.com
	Enbridge								Notifications@enbridge.com
	Bell Canada								Bell.MOC@Telecon.ca
	Rogers Communication	Dan	Mozzoni	System Planner, Outside Plant Engineering	141 Hester St	Hamilton	ON	L9A 2N9	dan.mozzoni@rci.rogers.com
	Telus								telusutilitymarkups@telecon.ca

**AECOM**

# Meeting Minutes



# Minutes

<b>Meeting name</b> Wolfedale Creek Erosion Control Project (EA)	<b>Subject</b> Meeting to discuss initial EA Alternatives	<b>Attendees</b> Kosta Paliouras (AECOM); Rhonneke Van Riezen (AECOM); Karl Grueneis (AECOM); Samantha Zanvliet (AECOM); Greg Frew (City of Mississauga); Iftekhar Ahmed (Credit Valley Conservation Authority (CVC)); Metteo De Stefano (CVC); Meidan Leiderman (CVC)
<b>Meeting date</b> 2023-11-28	<b>Time</b> 11:00 am	
<b>Location</b> Teams	<b>Project name</b> Wolfedale Creek Erosion Control and Rehabilitation	
<b>AECOM project number</b> 60701082	<b>Prepared by</b> Rhonneke Van Riezen	

Ref	Action	Responsible	Due by	Initial
01	Review of Existing Conditions Document	CVC	December 1, 2023	
02	Question regarding spot location or reach location restoration from CVC – AECOM will recommend spot location repairs with recommendations to extend restoration upstream or downstream if structures are nearing design life	AECOM	NA	
03	EA Options Evaluation Criteria – comment from CVC to include the following considerations into the evaluations including considering lifespan of the structure, future maintenance needs, and incorporation of vegetation.	AECOM	NA	
04	Clarification of the difference between non-structural and structural restoration options from CVC. AECOM responded that armourstone and gabions baskets are gravity walls and not considered a structural wall.	AECOM	NA	
05	CVC asked about the easement the City owns adjacent to the watercourse (upstream section). Response was that the easement was permanent and that there was not likely any option to purchase property. Access during construction is going to be an issue and will need to be further considered. The solutions will look at the map with properties and easements and will consider constructability and time of year.	City, AECOM	NA	
06	CVC asked that the existing infrastructure (crossings) also consider the CVC Scour Assessment Guidelines for long and short term. AECOM noted there were no crossings in study area 2.	City, AECOM	NA	

<b>Ref</b>	<b>Action</b>	<b>Responsible</b>	<b>Due by</b>	<b>Initial</b>
07	CVC asked for clarification to what was meant by “consideration of top of bank landuse modification and enforcement” in the description of the alternatives. AECOM and City mentioned it was meant to capture the opportunity to incorporate a buffer at the back of the industrial properties. CVC asked that AECOM might consider using that as an evaluation criteria, rather than in the alternative description.	AECOM	NA	
08	CVC asked to review the existing conditions hydraulic model.	AECOM	December 1, 2023	
09	CVC noted preference is more natural treatments for the banks, where feasible.	AECOM	NA	
10	CVC will target to provide additional comments by the end of the week (December 1, 2023)	AECOM	December 1, 2023	
11	AECOM to circulate draft evaluation criteria to CVC staff to confirm any feedback before the evaluation is completed.  Next meeting will be planned for prior to the Public Information Centre to review the evaluation undertaken and preliminary preferred solution. CVC requested materials be provided in advance of the meeting.	AECOM	TBD	

**AECOM**

# Provincial Agencies



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**From:** Leclerc, Erika (MCM) <Erika.Leclerc2@ontario.ca>  
**Sent:** Tuesday, January 9, 2024 10:53 AM  
**To:** Zandvliet, Samantha  
**Cc:** Vicky.We@mississauga.ca; Paliouras, Kosta; Barboza, Karla (She/Her) (MCM)  
**Subject:** MCM Response - City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement  
**Attachments:** 2024-01-09 Mississauga\_WolfedaleCreekErosionControlProject\_MCMInitialLetter.pdf;  
2023-04-12 Mississauga\_WolfedaleCreekErosionControl\_NofCommencement\_Final.pdf

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Report Suspicious

Dear Samantha Zandvliet,

Thank you for sending the Notice of Study Commencement for the above-mentioned project to the Ministry of Citizenship and Multiculturalism (MCM). Please find attached MCM's initial letter on this project.

Please do not hesitate to contact us if you have any questions.

Kind regards,

**Erika Leclerc** (she/her)  
Heritage Planner, Heritage Planning Unit  
Ministry of Citizenship and Multiculturalism  
416.305.0757  
[erika.leclerc2@ontario.ca](mailto:erika.leclerc2@ontario.ca)

---

**From:** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
**Sent:** April-12-23 12:07 PM  
**Cc:** [Vicky.We@mississauga.ca](mailto:Vicky.We@mississauga.ca); Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hello,

The City of Mississauga has initiated a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River. Please find attached the Notice of Study Commencement for further information.



To stay up to date, visit the project website: [www.mississauga.ca/wolfedalecreekeka](http://www.mississauga.ca/wolfedalecreekeka).

Thank you for your interest in this study.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**

45 Goderich Road, Suite 201  
Hamilton, ON L8E 4W8, Canada  
T +1-905-578-3040

[aecom.com](http://aecom.com)

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**Ministry of Citizenship  
and Multiculturalism**

Heritage Planning Unit  
Heritage Branch  
Citizenship, Inclusion and  
Heritage Division  
5th Flr, 400 University Ave  
Tel.: 416-305-0757

**Ministère des Affaires civiques  
et du Multiculturalisme**

Unité de la planification relative au  
patrimoine  
Direction du patrimoine  
Division des affaires civiques, de  
l'inclusion et du patrimoine  
Tél.: 416-405-0757



January 9, 2024

EMAIL ONLY

Vicky Wei, P.Eng., PMP  
Project Manager  
City of Mississauga  
300 City Centre Dr.  
Mississauga, ON L5B 3C1  
[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**MCM File** : **0018947**  
**Proponent** : **City of Mississauga**  
**Subject** : **Municipal Class Environmental Assessment – Schedule B – Notice of Study Commencement**  
**Project** : **Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River**  
**Location** : **City of Mississauga**

---

Dear Vicky Wei:

Thank you for providing the Ministry of Citizenship and Multiculturalism (MCM) with the [Notice of Study Commencement for the above-referenced project.

MCM's interest in this project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- archaeological resources, including land and marine;
- built heritage resources, including bridges and monuments; and
- cultural heritage landscapes.

Under the Environmental Assessment (EA) process, the proponent is required to determine a project's potential impact on known (previously recognized) and potential cultural heritage resources.

**Project Summary**

The City of Mississauga has initiated a Schedule B Municipal Class EA (MCEA) Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. These sections of Wolfedale Creek are in need of rehabilitation to remediate existing erosion issues and improve safety. The Study will characterize these sections of Wolfedale Creek

to identify existing problems, potential risks, and opportunities for restoration and safety improvements.

### **Identifying Cultural Heritage Resources**

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation.

### **Archaeological Resources**

This EA project may impact archaeological resources and should be screened using the Ministry's [Criteria for Evaluating Archaeological Potential](#) and [Criteria for Evaluating Marine Archaeological Potential](#) (if shoreline or in-water works are proposed) to determine if an archaeological assessment is needed. MCM archaeological sites data are available at [archaeology@ontario.ca](mailto:archaeology@ontario.ca).

If the EA project area exhibits archaeological potential, then an archaeological assessment (AA) shall be undertaken by an archaeologist licenced under the *Ontario Heritage Act* (OHA), who is responsible for submitting the report directly to MCM for review.

### **Built Heritage Resources and Cultural Heritage Landscapes**

The Ministry's [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) should be completed to help determine whether this EA project may impact known or potential built heritage resources and/or cultural heritage landscapes.

If there is potential for built heritage resources and/or cultural heritage landscapes within the project area, then a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment should be undertaken for the entire study area during the planning phase and will be summarized in the EA Report. This study will:

1. Describe the existing baseline cultural heritage conditions within the study area by identifying all known or potential built heritage resources and cultural heritage landscapes, including a historical summary of the study area. The Ministry has developed screening criteria that may assist with this exercise: [Criteria for Evaluating for Potential Built Heritage Resources and Cultural Heritage Landscapes](#).
2. Identify preliminary potential project-specific impacts on the known and potential built heritage resources and cultural heritage landscapes that have been identified. The report should include a description of the anticipated impact to each known or potential built heritage resource or cultural heritage landscape that has been identified.
3. Recommend measures to avoid or mitigate potential negative impacts to known or potential built heritage resources and cultural heritage landscapes. The proposed mitigation measures are to inform the next steps of project planning and design.

Given that this project covers a large study area, MCM recommends that the Cultural Heritage Report is carried out so that step 1 described above is undertaken early in the planning process. Then, steps 2 and 3 can be undertaken once the preferred alternatives have been selected.

Cultural Heritage Reports will be undertaken by a qualified person who has expertise, recent experience, and knowledge relevant to the type of cultural heritage resources being considered and the nature of the activity being proposed.

Community input should be sought to identify locally recognized and potential cultural heritage resources. Sources include, but are not limited to, municipal heritage committees, historical societies and other local heritage organizations.

Cultural heritage resources are often of critical importance to Indigenous communities. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to them.

### **Environmental Assessment Reporting**

All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MCM whether any technical cultural heritage studies will be completed for this EA project and provide them to MCM before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Please note that the responsibility for administration of the *Ontario Heritage Act* and matters related to cultural heritage have been transferred from the Ministry of Tourism, Culture and Sport (MTCS) to the Ministry of Citizenship and Multiculturalism (MCM). Individual staff roles and contact information remain unchanged. Please continue to send any notices, report and/or documentation **via email only** to both Karla Barboza and myself.

- Karla Barboza, Team Lead - Heritage | Heritage Planning Unit (Citizenship and Multiculturalism) | 416-660-1027 | [karla.barboza@ontario.ca](mailto:karla.barboza@ontario.ca)
- Erika Leclerc, Heritage Planner | Heritage Planning Unit (Citizenship and Multiculturalism) | 416-305-0757 | [erika.leclerc2@ontario.ca](mailto:erika.leclerc2@ontario.ca)

Thank you for consulting MCM on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, please do not hesitate to contact me.

Sincerely,

Erika Leclerc  
Heritage Planner  
[Erika.leclerc2@ontario.ca](mailto:Erika.leclerc2@ontario.ca)

Copied to: Kosta Paliouras, Consultant Project Manager, AECOM  
Samantha Zandvliet, Environmental Planner, AECOM  
Karla Barboza, Team Lead – Heritage Planning Unit, MCM

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. The Ministry of Citizenship and Multiculturalism (MCM) makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MCM be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

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 an archaeological assessment, 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 cease all activities immediately and notify the police or coroner. If the coroner does not suspect foul play in the disposition of the remains, in accordance with *Ontario Regulation 30/11* the coroner shall notify the Registrar, Ontario Ministry of Public and Business Service Delivery, which administers provisions of that Act related to burial sites. In situations where human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should also be notified (at [archaeology@ontario.ca](mailto:archaeology@ontario.ca)) to ensure that the archaeological site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

---

From: Minkin, Dan (MCM) <Dan.Minkin@ontario.ca>  
Sent: December 10, 2024 4:25 PM  
To: Zandvliet, Samantha  
Cc: greg.frew@mississauga.ca; Van Riezen, Rhonneke; Paliouras, Kosta; Grueneis, Karl  
Subject: RE: City of Mississauga Wolfedale Creek - MCEA Draft Project File to MCM [MCM File 0018947]

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Thank you!

**Dan Minkin**

Heritage Planner | Heritage Operations Branch  
Ministry of Citizenship and Multiculturalism | Ontario Public Service  
416-786-7553 | [dan.minkin@ontario.ca](mailto:dan.minkin@ontario.ca)



*Taking pride in strengthening Ontario, its places and its people*

---

From: Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
Sent: Tuesday, December 10, 2024 4:24 PM  
To: Minkin, Dan (MCM) <Dan.Minkin@ontario.ca>  
Cc: greg.frew@mississauga.ca; Van Riezen, Rhonneke <Rhoneke.VanRiezen@aecom.com>; Paliouras, Kosta <kosta.paliouras@aecom.com>; Grueneis, Karl <Karl.Grueneis@aecom.com>  
Subject: FW: City of Mississauga Wolfedale Creek - MCEA Draft Project File to MCM [MCM File 0018947]

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Dan,

Thank you for MCM's review of the draft Project File. Please refer to the attached letter for our responses to your comments.

Please let us know if you have any questions or concerns. We will circulate you on the final notice of completion in the new year.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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[aecom.com](http://aecom.com)

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---

From: Minkin, Dan (MCM) <[Dan.Minkin@ontario.ca](mailto:Dan.Minkin@ontario.ca)>  
Sent: November 20, 2024 5:39 PM  
To: Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
Cc: Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
Subject: RE: City of Mississauga Wolfedale Creek - MCEA Draft Project File to MCM [MCM File 0018947]

Good afternoon,  
Apologies for the delay. Please see our comments on the draft PFR attached.

**Dan Minkin**

Heritage Planner | Heritage Operations Branch  
Ministry of Citizenship and Multiculturalism | Ontario Public Service  
416-786-7553 | [dan.minkin@ontario.ca](mailto:dan.minkin@ontario.ca)



*Taking pride in strengthening Ontario, its places and its people*

---

From: Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
Sent: Thursday, October 17, 2024 8:56 AM  
To: Leclerc, Erika (MCM) <[erika.leclerc@ontario.ca](mailto:erika.leclerc@ontario.ca)>  
Cc: Barboza, Karla (She/Her) (MCM) <[Karla.Barboza@ontario.ca](mailto:Karla.Barboza@ontario.ca)>; Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
Subject: City of Mississauga Wolfedale Creek - MCEA Draft Project File to MCM

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Hello Erika,

As you are aware the City is completing a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. At this time we are finalizing the Project File documentation and are requesting to receive your feedback in advance of the 30-day public review in November. We kindly request your comments by November 12, 2024 to ensure we incorporate your inputs. Should we not receive your comments prior to November 12, 2024 then we will assume no comments are forthcoming and will proceed with finalizing the Project File for the 30-day public review.

A link to the Project File has been included below.

[https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t\\_exp=1729428636&t\\_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t\\_network=email&t\\_s=download\\_link&t\\_ts=1729169459](https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t_exp=1729428636&t_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t_network=email&t_s=download_link&t_ts=1729169459)

Let me know if you have any questions or issues downloading the files (link expires in 3 days).

Thank you,  
Kosta

**Kosta Paliouras** P.Eng.  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

## **AECOM**

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Kitchener, ON, Canada  
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**Ministry of Citizenship  
and Multiculturalism**

Heritage Planning Unit  
Heritage Operations Branch  
Citizenship, Inclusion and  
Heritage Division  
5th Flr, 400 University Ave  
Tel.: 416.786.7553

**Ministère des Affaires civiques  
et du Multiculturalisme**

Planification relative au patrimoine  
Opérations relatives au patrimoine  
Division des affaires civiques, de  
l'inclusion et du patrimoine  
5e étage, 400, av. University  
Tél.: 416.786.7553



November 20, 2024

EMAIL ONLY

Kosta Paliouras P.Eng.  
Senior Water Resources Engineer/Project Manager, Central Canada  
AECOM  
50 Sportsworld Crossing Road, Suite 290  
Kitchener, ON  
[Kosta.paliouras@aecom.com](mailto:Kosta.paliouras@aecom.com)

**MCM File** : **0018947**  
**Proponent** : **City of Mississauga**  
**Subject** : **Municipal Class Environmental Assessment – Schedule B – Draft  
Project File Report**  
**Project** : **Wolfedale Creek Erosion Control Project from Burnhamthorpe  
Road West to the Credit River**  
**Location** : **City of Mississauga**

---

Dear Kosta Paliouras:

Thank you for providing the Ministry of Citizenship and Multiculturalism (MCM) with the draft Project File Report (PFR) for the above-referenced project, dated October 2024, prepared by AECOM.

MCM's interest in this project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- archaeological resources, including land and marine;
- built heritage resources, including bridges and monuments; and
- cultural heritage landscapes.

We have reviewed the draft PFR and offer the following comments.

**Project Summary**

The City of Mississauga has completed a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. The City recognizes that these sections of



Wolfedale Creek are in need of rehabilitation to remediate existing erosion issues and improve safety.

### Comments

Section 3.8.2 notes that “Study Area 1 was also screened for potential cultural heritage resources and none were identified”. The report does not clarify whether the [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) checklist, a screening memo by a qualified person, or some other tool was used to screen Study Area 1, or whether the same mechanism was used to screen Study Area 2 resulting in the identification of the two known cultural heritage resources. We recommend that this be stated explicitly in the final PFR, and the screening document(s) be included in appendices.

In Table 8-1, in the row for “Loss or disruption to archaeological resources”, the first bullet should also mention potential further stages of archaeological assessment if recommended through the Stage 2 assessment. It would be appropriate for the subsequent two bullets to be put under a “During Construction” heading.

Thank you for consulting MCM on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, please do not hesitate to contact me.

Sincerely,

Dan Minkin  
Heritage Planner  
[dan.minkin@ontario.ca](mailto:dan.minkin@ontario.ca)

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. The Ministry of Citizenship and Multiculturalism (MCM) makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MCM be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

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 an archaeological assessment, 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 cease all activities immediately and notify the police or coroner. If the coroner does not suspect foul play in the disposition of the remains, in accordance with *Ontario Regulation 30/11* the coroner shall notify the Registrar, Ontario Ministry of Public and Business Service Delivery, which administers provisions of that Act related to burial sites. In situations where human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should also be notified (at [archaeology@ontario.ca](mailto:archaeology@ontario.ca)) to ensure that the archaeological site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

December 10, 2024

Dan Minkin  
Heritage Planner  
Ministry of Citizenship and  
Multiculturalism**Our Reference**  
60701082**EMAIL ONLY****Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River  
Municipal Class Environmental Assessment – Schedule B  
Ministry of Citizenship and Multiculturalism – MCM File: 0018947  
Draft Project File Responses**

Dear Dan Minkin:

As you are aware, the City of Mississauga is completing a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. We thank the Ministry of Citizenship and Multiculturalism (MCM) staff for their comments on the draft Project File circulated on October 17, 2024. Enclosed with this correspondence are the responses to MCM's comments dated November 20, 2024.

MCM will be circulated a copy of the notice of completion in the new year that will include a link to the final Project File submission.

Yours sincerely,

Samantha Zandvliet  
Environmental Planner  
AECOM Canada Ltd.  
E: [Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)

**cc:** Greg Frew, City Project Manager, City of Mississauga  
Kosta Paliouras, Consultant Project Manager, AECOM Canada Ltd.  
Rhoneke Van Riezen, Senior Fluvial Geomorphologist, AECOM Canada Ltd.  
Karl Grueneis, Senior Environmental Planner, AECOM Canada Ltd.

**Encl:** Table 1 – MCM Comments and Responses – Draft Project File

**Table 1 – MCM Comments (November 20, 2024) and Responses (December 10, 2024) – Draft Project File**

Comment No.	MCM Comments (November 20, 2024)	AECOM Responses (December 10, 2024)
1.	<p>Section 3.8.2 notes that “Study Area 1 was also screened for potential cultural heritage resources and none were identified”. The report does not clarify whether the Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist, a screening memo by a qualified person, or some other tool was used to screen Study Area 1, or whether the same mechanism was used to screen Study Area 2 resulting in the identification of the two known cultural heritage resources. We recommend that this be stated explicitly in the final PFR, and the screening document(s) be included in appendices.</p>	<p>The final PFR will reference and append the Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes: A Checklist for the Non-Specialist undertaken for Study Area 1 and Study Area 2.</p>
2.	<p>In Table 8-1, in the row for “Loss or disruption to archaeological resources”, the first bullet should also mention potential further stages of archaeological assessment if recommended through the Stage 2 assessment. It would be appropriate for the subsequent two bullets to be put under a “During Construction” heading.</p>	<p>Table 8-1 has been updated accordingly.</p>



---

**From:** Tse, Kaitlyn (IO) <Kaitlyn.Tse@infrastructureontario.ca>  
**Sent:** Tuesday, June 25, 2024 11:36 AM  
**To:** greg.frew@mississauga.ca; Paliouras, Kosta; Zandvliet, Samantha  
**Cc:** Notice Review  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - EA Notice Response

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Good morning,

Thank you for sending us the Notice of Commencement for the Wolfedale Creek Erosion Control Project at Burnhamthorpe Road.

While our initial scan indicates that there are no properties owned by the Minister of Government and Consumer Services within your project's study area, it is the proponent's responsibility to verify if any provincial government property is within the study area. Title documents may identify owners of provincial government property as any of the following or variations:

- Her Majesty the Queen
- His Majesty the King
- Hydro One
- Hydro One Networks Inc.
- Management Board Secretariat (MBS)
- Minister of Economic Development, Employment and Infrastructure (MEDEI)
- Minister of Energy and Infrastructure (MEI)
- Minister of Government and Consumer Services (MGCS)
- Minister of Infrastructure (MOI)
- Minister of Natural Resources and Forestry (MNRF)
- Minister of Public Infrastructure Renewal (PIR)
- Minister of Public Works
- Minister of Transportation (MTO)
- Ontario Lands Corporation (OLC)
- Ontario Realty Corporation (ORC)

If the proponent confirms that no provincial government property exists in the project area, please remove IO from the contact list.

Additionally, please remember to send notices to our dedicated notice email address: [noticereview@infrastructureontario.ca](mailto:noticereview@infrastructureontario.ca)

Kind regards,

Kaitlyn



**Kaitlyn Tse** (she, her)

Infrastructure Ontario  
Co-op, Environmental Management

[kaitlyn.tse@infrastructureontario.ca](mailto:kaitlyn.tse@infrastructureontario.ca)

Phone: +1 365-297-4527

[www.infrastructureontario.ca](http://www.infrastructureontario.ca)

Follow IO at:   

---

**From:** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Sent:** Tuesday, June 18, 2024 10:28 AM

**Cc:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Public Information Centre

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Hello,

The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is now available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

Thank you for your interest in this study.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting

M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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---

**From:** EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>  
**Sent:** Friday, June 28, 2024 9:07 AM  
**To:** Zandvliet, Samantha  
**Cc:** Paliouras, Kosta; greg.frew@mississauga.ca  
**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Public Information Centre

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Thank you very much for updating us on the project.

Best regards,  
Chunmei

---

**From:** Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
**Sent:** Tuesday, June 18, 2024 10:28 AM  
**Cc:** Paliouras, Kosta <kosta.paliouras@aecom.com>; greg.frew@mississauga.ca  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Public Information Centre

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Hello,

The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is now available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

Thank you for your interest in this study.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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Hamilton, ON L8E 4W8, Canada  
T +1-905-578-3040  
[aecom.com](http://aecom.com)



---

From: Paliouras, Kosta  
Sent: October 17, 2024 8:56 AM  
To: Chunmei.Liu@ontario.ca  
Cc: Greg Frew; Van Riezen, Rhonneke; Zandvliet, Samantha  
Subject: City of Mississauga Wolfedale Creek - MCEA Draft Project File to MECP

Hello Chunmei,

As you are aware the City is completing a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. At this time we are finalizing the Project File documentation and are requesting to receive your feedback in advance of the 30-day public review in November. We kindly request your comments by November 12, 2024 to ensure we incorporate your inputs. Should we not receive your comments prior to November 12, 2024 then we will assume no comments are forthcoming and will proceed with finalizing the Project File for the 30-day public review.

A link to the Project File has been included below.

[https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t\\_exp=1729428636&t\\_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t\\_network=email&t\\_s=download\\_link&t\\_ts=1729169459](https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t_exp=1729428636&t_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t_network=email&t_s=download_link&t_ts=1729169459)

Let me know if you have any questions or issues downloading the files (link expires in 3 days).

Thank you

**Kosta Paliouras** P.Eng.  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

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**AECOM**

# Credit Valley Conservation



---

**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Monday, April 17, 2023 11:15 AM  
**To:** Zandvliet, Samantha  
**Cc:** Vicky.Wei@mississauga.ca; Paliouras, Kosta  
**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement

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Hi Samantha,

Thank you for your email. We will review the information and provide our comments as soon as possible.

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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---

**From:** Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
**Sent:** Wednesday, April 12, 2023 12:07 PM  
**Cc:** Vicky.Wei@mississauga.ca; Paliouras, Kosta <kosta.paliouras@aecom.com>  
**Subject:** [External] City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement

Some people who received this message don't often get email from [samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com). [Learn why this is important](#)

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Hello,

The City of Mississauga has initiated a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River. Please find attached the Notice of Study Commencement for further information.

To stay up to date, visit the project website: [www.mississauga.ca/wolfedalecreekea](http://www.mississauga.ca/wolfedalecreekea).

Thank you for your interest in this study.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting

M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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[aecom.com](http://aecom.com)

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---

**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Monday, May 1, 2023 11:51 AM  
**To:** Zandvliet, Samantha  
**Cc:** Vicky.We@mississauga.ca; Paliouras, Kosta  
**Subject:** CVC Comments (Notice of Study Commencement) - EA 23/001 - Wolfedale Creek Erosion Control Project (Burnhamthorpe Rd West to Credit River)

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Hi Samantha,

CVC staff have now had the opportunity to review the Notice of Study Commencement and provide these high level preliminary comments for your consideration.

### CVC Comments

1. It is our understanding that the City through its ongoing erosion monitoring program recognizes the need for rehabilitation of the section of Wolfedale Creek from Burnhamthorpe Road West to the Credit River to address the existing erosion issues and to improve safety and therefore is currently undertaking the Schedule B Municipal Class Environmental Assessment study for the proposed erosion control and restoration works within the specified reach.
2. Here are the site characteristics of the subject study area based on CVC mapping.
  - a. REGULATED AREA - The study area is located within CVC's Regulated Area. A permit from CVC will be required for any grading or construction works within this area.
  - b. WATERCOURSE - The study area is traversed by Wolfedale Creek. Any alteration to a watercourse requires a permit from CVC. Our concerns for new construction would be to address the existing channel bank erosion, sediment control during construction, and to ensure no degradation to water quality.
  - c. FLOODPLAIN - The study area is located within the regulatory storm floodplain associated with Wolfedale Creek and Credit River. A permit from CVC will be required for any construction activity in this area. Our primary concern is the protection of life and property from flood hazard. We have specific criteria and requirements for construction in the floodplain.
  - d. VALLEY SLOPE - The study area is traversed by valley slope. Our primary concerns are to protect the environmental integrity of the valley system and to ensure that slope stability is addressed in the proposed erosion control works if any disturbance to the valley slope is proposed.
  - e. MUNICIPAL GREENLANDS - The study area is within an area designated as Core Greenlands by the Region of Peel. It is the policy of the Region of Peel to protect the form and function of these natural areas. Please contact Region for further information.

- f. MISSISSAUGA NATURAL HERITAGE SYSTEM & NATURAL AREAS SURVEY - The study area is located within the City of Mississauga's Natural Heritage System and Urban Forest. The City's Natural Heritage System is made up of Significant Natural Areas, Natural Green Spaces, Special Management Areas, Residential Woodlands and Linkages as described in the City's Official Plan. The study area is also located within the City's Natural Areas Survey and designated as Significant Natural Sites (ER6 & CRR9). Please contact City for further information.
  - g. CREDIT RIVER WATERSHED NATURAL HERITAGE SYSTEM (CRWNHS) - The study area is located within the CRWNHS. The CRWNHS consists of High Functioning and Supporting terrestrial and aquatic natural heritage features, buffers, and complementary natural heritage areas (Centres for Biodiversity). Based on a watershed scale, the CRWNHS is intended to support Provincial, Regional and local municipal natural heritage systems as identified in their respective Strategies or Plans. As a watershed based management agency and landowner, CVC intends to implement the CRWNHS by using it as a strategic program guidance tool; to inform further development of CVC projects and policies; to assist CVC staff in providing technical advice to landowners and stakeholders on a watershed scale; and to promote a more consistent approach to natural heritage system planning across CVC's jurisdiction.
3. The extent of the proposed erosion control works are unclear at this time (based on the limited information provided in the NOC). Please note that hydraulic analysis demonstrating no negative impact to the floodplain on private properties will be required in support of the proposed erosion control works that will involve alteration (cut/fill) within the floodplain and/or channel. The hydraulic analysis will be completed by a qualified water resources engineer and will include the following:
- a. Cut/fill balance calculations. This is to provide a compensatory cut for any fill between incremental elevations i.e. within the 2-year floodplain, within the 5-year floodplain, etc.
  - b. CVC's HEC-RAS model for the existing conditions with a comparison to the updated existing and the modelled proposed conditions. This comparison must justify that there are no impacts to flood elevation and flow velocity upstream or downstream of the proposed works.
  - c. Technical memo summarizing the findings of the cut/fill balance and hydraulic assessment.

The detailed requirements about the above can be found in the Technical Guidelines for Floodproofing. It is recommended that pre-consultation with CVC staff be completed prior to commencing any hydraulic analysis to discuss the submission expectations.

4. Please confirm if there are any proposed alterations to any culvert or hydraulic structures within the study reach, most notably:
- a. culvert downstream of Dundas Street West, the piped portion of Wolfedale Creek.
  - b. in the downstream reach of Wolfedale Creek adjacent to Stavebank Road.
5. There are valley slopes which have slope heights greater than 2 m with slope inclinations steeper than 3:1, specifically in the downstream reach of Wolfedale Creek adjacent to Stavebank Road. Please identify the current state of toe erosion through the study reach, and any associated locations susceptible to slope failure. Please note that the geotechnical investigation and slope stability analysis would be required if the proposed works involve disturbing or altering the valley slope, and/or altering the slope hazard (by any potential channel restoration works). A slope stability analysis is to be completed in accordance with CVC's Slope Stability Guideline. Additional comments regarding the slope stability may be provided at the detailed design stage. It is recommended that pre-consultation with CVC staff be completed prior to commencing any geotechnical work.
6. At this time, it is unclear whether the proposed erosion control works would involve any channel realignment and/or significant bank modification. Please note that an erosion hazard assessment may be required depending on the extent of the proposed erosion control works. Please note that the

erosion assessment is to establish both the existing and proposed conditions erosion hazard limits to demonstrate that the proposed works do not result in the offsite impacts to the neighboring properties. It is recommended to consult with CVC staff prior to commencing the erosion hazard assessment for the submission expectations.

7. CVC strongly recommends that the project footprint be minimized to the extent possible and trees within the valley or hazard areas not be removed. Any ecological loss of the trees in those areas will be offset using CVC's Ecosystem Offsetting Guideline. Please consult CVC's Plant Selection Guidelines and indicate the location of the plantings on the applicable Restoration Plans at the detailed design stage. CVC strongly recommends any trees that are removed be re-planted along the riparian edge to increase canopy cover and contribute to stream shading.
8. If soil amendments are warranted, please consult CVC's Healthy Soils Guideline for recommendations.
9. Please be aware of the updates to and requirements of the Migratory Birds Convention Act which governs the protection and conservation of migratory birds within Canada. It is the proponent's responsibility to adhere to all pertinent laws, regulations and permit requirements including but not restricted to the Migratory Birds Convention Act and the Migratory Birds Regulations. To protect birds and bats and avoid contravention of the Migratory Birds Convention Act and Endangered Species Act, CVC recommends that vegetation clearing be avoided between April 1 and September 30 of a given year. Further information on the general nesting periods of migratory birds in Canada can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html>.
10. Please contact relevant agencies (MNRF, MECP, DFO) for any necessary mitigation opportunities and permitting requirements regarding fish, wildlife, and Species at Risk, as appropriate.
11. Here is the link for CVC's floodplain mapping for the study area and technical guidelines referenced in the comments above.

[Wolfedale Creek Erosion Control Project](#)

Given our interest in the proposed project, CVC staff would like to be kept informed of future meetings and proceedings throughout the EA study. We also request to be invited to participate on any Technical Advisory Committee that may be formed for this EA. Please forward any information or reports when available to ensure that this Authority's policy and program interests are reflected in the planning and design components of the project.

If you have any questions, please let me know.

Thanks,

Best regards,  
Iftekhhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhhar Ahmad** | [he/him/his](#)  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftekhhar.ahmad@cvc.ca](mailto:iftekhhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Sent:** Wednesday, April 12, 2023 12:07 PM

**Cc:** [Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca); Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>

**Subject:** [External] City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement

Some people who received this message don't often get email from [samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com). [Learn why this is important](#)

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Hello,

The City of Mississauga has initiated a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River. Please find attached the Notice of Study Commencement for further information.

To stay up to date, visit the project website: [www.mississauga.ca/wolfedalecreekea](http://www.mississauga.ca/wolfedalecreekea).

Thank you for your interest in this study.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting

M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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---

**Subject:** RE: CVC Comments (technical reports & modeling) - EA 23/001 - Wolfedale Creek Erosion Control Project

---

**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>

**Sent:** Friday, December 1, 2023 4:20 PM

**To:** Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>

**Cc:** Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>

**Subject:** CVC Comments (technical reports & modeling) - EA 23/001 - Wolfedale Creek Erosion Control Project

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Hi Rhonneke,

CVC staff have now had the opportunity to review the draft technical reports including Natural Environment Report (November 2023), Fluvial Geomorphological Assessment (November 2023), Hydraulic Assessment (November 2023), and updated HEC-RAS model (received via email dated November 29, 2023) and provide these comments for your consideration. Please include responses to these comments in the future submission.

### General Comments

1. Please discuss any requirements for temporary/permanent easement or consent to enter agreement with private property owners to facilitate the proposed works in the EA.
2. All technical reports prepared at the EA stage must be signed and stamped by the qualified professionals.

### Engineering Comments

3. It is understood that spot repairs of failing erosion protection will be the focus of the proposed works as opposed to the reach-based works. If there are any locations where new erosion protection is proposed, all relevant hazards must be delineated, and impacts assessed.
4. Section 6 of the geomorphology report indicates that an impact assessment will be carried out after the selection of the preferred alternative. Please note that the assessment of the potential impacts is an important part of the screening process for the preferred alternative.
5. Figure 1 is missing from the hydraulic assessment report. Please provide.
6. The scope of the proposed works is not clear at this time, however there must not be any impacts to the existing flood or slope hazard for each study area.
7. The existing floodlines and proposed floodlines (for the preferred alternative) are to be plotted on the same figure for comparison.

8. The geotechnical report states that re-grading and revegetation of the slopes is a potential option to improve the stability. Any regrading or placement of fill within the floodplain will need to be analyzed through hydraulic assessment and cut/fill analysis to confirm there are no impacts to the flood hazard.
9. The existing slope hazard (specifically in study area 2) must not be impacted negatively through the proposed erosion control works. This must be confirmed through the geotechnical assessment.
10. Scour at the existing infrastructure crossings must be considered if there are alterations proposed upstream and downstream. Please refer to CVC's Fluvial Geomorphology Guidelines: Fact Sheet VI Scour Analysis (attached).
11. Please discuss why the CPR is now overtopping in the BOC model for the 100-year event and not in the original CVC model.
12. The most current data request for CVC's HEC-RAS model for Wolfedale Creek was provided to AECOM on February 2023. This has been incorrectly stated in the hydraulic assessment report as September 2020. Furthermore, the model CVC provided in February 2023 was run using version 5.0.7 of HEC-RAS.
13. The hydraulic assessment report states that the manning's roughness from the original CVC model was adjusted based on MTO design chart 2.01 to be found in appendix B. Appendices have not been included in the report. Furthermore, manning's roughness should be selected based on CVC's standard parameters (attached).
14. It appears that a common revision to manning's roughness included a reduction of 0.025 in the original CVC model to 0.016 in the BOC model. Please provide justification and discussion for any changes to manning's n since these revisions have direct impact to flood elevation and flow velocity.
15. All changes made to the hydraulic model are stated to be found within appendix B of the hydraulic assessment report. No appendix B has been provided. It is crucial that the basis of comparison (BOC) model is approved and accepted by CVC prior to the assessment of the design alternatives.
16. Please remove any unnecessary or superseded plan and geometry files from the HEC-RAS model and RASMapper. The most recent plan file, EXS-2023-SEP-WDC, was assumed to be AECOM's BOC model.
17. Please provide relevant terrain files for the AECOM and JD Barnes surveys for RASMapper.
18. Please provide the correct projection files for RASMapper.
19. Please confirm the horizontal and vertical datums being used in the model.
20. The steady flow boundary conditions remain the same between the original model and BOC; however, some of the channel profile updates would impact the upstream boundary. Please review and update the upstream slope for normal depth computation for both 941-M3, and 941-M2.
21. Despite no proposed works planned for the crossing structures, have the crossing profiles been updated in the bridge and culvert data for the BOC model? Were any of the crossings and bridge/culvert openings surveyed in the recent topographic survey?
22. When comparing the BOC model to CVC's original model, the version 5.0.7 is to be used. Otherwise, please provide a comparison of the BOC results using HEC-RAS version 6.3.1 and 5.0.7 to confirm there are negligible computational differences.

### **Ecology Comments**

23. It is our preference that a more natural approach be used, including natural bed and bank treatments to help reconnect upstream and downstream reaches and improve the overall function of the

watercourse and adjacent valley system. That said, given the existing conditions of the watercourse, its location within a highly constrained urban area, and exposure to significant storm flows, we recognize this end-goal might not be feasible. A reasonable approach should be taken to balance the various goals of the project. As such, please clarify how this can or cannot be achieved through the different reaches. Please seek opportunities to enhance the function of the valley and watercourse (i.e., riparian plantings).

24. CVC recommends that the evaluation of the alternatives include a section that speaks to lifespan of each alternative. This will help in assessing future maintenance needs and future disturbance frequency to the adjacent riparian vegetation.
25. Please prioritize avoidance and mitigation of impact to the adjacent riparian habitat (protection of existing vegetation).
26. As part of the proposed project, all disturbed areas should be restored using self-sustaining, native riparian vegetation. Please reference the below guidelines in the EA.
  - a. Please follow CVC's Ecosystem Offsetting Guidelines (attached) for direction on the appropriate tree replacement ratios to offset the functional loss of the regulated feature in CVC's regulated areas.
  - b. Please refer to CVC's Plant Selection Guidelines (attached), and Guidelines for Designing Enhancement Plans within Setbacks and Buffers (attached) for determining species and planting densities.
  - c. Please refer to CVC's Healthy Soil Guidelines (attached) for any necessary soil amendments.

If you have any questions, please contact me.

Thanks, have a nice weekend.

Best regards,  
Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftexhar.ahmad@cvc.ca](mailto:iftexhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>  
**Sent:** Friday, November 10, 2023 2:41 PM  
**To:** Ahmad, Iftexhar <[Iftexhar.Ahmad@cvc.ca](mailto:Iftexhar.Ahmad@cvc.ca)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>  
**Cc:** Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>  
**Subject:** [External] RE: RE: Wolfedale Creek EA

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Hi Iftekhar,

The link is also below if you have any difficulties.

Rhonneke

<https://we.tl/t-vXCLkhhb1Sj>

**Rhonneke Van Riezen (Ron-i-kuh)**, M.Sc., P.Geo., CISEC-In-Training

Senior Fluvial Geomorphologist, Fluvial Geomorphology Team Lead

Impact Assessment and Permitting, Canada

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**From:** Van Riezen, Rhonneke

**Sent:** November 10, 2023 2:33 PM

**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>

**Cc:** Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>

**Subject:** RE: RE: Wolfedale Creek EA

Hi Iftekar,

You should receive the email from Wetransfer shortly containing the following discipline reports:

Fluvial Geomorphology

Geotechnical

Hydraulics

Natural Environment

Stage 1 Archaeology

Let me know if there are any difficulties with downloading the files.

Also, would you be able to provide us a list of dates you will be available for a call to discuss the reports. Once I receive those dates I will set up a call.

Thanks,  
Rhonneke

**Rhonneke Van Riezen (Ron-i-kuh)**, M.Sc., P.Geo., CISEC-In-Training

Senior Fluvial Geomorphologist, Fluvial Geomorphology Team Lead

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**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>

**Sent:** November 10, 2023 11:27 AM

**To:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>

**Cc:** Van Riezen, Rhonneke <[Rhonneke.VanRiezen@aecom.com](mailto:Rhonneke.VanRiezen@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>

**Subject:** RE: RE: Wolfedale Creek EA

Hi Kosta,

Thank you for the heads up.

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his

Planner, Environmental Assessment | Credit Valley Conservation

905-670-1615 ext 296 | M: 647-449-5962

[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
**Sent:** Friday, November 10, 2023 11:09 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>; Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>  
**Cc:** Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>  
**Subject:** [External] RE: Wolfedale Creek EA

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Good morning:

AECOM will be sending supporting documents for the Wolfedale Creek EA.

Please check your inbox for an email this afternoon with a link to download the files.

Thank you,  
Kosta

**Kosta Paliouras** P.Eng.  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

---

**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Sent:** Friday, November 3, 2023 11:29 AM  
**To:** Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>  
**Cc:** Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>  
**Subject:** RE: Wolfedale Creek EA

Hi Greg,

I'm well and hope the same for you too.

Thank you for providing the update. AECOM can submit to us the available information for our review and any comments at this stage. We can discuss any questions on our comments in a follow up meeting.

If you have any questions, please contact me.

Have a nice weekend.

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation



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**From:** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>  
**Sent:** Thursday, November 2, 2023 11:21 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Van Riezen, Rhonneke ([Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)) <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Paliouras, Kosta ([kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)) <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>  
**Subject:** [External] Wolfedale Creek EA

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Hi Iftekhar

Hope you're well.

I'm looking after another erosion control project for the City – this one for Wolfedale Creek. Our engineering consultant has undertaken the background analyses and inventories for the EA component of the study. We'd like to submit the draft supporting technical reports to CVC for review before proceeding further with the EA alternatives and evaluations. A follow-up meeting would also be helpful to discuss any CVC comments.

I just want to confirm that AECOM can submit to you for co-ordination of that review. If so, AECOM have targeted next week to submit the draft background reports and could meet later this month around the week of the 27<sup>th</sup>.

Please let us know.

Thanks,  
Greg.



**Greg Frew, P.Eng.**  
Stormwater Drainage Engineer, Environmental Services  
Infrastructure Planning and Engineering Services Division  
Transportation and Works Department  
City of Mississauga  
☎ 905.615.3200 ext. 3362  
✉ [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)  
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---

**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Thursday, April 11, 2024 2:09 PM  
**To:** Paliouras, Kosta  
**Cc:** Van Riezen, Rhonneke; Grueneis, Karl; Zandvliet, Samantha; Greg Frew  
**Subject:** CVC Comments (alternatives evaluation) - EA 23/001 - Wolfedale Creek Restoration - Meeting to Review EA Alternatives

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Hi Kosta,

CVC staff have now had the opportunity to review the draft technical memo (March 25, 2024) prepared for the evaluation of the alternative solutions, primary access locations maps, and restoration solutions maps, and provide this information for your consideration.

**CVC Comments**

1. Starting April 1, 2024, we have new regulation in effect under subsection 28.1 of the Conservation Authorities (CA) Act "Ontario Regulation 41/24: Prohibited Activities, Exemptions, and Permits". Please remove reference to the old regulation "O. Reg. 160/06: Regulation of Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses" under section 28 of the CA Act and refer to the new regulation in the project file report as it relates to CVC's development permit.
2. It appears that there is a potential for disturbance to the existing slope hazard adjacent to Stavebank Road in accessing restoration reach 7. Please provide details on the access routes in the future submissions and provide confirmation that the existing slope hazard will not be impacted.
3. Alternatives 2, 3, and 4 in Table 2 on page 6 of the memo appear to have identical evaluation for the erosion mitigation. Please confirm if both structural and non-structural banks protection have the same degree of erosion mitigation; one is not more effective than the other. Please provide justification for the selection of the structural and potentially "harder" bank protection measures at specific locations if erosion is not the driving factor.
4. Please also provide responses to our last comments sent December 1, 2023 on the draft technical reports at the time of submitting the draft project file report.

If you have any questions, please let me know.

Thanks,



Best regards,  
Iftekhar

**Iftekhar Ahmad** | MES | he/him/his  
Planner, Environmental Assessment | Planning and Development Services | Credit Valley  
Conservation  
905-670-1615 ext. 2960 | M: 647-449-5962  
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**From:** Paliouras, Kosta <kosta.paliouras@aecom.com>  
**Sent:** Wednesday, March 27, 2024 8:11 AM  
**To:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>; Greg Frew <greg.frew@mississauga.ca>  
**Cc:** Van Riezen, Rhonneke <Rhoneke.VanRiezen@aecom.com>; Grueneis, Karl <Karl.Grueneis@aecom.com>; Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
**Subject:** [External] Fw: Wolfedale Creek Restoration - Meeting to Review EA Alternatives

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Good morning Iftekhar:

My original email sent yesterday bounced back (files too large).

As requested, attached is the technical memorandum with the evaluation of alternatives for the Wolfedale Creek Restoration EA.

We kindly ask for a quick review, as the project team would like to continue moving forward with the development of the PIC material.

Let me know if you have any questions or issues downloading the files.

Thank you,  
Kosta

**Kosta Paliouras** P.Eng.  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

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October 17, 2024

**Our Reference**  
60701082**EMAIL ONLY**Iftekhhar Ahmad  
Planner, Environmental Assessment  
Credit Valley Conservation**Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River  
Municipal Class Environmental Assessment – Schedule B  
Credit Valley Conservation Responses and Draft Project File Circulation**

Dear Iftekhhar Ahmad:

The City of Mississauga is completing a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. We thank CVC staff for the comments provided to date:

- Notice of Commencement comments received via email dated May 1, 2023
- Draft technical report comments provided via email dated December 1, 2023 based on review of the following documentation and modeling:
  - Natural Environment Report (November 2023)
  - Fluvial Geomorphological Assessment (November 2023)
  - Hydraulic Assessment (November 2023)
  - Updated HEC-RAS model (CVC staff received via email dated November 29, 2023)
- Draft EA Evaluations Technical Memorandum (March 25, 2024) comments received via email dated April 11, 2024

Enclosed with this correspondence are the responses to CVC's comments to date. We have also shared the draft Project File Report and Appendices for your review and comment in advance of filing the notice of completion.

We kindly request your comments by **November 12, 2024**, so that we can incorporate your feedback in the final Project File Report and Appendices. We note we will also continue to engage with CVC during the future design phases of the Project.

Yours sincerely,

Samantha Zandvliet  
Environmental Planner  
AECOM Canada Ltd.  
E: Samantha.Zandvliet@aecom.com

**cc:** Greg Frew, City Project Manager, City of Mississauga  
Kosta Paliouras, Consultant Project Manager, AECOM Canada Ltd.  
Rhoneke Van Riezen, Senior Fluvial Geomorphologist, AECOM Canada Ltd.  
Karl Grueneis, Senior Environmental Planner, AECOM Canada Ltd.

**Encl:** Table 1 – CVC Comments (May 1, 2023) and Responses (October 17, 2024)  
Table 2 – CVC Comments (December 1, 2023) and Responses (October 17, 2024)  
Table 3 – CVC Comments (April 11, 2024) and Responses (October 17, 2024)

**Table 1 – CVC Comments (May 1, 2023) and Responses (October 17, 2024)**

Comment No.	CVC Comments (May 1, 2023)	AECOM Response (October 17, 2024)
1.	<p>It is our understanding that the City through its ongoing erosion monitoring program recognizes the need for rehabilitation of the section of Wolfedale Creek from Burnhamthorpe Road West to the Credit River to address the existing erosion issues and to improve safety and therefore is currently undertaking the Schedule B Municipal Class Environmental Assessment study for the proposed erosion control and restoration works within the specified reach.</p>	<p>Comment acknowledged.</p>
2.	<p>Here are the site characteristics of the subject study area based on CVC mapping.</p> <ul style="list-style-type: none"> <li>a. REGULATED AREA - The study area is located within CVC's Regulated Area. A permit from CVC will be required for any grading or construction works within this area.</li> <li>b. WATERCOURSE - The study area is traversed by Wolfedale Creek. Any alteration to a watercourse requires a permit from CVC. Our concerns for new construction would be to address the existing channel bank erosion, sediment control during construction, and to ensure no degradation to water quality.</li> <li>c. FLOODPLAIN - The study area is located within the regulatory storm floodplain associated with Wolfedale Creek and Credit River. A permit from CVC will be required for any construction activity in this area. Our primary concern is the protection of life and property from flood hazard. We have specific criteria and requirements for construction in the floodplain.</li> <li>d. VALLEY SLOPE - The study area is traversed by valley slope. Our primary concerns are to protect the environmental integrity of the valley system and to ensure that slope stability is addressed in the proposed erosion control works if any disturbance to the valley slope is proposed.</li> </ul>	<p>Comment acknowledged.</p>

Comment No.	CVC Comments (May 1, 2023)	AECOM Response (October 17, 2024)
	<p>e. MUNICIPAL GREENLANDS - The study area is within an area designated as Core Greenlands by the Region of Peel. It is the policy of the Region of Peel to protect the form and function of these natural areas. Please contact Region for further information.</p> <p>f. MISSISSAUGA NATURAL HERITAGE SYSTEM &amp; NATURAL AREAS SURVEY - The study area is located within the City of Mississauga's Natural Heritage System and Urban Forest. The City's Natural Heritage System is made up of Significant Natural Areas, Natural Green Spaces, Special Management Areas, Residential Woodlands and Linkages as described in the City's Official Plan. The study area is also located within the City's Natural Areas Survey and designated as Significant Natural Sites (ER6 &amp; CRR9). Please contact City for further information.</p> <p>g. CREDIT RIVER WATERSHED NATURAL HERITAGE SYSTEM (CRWNHS) - The study area is located within the CRWNHS. The CRWNHS consists of High Functioning and Supporting terrestrial and aquatic natural heritage features, buffers, and complementary natural heritage areas (Centres for Biodiversity). Based on a watershed scale, the CRWNHS is intended to support Provincial, Regional and local municipal natural heritage systems as identified in their respective Strategies or Plans. As a watershed based management agency and landowner, CVC intends to implement the CRWNHS by using it as a strategic program guidance tool; to inform further development of CVC projects and policies; to assist CVC staff in providing technical advice to landowners and stakeholders on a watershed scale; and to promote a more consistent approach to natural heritage system planning across CVC's jurisdiction.</p>	
3.	The extent of the proposed erosion control works are unclear at this time (based on the limited information provided in the NOC). Please	The preliminary Hydraulic analysis has been completed and is appended to the draft Project File Report.

Comment No.	CVC Comments (May 1, 2023)	AECOM Response (October 17, 2024)
	<p>note that hydraulic analysis demonstrating no negative impact to the floodplain on private properties will be required in support of the proposed erosion control works that will involve alteration (cut/fill) within the floodplain and/or channel. The hydraulic analysis will be completed by a qualified water resources engineer and will include the following:</p> <ul style="list-style-type: none"> <li>a. Cut/fill balance calculations. This is to provide a compensatory cut for any fill between incremental elevations i.e. within the 2-year floodplain, within the 5-year floodplain, etc.</li> <li>b. CVC's HEC-RAS model for the existing conditions with a comparison to the updated existing and the modelled proposed conditions. This comparison must justify that there are no impacts to flood elevation and flow velocity upstream or downstream of the proposed works.</li> <li>c. Technical memo summarizing the findings of the cut/fill balance and hydraulic assessment.</li> </ul> <p>The detailed requirements about the above can be found in the Technical Guidelines for Floodproofing. It is recommended that pre-consultation with CVC staff be completed prior to commencing any hydraulic analysis to discuss the submission expectations.</p>	
4.	<p>Please confirm if there are any proposed alterations to any culvert or hydraulic structures within the study reach, most notably:</p> <ul style="list-style-type: none"> <li>a. culvert downstream of Dundas Street West, the piped portion of Wolfedale Creek.</li> <li>b. in the downstream reach of Wolfedale Creek adjacent to Stavebank Road.</li> </ul>	<p>No alterations are proposed for the culvert or the structure adjacent to Stavebank Road at this time.</p>
5.	<p>There are valley slopes which have slope heights greater than 2 m with slope inclinations steeper than 3:1, specifically in the downstream reach of Wolfedale Creek adjacent to Stavebank Road. Please identify the</p>	<p>A Geotechnical Analysis, including slope stability has been undertaken and is appended to the draft Project File Report.</p>

Comment No.	CVC Comments (May 1, 2023)	AECOM Response (October 17, 2024)
	<p>current state of toe erosion through the study reach, and any associated locations susceptible to slope failure. Please note that the geotechnical investigation and slope stability analysis would be required if the proposed works involve disturbing or altering the valley slope, and/or altering the slope hazard (by any potential channel restoration works). A slope stability analysis is to be completed in accordance with CVC's Slope Stability Guideline. Additional comments regarding the slope stability may be provided at the detailed design stage. It is recommended that pre-consultation with CVC staff be completed prior to commencing any geotechnical work.</p>	<p>We acknowledge that additional comments regarding the slope stability may be provided at the detailed design stage.</p>
6.	<p>At this time, it is unclear whether the proposed erosion control works would involve any channel realignment and/or significant bank modification. Please note that an erosion hazard assessment may be required depending on the extent of the proposed erosion control works. Please note that the erosion assessment is to establish both the existing and proposed conditions erosion hazard limits to demonstrate that the proposed works do not result in the offsite impacts to the neighboring properties. It is recommended to consult with CVC staff prior to commencing the erosion hazard assessment for the submission expectations.</p>	<p>No channel realignment is proposed. Bank modification during the detailed design stage will take into consideration the erosion hazard comment, but no significant alteration that would impact the erosion hazard is proposed at this time.</p>
7.	<p>CVC strongly recommends that the project footprint be minimized to the extent possible and trees within the valley or hazard areas not be removed. Any ecological loss of the trees in those areas will be offset using CVC's Ecosystem Offsetting Guideline. Please consult CVC's Plant Selection Guidelines and indicate the location of the plantings on the applicable Restoration Plans at the detailed design stage. CVC strongly recommends any trees that are removed be re-planted along the riparian edge to increase canopy cover and contribute to stream shading.</p>	<p>Comment acknowledged. Tree removal will be required based on the preferred solution and will be minimized to the extent possible. A Tree inventory will be completed during the detailed design phase.</p>
8.	<p>If soil amendments are warranted, please consult CVC's Healthy Soils Guideline for recommendations.</p>	<p>Comment acknowledged. CVC's Healthy Soils Guideline will be considered and incorporated during detailed design.</p>

Comment No.	CVC Comments (May 1, 2023)	AECOM Response (October 17, 2024)
9.	<p>Please be aware of the updates to and requirements of the Migratory Birds Convention Act which governs the protection and conservation of migratory birds within Canada. It is the proponent's responsibility to adhere to all pertinent laws, regulations and permit requirements including but not restricted to the Migratory Birds Convention Act and the Migratory Birds Regulations. To protect birds and bats and avoid contravention of the Migratory Birds Convention Act and Endangered Species Act, CVC recommends that vegetation clearing be avoided between April 1 and September 30 of a given year. Further information on the general nesting periods of migratory birds in Canada can be found at <a href="https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html">https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html</a>.</p>	<p>Comment acknowledged.</p>
10.	<p>Please contact relevant agencies (MNRF, MECP, DFO) for any necessary mitigation opportunities and permitting requirements regarding fish, wildlife, and Species at Risk, as appropriate.</p>	<p>Comment acknowledged.</p>
11.	<p>Here is the link for CVC's floodplain mapping for the study area and technical guidelines referenced in the comments above.</p>	<p>Thank you.</p>



**Table 2 – CVC Comments (December 1, 2023) and Responses (October 17, 2024)**

Comment No.	CVC Comments (December 1, 2023)	AECOM Response (October 17, 2024)
General Comments		
1.	Please discuss any requirements for temporary/permanent easement or consent to enter agreement with private property owners to facilitate the proposed works in the EA.	The draft Project File includes a section on property access and requirements. Details will be reviewed and confirmed during the future detailed design.
2.	All technical reports prepared at the EA stage must be signed and stamped by the qualified professionals.	Comment acknowledged. Technical reports will be signed and stamped, where applicable, for the final Project File.
Engineering Comments		
3.	It is understood that spot repairs of failing erosion protection will be the focus of the proposed works as opposed to the reach-based works. If there are any locations where new erosion protection is proposed, all relevant hazards must be delineated, and impacts assessed.	Comment acknowledged.
4.	Section 6 of the geomorphology report indicates that an impact assessment will be carried out after the selection of the preferred alternative. Please note that the assessment of the potential impacts is an important part of the screening process for the preferred alternative.	An update to section 6 has been provided - evaluation of alternatives is provided in the Project File Report.
5.	Figure 1 is missing from the hydraulic assessment report. Please provide.	Figure 1 has been added.
6.	The scope of the proposed works is not clear at this time, however there must not be any impacts to the existing flood or slope hazard for each study area.	Recommendations were given in the geotechnical report for proposed works to limit impacts to slope hazards for each study area.
7.	The existing floodlines and proposed floodlines (for the preferred alternative) are to be plotted on the same figure for comparison.	Comment acknowledged.

Comment No.	CVC Comments (December 1, 2023)	AECOM Response (October 17, 2024)
8.	The geotechnical report states that re-grading and revegetation of the slopes is a potential option to improve the stability. Any regrading or placement of fill within the floodplain will need to be analyzed through hydraulic assessment and cut/fill analysis to confirm there are no impacts to the flood hazard.	Once cut/fill proposed works have begun, then slope stability analyses will be evaluated for those cut/fills to assess slope stability and hydraulic assessments.
9.	The existing slope hazard (specifically in study area 2) must not be impacted negatively through the proposed erosion control works. This must be confirmed through the geotechnical assessment.	Once erosion control works are proposed, the slope hazard will be re-evaluated/modelled (current conditions only are modelled).
10.	Scour at the existing infrastructure crossings must be considered if there are alterations proposed upstream and downstream. Please refer to CVC's Fluvial Geomorphology Guidelines: Fact Sheet VI Scour Analysis (attached).	Comment acknowledged.
11.	Please discuss why the CPR is now overtopping in the BOC model for the 100-year event and not in the original CVC model.	As the cross-sections have been updated with several small changes (station-elevation data, manning's n etc.) it is difficult to pinpoint the specific changes that impacted the water surface elevation at the CPR bridge. It is likely a combination of these small changes that had an impact. Cross-section M2-13033 was updated, as shown in the appendix, which may have had an impact.
12.	The most current data request for CVC's HEC-RAS model for Wolfedale Creek was provided to AECOM on February 2023. This has been incorrectly stated in the hydraulic assessment report as September 2020. Furthermore, the model CVC provided in February 2023 was run using version 5.0.7 of HEC-RAS.	The text will be updated in the next iteration of the report, during the design phase.
13.	The hydraulic assessment report states that the manning's roughness from the original CVC model was adjusted based on MTO design chart 2.01 to be found in appendix B. Appendices have not been included in the report. Furthermore, manning's roughness should be selected based on CVC's standard parameters (attached).	Manning's n values were updated in the model, mainly along the outer edges of the XSs. It was noticed that some cross-sections had parking lots and other impervious surfaces within but had a manning's n of 0.025 (Ex. XS 942-20164). It was reduced to 0.016, assuming that this portion of the XS was mostly impervious with a small amount of pervious surface. The impervious manning's n of

Comment No.	CVC Comments (December 1, 2023)	AECOM Response (October 17, 2024)
		0.013 from the CVC manual is the same as what we used, increasing slightly for the small amount of pervious surface.
14.	It appears that a common revision to manning's roughness included a reduction of 0.025 in the original CVC model to 0.016 in the BOC model. Please provide justification and discussion for any changes to manning's n since these revisions have direct impact to flood elevation and flow velocity.	See response to Comment 13) above.
15.	All changes made to the hydraulic model are stated to be found within appendix B of the hydraulic assessment report. No appendix B has been provided. It is crucial that the basis of comparison (BOC) model is approved and accepted by CVC prior to the assessment of the design alternatives.	Appendix B has been added to the Hydraulic Report.
16.	Please remove any unnecessary or superseded plan and geometry files from the HEC-RAS model and RASMapper. The most recent plan file, EXS-2023-SEP-WDC, was assumed to be AECOM's BOC model.	The modelling has been updated to remove unnecessary or superseded plan and geometry files.
17.	Please provide relevant terrain files for the AECOM and JD Barnes surveys for RASMapper.	The terrain files have been included in this submission.
18.	Please provide the correct projection files for RASMapper.	The correct projection is NAD UTM Zone 17N
19.	Please confirm the horizontal and vertical datums being used in the model.	Horizontal and Vertical Datum: DATUM["North American Datum 1983 transferred to DATUM["World Geodetic System 1984.
20.	The steady flow boundary conditions remain the same between the original model and BOC; however, some of the channel profile updates would impact the upstream boundary. Please review and update the upstream slope for normal depth computation for both 941-M3, and 941-M2.	For reach 941-M2, the upstream boundary condition is based on Junction "JUNC1". The upstream slope for reach 941-M3 did change, however, when updated the model results were identical to previously. However, his will be updated in the next design phase.
21.	Despite no proposed works planned for the crossing structures, have the crossing profiles been updated in the bridge and culvert data for the	The crossings were not updated in the model.

Comment No.	CVC Comments (December 1, 2023)	AECOM Response (October 17, 2024)
	BOC model? Were any of the crossings and bridge/culvert openings surveyed in the recent topographic survey?	
22.	When comparing the BOC model to CVC's original model, the version 5.0.7 is to be used. Otherwise, please provide a comparison of the BOC results using HEC-RAS version 6.3.1 and 5.0.7 to confirm there are negligible computational differences.	Comment acknowledged.
Ecology Comments		
23.	It is our preference that a more natural approach be used, including natural bed and bank treatments to help reconnect upstream and downstream reaches and improve the overall function of the watercourse and adjacent valley system. That said, given the existing conditions of the watercourse, its location within a highly constrained urban area, and exposure to significant storm flows, we recognize this end-goal might not be feasible. A reasonable approach should be taken to balance the various goals of the project. As such, please clarify how this can or cannot be achieved through the different reaches. Please seek opportunities to enhance the function of the valley and watercourse (i.e., riparian plantings).	Acknowledged. This is addressed in the preferred solution.
24.	CVC recommends that the evaluation of the alternatives include a section that speaks to lifespan of each alternative. This will help in assessing future maintenance needs and future disturbance frequency to the adjacent riparian vegetation.	Lifespan evaluation criteria has been included in the evaluation of alternatives contained within the Project File Report
25.	Please prioritize avoidance and mitigation of impact to the adjacent riparian habitat (protection of existing vegetation).	Acknowledged. The Natural Environment Report will prioritize avoidance and mitigation of impact to the adjacent riparian habitat.
26.	<p>As part of the proposed project, all disturbed areas should be restored using self-sustaining, native riparian vegetation. Please reference the below guidelines in the EA.</p> <p>a. Please follow CVC's Ecosystem Offsetting Guidelines (attached) for direction on the appropriate tree replacement</p>	Acknowledged. Restoration measures detailed in the Natural Environment Report will use the listed guidelines.

Comment No.	CVC Comments (December 1, 2023)	AECOM Response (October 17 2024)
	<p>ratios to offset the functional loss of the regulated feature in CVC's regulated areas.</p> <p>b. Please refer to CVC's Plant Selection Guidelines (attached), and Guidelines for Designing Enhancement Plans within Setbacks and Buffers (attached) for determining species and planting densities.</p> <p>c. Please refer to CVC's Healthy Soil Guidelines (attached) for any necessary soil amendments.</p>	

**Table 3 – CVC Comments (April 11, 2024) and Responses (October 17, 2024)**

Comment No.	CVC Comments (April 11, 2024)	AECOM Response (October 17, 2024)
1.	Starting April 1, 2024, we have new regulation in effect under subsection 28.1 of the Conservation Authorities (CA) Act “Ontario Regulation 41/24: Prohibited Activities, Exemptions, and Permits”. Please remove reference to the old regulation “O. Reg. 160/06: Regulation of Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses’ under section 28 of the CA Act and refer to the new regulation in the project file report as it relates to CVC’s development permit.	Comment acknowledged. Reference to legislation and permit has been updated.
2.	It appears that there is a potential for disturbance to the existing slope hazard adjacent to Stavebank Road in accessing restoration reach 7. Please provide details on the access routes in the future submissions and provide confirmation that the existing slope hazard will not be impacted.	Potential access routes are shown in the Project File Report.
3.	Alternatives 2, 3, and 4 in Table 2 on page 6 of the memo appear to have identical evaluation for the erosion mitigation. Please confirm if both structural and non-structural banks protection have the same degree of erosion mitigation; one is not more effective than the other. Please provide justification for the selection of the structural and potentially “harder” bank protection measures at specific locations if erosion is not the driving factor.	Evaluation inputs have been updated to better clarify erosion mitigation inputs across alternatives.
4.	Please also provide responses to our last comments sent December 1, 2023 on the draft technical reports at the time of submitting the draft project file report.	Responses to CVC Staff comments dated are provided in Table 2 enclosed with this correspondence.

---

From: Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
Sent: December 11, 2024 5:14 PM  
To: Zandvliet, Samantha  
Cc: Greg Frew; Van Riezen, Rhonneke; Paliouras, Kosta; Grueneis, Karl; Cameron, Emily  
Subject: RE: FW: CVC Comments (draft PFR) - EA 23/001 - Wolfedale Creek Erosion Control Project (Burnhamthorpe Road West to Credit River)

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Thank you, Samantha.

We will review the information and let you know if there are any questions.

Best regards,  
Iftekhar

Iftekhar Ahmad | MES (Pl.), RPP | he/him/his  
Planner, Environmental Assessment | Watershed Management and Development Services |  
Credit Valley Conservation  
905-670-1615 ext. 2960 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)

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From: Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
Sent: Tuesday, December 10, 2024 4:14 PM  
To: Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
Cc: Killis, Jakub <Jakub.Killis@cvc.ca>; Greg Frew <greg.frew@mississauga.ca>; Van Riezen, Rhonneke <Rhoneke.VanRiezen@aecom.com>; Paliouras, Kosta <kosta.paliouras@aecom.com>; Grueneis, Karl <Karl.Grueneis@aecom.com>; Cameron, Emily <Emily.Cameron@aecom.com>

Subject: [External] FW: CVC Comments (draft PFR) - EA 23/001 - Wolfedale Creek Erosion Control Project (Burnhamthorpe Road West to Credit River)

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Hi Iftekhar,

Thank you for sharing CVC staff comments on the draft Project File Report. Please refer to attached letter with our responses. The requested updated HEC-RAS model can be downloaded via the link below.

[Download Link](#)

(note: Transfer expires in 3 days)

Please let us know if any questions or concerns.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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From: Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>

Sent: November 20, 2024 1:08 PM

To: Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>

Cc: Killis, Jakub <[Jakub.Killis@cvc.ca](mailto:Jakub.Killis@cvc.ca)>; Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

Subject: CVC Comments (draft PFR) - EA 23/001 - Wolfedale Creek Erosion Control Project (Burnhamthorpe Road West to Credit River)

Good Afternoon Kosta,

Thank you for providing us with the opportunity to comment on the draft Project File Report (PFR).

Apologies for any inconvenience for not being able to provide our comments on the draft PFR by November 12, as requested.

CVC staff have now had the opportunity to review the draft PFR dated October 2024, draft Natural Environment Report (August 2024), draft Fluvial Geomorphological Assessment Report (August 2024), draft Hydraulic Assessment Report (November 2023), Geotechnical Investigation



Report (November 2023), HEC-RAS modeling, and comments response letter dated October 17, 2024, and provide these comments for your consideration.

CVC Comments

1. It is our understanding that the structural and non-structural practices noted in section 7.1 of the draft PFR are generic and the preferred structural or non-structural design solution for the selected alternative 4 will be finalized at the detailed design stage.
2. Please clarify if the impacts to the channel hydraulics and erosion potential will be an improvement to the existing condition as the wording provided in the below matrix (see yellow highlight) is not clear.

Category	Criteria	Alternative 1 – Do nothing	Alternative 2 – Structural bank protection
<b>Physical and Natural Environment</b>	Potential effects on channel morphology.	<ul style="list-style-type: none"> <li>■ Continued erosion along the channel bed and banks and sediment accumulation for channel morphology.</li> <li>■ Potential for continued failure of existing bank protection and grade control structures.</li> </ul>	<ul style="list-style-type: none"> <li>■ High potential effects on channel morphology as structural solutions lock the channel in place and eliminate sediment input into channel. In addition, structural solutions tend to modify channel hydraulics and could result in increased erosion potential.</li> </ul>

3. Please clarify why the potential structural and/or non-structural grade control measures are shown parallel to the watercourse in Figures ES-2 to ES-8 and Figures 6-4 to 6-10. It is expected that the grade control measures would be perpendicular to the flow.
4. Floodlines on Figure 3-6 are not the exact match to CVC’s approved floodplain mapping for Wolfedale Creek. Please clarify why they do not match and update the figure as needed.
5. Floodlines on Figure 3-9 are incorrect and do not match CVC’s approved floodplain mapping for Wolfedale Creek or the Credit River. Please clarify why they do not match and update the figure as needed.
6. Section 6.4 states that alternative 4 (preferred solution) has no anticipated flooding impacts. Table 6-2 (Evaluation of Alternatives) states minimal flooding impacts for alternative 4. Please clarify which outcome is expected and how this is determined since no hydraulic modelling has been carried out for the proposed works at the EA stage.
7. Please ensure that the HEC-RAS model for review contains all relevant files necessary for the review. Run files are missing. CVC does not take responsibility for re-running the model to view output tables due to potential differences in results from software versioning.
8. The below response is unclear. Any impacts to hazards must be determined prior to the commencement of any work. Please note that any fill within the regulatory floodplain is not permitted. A cut/fill analysis may be required depending on the scope of the works. Additional details will be required for the detailed design.

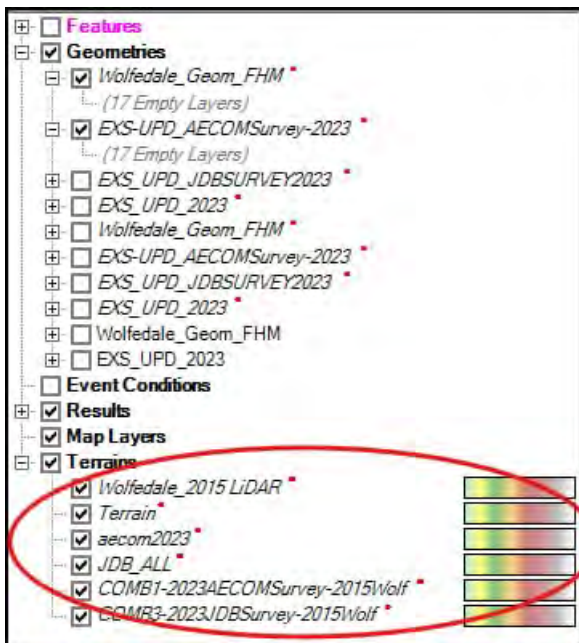
Comment No.	CVC Comments (December 1, 2023)	AECOM Response (October 2023)
8.	The geotechnical report states that re-grading and revegetation of the slopes is a potential option to improve the stability. Any regrading or placement of fill within the floodplain will need to be analyzed through hydraulic assessment and cut/fill analysis to confirm there are no impacts to the flood hazard.	Once cut/fill proposed works have begun, the analyses will be evaluated for those cut/fills and hydraulic assessments.

9. Regarding your below response, it is our preference that the hydraulic assessment be updated at the EA stage.

12.	The most current data request for CVC's HEC-RAS model for Wolfedale Creek was provided to AECOM on February 2023. This has been incorrectly stated in the hydraulic assessment report as September 2020. Furthermore, the model CVC provided in February 2023 was run using version 5.0.7 of HEC-RAS.	The text will be updated in the next iteration design phase.
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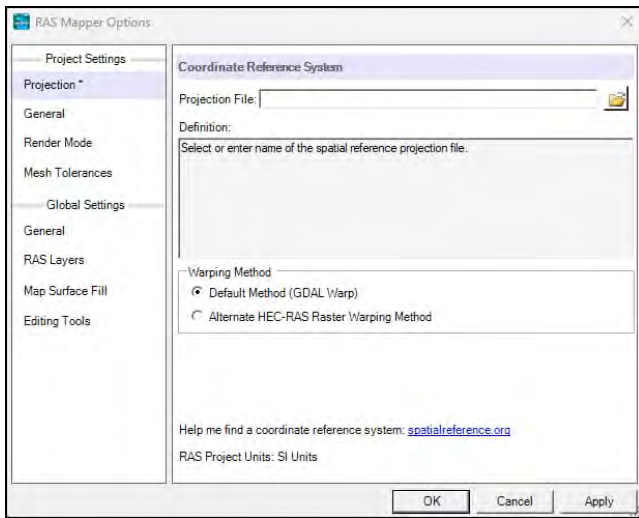
10. The below comment is not yet addressed. The terrain files remain missing from the current submission. Furthermore, please only keep the relevant terrain files in the model for CVC review.

17.	Please provide relevant terrain files for the AECOM and JD Barnes surveys for RASMapper.	The terrain files have been included in this submission.
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11. The below response provides reference to the projected coordinate system (i.e. coordinate system) for the project. Our below comment is requesting the projection file associated with the HEC-RAS model, which has not been provided.

18.	Please provide the correct projection files for RASMapper.	The correct projection is NAD UTM Zone 17N.
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12. In reference to the below comment, only the horizontal datum has been provided. Please provide the relevant vertical datum used for the model.

19.	Please confirm the horizontal and vertical datums being used in the model.	Horizontal and Vertical Datum: DATUM["N 1983 transferred to DATUM["World Geodetic
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13. Based on discussion with CVC's land planning staff, it is our understanding that the parcel shown in red in the below image is owned by CVC. Any works proposed within CVC land generally require access permit from our land planning group in addition to CVC's development permit. We will provide confirmation on any permitting requirement from our land planning group once we have the detailed information on the exact location and extent of the proposed works.



14. The final technical reports prepared at the EA stage must be sealed by the qualified professionals and included in the final PFR submission.

15. Please include responses to all CVC comments provided at the EA stage in the final PFR submission.

If you have any questions, please contact me.

Thanks,

Best regards,  
Iftkhar

Iftkhar Ahmad | MES (Pl.), RPP | he/him/his  
Planner, Environmental Assessment | Watershed Management and Development Services |  
Credit Valley Conservation  
905-670-1615 ext. 2960 | M: 647-449-5962  
[iftkhar.ahmad@cvc.ca](mailto:iftkhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)

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From: Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
Sent: Thursday, October 17, 2024 8:55 AM  
To: Ahmad, Iftekhar <[lftekhar.Ahmad@cvc.ca](mailto:lftekhar.Ahmad@cvc.ca)>  
Cc: Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
Subject: [External] Re: City of Mississauga Wolfedale Creek - MCEA Draft Project File to CVC

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Good morning Iftekhar,

As you are aware the City is completing a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. Our project team has reviewed and responded to the previous comments from CVC staff related to this Study via the attached letter.

At this time we are finalizing the Project File documentation and are requesting to receive your feedback in advance of the 30-day public review in November. We kindly request your comments by November 12, 2024 to ensure we incorporate your inputs. Should we not receive your comments prior to November 12, 2024 then we will assume no comments are forthcoming and will proceed with finalizing the Project File for the 30-day public review.

A link to the Project File has been included below.

[https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t\\_exp=1729428636&t\\_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t\\_network=email&t\\_s=download\\_link&t\\_ts=1729169459](https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t_exp=1729428636&t_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t_network=email&t_s=download_link&t_ts=1729169459)

Let me know if you have any questions or issues downloading the files (link expires in 3 days).

Thank you.

**Kosta Paliouras** P.Eng.  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

December 10, 2024

**Our Reference**  
60701082**EMAIL ONLY**Iftekhhar Ahmad  
Planner, Environmental Assessment  
Credit Valley Conservation**Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River  
Municipal Class Environmental Assessment – Schedule B  
Credit Valley Conservation Draft Project File Responses**

Dear Iftekhhar Ahmad:

As you are aware, the City of Mississauga is completing a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. We thank CVC staff for their comments on the draft Project File circulated on October 17, 2024. Enclosed with this correspondence are the responses to CVC's comments dated November 20, 2024. We have also provided a copy of the updated HEC-RAS model, including terrain and projection files for RAS mapper and run files.

CVC staff will receive the notice of completion in the new year that will include a link to the final Project File submission that will be available for your review. We look forward to future engagement with CVC during the design phases of the Project.

Yours sincerely,

Samantha Zandvliet  
Environmental Planner  
AECOM Canada Ltd.  
E: Samantha.Zandvliet@aecom.com

**cc:** Greg Frew, City Project Manager, City of Mississauga  
Kosta Paliouras, Consultant Project Manager, AECOM Canada Ltd.  
Rhonneke Van Riezen, Senior Fluvial Geomorphologist, AECOM Canada Ltd.  
Karl Grueneis, Senior Environmental Planner, AECOM Canada Ltd.

**Encl:** Table 1 – CVC Comments and Responses – Draft Project File

**Table 1 – CVC Comments (November 20, 2024) and Responses (December 10, 2024) – Draft Project File**

Comment No.	CVC Comments (November 20, 2024)	AECOM Responses (December 10, 2024)
1.	It is our understanding that the structural and non-structural practices noted in section 7.1 of the draft PFR are generic and the preferred structural or non-structural design solution for the selected alternative 4 will be finalized at the detailed design stage.	Comment acknowledged.
2.	Please clarify if the impacts to the channel hydraulics and erosion potential will be an improvement to the existing condition as the wording provided in the below matrix (see yellow highlight) is not clear.	Yes, this will be an improvement. Proposed solutions are not expected to dramatically alter cross sections and no fill is proposed within the floodplain. This will be confirmed at detailed design.
3.	Please clarify why the potential structural and/or non-structural grade control measures are shown parallel to the watercourse in Figures ES-2 to ES-8 and Figures 6-4 to 6-10. It is expected that the grade control measures would be perpendicular to the flow.	The lines are only symbolic and meant to represent the reach location where the grade control measures are recommended. Details regarding the types of measures, orientation, etc. will be determined during the next design phase.
4.	Floodlines on Figure 3-6 are not the exact match to CVC's approved floodplain mapping for Wolfedale Creek. Please clarify why they do not match and update the figure as needed.	Our project team only received the pdf floodplain mapping in our previous data request and will require the digital file prior to initiating the detailed design.
5.	Floodlines on Figure 3-9 are incorrect and do not match CVC's approved floodplain mapping for Wolfedale Creek or the Credit River. Please clarify why they do not match and update the figure as needed.	Our project team only received the pdf floodplain mapping in our previous data request and will require the digital file for detailed design.
6.	Section 6.4 states that alternative 4 (preferred solution) has no anticipated flooding impacts. Table 6-2 (Evaluation of Alternatives) states minimal flooding impacts for alternative 4. Please clarify which outcome is expected and how this is determined since no hydraulic modelling has been carried out for the proposed works at the EA stage.	No anticipated additional flooding impacts are anticipated as per comment #2 above. Table 6-2 has been updated.

Comment No.	CVC Comments (November 20, 2024)	AECOM Responses (December 10, 2024)
7.	Please ensure that the HEC-RAS model for review contains all relevant files necessary for the review. Run files are missing. CVC does not take responsibility for re-running the model to view output tables due to potential differences in results from software versioning.	All files are attached with this response, including output files.
8.	The below response is unclear. Any impacts to hazards must be determined prior to the commencement of any work. Please note that any fill within the regulatory floodplain is not permitted. A cut/fill analysis may be required depending on the scope of the works. Additional details will be required for the detailed design.	Acknowledged.
9.	Regarding your below response, it is our preference that the hydraulic assessment be updated at the EA stage.	The proposed erosion control measures are conceptual in nature at the EA stage. The detailed design stage is better suited for accurate updates to the hydraulic model including creek cross-sections, profiles and materials (roughness), etc.
10.	The below comment is not yet addressed. The terrain files remain missing from the current submission. Furthermore, please only keep the relevant terrain files in the model for CVC review.	Terrain files have been updated in RAS Mapper.
11.	The below response provides reference to the projected coordinate system (i.e. coordinate system) for the project. Our below comment is requesting the projection file associated with the HEC-RAS model, which has not been provided.	Projection has been added to RAS Mapper.
12.	In reference to the below comment, only the horizontal datum has been provided. Please provide the relevant vertical datum used for the model.	From JD Barnes Survey Drawing: "Elevations shown on this plan are related to geodetic datum and are derived from the City of Mississauga benchmarks: No. 075023067 elevation = 151.187m No. 075033036 elevation = 104.465m No. 620 elevation = 98.8m



Comment No.	CVC Comments (November 20, 2024)	AECOM Responses (December 10, 2024)
		<p>The CVC floodline map state that "to obtain City of Mississauga datum, add 0.121 metres to elevation data". Therefore 0.121m should be subtracted from the survey data to match the CVC vertical datum. This has not yet been completed but will be as part of the detailed design stage. As the proposed works will not impact the hydraulic modelling, the discrepancy will not have an impact on the proposed design.</p>
13.	<p>Based on discussion with CVC's land planning staff, it is our understanding that the parcel shown in red in the below image is owned by CVC. Any works proposed within CVC land generally require access permit from our land planning group in addition to CVC's development permit. We will provide confirmation on any permitting requirement from our land planning group once we have the detailed information on the exact location and extent of the proposed works.</p>	<p>Acknowledged. This has been added as a future commitment, should works be proposed within CVC land.</p>
14.	<p>The final technical reports prepared at the EA stage must be sealed by the qualified professionals and included in the final PFR submission.</p>	<p>Comment acknowledged. We note that the reports will be signed in the Final Project File.</p>
15.	<p>Please include responses to all CVC comments provided at the EA stage in the final PFR submission.</p>	<p>Comment acknowledged. CVC correspondence will be appended to the final PFR submission.</p>

---

From: Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
Sent: November 18, 2024 10:46 AM  
To: Paliouras, Kosta; Cameron, Emily  
Cc: Van Riezen, Rhonneke; Zandvliet, Samantha; Greg Frew  
Subject: RE: Re: Re: City of Mississauga Wolfedale Creek - MCEA Draft Project File to CVC

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Hi Kosta,

Thank you for the follow up.

Our technical review is now complete. Currently, I am reviewing and finalizing the technical comments and will send them to you shortly.

Thank you for your understanding.

Best regards,  
Iftekhar

Iftekhar Ahmad | MES (Pl.), RPP | [he/him/his](#)  
Planner, Environmental Assessment | Watershed Management and Development Services |  
Credit Valley Conservation  
905-670-1615 ext. 2960 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)

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From: Paliouras, Kosta <kosta.paliouras@aecom.com>  
Sent: Friday, November 15, 2024 1:28 PM  
To: Cameron, Emily <Emily.Cameron@aecom.com>; Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>

Cc: Van Riezen, Rhonneke <Rhoneke.VanRiezen@aecom.com>; Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>; Greg Frew <greg.frew@mississauga.ca>  
Subject: [External] Re: Re: City of Mississauga Wolfedale Creek - MCEA Draft Project File to CVC  
Importance: High

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Good afternoon Iftekhar:

Please let myself and the AECOM team know if CVC need anything else from AECOM for CVC's review of the Wolfedale Creek MCEA submission.

AECOM requested comments by November 12 so that we can proceed with filing the Project File. Please provide any comments that CVC currently have today, if possible.

Let me know if you have any questions.

Thank you,  
Kosta

**Kosta Paliouras** P.Eng.  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

---

From: Cameron, Emily <[Emily.Cameron@aecom.com](mailto:Emily.Cameron@aecom.com)>  
Sent: Tuesday, November 12, 2024 10:10 AM  
To: [Iftekhar.ahmad@cvc.ca](mailto:Iftekhar.ahmad@cvc.ca) <[Iftekhar.ahmad@cvc.ca](mailto:Iftekhar.ahmad@cvc.ca)>  
Cc: Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>; Ott, Wendy <[Wendy.Ott@aecom.com](mailto:Wendy.Ott@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca) <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>  
Subject: RE: Re: City of Mississauga Wolfedale Creek - MCEA Draft Project File to CVC

Hello Iftekhar,

Attached is the Existing Conditions HEC-RAS model for Wolfedale Creek. Please let me know if you have any questions.

Take care,

**Emily Cameron**, P.Eng  
*She/her*  
Water Resources Engineer, Water  
[emily.cameron@aecom.com](mailto:emily.cameron@aecom.com)

**AECOM**

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T +416-452-4859  
[aecom.com](http://aecom.com)

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From: Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
Sent: November 11, 2024 4:01 PM  
To: Cameron, Emily <[Emily.Cameron@aecom.com](mailto:Emily.Cameron@aecom.com)>  
Cc: Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>; Ott, Wendy <[Wendy.Ott@aecom.com](mailto:Wendy.Ott@aecom.com)>  
Subject: Fw: Re: City of Mississauga Wolfedale Creek - MCEA Draft Project File to CVC  
Importance: High

[@Cameron, Emily](#)

FYI below. Please provide the model to the CVC ASAP.

Thanks!!  
Kosta

**Kosta Paliouras** P.Eng.  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

---

From: Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
Sent: Monday, November 11, 2024 3:51 PM  
To: Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
Cc: Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
Subject: RE: Re: City of Mississauga Wolfedale Creek - MCEA Draft Project File to CVC

Hi Kosta,

Could you please resend us the model? We are currently reviewing your information and will get back to you with the response as soon as the model is received and technical review is completed.

Thanks,

Best regards,  
Iftekhar

Iftekhar Ahmad | MES (Pl.), RPP | he/him/his  
Planner, Environmental Assessment | Watershed Management and Development Services |  
Credit Valley Conservation  
905-670-1615 ext. 2960 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)

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From: Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
Sent: Thursday, October 17, 2024 8:55 AM  
To: Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
Cc: Greg Frew <[greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
Subject: [External] Re: City of Mississauga Wolfedale Creek - MCEA Draft Project File to CVC

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Good morning Iftekhar,

As you are aware the City is completing a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. Our project team has reviewed and responded to the previous comments from CVC staff related to this Study via the attached letter.

At this time we are finalizing the Project File documentation and are requesting to receive your feedback in advance of the 30-day public review in November. We kindly request your comments by November 12, 2024 to ensure we incorporate your inputs. Should we not receive your comments prior to November 12, 2024 then we will assume no comments are forthcoming and will proceed with finalizing the Project File for the 30-day public review.

A link to the Project File has been included below.

[https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t\\_exp=1729428636&t\\_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t\\_network=email&t\\_s=download\\_link&t\\_ts=1729169459](https://wetransfer.com/downloads/c0e1bab728743ffbd17ecbc0b98f222a20241017125036/647fb7a329f74b4b3ff5f71dacce004f20241017125059/975e08?t_exp=1729428636&t_lsid=2102aab1-3afc-4a59-946c-0b910d2b7f53&t_network=email&t_s=download_link&t_ts=1729169459)

Let me know if you have any questions or issues downloading the files (link expires in 3 days).

Thank you.

**Kosta Paliouras P.Eng.**  
*he, him, his*

Senior Water Resources Engineer /Project Manager, Central Canada  
M +1-226-749-0964  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

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# Appendix I

**Indigenous Communities  
Consultation Record**



**Wolfedale Creek Erosion Control Municipal Class Environmental Assessment Study**

Table: Summary of Indigenous Consultation Record

<b>Indigenous Community</b>	<b>Date</b>	<b>Consultation Activity</b>	<b>Method of Contact</b>	<b>Response / Action Items</b>
<b>Mississaugas of the Credit First Nation (MCFN)</b>  <i>Contacts: Abby LaForme, Adam LaForm</i>	April 21, 2023	Outgoing – Letter with Notice of Commencement	Email	<ul style="list-style-type: none"> <li>No action items.</li> </ul>
	February 2, 2024	Outgoing – Stage 1 Archaeological Assessment	Email	<ul style="list-style-type: none"> <li>MCFN would like to participate on the stage 2 archaeological assessment and provided the agreements that cover MCFN’s participation in the upcoming fieldwork and the review of Archaeological reports related to the project.</li> <li>The City Project Manager signed the agreements on February 20, 2024 for MCFN to participate in the future Stage 2 archaeological assessment.</li> </ul>
	June 18, 2024	Outgoing – Notice of Public Information Centre	Email	<ul style="list-style-type: none"> <li>No action items.</li> </ul>
	December 19, 2024	Outgoing – Notice of Completion	Email	<ul style="list-style-type: none"> <li>To be determined through MCEA filing.</li> </ul>
<b>Six Nations of the Grand River Elected Council (SNGREC)</b>  <i>Contacts: Lonny Bomberry, Tanya Hill-Montour, Peter Graham and Dawn LaForme</i>	April 21, 2023	Outgoing – Letter with Notice of Commencement	Email	<ul style="list-style-type: none"> <li>SNGREC has interest in the archaeological assessment.</li> <li>AECOM committed to sharing a copy.</li> </ul>
	March 14, 2024	Outgoing – Stage 1 Archaeological Assessment	Email	<ul style="list-style-type: none"> <li>SNGREC provided a copy of their Archaeology Monitor Agreement to participate in the future Stage 2 archaeological assessment.</li> </ul>



**Wolfedale Creek Erosion Control Municipal Class Environmental Assessment Study**

Table: Summary of Indigenous Consultation Record

<b>Indigenous Community</b>	<b>Date</b>	<b>Consultation Activity</b>	<b>Method of Contact</b>	<b>Response / Action Items</b>
<b>Six Nations of the Grand River Elected Council (SNGREC)</b>	June 18, 2024	Outgoing – Notice of Public Information Centre	Email	<ul style="list-style-type: none"> <li>No action items.</li> </ul>
	December 19, 2024	Outgoing – Notice of Completion	Email	<ul style="list-style-type: none"> <li>To be determined through MCEA filing.</li> </ul>
<b>Haudenosaunee Development Institute on behalf of Haudenosaunee Confederacy Chiefs Council</b>  <i>Contacts: info@hdi.land</i>	April 21, 2023	Outgoing – Letter with Notice of Commencement	Email	<ul style="list-style-type: none"> <li>No action items.</li> </ul>
	April 28, 2023	Outgoing – Completed Application For Consideration and Engagement for Development for the City of Mississauga’s Wolfedale Creek Erosion Control Study from Burnhamthorpe Road West to the Credit River		<ul style="list-style-type: none"> <li>No action items.</li> </ul>
	June 18, 2024	Outgoing – Notice of Public Information Centre	Email	<ul style="list-style-type: none"> <li>No action items.</li> </ul>
	December 19, 2024	Outgoing – Notice of Completion	Email	<ul style="list-style-type: none"> <li>To be determined through MCEA filing.</li> </ul>

**Wolfedale Creek Erosion Control Municipal Class Environmental Assessment Study**

Table: Summary of Indigenous Consultation Record

<b>Indigenous Community</b>	<b>Date</b>	<b>Consultation Activity</b>	<b>Method of Contact</b>	<b>Response / Action Items</b>
<b>Huron-Wendat Nation</b>  <i>Contacts: Lori-Jeanne, Bolduc, consultations@wendake.ca</i>	April 21, 2023	Outgoing – Letter with Notice of Commencement	Email	<ul style="list-style-type: none"> <li>No action items.</li> </ul>
	June 18, 2024	Outgoing – Notice of Public Information Centre	Email	<ul style="list-style-type: none"> <li>Requested further information on archaeological studies or fieldwork</li> <li>Provided a copy of the Stage 1 archaeological assessment in a follow up email and committed to engaging Huron-Wendat Nation prior to undertaking the stage 2 archaeological assessment work.</li> </ul>
	July 3, 2024	Outgoing – Stage 1 Archaeological Assessment	Email	<ul style="list-style-type: none"> <li>Huron-Wendat Nation provided comments that will be integrated into the future stage 2 archaeological assessment.</li> </ul>
	December 19, 2024	Outgoing – Notice of Completion	Email	<ul style="list-style-type: none"> <li>To be determined through MCEA filing.</li> </ul>

**AECOM**

**Mississaugas of the Credit First  
Nation**



---

**From:** Zandvliet, Samantha  
**Sent:** Friday, April 21, 2023 1:35 PM  
**To:** Abby.LaForme@mncfn.ca  
**Cc:** Vicky.Wei@mississauga.ca; Paliouras, Kosta; Van Riezen, Rhonneke; Grueneis, Karl; Stacey.LaForme@mncfn.ca  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement  
**Attachments:** L-2023-04-21-City of Mississauga\_Wolfedale Creek Erosion Control\_NoC\_MCFN-60701082.pdf; City of Mississauga\_Wolfedale Creek Erosion Control\_Notice of Commencement\_Final.pdf

Hello Abby,

The City of Mississauga has initiated a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River. Please find attached letter introducing the study along with the Notice of Study Commencement for further information.

Please let me know if you have any questions. We look forward to hearing back from you.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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April 21, 2023

**Our Reference**  
60701082**EMAIL ONLY**

Abby (LaForme) Lee  
Acting Consultation Coordinator  
Mississaugas of the Credit First Nation  
Department of Consultation & Accommodation  
4065 Highway 6  
Hagersville, ON N0A 1H0

**Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River  
Municipal Class Environmental Assessment – Schedule B  
Project Introduction**

Dear Abby LaForme:

The City of Mississauga has initiated a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. The Notice of Study Commencement has been provided under a separate cover.

**Potential Involvement of Your Community**

As we proceed with the Municipal Class Environmental Assessment process, the project team is asking for your input in determining the extent that your community would like to be involved in this process. We recognize that you may have an interest in the Project and may request to receive more information. As the study progresses, the project team can share the results of the analyses that may be of interest to your community (e.g., archaeological assessment, natural environmental report). Your input and feedback are important to us as we would like to know of any issues or concerns your community members may have.

Work to be completed during the Municipal Class Environmental Assessment study that may be of interest to your community includes:

- Natural Environment Report
- Tree Inventory and Preservation Plan
- Stage 1 Archaeological Assessment Report
- Heritage Impact Assessment
- Fluvial Geomorphic Assessment
- Consultation

The project team may also engage with your community during the design phase should there be permits that require further consultation (e.g., any permit under the Endangered Species Act).

**Next Steps**

If you would like to participate in this study, please tell us how your community would like to be engaged and involved (e.g. information sharing or meeting to discuss the project).

We kindly ask that any questions or comments regarding this study are submitted to the Project Managers.

**Vicky Wei, P.Eng., PMP**

*Project Manager*

City of Mississauga

300 City Centre Dr.

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3017

[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**

*Consultant Project Manager*

AECOM Canada Ltd.

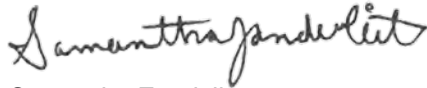
5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

Yours sincerely,



Samantha Zandvliet

Environmental Planner

AECOM Canada Ltd.

E: [Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)

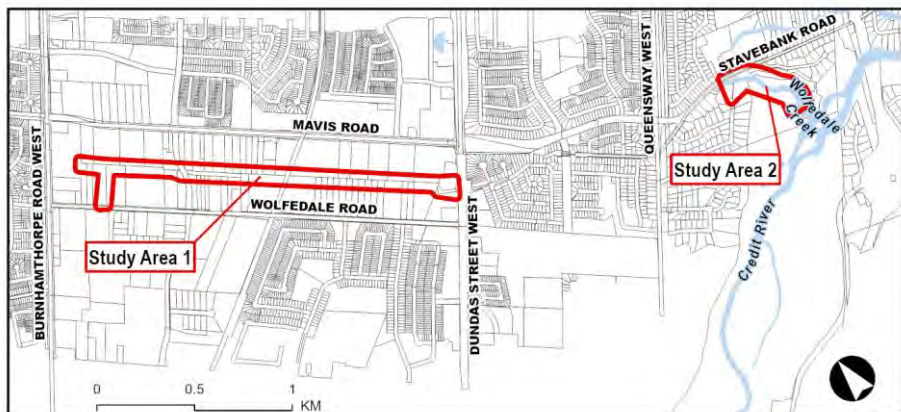
cc: Chief R. Stacey LaForme, Mississaugas of the Credit First Nation  
Vicky Wei, City Project Manager, City of Mississauga  
Kosta Paliouras, Consultant Project Manager, AECOM Canada Ltd.  
Rhoneke Van Riezen, Senior Fluvial Geomorphologist, AECOM Canada Ltd.  
Karl Grueneis, Senior Environmental Planner, AECOM Canada Ltd.

## CITY OF MISSISSAUGA – NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment Study:  
Wolfedale Creek Erosion Control Project  
from Burnhamthorpe Road West to the Credit River

### WHAT?

- The City of Mississauga (the City) has initiated a Schedule B Municipal Class Environmental Assessment (Class EA) Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### WHY?

- The City recognizes that these sections of Wolfedale Creek are in need of rehabilitation to remediate existing erosion issues and improve safety.

### HOW?

- The Study will characterize these sections of Wolfedale Creek to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- The Class EA process will involve identifying and evaluating various alternative solutions to determine the preferred erosion control and restoration strategy that will be presented at a Public Information Centre (PIC).
- A Project File documenting the Class EA process will be available for public review at the end of the study.

### GET INVOLVED!

- The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- A Public Information Centre (PIC) will be held to present the study findings and the alternative solutions being considered, including the preliminary preferred erosion control and restoration strategy. The PIC details will be advertised closer to the date.
- Project information will be made available on the City's project website: [www.mississauga.ca/wolfedalecreekeka](http://www.mississauga.ca/wolfedalecreekeka)
- If you have comments or questions, require further information or would like to be added to the study mailing list to receive future notifications, please contact:

**Vicky Wei, P.Eng., PMP**  
Project Manager  
City of Mississauga  
300 City Centre Dr.  
Mississauga, ON L5B 3C1  
(905) 615-3200, ext. 3017  
[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**  
Consultant Project Manager  
AECOM Canada Ltd.  
5080 Commerce Blvd.  
Mississauga, ON L4W 4P2  
(905) 578-4129  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

This notice signals the commencement of the Class EA, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario *Environmental Assessment Act*.

Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.

---

**From:** Greg Frew <Greg.Frew@mississauga.ca>  
**Sent:** Tuesday, February 20, 2024 3:05 PM  
**To:** Adam LaForme  
**Cc:** Van Riezen, Rhonneke; Paliouras, Kosta; Pearce, Sherri  
**Subject:** RE: Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga  
**Attachments:** MCFN FLR Participation Agreement 2024\_City of Miss.docx; DOCA Archaeological Review Agreement 2024\_City of Miss.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

**This Message Is From an External Sender**

This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Good afternoon Adam.

Please find attached the signed agreements for MCFN's participation in the archaeological review and upcoming fieldwork for our Wolfedale Creek project. Please send back a copy once signed by your office.

AMEC will contact you with further details and timing for the fieldwork – likely this spring.

Thanks very much!  
Greg.



**Greg Frew, P.Eng.**

Stormwater Drainage Engineer, Environmental Services  
Infrastructure Planning and Engineering Services Division  
Transportation and Works Department  
City of Mississauga

☎ 905.615.3200 ext. 3362

✉ [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

🌐 [www.mississauga.ca](http://www.mississauga.ca)

---

**From:** Adam LaForme <Adam.LaForme@mncfn.ca>  
**Sent:** Friday, February 16, 2024 11:11 AM  
**To:** Pearce, Sherri <Sherri.Pearce@aecom.com>  
**Cc:** Greg Frew <Greg.Frew@mississauga.ca>; Van Riezen, Rhonneke <Rhoneke.VanRiezen@aecom.com>; Paliouras, Kosta <kosta.paliouras@aecom.com>  
**Subject:** RE: Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga

Good Morning Sherri,



Thank you for following up on your previous email and sharing the Stage 1 assessment for the Wolfedale Creek Erosion Control Project. We will review the report and respond with comment by February 26, 2024.

MCFN would like to participate on the stage 2 archaeological assessment, please find attached the agreements that cover MCFN's participation in the upcoming fieldwork and the review of Archaeological reports related to the project for your review. If you could please fill in the additional required information, highlighted in yellow, and return to us a signed copy so that we may arrange for FLR participation on your project, that would be greatly appreciated.

If you have any questions or concerns about this process, please contact me.

Kind regards,

Adam LaForme (he/him)  
Archaeological Operations Supervisor



Mississaugas of the Credit First Nation (MCFN)  
Department of Consultation and Accommodation (DOCA)  
4065 Highway 6 North, Hagersville, ON NOA 1H0  
Cell 289-527-2763

---

**From:** Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>  
**Sent:** Friday, February 9, 2024 11:15 AM  
**To:** Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>  
**Cc:** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
**Subject:** RE: Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga

Hi Adam,

I thought that I would follow up on my previous email since I haven't heard from you yet. I do appreciate that you are probably very busy right now. I know that we are; I always thought that January/February was supposed to be the quiet time of the year – I can't imagine how busy it will get come field season!

In addition to the information provided below, I am attaching some mapping showing the Study Area location for your reference, as well as our results.

If you could let me know if the MCFN would like to be engaged for this project, that would be appreciated.

Thanks in advance.

Best,  
Sherri

**Sherri Pearce**

Project Archaeologist, Central Canada  
M +1 519 280-4892  
[sherri.pearce@aecom.com](mailto:sherri.pearce@aecom.com)

**AECOM**

250 York Street, Suite 410  
Citi Plaza

London, Ontario, Canada

T +1-519-673-0510

[aecom.com](http://aecom.com)

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---

**From:** Pearce, Sherri

**Sent:** Friday, February 2, 2024 9:34 AM

**To:** Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>

**Cc:** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>

**Subject:** Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga

Good morning Adam,

I hope your new year is going well.

I am reaching out on behalf of the City of Mississauga regarding a recent Stage 1 assessment we completed as part of a MCEA for Wolfedale Creek. The City would like to engage with the MCFN for this project, and we would value your review and input for the Stage 1 report. Areas were identified within the Study Area as requiring Stage 2 assessment, and that follow up work may happen in the spring once the detailed design is closer to completion.

If the MCFN would like to be engaged for this project, if you could send an agreement, that would be appreciated. I will assist Greg (cc'd here) from the City to get the agreement in place. Once the agreement has been signed, I will send you a copy of the report for review.

Thanks in advance and I hope you have a great day.

Best,

Sherri

**Sherri Pearce**

Project Archaeologist, Central Canada

M +1 519 280-4892

[sherri.pearce@aecom.com](mailto:sherri.pearce@aecom.com)

**AECOM**

250 York Street, Suite 410

Citi Plaza

London, Ontario, Canada

T +1-519-673-0510

[aecom.com](http://aecom.com)

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---

**From:** Zandvliet, Samantha  
**Sent:** Tuesday, June 18, 2024 4:20 PM  
**To:** Abby.LaForme@mncfn.ca  
**Cc:** Grueneis, Karl; Van Riezen, Rhonneke; Paliouras, Kosta; greg.frew@mississauga.ca; Adam.LaForme@mncfn.ca  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - MCFN Notice of PIC  
**Attachments:** wolfedale-creek-erosion-control-notice-public-info-centre.pdf

Hello Abby,

The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

We also note that MCFN will be engaged in regards to the future stage 2 archaeological assessment.

Please let our project team know if you have any questions or comments regarding this project.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**  
45 Goderich Road, Suite 201  
Hamilton, ON L8E 4W8, Canada  
T +1-905-578-3040  
[aecom.com](http://aecom.com)

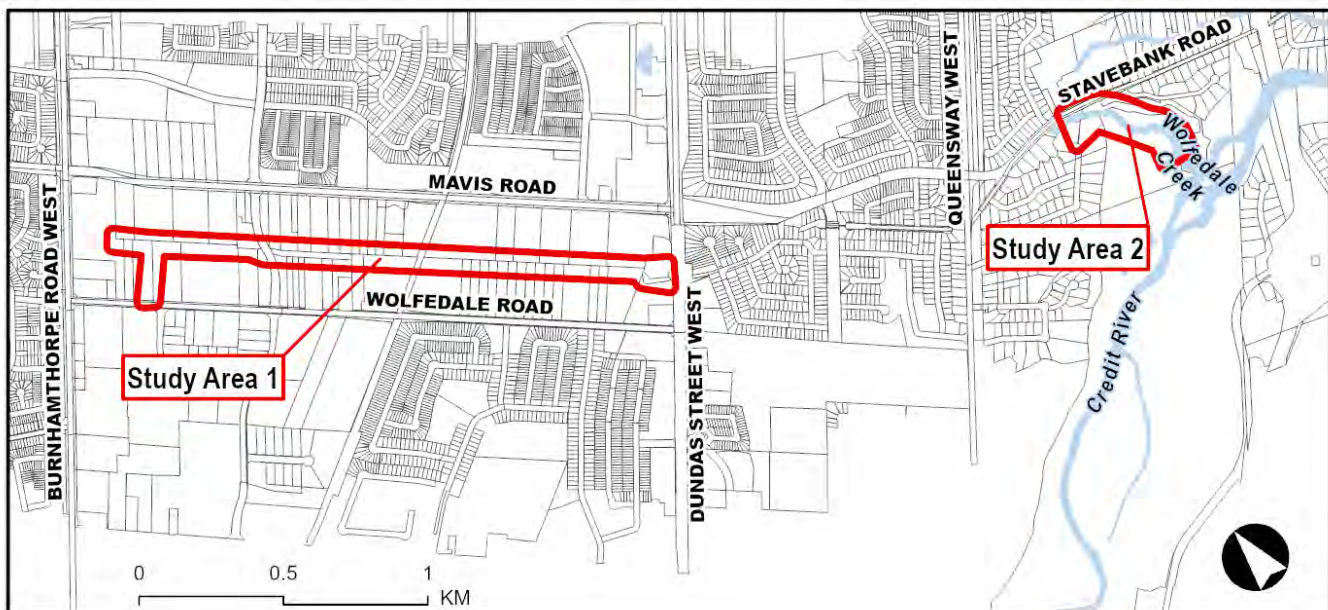
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## Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

### What?

The City of Mississauga (the City) is undertaking a Schedule B Municipal Class Environmental Assessment Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### Why?

The City recognizes that the above identified sections (Study Areas 1 and 2) of Wolfedale Creek are in need of rehabilitation to remediate existing bank stability and erosion issues and to improve safety.

### How?

- The Study characterized these sections of Wolfedale Creek and associated natural resources to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- Through the Class EA process, various alternative solutions are being developed and evaluated by the Study Team and will be refined through public and agency consultation (see below). The Study Team will then select a preferred erosion control and restoration strategy and proceed with design of the recommended works
- A Project File documenting the planning process will be available for public review at the end of the Study.

### Public Consultation

- Consultation is an essential part of the EA process. The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- Online public engagement has been arranged to allow local residents, landowners and interested members

# City of Mississauga

## Notice of Public Information Centre



### Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

of the public an opportunity to review and comment on the project findings to date, the alternative solutions being considered, the evaluation process, the preliminary preferred solution, and the next steps.

- An online Public Information Centre will be made available on the City's project website below beginning **June 18th 2024**:

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

- Feedback is encouraged and comments are requested by **July 18, 2024**. A comment form is available on the project website above. Input gathered through the online public engagement will be used to support the EA study.
- If you have comments or questions, require further information or would like to be added to the Study mailing list to receive future notifications, please contact:

**Greg Frew, P.Eng.**

City Project Manager

City of Mississauga

300 City Centre Drive

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3362

[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)

**Kosta Paliouras, P.Eng.**

Consultant Project Manager

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[Kosta.Paliouras@aecom.com](mailto:Kosta.Paliouras@aecom.com)

*This notice signals the Notice of Public Information Centre for this Municipal Class Environmental Assessment, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario Environmental Assessment Act.*

*Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.*

This notice first issued on **June 18, 2024**.

**AECOM**

# Six Nations of the Grand River



---

**From:** Zandvliet, Samantha  
**Sent:** Friday, May 12, 2023 12:24 PM  
**To:** Tanya Hill-Montour  
**Cc:** Van Riezen, Rhonneke; Grueneis, Karl; Paliouras, Kosta; Vicky.We@mississauga.ca  
**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement

Good afternoon Tanya,

Thank you for confirming SNGREC's interest in this study. A stage 1 archaeological assessment is being completed. I will send you a copy of the Stage 1 Archaeological Assessment Report, as well as the Environmental Assessment Report to SNGREC when these documents are ready.

Please reach out if there is any other information you would like us to share with SNGREC as we proceed with this study.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**  
45 Goderich Road, Suite 201  
Hamilton, ON L8E 4W8, Canada  
T +1-905-578-3040  
[aecom.com](http://aecom.com)

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---

**From:** Tanya Hill-Montour <tanyahill-montour@sixnations.ca>  
**Sent:** Sunday, April 30, 2023 7:56 AM  
**To:** Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
**Subject:** Re: City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement

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This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Good Morning Samantha,

SNGREC has interest in the upcoming project re: Wolfedale Creek Erosion. Any archaeological assessment please sent to myself. With this close to the Credit river i would suggest a AA if not conducted.

Kind Regards,

**Tanya-Hill Montour** B.A Hons.

Six Nations of the Grand River - Archaeology Supervisor.

c.226.388.0665

e. [tanyahill-montour@sixnations.ca](mailto:tanyahill-montour@sixnations.ca)

On Apr 21, 2023, at 1:38 PM, Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)> wrote:

Hello Chief Mark B. Hill,

The City of Mississauga has initiated a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River. Please find attached letter introducing the study along with the Notice of Study Commencement for further information.

Please let me know if you have any questions. We look forward to hearing back from you.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting

M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**

45 Goderich Road, Suite 201

Hamilton, ON L8E 4W8, Canada

T +1-905-578-3040

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<L-2023-04-21-City of Mississauga\_Wolfedale Creek Erosion Control\_NoC\_SNGR-60701082.pdf>

<City of Mississauga\_Wolfedale Creek Erosion Control\_Notice of Commencement\_Final.pdf>



April 21, 2023

**Our Reference**  
60701082**EMAIL ONLY**

Chief Mark B. Hill  
Six Nations of the Grand River -  
2498 Chiefswood Road  
P.O. Box 5000  
Ohsweken, ON N0A 1M0

**Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River  
Municipal Class Environmental Assessment – Schedule B  
Project Introduction**

Dear Chief Mark B. Hill:

The City of Mississauga has initiated a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. The Notice of Study Commencement has been provided under a separate cover.

**Potential Involvement of Your Community**

As we proceed with the Municipal Class Environmental Assessment process, the project team is asking for your input in determining the extent that your community would like to be involved in this process. We recognize that you may have an interest in the Project and may request to receive more information. As the study progresses, the project team can share the results of the analyses that may be of interest to your community (e.g., archaeological assessment, natural environmental report). Your input and feedback are important to us as we would like to know of any issues or concerns your community members may have.

Work to be completed during the Municipal Class Environmental Assessment study that may be of interest to your community includes:

- Natural Environment Report
- Tree Inventory and Preservation Plan
- Stage 1 Archaeological Assessment Report
- Heritage Impact Assessment
- Fluvial Geomorphic Assessment
- Consultation

The project team may also engage with your community during the design phase should there be permits that require further consultation (e.g., any permit under the Endangered Species Act).

**Next Steps**

If you would like to participate in this study, please tell us how your community would like to be engaged and involved (e.g. information sharing or meeting to discuss the project).

We kindly ask that any questions or comments regarding this study are submitted to the Project Managers.

**Vicky Wei, P.Eng., PMP**

*Project Manager*

City of Mississauga

300 City Centre Dr.

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3017

[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**

*Consultant Project Manager*

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

Yours sincerely,



Samantha Zandvliet

Environmental Planner

AECOM Canada Ltd.

E: [Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)

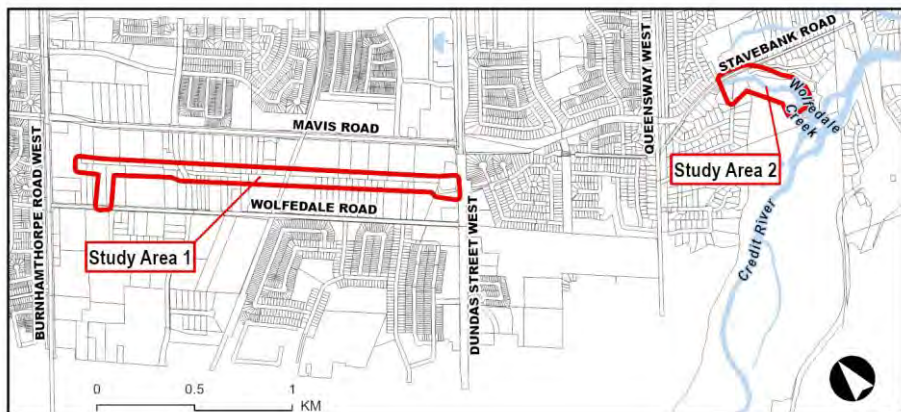
cc: Lonny Bomberry, SNGR  
Peter Graham, SNGR  
Tanya Hill-Montour, SNGR  
Vicky Wei, City Project Manager, City of Mississauga  
Kosta Paliouras, Consultant Project Manager, AECOM Canada Ltd.  
Rhonneke Van Riezen, Senior Fluvial Geomorphologist, AECOM Canada Ltd.  
Karl Grueneis, Senior Environmental Planner, AECOM Canada Ltd.

## CITY OF MISSISSAUGA – NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment Study:  
 Wolfedale Creek Erosion Control Project  
 from Burnhamthorpe Road West to the Credit River

### WHAT?

- The City of Mississauga (the City) has initiated a Schedule B Municipal Class Environmental Assessment (Class EA) Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### WHY?

- The City recognizes that these sections of Wolfedale Creek are in need of rehabilitation to remediate existing erosion issues and improve safety.

### HOW?

- The Study will characterize these sections of Wolfedale Creek to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- The Class EA process will involve identifying and evaluating various alternative solutions to determine the preferred erosion control and restoration strategy that will be presented at a Public Information Centre (PIC).
- A Project File documenting the Class EA process will be available for public review at the end of the study.

### GET INVOLVED!

- The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- A Public Information Centre (PIC) will be held to present the study findings and the alternative solutions being considered, including the preliminary preferred erosion control and restoration strategy. The PIC details will be advertised closer to the date.
- Project information will be made available on the City's project website: [www.mississauga.ca/wolfedalecreekeka](http://www.mississauga.ca/wolfedalecreekeka)
- If you have comments or questions, require further information or would like to be added to the study mailing list to receive future notifications, please contact:

**Vicky Wei, P.Eng., PMP**  
 Project Manager  
 City of Mississauga  
 300 City Centre Dr.  
 Mississauga, ON L5B 3C1  
 (905) 615-3200, ext. 3017  
[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**  
 Consultant Project Manager  
 AECOM Canada Ltd.  
 5080 Commerce Blvd.  
 Mississauga, ON L4W 4P2  
 (905) 578-4129  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

This notice signals the commencement of the Class EA, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario *Environmental Assessment Act*.

Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.

---

**From:** Dawn LaForme <dlaforme@sixnations.ca>  
**Sent:** Tuesday, April 2, 2024 2:45 PM  
**To:** Greg Frew; Pearce, Sherri  
**Cc:** Tanya Hill-Montour; Tierra Henhawk; Van Riezen, Rhonneke; Paliouras, Kosta  
**Subject:** RE: Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga  
**Attachments:** 2024 Arch Monitor Agreement for One Monitor.docx

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**Flag Status:** Flagged

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*Good afternoon Greg and Sherri,  
Attached please find the 2024 Archaeology Monitor Agreement to be filled in, signed and send back at your earliest convenience for processing.*

*Thank you kindly,*

***Dawn LaForme***

*Secretary/Receptionist  
Six Nations Lands & Resources  
(519) 753-0665*

---

**From:** Tanya Hill-Montour <tanyahill-montour@sixnations.ca>  
**Sent:** Tuesday, April 2, 2024 9:51 AM  
**To:** Dawn LaForme <dlaforme@sixnations.ca>  
**Cc:** Tierra Henhawk <acmaa@sixnations.ca>  
**Subject:** FW: Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga

*Nia':wen ko:wa (thankyou)*

*Tanya Hill-Montour  
SNGR Archaeological Supervisor  
226.388.0665*

---

**From:** Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>  
**Sent:** Tuesday, April 2, 2024 9:46 AM  
**To:** Tanya Hill-Montour <[tanyahill-montour@sixnations.ca](mailto:tanyahill-montour@sixnations.ca)>; Dawn LaForme <[dlaforme@sixnations.ca](mailto:dlaforme@sixnations.ca)>  
**Cc:** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>  
**Subject:** [External] RE: Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga

Hi Tanya and Dawn,

I just wanted to follow up regarding the agreement for the Wolfedale Creek project. I haven't received anything from Dawn yet and just wanted to make sure that I didn't miss an email.

Thanks in advance.

Best,  
Sherri

**Sherri Pearce**

Project Archaeologist, Central Canada  
M +1 519 280-4892  
[sherri.pearce@aecom.com](mailto:sherri.pearce@aecom.com)

**AECOM**

250 York Street, Suite 410  
Citi Plaza  
London, Ontario, Canada  
T +1-519-673-0510  
[aecom.com](http://aecom.com)

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---

**From:** Tanya Hill-Montour <[tanyahill-montour@sixnations.ca](mailto:tanyahill-montour@sixnations.ca)>

**Sent:** Friday, March 22, 2024 2:23 PM

**To:** Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>

**Cc:** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>

**Subject:** RE: Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga

Hi Sherri

I have forward this email to Dawn to set up a agreement

*Nia':wen ko:wa (thankyou)*

*Tanya Hill-Montour*

SNGR Archaeological Supervisor  
226.388.0665

---

**From:** Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>

**Sent:** Thursday, March 14, 2024 8:54 AM

**To:** Tanya Hill-Montour <[tanyahill-montour@sixnations.ca](mailto:tanyahill-montour@sixnations.ca)>

**Cc:** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>

**Subject:** [External] Stage 1 Assessment - Wolfedale Creek Erosion Control Project, Mississauga

Good morning Tanya,  
I hope you are doing well.

I am reaching out on behalf of the City of Mississauga regarding a recent Stage 1 assessment we completed as part of a MCEA for Wolfedale Creek. The City would like to engage with the SNGREC for this project, and we would value your review and input for the Stage 1 report. Areas were identified within the Study Area as requiring Stage 2 assessment, and that follow up work may happen in the spring once the detailed design is closer to completion. I have attached a map showing the study area for your reference and a copy of our Stage 1 results.

If SNGREC would like to be engaged for this project, if you could send an agreement, that would be appreciated. I will assist Greg (cc'd here) from the City to get the agreement in place. Once the agreement has been signed, I will send you a copy of the report for review.

Thanks in advance and I hope you have a great day.

Best,  
Sherri

**Sherri Pearce**

Project Archaeologist, Central Canada  
M +1 519 280-4892  
[sherri.pearce@aecom.com](mailto:sherri.pearce@aecom.com)

**AECOM**

250 York Street, Suite 410  
Citi Plaza  
London, Ontario, Canada  
T +1-519-673-0510  
[aecom.com](http://aecom.com)

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**From:** Zandvliet, Samantha  
**Sent:** Tuesday, June 18, 2024 4:29 PM  
**To:** lonnybomberry@sixnations.ca; LRCS@sixnations.ca; Tanya Hill-Montour  
**Cc:** Grueneis, Karl; Paliouras, Kosta; Van Riezen, Rhonneke; greg.frew@mississauga.ca  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - SNGREC Notice of PIC  
**Attachments:** wolfedale-creek-erosion-control-notice-public-info-centre.pdf

Hello,

The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

We also note at this time that SNGREC will be engaged in regards to the future stage 2 archaeological assessment.

Please let our project team know if you have any questions or comments regarding this project.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**  
45 Goderich Road, Suite 201  
Hamilton, ON L8E 4W8, Canada  
T +1-905-578-3040  
[aecom.com](http://aecom.com)

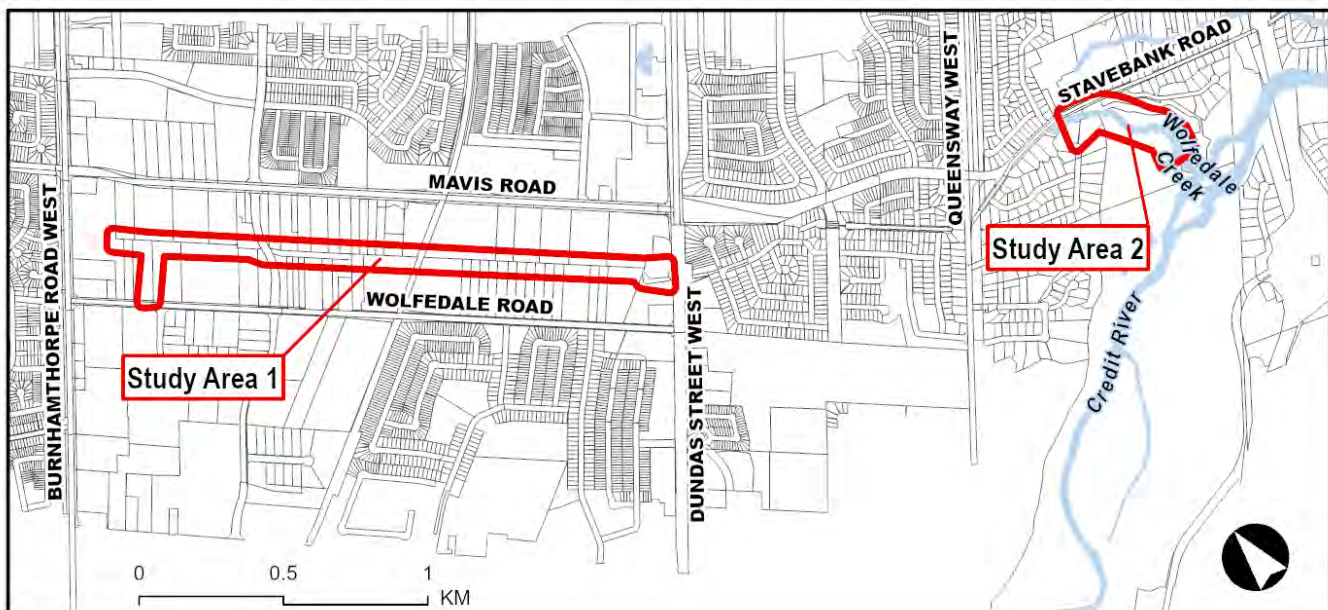
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## Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

### What?

The City of Mississauga (the City) is undertaking a Schedule B Municipal Class Environmental Assessment Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### Why?

The City recognizes that the above identified sections (Study Areas 1 and 2) of Wolfedale Creek are in need of rehabilitation to remediate existing bank stability and erosion issues and to improve safety.

### How?

- The Study characterized these sections of Wolfedale Creek and associated natural resources to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- Through the Class EA process, various alternative solutions are being developed and evaluated by the Study Team and will be refined through public and agency consultation (see below). The Study Team will then select a preferred erosion control and restoration strategy and proceed with design of the recommended works
- A Project File documenting the planning process will be available for public review at the end of the Study.

### Public Consultation

- Consultation is an essential part of the EA process. The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- Online public engagement has been arranged to allow local residents, landowners and interested members



# City of Mississauga

## Notice of Public Information Centre



### Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

of the public an opportunity to review and comment on the project findings to date, the alternative solutions being considered, the evaluation process, the preliminary preferred solution, and the next steps.

- An online Public Information Centre will be made available on the City's project website below beginning **June 18th 2024**:

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

- Feedback is encouraged and comments are requested by **July 18, 2024**. A comment form is available on the project website above. Input gathered through the online public engagement will be used to support the EA study.
- If you have comments or questions, require further information or would like to be added to the Study mailing list to receive future notifications, please contact:

**Greg Frew, P.Eng.**

City Project Manager

City of Mississauga

300 City Centre Drive

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3362

[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)

**Kosta Paliouras, P.Eng.**

Consultant Project Manager

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[Kosta.Paliouras@aecom.com](mailto:Kosta.Paliouras@aecom.com)

*This notice signals the Notice of Public Information Centre for this Municipal Class Environmental Assessment, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario Environmental Assessment Act.*

*Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.*

This notice first issued on **June 18, 2024**.

**AECOM**

**Haudenosaunee Development  
Institute**



---

**From:** Zandvliet, Samantha  
**Sent:** Friday, April 21, 2023 1:40 PM  
**To:** info@hdi.land; hdi2@bellnet.ca  
**Cc:** Vicky.We@mississauga.ca; Paliouras, Kosta; Van Riezen, Rhonneke; Grueneis, Karl  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement  
**Attachments:** L-2023-04-21-City of Mississauga\_Wolfedale Creek Erosion Control\_NoC\_HDI-60701082.pdf; City of Mississauga\_Wolfedale Creek Erosion Control\_Notice of Commencement\_Final.pdf

Hello,

The City of Mississauga has initiated a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River. Please find attached letter introducing the study along with the Notice of Study Commencement for further information.

Please let me know if you have any questions. We look forward to hearing back from you.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**  
45 Goderich Road, Suite 201  
Hamilton, ON L8E 4W8, Canada  
T +1-905-578-3040  
[aecom.com](http://aecom.com)

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April 21, 2023

**Our Reference**  
60701082**EMAIL ONLY**Haudenosaunee Development Institute  
Suite 420B, 16 Sunrise Ct.  
Ohsweken, ON, N0A 1M0**Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River  
Municipal Class Environmental Assessment – Schedule B  
Project Introduction**

Dear Whom it May Concern:

The City of Mississauga has initiated a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. The Notice of Study Commencement has been provided under a separate cover.

**Potential Involvement of Your Community**

As we proceed with the Municipal Class Environmental Assessment process, the project team is asking for your input in determining the extent that your community would like to be involved in this process. We recognize that you may have an interest in the Project and may request to receive more information. As the study progresses, the project team can share the results of the analyses that may be of interest to your community (e.g., archaeological assessment, natural environmental report). Your input and feedback are important to us as we would like to know of any issues or concerns your community members may have.

Work to be completed during the Municipal Class Environmental Assessment study that may be of interest to your community includes:

- Natural Environment Report
- Tree Inventory and Preservation Plan
- Stage 1 Archaeological Assessment Report
- Heritage Impact Assessment
- Fluvial Geomorphic Assessment
- Consultation

The project team may also engage with your community during the design phase should there be permits that require further consultation (e.g., any permit under the Endangered Species Act).

**Next Steps**

If you would like to participate in this study, please tell us how your community would like to be engaged and involved (e.g. information sharing or meeting to discuss the project).

We kindly ask that any questions or comments regarding this study are submitted to the Project Managers.

**Vicky Wei, P.Eng., PMP**

*Project Manager*

City of Mississauga

300 City Centre Dr.

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3017

[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**

*Consultant Project Manager*

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

Yours sincerely,



Samantha Zandvliet

Environmental Planner

AECOM Canada Ltd.

E: [Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)

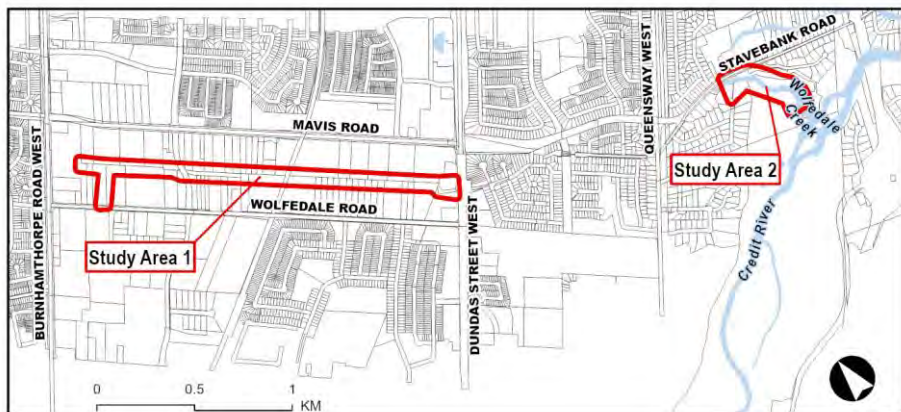
cc: Vicky Wei, City Project Manager, City of Mississauga  
Kosta Paliouras, Consultant Project Manager, AECOM Canada Ltd.  
Rhoneke Van Riezen, Senior Fluvial Geomorphologist, AECOM Canada Ltd.  
Karl Grueneis, Senior Environmental Planner, AECOM Canada Ltd.

## CITY OF MISSISSAUGA – NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment Study:  
 Wolfedale Creek Erosion Control Project  
 from Burnhamthorpe Road West to the Credit River

### WHAT?

- The City of Mississauga (the City) has initiated a Schedule B Municipal Class Environmental Assessment (Class EA) Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### WHY?

- The City recognizes that these sections of Wolfedale Creek are in need of rehabilitation to remediate existing erosion issues and improve safety.

### HOW?

- The Study will characterize these sections of Wolfedale Creek to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- The Class EA process will involve identifying and evaluating various alternative solutions to determine the preferred erosion control and restoration strategy that will be presented at a Public Information Centre (PIC).
- A Project File documenting the Class EA process will be available for public review at the end of the study.

### GET INVOLVED!

- The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- A Public Information Centre (PIC) will be held to present the study findings and the alternative solutions being considered, including the preliminary preferred erosion control and restoration strategy. The PIC details will be advertised closer to the date.
- Project information will be made available on the City's project website: [www.mississauga.ca/wolfedalecreekea](http://www.mississauga.ca/wolfedalecreekea)
- If you have comments or questions, require further information or would like to be added to the study mailing list to receive future notifications, please contact:

**Vicky Wei, P.Eng., PMP**  
 Project Manager  
 City of Mississauga  
 300 City Centre Dr.  
 Mississauga, ON L5B 3C1  
 (905) 615-3200, ext. 3017  
[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**  
 Consultant Project Manager  
 AECOM Canada Ltd.  
 5080 Commerce Blvd.  
 Mississauga, ON L4W 4P2  
 (905) 578-4129  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

This notice signals the commencement of the Class EA, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario *Environmental Assessment Act*.

Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.

---

**From:** Vicky Wei <Vicky.We@mississauga.ca>  
**Sent:** Friday, April 28, 2023 8:26 AM  
**To:** info@hdi.land; hdi2@bellnet.ca  
**Cc:** Van Riezen, Rhonneke; Paliouras, Kosta; Zandvliet, Samantha; Grueneis, Karl  
**Subject:** City of Mississauga\_Wolfedale Creek Erosion Control\_Burnhamthorpe Road West to the Credit River  
**Attachments:** 2023.04.25\_HDI-applicationfinal\_wolfedale\_signed.pdf; City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study Commencement

**This Message Is From an External Sender**

This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Hello,

Please find attached the completed Application For Consideration and Engagement for Development for the City of Mississauga's Wolfedale Creek Erosion Control Study from Burnhamthorpe Road West to the Credit River.

The application fee of \$3,000 has been transferred to HDI via electronic funds transfer.

Please also find attached recent correspondence about the project to HDI from our engineering consultant, AECOM, for reference.

Should you have any questions, please do not hesitate to contact me.

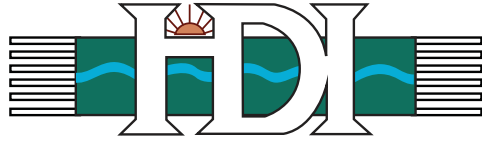
Thank you,  
Vicky

**Vicky Wei, P.Eng., PMP**

Environmental Coordinator, Site Assessment  
300 City Centre Drive  
Mississauga, ON L5B 3C1  
T 905-615-3200 ext.3017  
[vicky.wei@mississauga.ca](mailto:vicky.wei@mississauga.ca)

[City of Mississauga](#) | Transportation and Works  
Infrastructure Planning & Engineering Services  
Environmental Services Section

*Please consider the environment before printing.*



Haudenosaunee Development Institute  
Our Land, Our Law, Our People, Our Future

**APPLICATION FOR CONSIDERATION  
AND ENGAGEMENT FOR DEVELOPMENT**

NOTE: *This application to be completed in quadruplicate.*

**SECTION 1: APPLICANT INFORMATION**

1.1 Name of applicant and full mailing address:

Vicky Wei, City of Mississauga  
300 City Centre Drive, Mississauga, ON  
L5B 3C1

Tel: 905-615-3200 ext. 3017

Fax No.: \_\_\_\_\_

1.2 Name of Registered owner(s) of subject land(s) and mailing address:

City of Mississauga  
300 City Centre Drive, Mississauga, ON  
L5B 3C1

1.3 Party who is to be contacted about the application (check one):

Applicant  Agent, Planning Consultant  Owner  Surveyor

Name and address:

Vicky Wei, City of Mississauga  
300 City Centre Drive, Mississauga, ON  
L5B 3C1

Tel: 905-615-3200 ext. 3017

Fax No.: \_\_\_\_\_

Email: vicky.wei@mississauga.ca



**SECTION 2: LOCATION OF LANDS PROPOSED TO BE DEVELOPED**

2.1 Municipal address:

The study area for this Environmental Assessment is along Wolfedale Creek from Burnhamthorpe Road West and the Credit River.

2.2 Legal description (please attach survey):

2.3 Maps (please attach):

**SECTION 3: PROPOSED AND CURRENT LAND USE**

3.1 Current land use: (i.e. Agricultural, residential, commercial, industrial, other):

Parkland, Greenlands

3.2 Proposed use of subject land:

The City is undertaking an Environmental Assessment to mitigate existing erosion problems along Wolfedale Creek from Burnhamthorpe Road West and the Credit River.

3.3 Are there any buildings or structures on the lands proposed to be developed?

If yes, are these buildings to be retained, demolished or otherwise removed?

None anticipated

**SECTION 4: ADDITIONAL INFORMATION FOR THE SITE**

4.1 Current zoning: \_\_\_\_\_

## **SECTION 5: ARCHAEOLOGY**

5.1 Have any archaeology studies been completed? If yes please attach.

5.2 If no archaeology studies have been undertaken to date are any archaeology studies planned? Please include any relevant details.

Stage 1 Archaeology Assessment and Heritage Impact Assessment will be completed during the Environmental Assessment (EA).

## **SECTION 6: LAND TITLE**

6.1 Please provide details and a history of the title including any information on the initial Crown patent and how the Crown obtained such patent.

## **SECTION 7: TIME FRAME**

7.1 Please set out the scheduling proposed for the project and any significant dates.

The EA and design, including Stage 1 Archaeology Assessment and Heritage Impact Assessment are estimated to be completed by the end of 2023.

## **SECTION 8: OTHER PERMITS, LICENCES AND/OR APPROVALS**

8.1 Please provide details with respect to any other permits, licences and/or approvals which the Applicant is seeking for the project from any municipal, provincial and/or federal authority.

## **SECTION 9: APPLICATION FEE**

9.1 An application fee is enclosed in the amount of \$ 3,000 on the basis that the cost of the proposed project is:

- Less than \$300,000 (fee of \$3,000)
- Greater than \$300,000 but less than \$500,000 (fee of \$5,000)
- Greater than or equal to \$500,000 (fee of \$7,000)

## **SECTION 10: OTHER INFORMATION**

10.1 The HDI reserves the right to request such other information as it deems necessary in its sole discretion to process this application.

## SECTION 11: FORM OF APPLICATION

11.1 This form is provided for information purposes and requests the minimal information required to process an application. An applicant is free to amend the form as necessary and include such other information as necessary.

11.2 Application is to be provided to:

Haudenosaunee Development Institute

16 Sunrise Court, Suite 417

P.O. Box 714

Ohswegen, Ontario

N0A 1M0

## SECTION 12: SIGNATURE OF APPLICANT

Name of Applicant: **Vicky Wei**

Signature of Applicant: 

Dated this 25 day of April, 2023.

---

**From:** Zandvliet, Samantha  
**Sent:** Tuesday, June 18, 2024 5:11 PM  
**To:** info@hdi.land  
**Cc:** Paliouras, Kosta; Van Riezen, Rhonneke; Grueneis, Karl; greg.frew@mississauga.ca  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - HDI Notice of PIC  
**Attachments:** wolfedale-creek-erosion-control-notice-public-info-centre.pdf; City of Mississauga\_Wolfedale Creek Erosion Control\_Burnhamthorpe Road West to the Credit River

Hello,

The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

I have also attached our previous correspondence that includes a copy of the signed Application For Consideration and Engagement for Development and initial Notice of Commencement for your reference.

Please let our project team know if you have any questions or comments regarding this project.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

**AECOM**  
45 Goderich Road, Suite 201  
Hamilton, ON L8E 4W8, Canada  
T +1-905-578-3040  
[aecom.com](http://aecom.com)

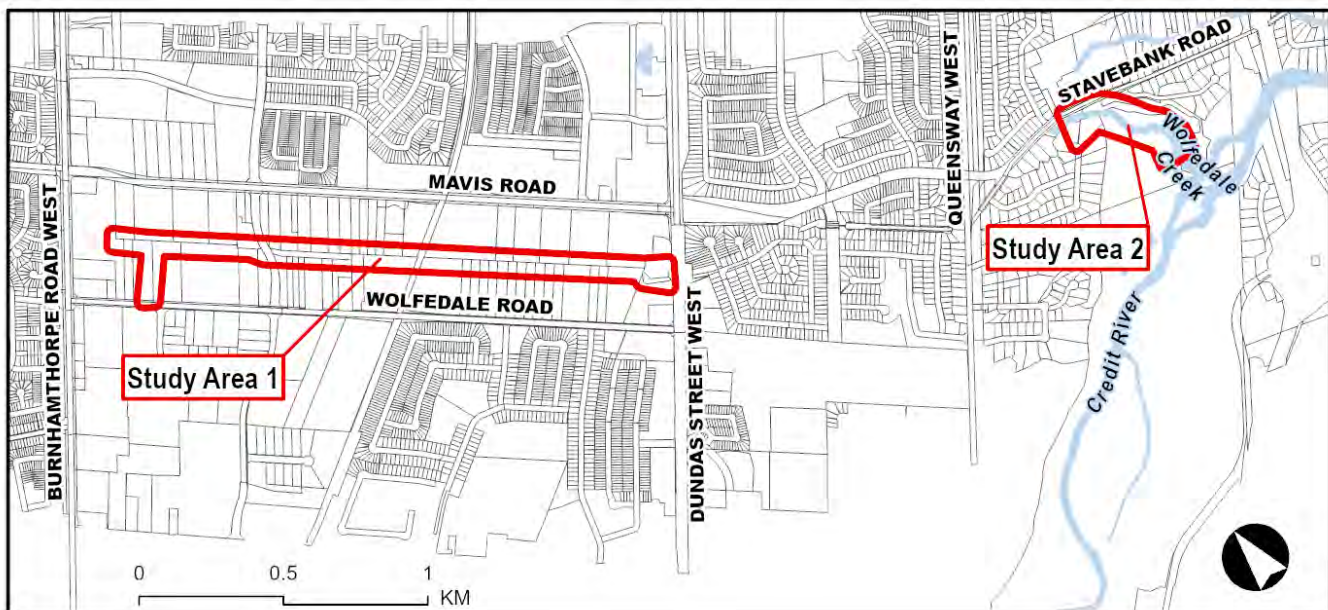
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## Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

### What?

The City of Mississauga (the City) is undertaking a Schedule B Municipal Class Environmental Assessment Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### Why?

The City recognizes that the above identified sections (Study Areas 1 and 2) of Wolfedale Creek are in need of rehabilitation to remediate existing bank stability and erosion issues and to improve safety.

### How?

- The Study characterized these sections of Wolfedale Creek and associated natural resources to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- Through the Class EA process, various alternative solutions are being developed and evaluated by the Study Team and will be refined through public and agency consultation (see below). The Study Team will then select a preferred erosion control and restoration strategy and proceed with design of the recommended works
- A Project File documenting the planning process will be available for public review at the end of the Study.

### Public Consultation

- Consultation is an essential part of the EA process. The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- Online public engagement has been arranged to allow local residents, landowners and interested members

# City of Mississauga

## Notice of Public Information Centre



### Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

of the public an opportunity to review and comment on the project findings to date, the alternative solutions being considered, the evaluation process, the preliminary preferred solution, and the next steps.

- An online Public Information Centre will be made available on the City's project website below beginning **June 18th 2024**:

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

- Feedback is encouraged and comments are requested by **July 18, 2024**. A comment form is available on the project website above. Input gathered through the online public engagement will be used to support the EA study.
- If you have comments or questions, require further information or would like to be added to the Study mailing list to receive future notifications, please contact:

**Greg Frew, P.Eng.**

City Project Manager

City of Mississauga

300 City Centre Drive

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3362

[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)

**Kosta Paliouras, P.Eng.**

Consultant Project Manager

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[Kosta.Paliouras@aecom.com](mailto:Kosta.Paliouras@aecom.com)

*This notice signals the Notice of Public Information Centre for this Municipal Class Environmental Assessment, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario Environmental Assessment Act.*

*Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.*

This notice first issued on **June 18, 2024**.

**AECOM**

# Huron-Wendat Nation



---

**From:** Zandvliet, Samantha  
**Sent:** Friday, April 21, 2023 1:48 PM  
**To:** Lori-Jeanne.Bolduc@wendake.ca  
**Cc:** Mario.GrosLouis@wendake.ca; dominic.ste-marie@wendake.ca;  
Vicky.Wei@mississauga.ca; Paliouras, Kosta; Van Riezen, Rhonneke; Grueneis, Karl  
**Subject:** City of Mississauga Wolfedale Creek Erosion Control Project - Notice of Study  
Commencement  
**Attachments:** L-2023-04-21-City of Mississauga\_Wolfedale Creek Erosion Control\_NoC\_Huron-  
Wendat Nation-60701082.pdf; City of Mississauga\_Wolfedale Creek Erosion  
Control\_Notice of Commencement\_Final.pdf

Hello Lori-Jeanne,

The City of Mississauga has initiated a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River. Please find attached letter introducing the study along with the Notice of Study Commencement for further information.

Please let me know if you have any questions. We look forward to hearing back from you.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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T +1-905-578-3040  
[aecom.com](http://aecom.com)

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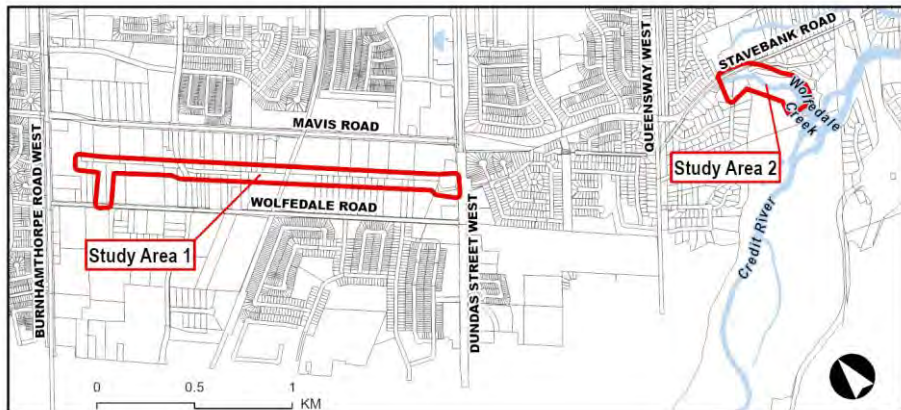


## CITY OF MISSISSAUGA – NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment Study:  
 Wolfedale Creek Erosion Control Project  
 from Burnhamthorpe Road West to the Credit River

### WHAT?

- The City of Mississauga (the City) has initiated a Schedule B Municipal Class Environmental Assessment (Class EA) Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### WHY?

- The City recognizes that these sections of Wolfedale Creek are in need of rehabilitation to remediate existing erosion issues and improve safety.

### HOW?

- The Study will characterize these sections of Wolfedale Creek to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- The Class EA process will involve identifying and evaluating various alternative solutions to determine the preferred erosion control and restoration strategy that will be presented at a Public Information Centre (PIC).
- A Project File documenting the Class EA process will be available for public review at the end of the study.

### GET INVOLVED!

- The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- A Public Information Centre (PIC) will be held to present the study findings and the alternative solutions being considered, including the preliminary preferred erosion control and restoration strategy. The PIC details will be advertised closer to the date.
- Project information will be made available on the City's project website: [www.mississauga.ca/wolfedalecreekea](http://www.mississauga.ca/wolfedalecreekea)
- If you have comments or questions, require further information or would like to be added to the study mailing list to receive future notifications, please contact:

**Vicky Wei, P.Eng., PMP**  
*Project Manager*  
 City of Mississauga  
 300 City Centre Dr.  
 Mississauga, ON L5B 3C1  
 (905) 615-3200, ext. 3017  
[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**  
*Consultant Project Manager*  
 AECOM Canada Ltd.  
 5080 Commerce Blvd.  
 Mississauga, ON L4W 4P2  
 (905) 578-4129  
[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

This notice signals the commencement of the Class EA, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario *Environmental Assessment Act*.

Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.

April 21, 2023

**Our Reference**  
60701082**EMAIL ONLY**Lori-Jeanne Bolduc  
Nation Huronne-Wendat  
255 Pl. Chef Michel Laveau  
Wendake, QC G0A 4V0**Wolfedale Creek Erosion Control Project from Burnhamthorpe Road West to the Credit River  
Municipal Class Environmental Assessment – Schedule B  
Project Introduction**

Dear Lori-Jeanne Bolduc:

The City of Mississauga has initiated a Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River. The Notice of Study Commencement has been provided under a separate cover.

**Potential Involvement of Your Community**

As we proceed with the Municipal Class Environmental Assessment process, the project team is asking for your input in determining the extent that your community would like to be involved in this process. We recognize that you may have an interest in the Project and may request to receive more information. As the study progresses, the project team can share the results of the analyses that may be of interest to your community (e.g., archaeological assessment, natural environmental report). Your input and feedback are important to us as we would like to know of any issues or concerns your community members may have.

Work to be completed during the Municipal Class Environmental Assessment study that may be of interest to your community includes:

- Natural Environment Report
- Tree Inventory and Preservation Plan
- Stage 1 Archaeological Assessment Report
- Heritage Impact Assessment
- Fluvial Geomorphic Assessment
- Consultation

The project team may also engage with your community during the design phase should there be permits that require further consultation (e.g., any permit under the Endangered Species Act).

**Next Steps**

If you would like to participate in this study, please tell us how your community would like to be engaged and involved (e.g. information sharing or meeting to discuss the project).

We kindly ask that any questions or comments regarding this study are submitted to the Project Managers.

**Vicky Wei, P.Eng., PMP**

*Project Manager*

City of Mississauga

300 City Centre Dr.

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3017

[Vicky.Wei@mississauga.ca](mailto:Vicky.Wei@mississauga.ca)

**Kosta Paliouras, P.Eng.**

*Consultant Project Manager*

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)

Yours sincerely,



Samantha Zandvliet

Environmental Planner

AECOM Canada Ltd.

E: [Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)

cc: Vicky Wei, City Project Manager, City of Mississauga  
Kosta Paliouras, Consultant Project Manager, AECOM Canada Ltd.  
Rhoneke Van Riezen, Senior Fluvial Geomorphologist, AECOM Canada Ltd.  
Karl Grueneis, Senior Environmental Planner, AECOM Canada Ltd.

---

**From:** Zandvliet, Samantha  
**Sent:** Wednesday, August 14, 2024 2:11 PM  
**To:** Marie-Sophie Gendron  
**Cc:** greg.frew@mississauga.ca; Paliouras, Kosta; Van Riezen, Rhonneke; Grueneis, Karl; Pearce, Sherri; Caroline Therrien  
**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Hello Marie-Sophie,

We do not have the duration details of the stage 2 work confirmed at this time. Our project team will reach out at a later date when this information is available to coordinate your participation and you can also provide your quote for the stage 2 work at that time.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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[aecom.com](http://aecom.com)

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---

**From:** Greg Frew <Greg.Frew@mississauga.ca>  
**Sent:** Friday, August 9, 2024 4:27 PM  
**To:** Marie-Sophie Gendron <Marie-Sophie.Gendron@wendake.ca>; Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>  
**Cc:** Paliouras, Kosta <kosta.paliouras@aecom.com>; Van Riezen, Rhonneke <Rhoneke.VanRiezen@aecom.com>; Grueneis, Karl <Karl.Grueneis@aecom.com>; Pearce, Sherri <Sherri.Pearce@aecom.com>; Caroline Therrien <Caroline.Therrien@wendake.ca>  
**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

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Hello Marie-Sophie.

Hope you are well too.  
Confirming receipt of the invoice. I'll review and process it in the coming days.

Thanks,  
Greg.



**Greg Frew, P.Eng.**

Stormwater Drainage Engineer, Environmental Services  
Infrastructure Planning and Engineering Services Division  
Transportation and Works Department  
City of Mississauga

☎ 905.615.3200 ext. 3362

✉ [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

🌐 [www.mississauga.ca](http://www.mississauga.ca)

---

**From:** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Sent:** Thursday, August 8, 2024 2:46 PM

**To:** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Cc:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>;  
Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>; Caroline Therrien  
<[Caroline.Therrien@wendake.ca](mailto:Caroline.Therrien@wendake.ca)>

**Subject:** [EXTERNAL] RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

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Kwe Greg,

I hope you are doing well. Please find attached the invoice for our revision of the Stage 1 AA report for Wolfedale Creek Erosion Control Project.

Önenh,  
Marie-Sophie



**NATION HURONNE-WENDAT**  
BUREAU DU NIONWENTSİO

---

**Marie-Sophie Gendron**  
Analyste archéologue

255, place Chef Michel Laveau  
Wendake (QC) G0A 4V0  
T : 418 843-3767  
@ : [marie-sophie.gendron@wendake.ca](mailto:marie-sophie.gendron@wendake.ca)

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---

**De :** Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>

**Envoyé :** 30 juillet 2024 11:17

**À :** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Cc :** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>; Dominique Lesage <[Dominique.Lesage@wendake.ca](mailto:Dominique.Lesage@wendake.ca)>

**Objet :** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Hi Marie-Sophie.

Please find attached the approved quote for the Stage 1 AA report review.

Thanks,  
Greg.



**Greg Frew, P.Eng.**

Stormwater Drainage Engineer, Environmental Services  
Infrastructure Planning and Engineering Services Division  
Transportation and Works Department  
City of Mississauga

☎ 905.615.3200 ext. 3362

✉ [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

🌐 [www.mississauga.ca](http://www.mississauga.ca)

---

**From:** Greg Frew

**Sent:** Tuesday, July 30, 2024 11:01 AM

**To:** 'Marie-Sophie Gendron' <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>; Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Cc:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>; Dominique Lesage <[Dominique.Lesage@wendake.ca](mailto:Dominique.Lesage@wendake.ca)>

**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Good morning Marie-Sophie.

My apologies – I missed your original email with the quote for review of the Stage 1 report. The City is the project proponent, so I will sign and approve the quote. I should be able to get that back to you very shortly.

I'll let Samantha confirm the duration of the Stage 2 work.

Thanks,  
Greg.



**Greg Frew, P.Eng.**

Stormwater Drainage Engineer, Environmental Services  
Infrastructure Planning and Engineering Services Division  
Transportation and Works Department  
City of Mississauga

☎ 905.615.3200 ext. 3362

✉ [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)  
🌐 [www.mississauga.ca](http://www.mississauga.ca)

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**From:** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>  
**Sent:** Tuesday, July 30, 2024 10:15 AM  
**To:** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
**Cc:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>;  
Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; Greg Frew <[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)>; Pearce, Sherri  
<[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>; Dominique Lesage <[Dominique.Lesage@wendake.ca](mailto:Dominique.Lesage@wendake.ca)>  
**Subject:** [EXTERNAL] RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

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Kwe Samantha,

I hope you are doing well. I wanted to follow-up with you about this project. Could you confirm with me if the quote was approved for the review of the Stage 1 AA report?

Also, could you confirm the estimated duration of the Stage 2 AA?

Tiawenhk,  
Marie-Sophie



**NATION HURONNE-WENDAT**  
BUREAU DU NIONWENTSĪO

---

**Marie-Sophie Gendron**  
Analyste archéologue

255, place Chef Michel Laveau  
Wendake (QC) G0A 4V0  
T : 418 843-3767  
@ : [marie-sophie.gendron@wendake.ca](mailto:marie-sophie.gendron@wendake.ca)

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---

**De :** Marie-Sophie Gendron  
**Envoyé :** 4 juillet 2024 14:37  
**À :** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>  
**Cc :** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>;  
Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca); Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>;  
Dominique Lesage <[Dominique.Lesage@wendake.ca](mailto:Dominique.Lesage@wendake.ca)>  
**Objet :** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Kwe Samantha,

Thank you for your email. Please find attached a quote for our participation on this revision of the Stage 1 AA report.

Also, could you tell me the estimated duration of the Stage 2 AA? I will be able to prepare a quote for our participation.

Tiawenhk,  
Marie-Sophie



**NATION HURONNE-WENDAT**  
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---

**Marie-Sophie Gendron**  
Analyste archéologue

255, place Chef Michel Laveau  
Wendake (QC) G0A 4V0  
T : 418 843-3767  
@ : [marie-sophie.gendron@wendake.ca](mailto:marie-sophie.gendron@wendake.ca)

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---

**De :** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Envoyé :** 3 juillet 2024 10:15

**À :** Lori-Jeanne Bolduc <[Lori-Jeanne.Bolduc@wendake.ca](mailto:Lori-Jeanne.Bolduc@wendake.ca)>

**Cc :** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>;  
Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca); Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>

**Objet :** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Hi Lori-Jeanne,

A Stage 1 Archaeological Assessment Report has been completed. I have attached a copy for your reference. We also invite Nation Huronne-Wendat to participate in the recommended future Stage 2 archaeological assessment. Please send me a copy of your Nation's monitoring agreement if you would like to be engaged when this work is being undertaken.

Thank you also for providing the updated email address for future notifications.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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T +1-905-578-3040  
[aecom.com](http://aecom.com)



---

**From:** Lori-Jeanne Bolduc <[Lori-Jeanne.Bolduc@wendake.ca](mailto:Lori-Jeanne.Bolduc@wendake.ca)>

**Sent:** Thursday, June 27, 2024 10:44 AM

**To:** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Cc:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Hi,

Thank you for your email. Could you please let us know if any archaeological studies or fieldwork will take place for this project?

Also, please note that we have updated our way of processing consultations. Any new consultation or project notice must be sent to the following email address: [consultations@wendake.ca](mailto:consultations@wendake.ca). We also kindly ask that you remove any other email address that you have on file from all your mailing lists.

Tiawenhk,

## NATION HURONNE-WENDAT

Bureau du Nionwentsïo

---

**Lori-Jeanne Bolduc, M.ATDR**

Analyste en aménagement du territoire

255, place Chef Michel Laveau

Wendake (QC) G0A 4V0

T : 418 843-3767

@ : [lori-jeanne.bolduc@wendake.ca](mailto:lori-jeanne.bolduc@wendake.ca)

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---

**De :** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Envoyé :** 18 juin 2024 16:43

**À :** Lori-Jeanne Bolduc <[Lori-Jeanne.Bolduc@wendake.ca](mailto:Lori-Jeanne.Bolduc@wendake.ca)>

**Cc :** Mario Gros Louis <[Mario.GrosLouis@wendake.ca](mailto:Mario.GrosLouis@wendake.ca)>; Dominic Ste-Marie <[Dominic.Ste-Marie@wendake.ca](mailto:Dominic.Ste-Marie@wendake.ca)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

**Objet :** City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

You don't often get email from [samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com). [Learn why this is important](#)

Hello Lori-Jeanne,

The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

I have also attached our previous notice of commencement for your reference.

Please let our project team know if you have any questions or comments regarding this project.

Thank you,

**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting

M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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[aecom.com](http://aecom.com)

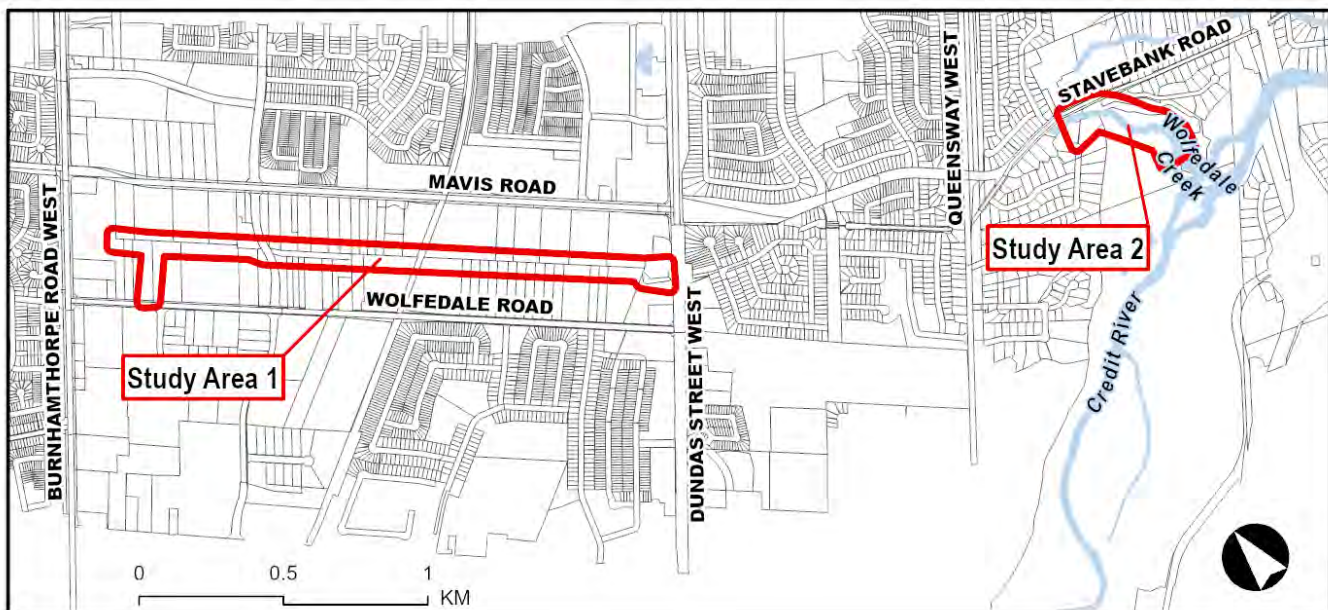
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## Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

### What?

The City of Mississauga (the City) is undertaking a Schedule B Municipal Class Environmental Assessment Study for erosion control and restoration of Wolfedale Creek between Burnhamthorpe Road West and the Credit River.



### Why?

The City recognizes that the above identified sections (Study Areas 1 and 2) of Wolfedale Creek are in need of rehabilitation to remediate existing bank stability and erosion issues and to improve safety.

### How?

- The Study characterized these sections of Wolfedale Creek and associated natural resources to identify existing problems, potential risks, and opportunities for restoration and safety improvements.
- Through the Class EA process, various alternative solutions are being developed and evaluated by the Study Team and will be refined through public and agency consultation (see below). The Study Team will then select a preferred erosion control and restoration strategy and proceed with design of the recommended works
- A Project File documenting the planning process will be available for public review at the end of the Study.

### Public Consultation

- Consultation is an essential part of the EA process. The City would like anyone with an interest in the Study to have an opportunity to provide input and help inform the decision-making process.
- Online public engagement has been arranged to allow local residents, landowners and interested members

# City of Mississauga

## Notice of Public Information Centre



### Municipal Class Environmental Assessment Study: Wolfedale Creek Erosion Control Project - Burnhamthorpe Road West to the Credit River

of the public an opportunity to review and comment on the project findings to date, the alternative solutions being considered, the evaluation process, the preliminary preferred solution, and the next steps.

- An online Public Information Centre will be made available on the City's project website below beginning **June 18th 2024**:

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

- Feedback is encouraged and comments are requested by **July 18, 2024**. A comment form is available on the project website above. Input gathered through the online public engagement will be used to support the EA study.
- If you have comments or questions, require further information or would like to be added to the Study mailing list to receive future notifications, please contact:

**Greg Frew, P.Eng.**

City Project Manager

City of Mississauga

300 City Centre Drive

Mississauga, ON L5B 3C1

(905) 615-3200, ext. 3362

[Greg.Frew@mississauga.ca](mailto:Greg.Frew@mississauga.ca)

**Kosta Paliouras, P.Eng.**

Consultant Project Manager

AECOM Canada Ltd.

5080 Commerce Blvd.

Mississauga, ON L4W 4P2

(905) 578-4129

[Kosta.Paliouras@aecom.com](mailto:Kosta.Paliouras@aecom.com)

*This notice signals the Notice of Public Information Centre for this Municipal Class Environmental Assessment, a study which will define the problem, identify/evaluate alternative solutions, and determine a preferred design in consultation with regulatory agencies and the public. The study is being undertaken in accordance with the planning and design process for Schedule 'B' projects, as outlined in the "Municipal Class Environmental Assessment" document (as amended in 2023), which is approved under the Ontario Environmental Assessment Act.*

*Personal information is collected under the authority of the Environmental Assessment Act and will be used in the assessment process. With exception of personal information, all comments shall become part of the public records. Questions about this collection should be directed to the Project Manager listed above.*

This notice first issued on **June 18, 2024**.

---

**From:** Marie-Sophie Gendron <Marie-Sophie.Gendron@wendake.ca>  
**Sent:** Tuesday, July 30, 2024 2:38 PM  
**To:** Zandvliet, Samantha  
**Cc:** Paliouras, Kosta; Van Riezen, Rhonneke; Grueneis, Karl; greg.frew@mississauga.ca; Pearce, Sherri  
**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC  
**Attachments:** 20240723 Response Letter Wolfedale Creek Erosion Control Project\_sign.pdf

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Report Suspicious

Kwe Samantha,

Please find attached a letter from the Huron-Wendat Nation about the Stage 1 AA report for the Wolfedale Creek Erosion Control Project.

Önenh,  
Marie-Sophie



**NATION HURONNE-WENDAT**  
BUREAU DU NIONWENTSİO

---

**Marie-Sophie Gendron**  
Analyste archéologue

255, place Chef Michel Laveau  
Wendake (QC) G0A 4V0  
T : 418 843-3767  
@ : [marie-sophie.gendron@wendake.ca](mailto:marie-sophie.gendron@wendake.ca)

**WENDAKE.CA**

---

**De :** Marie-Sophie Gendron

**Envoyé :** 30 juillet 2024 10:15

**À :** Zandvliet, Samantha <Samantha.Zandvliet@aecom.com>

**Cc :** Paliouras, Kosta <kosta.paliouras@aecom.com>; Van Riezen, Rhonneke <Rhoneke.VanRiezen@aecom.com>; Grueneis, Karl <Karl.Grueneis@aecom.com>; greg.frew@mississauga.ca; Pearce, Sherri <Sherri.Pearce@aecom.com>; Dominique Lesage <Dominique.Lesage@wendake.ca>

**Objet :** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Kwe Samantha,

I hope you are doing well. I wanted to follow-up with you about this project. Could you confirm with me if the quote was approved for the review of the Stage 1 AA report?

Also, could you confirm the estimated duration of the Stage 2 AA?

Tiawenhk,  
Marie-Sophie



**NATION HURONNE-WENDAT**  
BUREAU DU NIONWENTSĪO

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**Marie-Sophie Gendron**  
Analyste archéologue

255, place Chef Michel Laveau  
Wendake (QC) G0A 4V0  
T : 418 843-3767  
@ : [marie-sophie.gendron@wendake.ca](mailto:marie-sophie.gendron@wendake.ca)

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**De :** Marie-Sophie Gendron

**Envoyé :** 4 juillet 2024 14:37

**À :** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Cc :** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>;  
Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca); Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>;  
Dominique Lesage <[Dominique.Lesage@wendake.ca](mailto:Dominique.Lesage@wendake.ca)>

**Objet :** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Kwe Samantha,

Thank you for your email. Please find attached a quote for our participation on this revision of the Stage 1 AA report.

Also, could you tell me the estimated duration of the Stage 2 AA? I will be able to prepare a quote for our participation.

Tiawenhk,  
Marie-Sophie



**NATION HURONNE-WENDAT**  
BUREAU DU NIONWENTSĪO

---

**Marie-Sophie Gendron**  
Analyste archéologue

255, place Chef Michel Laveau  
Wendake (QC) G0A 4V0  
T : 418 843-3767  
@ : [marie-sophie.gendron@wendake.ca](mailto:marie-sophie.gendron@wendake.ca)

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**De :** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Envoyé :** 3 juillet 2024 10:15

**À :** Lori-Jeanne Bolduc <[Lori-Jeanne.Bolduc@wendake.ca](mailto:Lori-Jeanne.Bolduc@wendake.ca)>

**Cc :** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>;  
Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca); Pearce, Sherri <[Sherri.Pearce@aecom.com](mailto:Sherri.Pearce@aecom.com)>

**Objet :** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Hi Lori-Jeanne,

A Stage 1 Archaeological Assessment Report has been completed. I have attached a copy for your reference. We also invite Nation Huronne-Wendat to participate in the recommended future Stage 2 archaeological assessment. Please send me a copy of your Nation's monitoring agreement if you would like to be engaged when this work is being undertaken.

Thank you also for providing the updated email address for future notifications.

Thank you,

**Samantha Zandvliet**  
Environmental Planner, Impact Assessment and Permitting  
M +1-437-428-7519  
[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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[aecom.com](http://aecom.com)

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**From:** Lori-Jeanne Bolduc <[Lori-Jeanne.Bolduc@wendake.ca](mailto:Lori-Jeanne.Bolduc@wendake.ca)>

**Sent:** Thursday, June 27, 2024 10:44 AM

**To:** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Cc:** Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>;

Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

**Subject:** RE: City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

Hi,

Thank you for your email. Could you please let us know if any archaeological studies or fieldwork will take place for this project?

Also, please note that we have updated our way of processing consultations. Any new consultation or project notice must be sent to the following email address: [consultations@wendake.ca](mailto:consultations@wendake.ca). We also kindly ask that you remove any other email address that you have on file from all your mailing lists.

Tiawenhk,

## NATION HURONNE-WENDAT

Bureau du Nionwentsïo

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**Lori-Jeanne Bolduc, M.ATDR**

Analyste en aménagement du territoire

255, place Chef Michel Laveau

Wendake (QC) G0A 4V0

T : 418 843-3767

@ : [lori-jeanne.bolduc@wendake.ca](mailto:lori-jeanne.bolduc@wendake.ca)

WENDAKE.CA



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**De :** Zandvliet, Samantha <[Samantha.Zandvliet@aecom.com](mailto:Samantha.Zandvliet@aecom.com)>

**Envoyé :** 18 juin 2024 16:43

**À :** Lori-Jeanne Bolduc <[Lori-Jeanne.Bolduc@wendake.ca](mailto:Lori-Jeanne.Bolduc@wendake.ca)>

**Cc :** Mario Gros Louis <[Mario.GrosLouis@wendake.ca](mailto:Mario.GrosLouis@wendake.ca)>; Dominic Ste-Marie <[Dominic.Ste-Marie@wendake.ca](mailto:Dominic.Ste-Marie@wendake.ca)>; Paliouras, Kosta <[kosta.paliouras@aecom.com](mailto:kosta.paliouras@aecom.com)>; Van Riezen, Rhonneke <[Rhoneke.VanRiezen@aecom.com](mailto:Rhoneke.VanRiezen@aecom.com)>; Grueneis, Karl <[Karl.Grueneis@aecom.com](mailto:Karl.Grueneis@aecom.com)>; [greg.frew@mississauga.ca](mailto:greg.frew@mississauga.ca)

**Objet :** City of Mississauga Wolfedale Creek Erosion Control Project - HWFN Notice of PIC

You don't often get email from [samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com). [Learn why this is important](#)

Hello Lori-Jeanne,

The City of Mississauga is currently completing a Schedule B Municipal Class Environmental Assessment study for erosion control and restoration of Wolfedale Creek from Burnhamthorpe Road West to the Credit River.

An online Public Information Centre is available on the City's project website below. Please find attached the Notice of Public Information Centre for further information.

<https://www.mississauga.ca/projects-and-strategies/environmental-assessments/wolfedale-creek-erosion-control/>

I have also attached our previous notice of commencement for your reference.

Please let our project team know if you have any questions or comments regarding this project.

Thank you,



**Samantha Zandvliet**

Environmental Planner, Impact Assessment and Permitting

M +1-437-428-7519

[samantha.zandvliet@aecom.com](mailto:samantha.zandvliet@aecom.com)

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**BUREAU DU  
NIONWENTSÏO**

255, PLACE CHEF MICHEL LAVEAU  
WENDAKE (QUÉBEC) GOA 4V0

T. 418 842-3767 | WENDAKE.CA

**WITHOUT PREJUDICE**

Wendake, July 24<sup>th</sup>, 2024

Samantha Zandvliet  
Environmental Planner, Impact Assessment and Permitting  
AECOM  
45 Goderich Road, Suite 201  
Hamilton, ON, L8E 4W8

---

**Subject: City of Mississauga Wolfedale Creek Erosion Control Project - Stage 1  
Archaeological Assessment Report Revision**

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Kwe Mrs. Zandvliet,

This letter refers to the subject above and follows the email addressed to Lori-Jeanne Bolduc on June 18<sup>th</sup>, 2024.

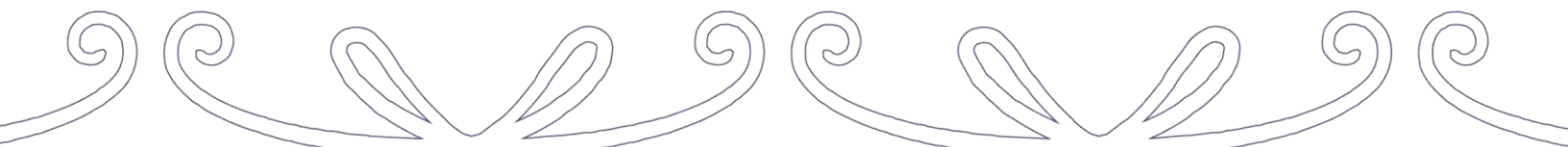
Regarding this consultation, the Huron-Wendat Nation wishes to submit some more specific comments. Please find them in the annex below.

If you have any questions, please address them directly to Marie-Sophie Gendron at [marie-sophie.gendron@wendake.ca](mailto:marie-sophie.gendron@wendake.ca).

Please accept, Mrs. Zandvliet, assurances of my highest consideration.

A handwritten signature in black ink, appearing to read "Vincent Bourret".

Vincent Bourret  
Director of the Bureau du Nionwentsïo



## Annex 1 – Specific comments on the consultation

We have reviewed the Stage 1 Archaeological Assessment report for the Wolfedale Creek Erosion Control Project and found most of it satisfactory. However, we do have some comments to share.

In Section 1.2.1 *Pre-Contact Indigenous Settlement*, subsection *The Woodland Period* we can read :

“Between AD 1300 and 1400, village sizes grew significantly, resulting in the development of complex community political systems. This period also marks the emergence of fully developed horticulture, including the cultivation of corn, beans, and squash. Additionally, changes in ceramic styles may reflect increasing levels of inter-community communication and integration. This is supported by Michi Saagiig (Mississauga Anishinaabeg) oral histories, which speak to the coming of the corn growers and the symbiotic relationships that Algonkian speaking groups had with the Huron-Wendat in particular.”

We want to stress that the HWN does not agree with the Michi Saagiig oral tradition and its portrayal of our history. We understand that it is their position, but their text is not in accordance with what we understand of our own past based on various sources, both archaeological and from oral tradition. Thus, we ask that the information coming from oral traditions be included separately from the information based on archaeological and historical research.

Also, in Section 1.2.2 *Post Contact Period Settlement* we can read:

“The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of Iroquoian-speaking peoples, including the Six Nations of the Iroquois – Mohawk, Cayuga, Oneida, Seneca, Onondaga, and Tuscarora. This was followed by the return of Algonkian-speaking groups from northern Ontario, including the Michi Saagiig, who had temporarily retreated to their wintering grounds in the mid-1600s to avoid warfare and disease as a result of colonial settlement.”

We find it odd that the Huron-Wendat Nation is not mentioned.

