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## **APPENDIX H**

### **Consultation**

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# APPENDIX H

## CONSULTATION SUMMARY

### 1 Agency NOC Responses

The following agency emails were received following the Notice of Commencement (NOC) on December 18, 2023 (Appendix H1a). Copies of the emailed responses are appended in Appendix H1b.

Agency	Date	Contact information
Ministry of Natural Resources and Forestry	January 3, 2024	Matthew Shakespeare Regional Lands Intern, Regional Resources Advisory Team Ministry of Natural Resources and Forestry, Southern Region (705) 772-9310 <a href="mailto:matthew.shakespeare@ontario.ca">matthew.shakespeare@ontario.ca</a>
HydroOne	January 16, 2024	SUN Hongxia <Susan.SUN@HydroOne.com> On behalf of: <Department.SecondaryLandUse@hydroone.com> Secondary Land Use Asset Optimization Strategy & Integrated Planning Hydro One Networks Inc.
Ministry of the Environment, Conservation and Parks (MECP)	January 2, 2024	Chunmei Liu Regional Environmental Planner – Central Region Project Review Unit, Environmental Assessment Branch

### 2 Resident NOC Comments

The following resident emails were received following the Notice of Commencement on December 18, 2023. Copies of the emailed responses are appended in Appendix H1c.

Name	Address	Date	Comment
Mohsen Daynouri	1196 Lambeth Rd.	March 1, 2024	Hi There,  I'm the owner of 1196 Lambeth Rd. My property is a ravine lot facing Morrison Creek and received the notice about the erosion situation and upcoming study.  I wanted to ensure I'm kept in the loop and also enquire to see if there are any current signs indicating this erosion might affect the normal use of backyard such as mine or if this erosion will have any potential impact on the building/structure of homes like mine facing the ravine.  Thank you in advance.  Regards, Mohsen D. 647-781-8142

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Name	Address	Date	Comment
Forrest Hu	1200 Lambeth Rd.	March 30, 2024	<p>Hello Jing and Roger,</p> <p>I have received a "Notice of Studay Commencement" letter regarding the study of East Morrision Creek Erosion Mitigation.</p> <p>I have contacted your colleague Diana for reflecting the significant change behind my house at 1200 Lambeth Road.</p> <p>I am forwarding the email with some pictures for you reference.</p> <p>When we moved in 1200 lambeth road back in 2015, there were several giant trees standing from the backyard. However, the biggest one (between 1200 and 1202) felt down in 2018 spring and now it has just partially left. The other trees are there still but noticeable erosion can be found around the root of the trees and this make it more dangerous to lost these tress in the near future.</p> <p>There is a retaining wall behind along the creek, but it was built and stopped between 1202 and 1200 and this makes the erosion getting worse among the past years. I request the working team for considering to extend the retaining wall going through 1200 so to mitigate the situation.</p> <p>Thank you and best regards, Forrest Hu</p>
	Matrix response	April 18, 2024	See appended email
	Resident response	July 29, 2024	See appended email
	Town response	September 9, 2024	See appended email
Olena Avdyukova	1483 Litchfield Rd, Oakville	June 12, 2024	<p>Hello Jing and Roger, hope you're doing well.</p> <p>I'm the resident of 1483 Litchfield Rd in Oakville, our backyard is facing the creek/ravine. The edge is pretty close to the path and the water channel bend is right there beneath.</p> <p>Would you be able to provide information on erosion about this portion of the creek and overall?</p> <p>Thank you, Olena Avdyukova</p>
	Town response	July 5, 2024	See appended email

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#### 3 Utility Responses

The following utility responses were received following receipt of the letter “Existing Utility and Regional Infrastructure Verification, East Morrison Creek Erosion Mitigation Study Schedule ‘B’ Municipal Class Environmental Assessment, Oakville, Ontario” sent on January 9, 2024. Copies of the emailed responses are appended in Appendix H2.

Agency	Date	Contact information
CER Pipeline	March 20, 2024	Nelson Mendes Senior Regional Land Representative Maple-Niagara Region Land Canada 86 Healey Road, Bolton, ON L7E 5A7 nelson_mendes@tcenergy.com
COGECO	January 18, 2024	JOE MEDEIROS Network Delivery Coordinator South Oakville T-(289)-337-7000 EX 7670 C-(905) 630-6039 joe.medeiros@cogeco.com
Enbridge	January 17, 2024	Dave Gadbois Dave.Gadbois@enbridge.com
HCE Telecom	January 17, 2024	Paul Syrett Field Services Supervisor Direct: 289-244-0599 21 King Street W   Suite 1400, Hamilton, ON, L8P 4W7 paul.syrett@hcetelecom.com
Rogers	January 17, 2024	Travis Graham Sr. Analyst, Campaign Management Rogers Communications Canada Inc. 333 Bloor Street East, 8th Floor, Toronto, ON M4W 1G9 o: 416-913-1243   m: 647-244-7837 Email: travis.graham@rci.rogers.com
Telecon	January 26, 2024	Moxa Shah CAD, Engineering - Central Canada E : Moxa.Shah@telecon.ca 7777 Weston Rd, Woodbridge (Ontario) L4L 0G9 telecon.ca

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### 4 PIC #1 Comments

The following comments were collected at the PIC #1 on September 17, 2024. The comment form is appended in Appendix H3.

Name	Comment
Kirby Jones	Most welcoming, knowledgeable, affable, enjoyable to meet and explore the study with.

### 5 PIC #2 Comments

The following comments were received through online submission following PIC #2 on June 11, 2025. The comment table is appended in Appendix H4.

Name	Date	Comment
Bret Timmis	June 17, 2025	Please optimize work to minimize removal of mature trees. Post construction tree planting should prioritize white pine which has negligible juvenile population in this valley.

The following resident responses were received by email prior to or following the PIC. Copies of the emailed responses are appended in Appendix H4.

Name	Date	Comment
Charlotte Russel	June 9, 2025	<p>Hello –</p> <p>Just wondering whether anyone is looking into the draining of pools on the east side of Morrison Creek, south of Upper Middle?</p> <p>We walk daily on the trail on the east side and, particularly in the spring, have noticed that a number of owners appear to be draining their pools out the back of their properties and it is eroding the trail (and pooling) and therefore probably going down the hill to the creek. Not sure of the impact to the creek walls, but the trail stays muddy for weeks.</p> <p>Thanks - Charlotte</p>
Forrest Hu	June 12, 2025	<p>Hello Jing,</p> <p>It is unfortunately that I was not able to present PIC last night as my wife was sick since Monday.</p> <p>I was wondering if any significant information I might be missing or any information about 1200 Lambeth Rd you require further from me ?</p> <p>Thank you and Best Regards, Forrest</p>
Jamie Reddekopp	June 15, 2025	<p>Hi Jing,</p> <p>Unfortunately we were out of town last week when the latest Erosion Study results were shared. The links in the letter we received and in the note below don't appear to be working.</p>

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Name	Date	Comment
		<p>Could you please forward us the material that was covered? What was the outcome of the meeting/next steps?</p> <p>Thank you.                      Jamie Reddekopp                      Resident at 1272 Hillview Cres.</p>

#### 6 Agency Consultation Comments

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Comments received from Conservation Halton and responses are provided in Appendix H5.

#### 7 Indigenous Consultation Responses

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The following responses were received from Indigenous communities to date. Copies of the emailed responses and comments are appended in Appendix H6.

Community	Date	Comment
Six Nations of the Grand River	September 11, 2024	<p>Good morning Jing,</p> <p>Please add my email to future notifications and forward me the alternatives and any natural environmental studies when available. Per MECP guidance, we charge for EA work: \$125 for document review and comment and \$1,250 for meetings.</p> <p>Thank you,</p> <p>Peter Graham                      Consultation Supervisor                      Six Nations of the Grand River Elected Council</p>
Six Nations of the Grand River	June 3, 2025	<p>Good Morning,</p> <p>I am just emailing to request project documents associated with the Oakville East Morrison Creek Erosion Mitigation Study at your earliest convenience. Specifically, Environmental, Cultural and Hydrological documents.</p> <p>Thank you,</p> <p>Niá:wen and Kind regards,</p> <p>Lauren Jones, BSc                      Wildlife and Stewardship Manager, Lands and Resources                      Six Nations of the Grand River Elected Council</p> <p>P (519) 445-0330 ext. 4438                      A 109-1721 Chiefswood Road (P.O. Box 5000), Ohsweken ON NOA 1M0</p>

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Community	Date	Comment
Six Nations of the Grand River	March 9, 2026	<p>Sekon [say-goh] (Hello) Abby,</p> <p>Thank you for reaching out to Six Nations of the Grand River Elected Council (SNGREC) regarding the Town of Oakville's East Morrison Creek Draft ESR Erosion Mitigation EA Study.</p> <p>Included are my environmental comments on behalf of SNGREC regarding this EA study.</p> <p><b>[See Appendix H6 for full list of comments and responses]</b></p> <p>SNGREC requests that if plant species important to indigenous communities (see Six Nations Significant Plant List) are found and may be impacted, proponents contact Kayanase Restoration Company to collaborate on seed and plant collection and rescue. Contact details found later in this document.</p> <p>Kayanase Six Nations Native Plant Nursery and Restoration Company  <a href="https://www.kayanase.ca/">https://www.kayanase.ca/</a>                      By Telephone: 519-770-0013 or 519-732-6668 or 519-751-0568 to contact a Department Lead                      Nursery: <a href="mailto:sales@kayanase.ca">sales@kayanase.ca</a>                      Ecological Services: <a href="mailto:restoration@kayanase.ca">restoration@kayanase.ca</a>                      In Person: Office Hours Monday to Friday: 8am to 4:30pm</p> <p>Thank you for taking my comments. I look forward to hearing and collaborating more on this project. Please do not hesitate to reach out if you have any questions or concerns.</p> <p>Niá:wen (thank you),                      Emmett Vanson, BSc., Grad. Cert. (he/him)                      Land Use and Stewardship Technician                      Six Nations of the Grand River Elected Council - Lands and Resources Department - Consultation and Accommodation Process Team  <a href="mailto:lrlust@sixnations.ca">lrlust@sixnations.ca</a></p>

#### 8 Town Archaeology Comments

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Comments from the Town of Oakville's planning group relating to the archaeology assessment are provided in Appendix H7.

#### 9 Notice of Study Completion

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The Notice of Study Completion is provided in Appendix H8.

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**APPENDIX H1**  
**Notice of Study Commencement (NOC)**

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## **APPENDIX H1a**

### **NOC Documents**

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# Notice of Study Commencement for the East Morrison Creek Erosion Mitigation Study Schedule 'B' Municipal Class Environmental Assessment

Monday, December 18, 2023

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## The study

The Town of Oakville (the town) through Matrix Solutions Inc. has initiated the [East Morrison Creek Erosion Mitigation Study](#) to identify erosion risks within the study area, define the erosion hazards, and develop preferred options to mitigate erosion.

The study area of East Morrison Creek extends from the Morrison-Wedgwood diversion channel, directly east of Oakville Town Hall, upstream to the culvert at Postridge Drive. This area of concern was identified in the 2021 Creek Inventory and Assessment Study.

## The process

This study will follow the planning and design process as defined in the Municipal Engineers Association Municipal Class Environmental Assessment document

(October 2000, as amended in 2007, 2011, 2015, and 2023) as a Schedule B project.

Two public information centres (PICs) are planned to present existing conditions/problem statement, discuss alternative solutions, environmental impacts, evaluation of preferred options and recommendations. PIC dates and details will be advertised as the study progresses.

Results from this study will be documented in an Environmental Study Report that will be made available for a public review period. At that time, residents, Indigenous communities, and other interested persons or groups will be informed of when and where the Environmental Study Report can be reviewed.

## Comments invited

We are interested in hearing any comments or concerns you may have with respect to this study. Comments received through the course of the study will be considered in selecting the preferred option(s). Information will be collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become a part of the public record.

To provide your comments, request additional information, request to be placed on the study mailing list, or if you require this notice to be provided in an alternative format as per the *Accessibility for Ontarians with Disabilities Act (2005)*, please contact:

Jing Liu, P.Eng.  
Water Resources Engineer  
Transportation and Engineering Department  
Town of Oakville  
905-845-6601 ext. 3234  
[Jing.liu@oakville.ca](mailto:Jing.liu@oakville.ca)

Roger Phillips, Ph.D., P.Geo.  
Project Manager, Geomorphologist  
Matrix Solutions Inc.  
226-314-1950  
[rphillips@matrix-solutions.com](mailto:rphillips@matrix-solutions.com)

This notice was first issued on December 18, 2023.

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# APPENDIX H1b

## Agency Responses

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Ministry of the Environment,  
Conservation and Parks

Ministère de l'Environnement, de la  
Protection de la nature et des Parcs



Environmental Assessment  
Branch

Direction des évaluations  
environnementales

7th Floor  
135 St. Clair Avenue W  
Toronto ON M4V 1P5  
Tel.: 416 314-8001  
Fax.: 416 314-8452

7ème étage  
135, avenue St. Clair Ouest  
Toronto ON M4V 1P5  
Tél. : 416 314-8001  
Télééc. : 416 314-8452

January 2, 2024

Jing Liu, P.Eng.  
Water Resources Engineer  
Transportation and Engineering Department  
Town of Oakville  
905-845-6601 ext. 3234  
Jing.liu@oakville.ca  
\*\*\*BY EMAIL ONLY

Re: **East Morrison Creek Erosion Mitigation Study  
Town of Oakville  
Municipal Class Environmental Assessment, Schedule B  
Acknowledgement of Notice of Commencement**

Dear Jing Liu,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Town of Oakville (proponent) has indicated that the study is following the approved environmental planning process for a Schedule B project under the Municipal Class Environmental Assessment (Class EA).

The **updated (August 2022)** attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule. **Further information is provided at the end of the Areas of Interest document relating to recent changes to the Environmental Assessment Act through Bill 197, Covid-19 Economic Recovery Act 2020.**

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project, **the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

The project study area is located in treaty 13a, 1805 w/Mississaugas, within the traditional territory and claim of the Mississaugas of the Credit, and within the 1701 Nanfan Deed. Projects that are located within the Nanfan area may require engagement and/or consultation with the Haudenosaunee Confederacy Chiefs Council (HCCC) through Haudenosaunee Development Institute (HDI). Based on information provided to date and the Crown's preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

- **Mississaugas of the Credit**
- **Six Nations of the Grand River (both elected and HCCC/HDI)**
  - both the elected council and HCCC claim to represent the Six Nations Community. The HCCC is the traditional council and the SNGR elected was established by Canada pursuant to the Indian Act, 1924.

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the [“Code of Practice for Consultation in Ontario’s Environmental Assessment Process”](#). Additional information related to Ontario’s Environmental Assessment Act is available online at: [www.ontario.ca/environmentalassessments](http://www.ontario.ca/environmentalassessments).

**Please also refer to the attached document “A Proponent’s Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities” for further information, including the MECP’s expectations for EA report documentation related to consultation with communities.**

The proponent must contact the Director of Environmental Assessment Branch (EABDirector@ontario.ca) under the following circumstances after initial discussions with the communities identified by the MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities;
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right;
- Consultation with Indigenous communities or other stakeholders has reached an impasse; or
- A Section 16 Order request is expected based on impacts to Aboriginal or treaty rights

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

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**Please ensure a copy of the final notice and project file report is sent to the ministry's Central Region EA notification email account ([eanotification.cregion@ontario.ca](mailto:eanotification.cregion@ontario.ca)) for filing.**

Should you or any members of your project team have any questions regarding the material above, please contact me at [chunmei.liu@ontario.ca](mailto:chunmei.liu@ontario.ca).

Sincerely,



Chunmei Liu  
Regional Environmental Planner – Central Region  
Project Review Unit, Environmental Assessment Branch

Cc: Gavin Battarino, Supervisor, Project Review Unit, MECP  
Dan Panko, Manager, Halton Peel District Office, MECP  
Roger Phillips, Project Manager, Matrix Solutions Inc.

Enclosed: Areas of Interest

Attached: Client's Guide to Preliminary Screening for Species at Risk  
A Proponent's Introduction to the Delegation of Procedural Aspects of Consultation with Aboriginal Communities

## AREAS OF INTEREST (v. August 2022)

*It is suggested that you check off each section after you have considered / addressed it.*

### Planning and Policy

- Applicable plans and policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
  - Projects located in MECP Central, Eastern or West Central Region may be subject to [A Place to Grow: Growth Plan for the Greater Golden Horseshoe \(2020\)](#).
  - Projects located in MECP Central or Eastern Region may be subject to the [Oak Ridges Moraine Conservation Plan \(2017\)](#) or the [Lake Simcoe Protection Plan \(2014\)](#).
  - Projects located in MECP Central, Southwest or West Central Region may be subject to the [Niagara Escarpment Plan \(2017\)](#).
  - Projects located in MECP Central, Eastern, Southwest or West Central Region may be subject to the [Greenbelt Plan \(2017\)](#).
  - Projects located in MECP Northern Region may be subject to the [Growth Plan for Northern Ontario \(2011\)](#).
- The [Provincial Policy Statement \(2020\)](#) contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.
- In addition to the provincial planning and policy level, the report should also discuss the planning context at the municipal and federal levels, as appropriate.

### Source Water Protection

The *Clean Water Act, 2006 (CWA)* aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include

activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**
  - The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.
  - If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.
- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.
- In order to determine if this project is occurring within a vulnerable area, proponents can use [Source Protection Information Atlas](#), which is an online mapping tool available to the public. Note that various layers (including WHPAs, WHPA-Q1 and WHPA-Q2, IPZs, HVAs, SGRAs, EBAs, ICAs) can be turned on through the “Map Legend” bar on the left. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. Please document the results of that consultation within the report and include all communication documents/correspondence.**

#### More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to [Conservation Ontario's website](#) where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in [section 1.1 of Ontario Regulation 287/07](#) made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

#### **Climate Change**

The document "[Considering Climate Change in the Environmental Assessment Process](#)" (Guide) is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. Proponents should review this Guide in detail.

- **The MECP expects proponents of Class EA projects to:**
  1. Consider during the assessment of alternative solutions and alternative designs, the following:
    - a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
    - b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
  2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "[Community Emissions Reduction Planning: A Guide for Municipalities](#)" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

### **Air Quality, Dust and Noise**

- If there are sensitive receptors in the surrounding area of this project, a quantitative air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**
- If a quantitative Air Quality Impact Assessment is not required for the project, the MECP expects that the report contain a qualitative assessment which includes:
  - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
  - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
  - A discussion of local air quality impacts that could arise from this project during both construction and operation; and
  - A discussion of potential mitigation measures.
- As a common practice, "air quality" should be used an evaluation criterion for all road projects.
- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.
- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to [Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities](#) report prepared for Environment Canada. March 2005.

- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

### **Ecosystem Protection and Restoration**

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.
- Natural heritage and hydrologic features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
  - Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.
  - Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.
  - Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, for projects located in Central Region you may consider the provisions of the Rouge Park Management Plan if applicable.

### **Species at Risk**

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. Information, standards, guidelines, reference materials and technical resources to assist you are found at <https://www.ontario.ca/page/species-risk>.
- The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019) has been attached to the covering email for your reference and use. Please review this document for next steps.

- For any questions related to subsequent permit requirements, please contact [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca).

## Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.
- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's [Stormwater Management Planning and Design Manual \(2003\)](#) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:
  - Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
  - Watershed information, drainage conditions, and other relevant background information
  - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
  - Information on maintenance and monitoring commitments.
- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If a proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.
- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information. Additionally, an

Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

## **Groundwater**

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.
- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.
- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.
- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information.
- Consultation with the railroad authorities is necessary wherever there is a plan to use construction dewatering in the vicinity of railroad lines or where the zone of influence of the construction dewatering potentially intercepts railroad lines.

## **Excess Materials Management**

- In December 2019, MECP released a new regulation under the Environmental Protection Act, titled “On-Site and Excess Soil Management” (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don’t go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by

this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit <https://www.ontario.ca/page/handling-excess-soil>.

- The report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "[Management of Excess Soil – A Guide for Best Management Practices](#)" (2014).
- All waste generated during construction must be disposed of in accordance with ministry requirements.

### **Contaminated Sites**

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites. We recommend referring to the [MECP's D-4 guideline](#) for land use considerations near landfills and dumps.
  - Resources available may include regional/local municipal official plans and data; provincial data on [large landfill sites](#) and [small landfill sites](#); Environmental Compliance Approval information for waste disposal sites on [Access Environment](#).
- Other known contaminated sites (local, provincial, federal) in the study area should also be identified in the report (Note – information on federal contaminated sites is found on the Government of Canada's [website](#)).
- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.
- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

## **Servicing, Utilities and Facilities**

- The report should identify any above or underground utilities in the study area such as transmission lines, telephone/internet, oil/gas etc. The owners should be consulted to discuss impacts to this infrastructure, including potential spills.
- The report should identify any servicing infrastructure in the study area such as wastewater, water, stormwater that may potentially be impacted by the project.
- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with MECP's Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.
- We recommend referring to the ministry's [environmental land use planning guides](#) to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

## **Mitigation and Monitoring**

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.
- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.
- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

## **Consultation**

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout

the planning process. The report should also include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments (as directed by the Class EA to include full documentation).

- Please include the full stakeholder distribution/consultation list in the documentation.

### **Class EA Process**

- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. **The Master Plan should clearly indicate the selected approach for conducting the plan**, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the Environmental Assessment Act, although the plan itself would not be. **Please include a description of the approach being undertaken (use Appendix 4 as a reference).**
- If this project is a Master Plan: Any identified projects should also include information on the MCEA schedule associated with the project.
- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.
- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical). The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments, cultural heritage assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.
- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under the *Impact Assessment Act*, 2019.
- Ministry guidelines and other information related to the issues above are available at <http://www.ontario.ca/environment-and-energy/environment-and-energy>. We encourage you to review all the available guides and to reference any relevant information in the report.

### **Amendments to the EAA through the Covid-19 Economic Recovery Act, 2020**

Once the EA Report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the proponent. The Notice of Completion must be sent to the appropriate MECP Regional Office email address.

The public can request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director (of the Environmental Assessment Branch) will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Therefore, the proponent cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the proponent may not proceed after this time if:

- a Section 16 Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or
- the Director has issued a Notice of Proposed order regarding the project.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Section 16 Order requests on those matters should be addressed in writing to:

Minister of the Environment, Conservation and Parks  
Ministry of the Environment, Conservation and Parks  
777 Bay Street, 5th Floor  
Toronto ON M7A 2J3  
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch  
Ministry of the Environment, Conservation and Parks  
135 St. Clair Ave. W, 1st Floor  
Toronto ON, M4V 1P5  
EABDirector@ontario.ca

**A PROPONENT’S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES**

**DEFINITIONS**

The following definitions are specific to this document and may not apply in other contexts:

**Aboriginal communities** – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

**Consultation** – the Crown’s legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

**Crown** – the Ontario Crown, acting through a particular ministry or ministries.

**Procedural aspects of consultation** – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

**Proponent** – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

**I. PURPOSE**

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown’s approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

**II. WHY IS IT NECESSARY TO CONSULT WITH ABORIGINAL COMMUNITIES?**

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown’s duty to consult is triggered when it considers

issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

### **III. THE CROWN'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS**

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

#### **IV. THE PROPONENT'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS**

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

##### **a) What might a proponent be required to do in carrying out the procedural aspects of consultation?**

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;

- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

#### **b) What documentation and reporting does the Crown need from the proponent?**

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;
- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;

- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

**c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?**

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

**V. WHAT ARE THE ROLES AND RESPONSIBILITIES OF ABORIGINAL COMMUNITIES' IN THE CONSULTATION PROCESS?**

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;

- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigate any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

## **VI. WHAT IF MORE THAN ONE PROVINCIAL CROWN MINISTRY IS INVOLVED IN APPROVING A PROPONENT'S PROJECT?**

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

***Client's Guide to Preliminary Screening for Species at Risk***

***Ministry of the Environment, Conservation and Parks  
Species at Risk Branch, Permissions and Compliance***

***DRAFT - May 2019***

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## 1.0 Purpose, Scope, Background and Context

### 1.1 Purpose of this Guide

This guide has been created to:

- help clients better understand their obligation to gather information and complete a preliminary screening for species at risk before contacting the ministry,
- outline guidance and advice clients can expect to receive from the ministry at the preliminary screening stage,
- help clients understand how they can gather information about species at risk by accessing publicly available information housed by the Government of Ontario, and
- provide a list of other potential sources of species at risk information that exist outside the Government of Ontario.

It remains the client's responsibility to:

- carry out a preliminary screening for their projects,
- obtain best available information from all applicable information sources,
- conduct any necessary field studies or inventories to identify and confirm the presence or absence of species at risk or their habitat,
- consider any potential impacts to species at risk that a proposed activity might cause, and
- comply with the *Endangered Species Act (ESA)*.

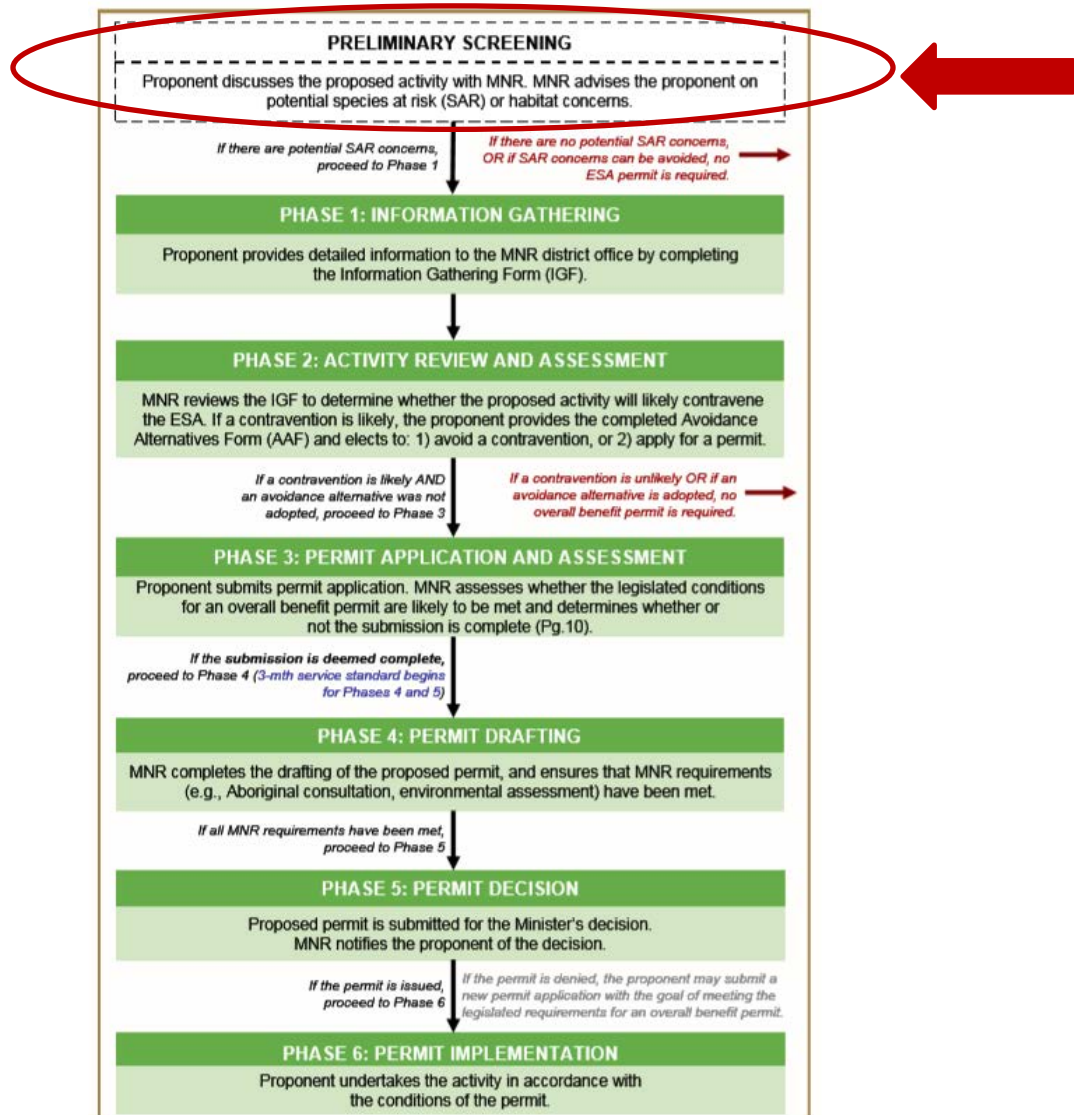
**To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide, at a minimum, prior to contacting Government of Ontario ministry offices for further information or advice.**

### 1.2 Scope

This guide is a resource for clients seeking to understand if their activity is likely to impact species at risk or if they are likely to trigger the need for an authorization under the ESA. It is not intended to circumvent any detailed site surveys that may be necessary to document species at risk or their habitat nor to circumvent the need to assess the impacts of a proposed activity on species at risk or their habitat. This guide is not an exhaustive list of available information sources for any given area as the availability of information on species at risk and their habitat varies across the province. This guide is intended to support projects and activities carried out on Crown and private land, by private landowners, businesses, other provincial ministries and agencies, or municipal government.

### 1.3 Background and Context

To receive advice on their proposed activity, clients must first determine whether any species at risk or their habitat exist or are likely to exist at or near their proposed activity, and whether their proposed activity is likely to contravene the ESA. Once this step is complete, clients may contact the ministry at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) to discuss the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. At this stage, the ministry can provide advice and guidance to the client about potential species at risk or habitat concerns, measures that the client is considering to avoid adverse effects on species at risk or their habitat and whether additional field surveys are advisable. This is referred to as the “Preliminary Screening” stage. For more information on additional phases in the diagram below, please refer to the *Endangered Species Act Submission Standards for Activity Review and 17(2)(c) Overall Benefit Permits* policy available online at <https://www.ontario.ca/page/species-risk-overall-benefit-permits>



## 2.0 Roles and Responsibilities

To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide prior to contacting Government of Ontario ministry offices for further information or advice.

**Step 1:** Client seeks information regarding species at risk or their habitat that exist, or are likely to exist, at or near their proposed activity by referring to all applicable information sources identified in this guide.

**Step 2:** Client reviews and consider guidance on whether their proposed activity is likely to contravene the ESA (see section 3.4 of this guide for guidance on what to consider).

**Step 3:** Client gathers information identified in the checklist in section 4 of this guide.

**Step 4:** Client contacts the ministry at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) to discuss their preliminary screening. Ministry staff will ask the client questions about the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. Ministry staff will also ask the client for their interpretation of the impacts of their activity on species at risk or their habitat as well as measures the client has considered to avoid any adverse impacts.

**Step 5:** Ministry staff will provide advice on next steps.

**Option A:** Ministry staff may advise the client they can proceed with their activity without an authorization under the ESA where the ministry is confident that:

- no protected species at risk or habitats are likely to be present at or near the proposed location of the activity; or
- protected species at risk or habitats are known to be present but the activity is not likely to contravene the ESA; or
- through the adoption of avoidance measures, the modified activity is not likely to contravene the ESA.

**Option B:** Ministry staff may advise the client to proceed to Phase 1 of the overall benefit permitting process (i.e. Information Gathering in the previous diagram), where:

- there is uncertainty as to whether any protected species at risk or habitats are present at or near the proposed location of the activity; or
- the potential impacts of the proposed activity are uncertain; or
- ministry staff anticipate the proposed activity is likely to contravene the ESA.

### 3.0 Information Sources

Land Information Ontario (LIO) and the Natural Heritage Information Centre (NHIC) maintain and provide information about species at risk, as well as related information about fisheries, wildlife, crown lands, protected lands and more. This information is made available to organizations, private individuals, consultants, and developers through online sources and is often considered under various pieces of legislation or as part of regulatory approvals and planning processes.

The information available from LIO or NHIC and the sources listed in this guide should not be considered as a substitute for site visits and appropriate field surveys. Generally, this information can be regarded as a starting point from which to conduct further field surveys, if needed. While this data represents best available current information, it is important to note that a lack of information for a site does not mean that species at risk or their habitat are not present. There are many areas where the Government of Ontario does not currently have information, especially in more remote parts of the province. The absence of species at risk location data at or near your site does not necessarily mean no species at risk are present at that location. On-site assessments can better verify site conditions, identify and confirm presence of species at risk and/or their habitats.

Information on the location (i.e. observations and occurrences) of species at risk is considered sensitive and therefore publicly available only on a 1km square grid as opposed to as a detailed point on a map. This generalized information can help you understand which species at risk are in the general vicinity of your proposed activity and can help inform field level studies you may want to undertake to confirm the presence, or absence of species at risk at or near your site.

Should you require specific and detailed information pertaining to species at risk observations and occurrences at or near your site on a finer geographic scale; you will be required to demonstrate your need to access this information, to complete data sensitivity training and to obtain a Sensitive Data Use License from the NHIC. Information on how to obtain a license can be found online at <https://www.ontario.ca/page/get-natural-heritage-information>.

Many organizations (e.g. other Ontario ministries, municipalities, conservation authorities) have ongoing licensing to access this data so be sure to check if your organization has this access and consult this data as part of your preliminary screening if your organization already has a license.

### 3.1 Make a Map: Natural Heritage Areas

The Make a Natural Heritage Area Map (available online at [http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR\\_NHLUPS\\_NaturalHeritage&viewer=NaturalHeritage&locale=en-US](http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US)) provides public access to natural heritage information, including species at risk, without the user needing to have Geographic Information System (GIS) capability. It allows users to view and identify generalized species at risk information, mark areas of interest, and create and print a custom map directly from the web application. The tool also shows topographic information such as roads, rivers, contours and municipal boundaries.

Users are advised that sensitive information has been removed from the natural areas dataset and the occurrences of species at risk has been generalized to a 1-kilometre grid to mitigate the risks to the species (e.g. illegal harvest, habitat disturbance, poaching).

The web-based mapping tool displays natural heritage data, including:

- Generalized Species at risk occurrence data (based on a 1-km square grid),
- Natural Heritage Information Centre data.

Data cannot be downloaded directly from this web map; however, information included in this application is available digitally through Land Information Ontario (LIO) at <https://www.ontario.ca/page/land-information-ontario>.

### 3.2 Land Information Ontario (LIO)

Most natural heritage data is publicly available. This data is managed in a large provincial corporate database called the LIO Warehouse and can be accessed online through the LIO Metadata Management Tool at <https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home>. This tool provides descriptive information about the characteristics, quality and context of the data. Publicly available geospatial data can be downloaded directly from this site.

While most data are publicly available, some data may be considered highly sensitive (i.e. nursery areas for fish, species at risk observations) and as such, access to some data maybe restricted.

### 3.3 Additional Species at Risk Information Sources

- The Breeding Bird Atlas can be accessed online at <http://www.birdsontario.org/atlas/index.jsp?lang=en>
- eBird can be accessed online at <https://ebird.org/home>
- iNaturalist can be accessed online at <https://www.inaturalist.org/>
- The Ontario Reptile and Amphibian Atlas can be accessed online at <https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas>
- Your local Conservation Authority. Information to help you find your local Conservation Authority can be accessed online at <https://conservationontario.ca/conservation-authorities/find-a-conservation-authority/>

Local naturalist groups or other similar community-based organizations

- Local Indigenous communities
- Local land trusts or other similar Environmental Non-Government Organizations
- Field level studies to identify if species at risk, or their habitat, are likely present or absent at or near the site.
- When an activity is proposed within one of the continuous caribou ranges, please be sure to consider the caribou Range Management Policy. This policy includes figures and maps of the continuous caribou range, can be found online at <https://www.ontario.ca/page/range-management-policy-support-woodland-caribou-conservation-and-recovery>

### 3.4 Information Sources to Support Impact Assessments

- Guidance to help you understand if your activity is likely to adversely impact species at risk or their habitat can be found online at <https://www.ontario.ca/page/policy-guidance-harm-and-harass-under-endangered-species-act> and <https://www.ontario.ca/page/categorizing-and-protecting-habitat-under-endangered-species-act>
- A list of species at risk in Ontario is available online at <https://www.ontario.ca/page/species-risk-ontario>. On this webpage, you can find out more about each species, including where it lives, what threatens it and any specific habitat protections that apply to it by clicking on the photo of the species.

## 4.0 Check-List

Please feel free to use the check list below to help you confirm you have explored all applicable information sources and to support your discussion with Ministry staff at the preliminary screening stage.

- ✓ Land Information Ontario (LIO)
- ✓ Natural Heritage Information Centre (NHIC)
- ✓ The Breeding Bird Atlas
- ✓ eBird
- ✓ iNaturalist
- ✓ Ontario Reptile and Amphibian Atlas
- ✓ List Conservation Authorities you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List local naturalist groups you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List local Indigenous communities you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List any other local land trusts or Environmental Non-Government Organizations you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List and field studies that were conducted to identify species at risk, or their habitat, likely to be present or absent at or near the site: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List what you think the likely impacts of your activity are on species at risk and their habitat (e.g. damage or destruction of habitat, killing, harming or harassing species at risk): \_\_\_\_\_  
\_\_\_\_\_

## Amy Nicoll

---

**From:** Shakespeare, Matthew (MNRF) <Matthew.Shakespeare@ontario.ca>  
**Sent:** January 3, 2024 1:40 PM  
**To:** Jing Liu  
**Subject:** RE: Town of Oakville East Morrison Creek Erosion Mitigation Study Municipal Class EA Notice of Commencement  
**Attachments:** MNRF\_Comments\_01-03-2024.pdf  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

SECURITY CAUTION: This email originated from outside of The Town of Oakville. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Jing Liu,

The Ministry of Natural Resources and Forestry (MNRF) received your Notice of Commencement on December 21, 2023. Thank you for circulating this to our office. Please see the attached for comments by the MNRF to support your project.

Thank you,

**Matthew Shakespeare**

Regional Lands Intern, Regional Resources Advisory Team  
Ministry of Natural Resources and Forestry, Southern Region  
(705) 772-9310  
[matthew.shakespeare@ontario.ca](mailto:matthew.shakespeare@ontario.ca)

As part of providing accessible customer service, please let me know if you have any accommodation needs or require communication supports or alternate formats.

January 3, 2024

Dear Jing Liu

**SUBJECT: Town of Oakville East Morrison Creek Erosion Mitigation Study  
Schedule 'B' Municipal Class Environmental Assessment**

---

The Ministry of Natural Resources and Forestry (MNRF) received the Notice of Study Commencement on December 21, 2023. Thank you for circulating this to our office. Please note that we have not completed a screening of natural heritage or other resource values for the project at this time. This response, however, does provide information to guide you in identifying and assessing natural features and resources as required by applicable policies and legislation, as well as engaging with the Ministry for advice as needed.

Please also note that it is the proponent's responsibility to be aware of, and comply with, all relevant federal or provincial legislation, municipal by-laws or other agency approvals.

**Natural Heritage**

MNRF's natural heritage and natural resources GIS data layers can be obtained through the Ministry's [Land Information Ontario \(LIO\)](#) website. You may also view natural heritage information online (e.g., Provincially Significant Wetlands, ANSI's, woodlands, etc.) using the [Make a Map: Natural Heritage Areas](#) tool.

We recommend that you use the above-noted sources of information during the review of your project proposal.

**Natural Hazards**

A series of natural hazard technical guides developed by MNRF are available to support municipalities and conservation authorities implement the natural hazard policies in the Provincial Policy Statement (PPS). For example, standards to address flood risks and the potential impacts and costs from riverine flooding are addressed in the *Technical Guide River and Stream Systems: Flooding Hazard Limit (2002)*. We recommend that you consider these technical guides as you assess specific improvement projects that can be undertaken to reduce the risk of flooding.

**Petroleum Wells & Oil, Gas and Salt Resources Act**

There may be petroleum wells within the proposed project area. Please consult the Ontario Oil, Gas and Salt Resources Library website ([www.ogsrlibrary.com](http://www.ogsrlibrary.com)) or [GeoHub](#) for the best-known data on any wells recorded by MNRF. Please reference the 'Definitions and Terminology Guide' listed in the publications on the library website to better understand the well information available. Any oil and gas wells in your project area are regulated by the *Oil,*

*Gas and Salt Resource Act*, and the supporting regulations and operating standards. If any unanticipated wells are encountered during development of the project, or if the proponent has questions regarding petroleum operations, the proponent should contact the Petroleum Operations Section at [POSRecords@ontario.ca](mailto:POSRecords@ontario.ca) or 519-873-4634.

### **Fish and Wildlife Conservation Act**

Please note, that should the project require:

- The relocation of fish outside of the work area, a Licence to Collect Fish for Scientific Purposes under the *Fish and Wildlife Conservation Act* will be required.
- The relocation of wildlife outside of the work area (including amphibians, reptiles, and small mammals), a Wildlife Collector's Authorization under the *Fish and Wildlife Conservation Act* will be required.

### **Public Lands Act & Lakes and Rivers Improvement Act**

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- For more information about the *Public Lands Act*: <https://www.ontario.ca/page/crown-land-work-permits>
- For more information about the *Lakes and Rivers Improvement Act*: <https://www.ontario.ca/page/lakes-and-rivers-improvement-act-administrative-guide>

After reviewing the information provided, if you have not identified any of MNRF's interests stated above, there is no need to circulate any subsequent notices to our office. If you have identified any of MNRF's interests and/or may require permit(s) or further technical advice, please direct your specific questions to [matthew.shakespeare@ontario.ca](mailto:matthew.shakespeare@ontario.ca).

If you have any questions or concerns, please feel free to contact me.

Best Regards,

*[original signed by]*

Matthew Shakespeare  
Regional Lands Intern  
Ministry of Natural Resources and Forestry (MNRF)  
(705) 772 9310  
[matthew.shakespeare@ontario.ca](mailto:matthew.shakespeare@ontario.ca)

January 3, 2024

Dear Jing Liu

**SUBJECT: Town of Oakville East Morrison Creek Erosion Mitigation Study  
Schedule 'B' Municipal Class Environmental Assessment**

---

The Ministry of Natural Resources and Forestry (MNRF) received the Notice of Study Commencement on December 21, 2023. Thank you for circulating this to our office. Please note that we have not completed a screening of natural heritage or other resource values for the project at this time. This response, however, does provide information to guide you in identifying and assessing natural features and resources as required by applicable policies and legislation, as well as engaging with the Ministry for advice as needed.

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If you have any questions or concerns, please feel free to contact me.

Best Regards,

*[original signed by]*

Matthew Shakespeare  
Regional Lands Intern  
Ministry of Natural Resources and Forestry (MNRF)  
(705) 772 9310  
[matthew.shakespeare@ontario.ca](mailto:matthew.shakespeare@ontario.ca)

January 3, 2024

Dear Jing Liu

**SUBJECT: Town of Oakville East Morrison Creek Erosion Mitigation Study  
Schedule 'B' Municipal Class Environmental Assessment**

---

The Ministry of Natural Resources and Forestry (MNRF) received the Notice of Study Commencement on December 21, 2023. Thank you for circulating this to our office. Please note that we have not completed a screening of natural heritage or other resource values for the project at this time. This response, however, does provide information to guide you in identifying and assessing natural features and resources as required by applicable policies and legislation, as well as engaging with the Ministry for advice as needed.

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After reviewing the information provided, if you have not identified any of MNRF's interests stated above, there is no need to circulate any subsequent notices to our office. If you have identified any of MNRF's interests and/or may require permit(s) or further technical advice, please direct your specific questions to [matthew.shakespeare@ontario.ca](mailto:matthew.shakespeare@ontario.ca).

If you have any questions or concerns, please feel free to contact me.

Best Regards,

*[original signed by]*

Matthew Shakespeare  
Regional Lands Intern  
Ministry of Natural Resources and Forestry (MNRF)  
(705) 772 9310  
[matthew.shakespeare@ontario.ca](mailto:matthew.shakespeare@ontario.ca)

**Amy Nicoll**

---

**From:** SUN Hongxia <Susan.SUN@HydroOne.com> on behalf of SECONDARY LAND USE Department <Department.SecondaryLandUse@hydroone.com>  
**Sent:** January 16, 2024 2:26 PM  
**To:** Jing Liu  
**Cc:** SECONDARY LAND USE Department  
**Subject:** Hydro One Response: 20240116-NoticeOfCommence-East Morrison Creek Erosion Mitigation Study  
**Attachments:** 20240116-NoticeOfCommence-East Morrison Creek Erosion Mitigation Study.pdf; 19738.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

SECURITY CAUTION: This email originated from outside of The Town of Oakville. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please see the attached for Hydro One's Response.

Hydro One Networks Inc

SecondaryLandUse@HydroOne.com



Hydro One Networks Inc.

483 Bay Street  
8th Floor South Tower  
Toronto, Ontario M5G 2P5

[HydroOne.com](http://HydroOne.com)

January 16, 2024

Re: East Morrison Creek Erosion Mitigation Study

Attention:

Jing Liu, P.Eng.

Water Resources Engineer Transportation and Engineering Department

Town of Oakville

Thank you for sending us notification regarding (East Morrison Creek Erosion Mitigation Study). In our preliminary assessment, we have confirmed that Hydro One has existing high voltage Transmission facilities within your study area. At this time we do not have sufficient information to comment on the potential resulting impacts that your project may have on our infrastructure. As such, we must stay informed as more information becomes available so that we can advise if any of the alternative solutions present actual conflicts with our assets, and if so; what resulting measures and costs could be incurred by the proponent. Note that this response does not constitute approval for your plans and is being sent to you as a courtesy to inform you that we must continue to be consulted on your project.

In addition to the existing infrastructure mentioned above, the applicable transmission corridor may have provisions for future lines or already contain secondary land uses (e.g., pipelines, watermains, parking). Please take this into consideration in your planning.

Also, we would like to bring to your attention that should (East Morrison Creek Erosion Mitigation Study) result in a Hydro One station expansion or transmission line replacement and/or relocation, an Environmental Assessment (EA) will be required as described under the Class Environmental Assessment for Minor Transmission Facilities (Hydro One, 2016). This EA process would require a minimum of 6 months for a Class EA Screening Process (or up to 18 months if a Full Class EA were to be required) to be completed. Associated costs will be allocated and recovered from proponents in accordance with the Transmission System Code. If triggered, Hydro One will rely on studies completed as part of the EA you are current undertaking.

Consulting with Hydro One on such matters during your project's EA process is critical to avoiding conflicts where possible or, where not possible, to streamlining processes (e.g., ensuring study coverage of expansion/relocation areas within the current EA). Once in receipt of more specific project information regarding the potential for conflicts (e.g., siting, routing), Hydro One will be in a better position to communicate objections or not objections to alternatives proposed.

If possible at this stage, please formally confirm that Hydro One infrastructure and associated rights-of-way will be completely avoided, or if not possible, allocate appropriate lead-time in your project schedule to collaboratively work through potential conflicts with Hydro One, which ultimately could result in timelines identified above.

In planning, note that developments should not reduce line clearances or limit access to our infrastructure at any time. Any construction activities must maintain the electrical clearance from the transmission line conductors as specified in the Ontario Health and Safety Act for the respective line voltage.

Be advised that any changes to lot grading or drainage within, or in proximity to Hydro One transmission corridor lands must be controlled and directed away from the transmission corridor.

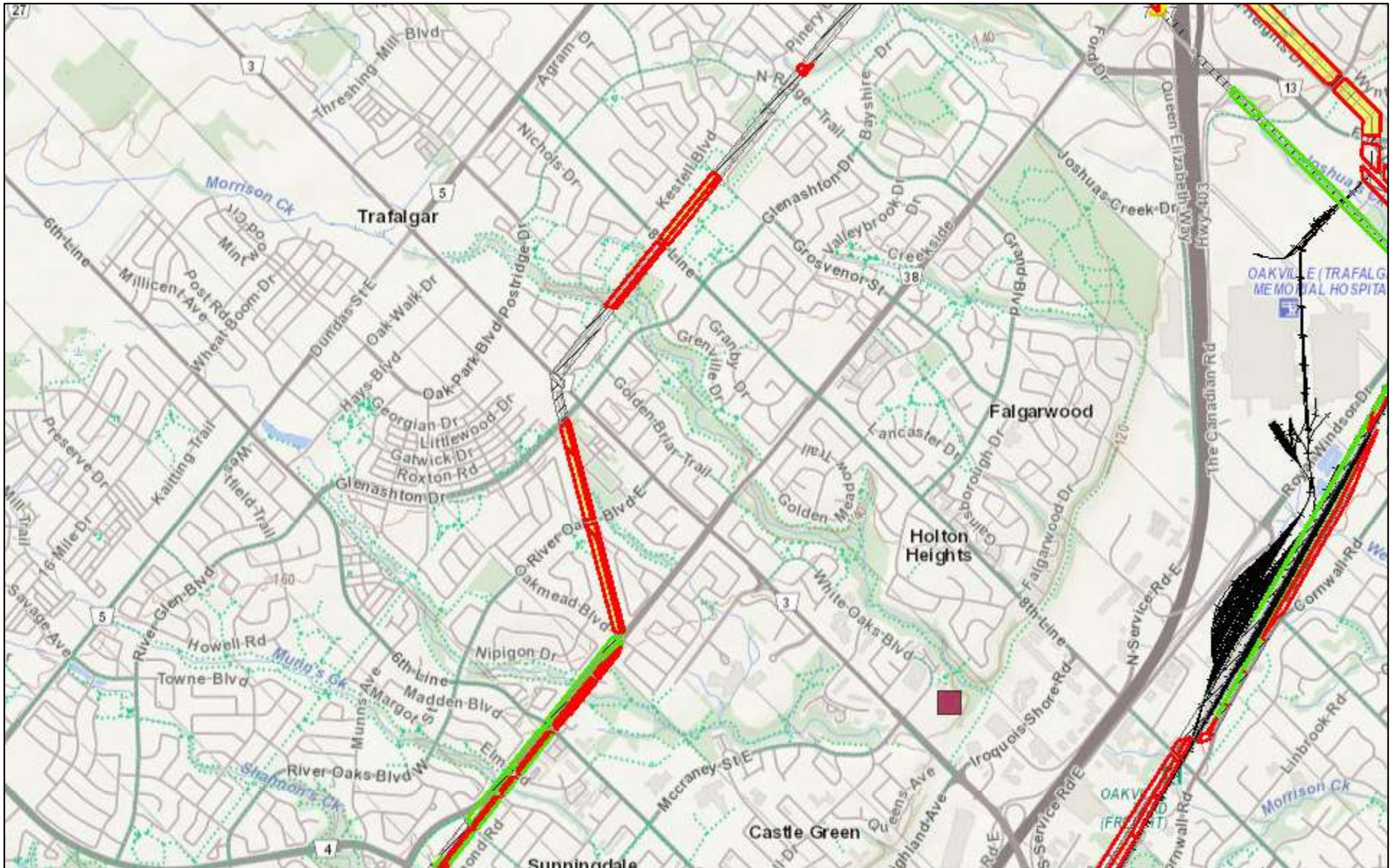
Please note that the proponent will be held responsible for all costs associated with modifications or relocations of Hydro One infrastructure that result from your project, as well as any added costs that may be incurred due to increased efforts to maintain said infrastructure.

We reiterate that this message does not constitute any form of approval for your project. Hydro One must be consulted during all stages of your project. Please ensure that all future communications about this and future project(s) are sent to us electronically to [secondarylanduse@hydroone.com](mailto:secondarylanduse@hydroone.com)

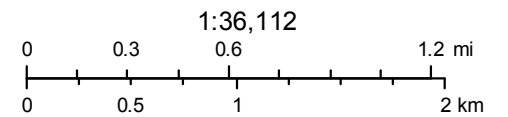
Sent on behalf of,

***Secondary Land Use  
Asset Optimization  
Strategy & Integrated Planning  
Hydro One Networks Inc.***

# Landscape PDF



January 16, 2024



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## **APPENDIX H1c**

### **Resident Responses**

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## Amy Nicoll

---

**From:** Roger Phillips  
**Sent:** March 5, 2024 11:37 AM  
**To:** Amy Nicoll  
**Subject:** FW: [External] East Morrison Erosion Mitigation

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

FYI

**Roger Phillips, Ph.D., P.Geo., FGC | Senior Geomorphologist**

**MATRIX SOLUTIONS INC. | A Montrose Environmental Company**

D 226.314.1950 | C 647.220.4846

**Emergency Spill Response** 1.877.774.5525

[www.matrix-solutions.com](http://www.matrix-solutions.com)

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---

**From:** D M <mohsen.daynouri@gmail.com>  
**Sent:** Friday, March 1, 2024 6:27 PM  
**To:** jing.liu@oakville.ca; Roger Phillips <rphillips@matrix-solutions.com>  
**Subject:** [External] East Morrison Erosion Mitigation

Hi There,

I'm the owner of 1196 Lambeth Rd. My property is a ravine lot facing Morrison Creek and received the notice about the erosion situation and upcoming study.

I wanted to ensure I'm kept in the loop and also enquire to see if there are any current signs indicating this erosion might affect the normal use of backyard such as mine or if this erosion will have any potential impact on the building/structure of homes like mine facing the ravine.

Thank you in advance.

Regards,  
Mohsen D.  
647-781-8142

## Amy Nicoll

---

**From:** Jing Liu <jing.liu@oakville.ca>  
**Sent:** July 5, 2024 2:04 PM  
**To:** 'Olena'; Roger Phillips  
**Subject:** [External] RE: East Morrison Creek Erosion Study - requesting information

Hello Olena,

Sorry for the delayed response and thanks for your interest in this project. For general information and upcoming updates, please visit the project website here: [East Morrison Creek Erosion Mitigation Study \(oakville.ca\)](http://www.oakville.ca). Please note that we are working on a July website update to report on project progress.

On the subject of progress, the project team is currently working on development of alternative solutions, infrastructure assessment and preliminary designs. We are also preparing for a Public Information Centre in which the project team will present findings to the public and collect feedbacks to help refine the next phases of the project.

Regarding erosion information, we have identified several erosion sites downstream of Upper Middle Road E. and we will be developing and evaluating alternative options. Sorry I can't provide more detailed information for your property at this point as the study is still on-going. More information will be shared as they become available and in the upcoming public information centre.

Regards,

Jing

**Jing Liu, P. Eng**  
**Water Resource Engineer**  
**Transportation and Engineering**  
Town of Oakville | 905-845-6601, ext. 3234 | [www.oakville.ca](http://www.oakville.ca)

**Vision: A vibrant and livable community for all**  
Please consider the environment before printing this email.  
<http://www.oakville.ca/privacy.html>

---

**From:** Olena <venusianlena@gmail.com>  
**Sent:** Wednesday, June 12, 2024 10:53 PM  
**To:** rphillips@matrix-solutions.com; Jing Liu <jing.liu@oakville.ca>  
**Subject:** East Morrison Creek Erosion Study - requesting information

You don't often get email from [venusianlena@gmail.com](mailto:venusianlena@gmail.com). [Learn why this is important](#)

Hello Jing and Roger, hope you're doing well.

I'm the resident of 1483 Litchfield Rd in Oakville, our backyard is facing the creek/ravine. The edge is pretty close to the path and the water channel bend is right there beneath.

Would you be able to provide information on erosion about this portion of the creek and overall?

Thank you,  
Olena Avdyukova

## Amy Nicoll

---

**From:** Jing Liu <jing.liu@oakville.ca>  
**Sent:** September 4, 2024 4:13 PM  
**To:** 'Forrest Hu'; Roger Phillips  
**Cc:** Diana Michalakos; Amy Nicoll  
**Subject:** RE: [External] Fwd: erosion - 1200 Lambeth Rd.  
**Attachments:** East Morrison Creek Erosion Mitigation Study EA Notice of PIC.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hello Forrest,

Thanks for reaching out and sorry about the delayed response. The project team has been preparing materials for an upcoming Public Information Centre (PIC) and I'd like to encourage you to join us on September 17<sup>th</sup> from 6:30pm to 8:30pm to share your concerns and review project progress. The notice of PIC should have been mailed out last week and I have attached a copy for your information. We will also be posting the PIC material on the project website prior to the PIC date here [East Morrison Creek Erosion Mitigation Study \(oakville.ca\)](http://www.oakville.ca) once they are finalized.

Please note that the reach adjacent to your property has been identified as an erosion site and we will be looking at erosion mitigation options through this Study. As the project is on-going, the evaluation of options and recommendations will be shared once they become available.

Sincerely,

Jing

**Jing Liu, P. Eng**  
**Water Resource Engineer**  
**Transportation and Engineering**  
Town of Oakville | 905-845-6601, ext. 3234 | [www.oakville.ca](http://www.oakville.ca)

**Vision: A vibrant and livable community for all**

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<http://www.oakville.ca/privacy.html>

---

**From:** Forrest Hu <hu.forrest@gmail.com>  
**Sent:** Monday, July 29, 2024 8:48 PM  
**To:** Roger Phillips <rphillips@matrix-solutions.com>  
**Cc:** Jing Liu <jing.liu@oakville.ca>; Diana Michalakos <Diana.Michalakos@oakville.ca>; Amy Nicoll <anicoll@matrix-solutions.com>  
**Subject:** Re: [External] Fwd: erosion - 1200 Lambeth Rd.

Some people who received this message don't often get email from [hu.forrest@gmail.com](mailto:hu.forrest@gmail.com). [Learn why this is important](#)

Hi Jing, Roger, Diana,

Hope you are doing well.

I would like to make a follow up regarding the project to protect erosion.

I took some pictures on July 20th which showing more erosion and soil lost from the backyard of 1200 Lambeth Rd.

This situation has been reported for more than 5 years and it is becoming worse and worse drastically.

I request a retaining wall shall be built from the back of 1200 Lambeth Rd.

Picture No. 8 is the back of my neighbor 1202 Lambeth Rd. The current retaining wall protects their back pretty well.

Please advise who shall I reach out to for further escalation ?

Thank you and best regards,  
Forrest

Roger Phillips <[rphillips@matrix-solutions.com](mailto:rphillips@matrix-solutions.com)> 于2024年4月18日周四 16:23写道:

Hello Forrest Hu,

Thank you for your email note and details about your property. I can confirm your email has been filed with the project and I have copied the Town's project manager, Jing Liu, as well as Diana Michalakos (formerly Friesen) based on your earlier correspondence below.

The project team for the East Morrison Erosion Mitigation EA study is currently in the assessment phase and planning is underway to schedule the first Public Information Centre (PIC) about the project. You can expect to receive advanced notice of the PIC event date and associated project communications from the Town.

Kind Regards,

**Roger Phillips, Ph.D., P.Geo., FGC | Senior Geomorphologist**

**MATRIX SOLUTIONS INC. | A Montrose Environmental Company**

**D 226.314.1950 | C 647.220.4846**

**Emergency Spill Response 1.877.774.5525**

[www.matrix-solutions.com](http://www.matrix-solutions.com)

*2023 Canada's Greenest Employers*

---

**From:** Forrest Hu <[hu.forrest@gmail.com](mailto:hu.forrest@gmail.com)>  
**Sent:** Saturday, March 30, 2024 3:48 PM  
**To:** [jing.liu@oakville.ca](mailto:jing.liu@oakville.ca); Roger Phillips <[rphillips@matrix-solutions.com](mailto:rphillips@matrix-solutions.com)>  
**Subject:** [External] Fwd: erosion - 1200 Lambeth Rd.

Hello Jing and Roger,

I have received a "Notice of Studay Commencement" letter regarding the study of East Morrision Creek Erosion Mitigation.

I have contacted your colleague Diana for reflecting the significant change behind my house at 1200 Lambeth Road.

I am forwarding the email with some pictures for you reference.

When we moved in 1200 lambeth road back in 2015, there were several giant trees standing from the backyard. However, the biggest one (between 1200 and 1202) felt down in 2018 spring and now it has just partially left. The other trees are there still but noticeable erosion can be found around the root of the trees and this make it more dangerous to lost these tress in the near future.

There is a retaining wall behind along the creek, but it was built and stopped between 1202 and 1200 and this makes the erosion getting worse among the past years. I request the working team for considering to extend the retaining wall going through 1200 so to mitigate the situation.

Thank you and best regards,

Forrest Hu

----- Forwarded message -----

发件人 : **Forrest Hu** <[hu.forrest@gmail.com](mailto:hu.forrest@gmail.com)>

Date: 2020年8月17日周一 11:10

Subject: erosion - 1200 Lambeth Rd.

To: <[diana.friesen@oakville.ca](mailto:diana.friesen@oakville.ca)>

Hello Diana,

Hope you are doing well.

My house is on 1200 Lameth Rd. just behind Oakville Town hall. We bought the house in 2015.

The house is back to ravine and park, there's a creek in the park, from last 5 years, it has made significant damage and erosion to the soil.

Couple of days ago, there's a huge tree falling and I went to take a look a again, it is getting worse and worse.

I would like to apply to build a retaining wall to make a preventive protection.

I am attaching photos I took for your reference.

Thank you for your attention.

Regards,

Forrest

---

## APPENDIX H2

### Utility Outreach Responses

---



January 9, 2024

Version 1.0  
Matrix 36236

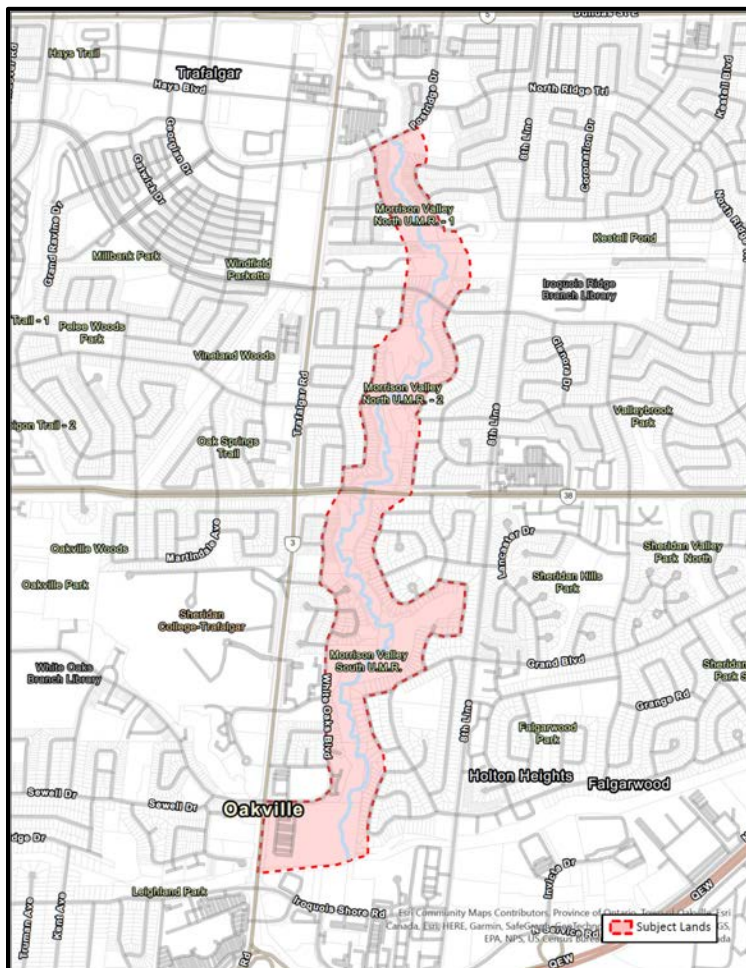
## VARIOUS UTILITY OWNERS AND AGENCIES

**Subject: Existing Utility and Regional Infrastructure Verification,  
East Morrison Creek Erosion Mitigation Study Schedule 'B' Municipal Class Environmental  
Assessment, Oakville, Ontario**

Dear Utility Owner/Agency:

Matrix Solutions Inc., a Montrose Environmental company, has been retained by the Town of Oakville (Town) to complete an environmental study for erosion mitigation within the East Morrison Creek corridor between the Morrison-Wedgewood diversion channel (north of Iroquois Shore Road) and Postridge Drive. Refer to site location plan shown in Figure 1.

**FIGURE 1 Site Location Plan**



To ensure our study processes represent and understand the existing utilities and infrastructure within and surrounding the project limits, we are circulating this correspondence to request the following:

1. Confirmation of the presence, or absence of existing infrastructure and utilities (buried, at grade, and aerial) within and surrounding the project limits.
2. Digital mapping of Regional infrastructure including:
  - a. sanitary mains, laterals, and maintenance holes
  - b. watermains, laterals, and maintenance holes
3. Record Drawings of existing Regional infrastructure within and surrounding the project limits.
  - ✦ Record Drawings could include record documents maintained by and available from the Region of Halton.
  - ✦ Vertical alignments of key infrastructure such as watermains and sanitary sewers are requested.
  - ✦ Information regarding the drop structure at the East Morrison Creek crossing of Upper Middle Road is also requested.
  - ✦ A digital file format is preferred.
4. Record Drawings of existing utilities within and surrounding the project limits.
  - ✦ Record Drawings could include record documents maintained by and available from the utility owner/agency.
  - ✦ Information regarding the high-pressure pipeline located near Glenashton Drive is requested.
  - ✦ A digital file format is preferred.
5. A description of any planned/future infrastructure and utility upgrades, if any, within, and surrounding the project limits.

Please provide the above requested information at your earliest convenience.

## CLOSURE

If you have any questions or comments, please call Amy Nicoll at 647.382.3181 or email at [anicoll@matrix-solutions.com](mailto:anicoll@matrix-solutions.com).

Yours truly,

### MATRIX SOLUTIONS INC.

A Montrose Environmental Company

### Reviewed by



Amy Nicoll, M.Sc., P.Geo. (Limited)  
Fluvial Geomorphologist



Roger Phillips, Ph.D., P.Geo.  
Senior Geomorphologist

AN/pg

copy: Jing Liu, P.Eng., Project Manager - Water Resources Engineer, Transportation and Engineering Department, Town of Oakville

## VERSION CONTROL

Version	Date	Issue Type	Filename	Description
V1.0	09-Jan-2024	Final	36236 Oakville E Morrison Creek EA - Utility and Infrastructure 2024-01-09 final v1.0.docx	Issued to stakeholder

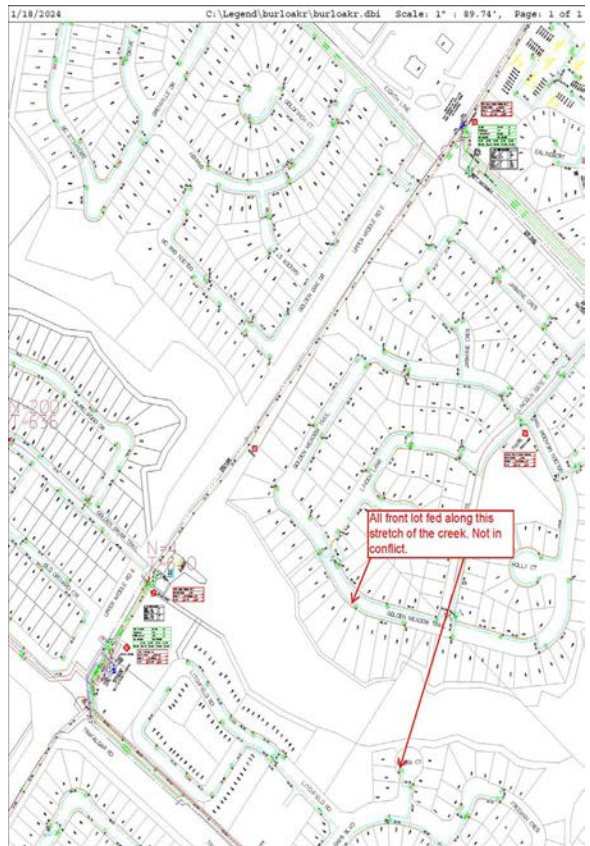
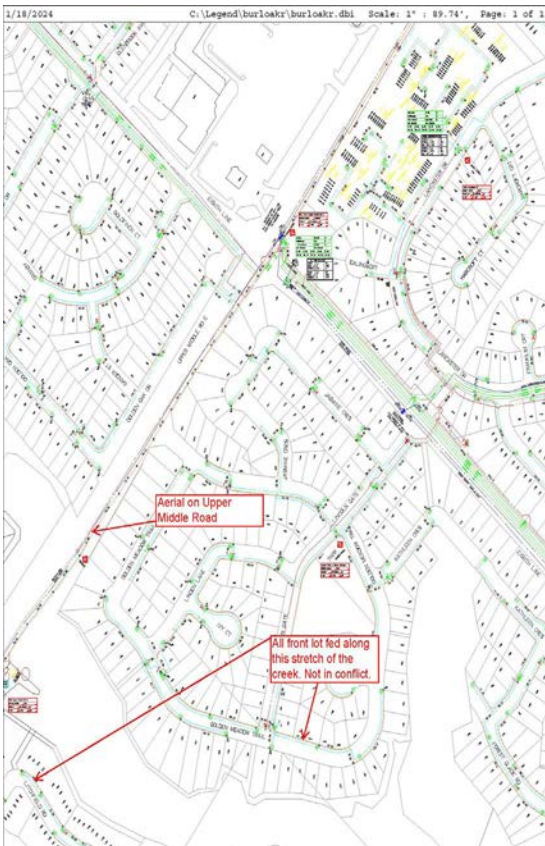
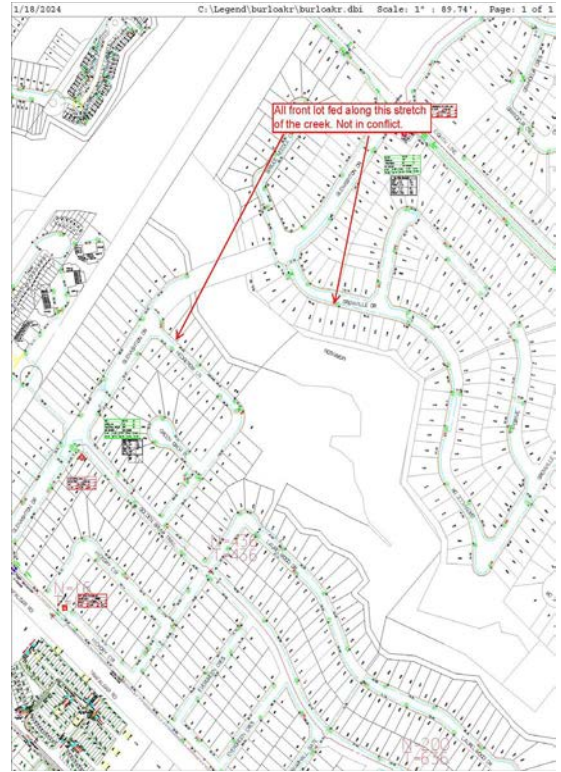
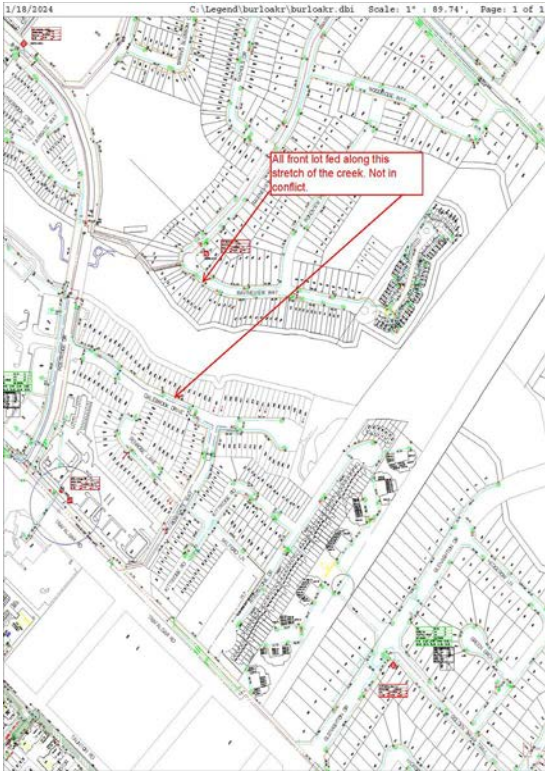
### DISCLAIMER

Matrix Solutions Inc. certifies that this report is accurate and complete and accords with the information available during the project. Information obtained during the project or provided by third parties is believed to be accurate but is not guaranteed. Matrix Solutions Inc. has exercised reasonable skill, care, and diligence in assessing the information obtained during the preparation of this report.

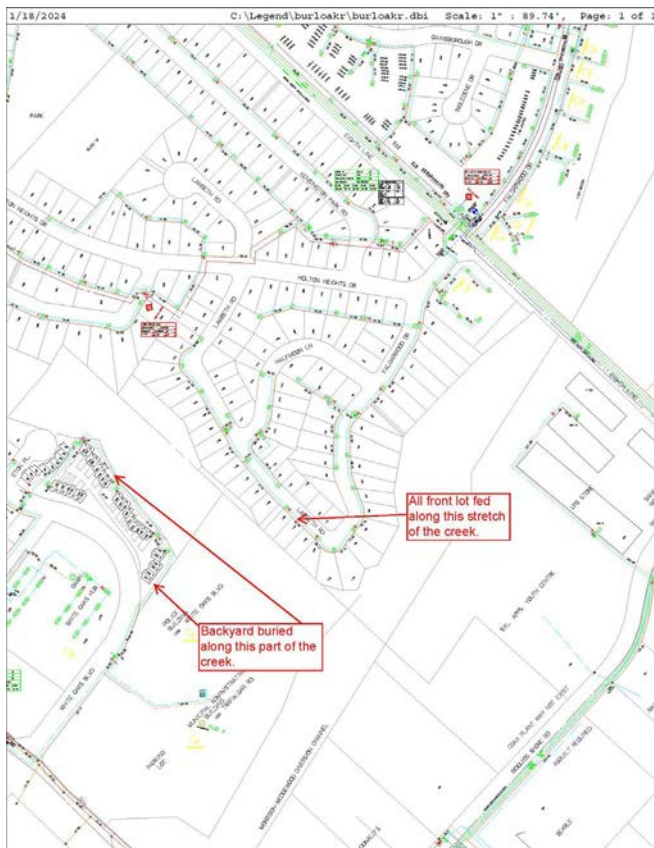
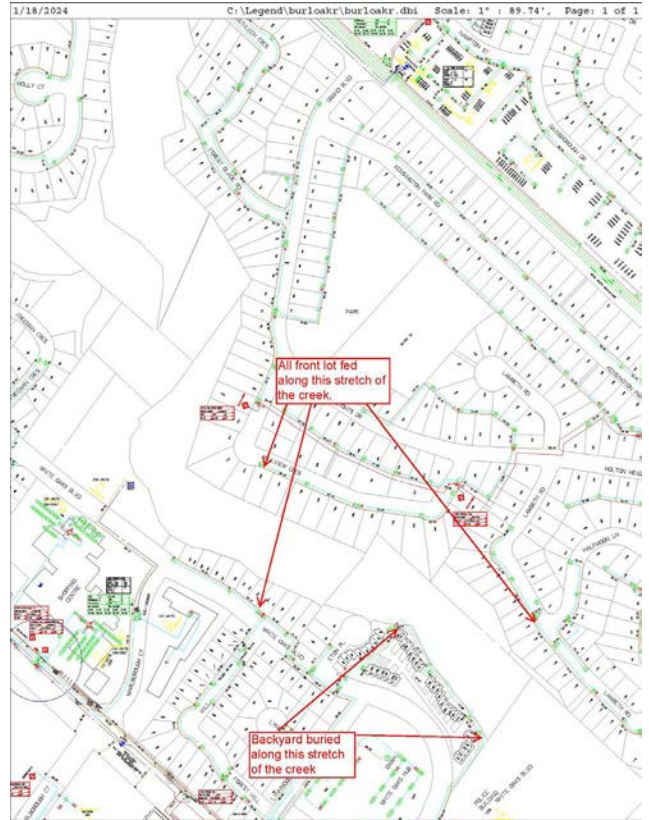
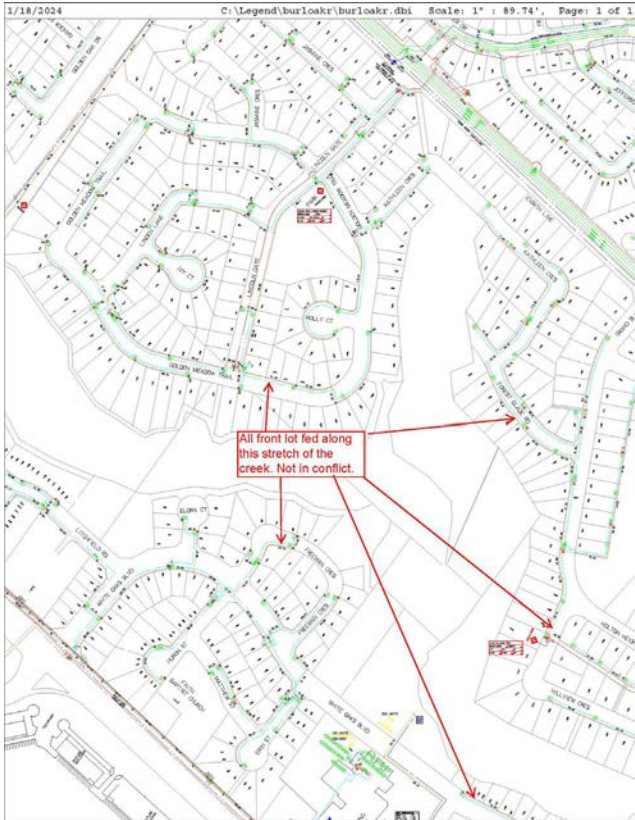
Neither Matrix Solutions Inc. nor its affiliates are responsible for damages or injuries incurred by any third party as a result of decisions made or actions taken based on this report.

# East Morrison Creek Erosion Mitigation EA

## Appendix H2 – Mapping Sketches from Cogeco Cable Utility



# East Morrison Creek Erosion Mitigation EA Appendix H2 – Mapping Sketches from Cogeco Cable Utility



## Amy Nicoll

---

**From:** Justine Chin-Cheong  
**Sent:** March 20, 2024 9:05 AM  
**To:** Amy Nicoll  
**Cc:** Kam Chan  
**Subject:** FW: [External] RE: CER Pipeline crossing inquiry [Town of Oakville]

FYI Amy – please see TC’s response below.

**Justine Chin-Cheong, P.Eng., PMP (she/her) | Environmental Engineer**  
Team Lead, Regulatory Planning & Permitting

**MATRIX SOLUTIONS INC. | A Montrose Environmental Company**

D 403.206.0555 | C 403.585.0208

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---

**From:** Nelson Mendes <nelson\_mendes@tcenergy.com>  
**Sent:** Wednesday, March 20, 2024 8:24 AM  
**To:** Len Parsons <lenl\_parsons@tcenergy.com>; Justine Chin-Cheong <jccheong@matrix-solutions.com>  
**Cc:** Chad Bolger <chad\_bolger@tcenergy.com>; Mark O’Connell <mark\_oconnell@tcenergy.com>  
**Subject:** [External] RE: CER Pipeline crossing inquiry [Town of Oakville]

Len, thanks.

Just looping in Chad, the RLR for this area, and Mark, the area Pipe Tech.

Hi, Justine,

We do have as-builts and alignment sheets, together with certain depth of cover (DOC) readings from surveys we may undertake, but unfortunately we never provide these externally. We only provide them to a municipality at the time of a new pipeline road crossing installation, such as we did at several locations in Vaughan during the KNC and VME projects (2014-2018). Furthermore, the data we share with municipalities is limited to the 30m Prescribed Area, and thus we never provide the centreline or DOC data, especially since DOC can change over time due to various factors such as erosion of ground cover. Thus, the only option a contractor has it to undertake hydro-vacc’ing to secure the most up-to-date data, and they would need to go through the locates process for our written/field approval consent for conducting a ground disturbance within the Prescribed Area, notably via Click-Before You Dig/ [www.ontarioonecall.ca](http://www.ontarioonecall.ca). The locate will provide the details of the pipe location, while the hydro-vacc’ing will give you the DOC.

If you need anything further, just let us know.

Regards,

**Nelson Mendes**

Senior Regional Land Representative

Maple-Niagara Region

*Land Canada*

86 Healey Road, Bolton, ON L7E 5A7

[nelson\\_mendes@tcenergy.com](mailto:nelson_mendes@tcenergy.com)

mobile: 226-926-8010 desk: 905-951-4347



[TCEnergy.com](http://TCEnergy.com)

---

**From:** Len Parsons <[lenl\\_parsons@tcenergy.com](mailto:lenl_parsons@tcenergy.com)>  
**Sent:** Tuesday, March 19, 2024 4:45 PM  
**To:** Justine Chin-Cheong <[jccheong@matrix-solutions.com](mailto:jccheong@matrix-solutions.com)>  
**Cc:** Nelson Mendes <[nelson\\_mendes@tcenergy.com](mailto:nelson_mendes@tcenergy.com)>  
**Subject:** RE: [EXTERNAL] CER Pipeline crossing inquiry

Thx Justine,

It's probably best to go through our Senior Land Representative first – Nelson Mendes. He may likely then put you into contact with a better TCE contact after that initial discussion. I have cc'ed Nelson on this email.

Nelson – Thoughts?

Thx  
Len

Len Parsons  
Eastern Canada Project Manager  
Contamination Management  
Cell: 249-535-3392

---

**From:** Justine Chin-Cheong <[jccheong@matrix-solutions.com](mailto:jccheong@matrix-solutions.com)>  
**Sent:** Tuesday, March 19, 2024 4:06 PM  
**To:** Len Parsons <[lenl\\_parsons@tcenergy.com](mailto:lenl_parsons@tcenergy.com)>  
**Cc:** Amy Nicoll <[anicoll@matrix-solutions.com](mailto:anicoll@matrix-solutions.com)>  
**Subject:** [EXTERNAL] CER Pipeline crossing inquiry

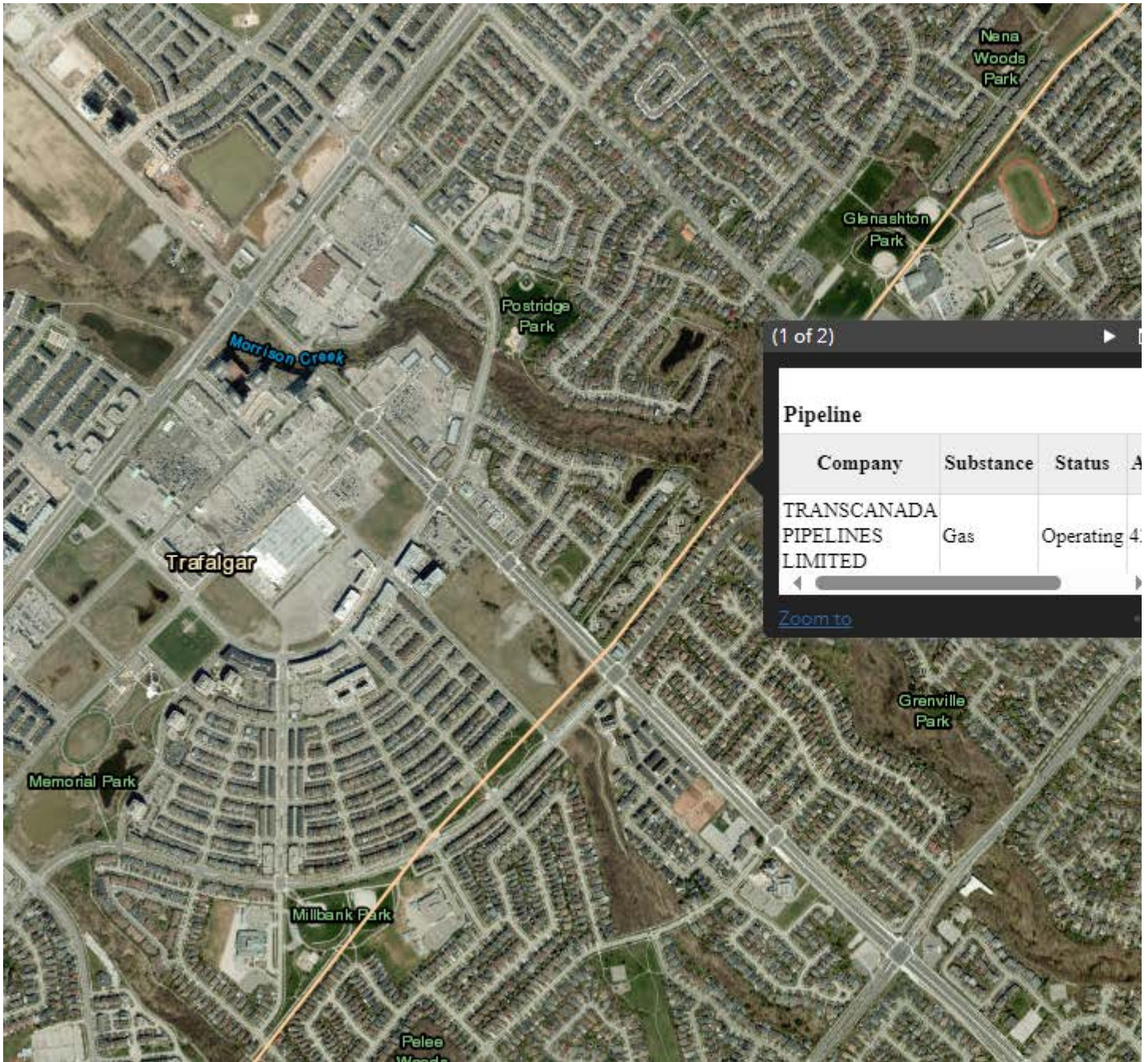
**EXTERNAL EMAIL: PROCEED WITH CAUTION.**  
This e-mail has originated from outside of the organization. Do not respond, click on links or open attachments unless you recognize the sender or know the content is safe. If this email looks suspicious, report it.

---

Hey Len,

Is there a contact at TC you could put us in touch with? Unrelated to our contaminated sites portfolio but we're looking for contact information to request TCPL drawings or vertical alignment / depth of cover information of a pipeline crossing a study area in Oakville. We have GIS mapping of its location from the Town of Oakville, but no information about depth. The project is for the Town. Please let us know if anyone comes to mind. Thanks!

From the CER interactive pipeline map:



**Justine Chin-Cheong, P.Eng., PMP (she/her) | Environmental Engineer**  
Team Lead, Regulatory Planning & Permitting

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D 403.206.0555 | C 403.585.0208 | T 905.877.9531

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## Amy Nicoll

---

**From:** Joe Medeiros <joe.medeiros@cogeco.com>  
**Sent:** January 18, 2024 9:08 AM  
**To:** Amy Nicoll  
**Cc:** Philip Campbell; Roger Phillips; jamie.lane@cogeco.com  
**Subject:** [External] Re: Request for utilities information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville  
**Attachments:** Cogeco-Morrison Creek 4.pdf; Cogeco-Morrison Creek 3.pdf; Cogeco-Morrison Creek 6.pdf; Cogeco-Morrison Creek 5.pdf; Cogeco-Morrison Creek.pdf; Cogeco-Morrison Creek 1.pdf; Cogeco-Morrison Creek 2.pdf

Good morning Amy,

Here's a markup of this stretch of the creek.

As you will notice, most of our infrastructure is front lot fed to our customers.

Hope this help,

### JOE MEDEIROS

Network Delivery Coordinator

South Oakville

T-(289)-337-7000 EX 7670 C-(905) 630-6039

[joe.medeiros@cogeco.com](mailto:joe.medeiros@cogeco.com)

950 Syscon Road  
Burlington, Ontario L7R 4S6 Canada  
[cogeco.ca](http://cogeco.ca)



---

On Tue, Jan 16, 2024 at 9:28 PM Daniela Policelli <[daniela.policelli@cogeco.com](mailto:daniela.policelli@cogeco.com)> wrote:

Good day,

I have added Joe Medeiros to this email, he is the network Delivery Coordinator for south Oakville.

Please forward all correspondence to Joe for this area going forward. He will be happy to assist. Thank you.

DANIELA POLICELLI  
Regional Program Lead

T289-337-7000 ext 7286|C289-339-7627  
950 Syscon Road  
Burlington, Ontario L7R 4S6 Canada  
[cogeco.ca](http://cogeco.ca)

On Tue, Jan 16, 2024 at 4:56 PM Amy Nicoll <[anicoll@matrix-solutions.com](mailto:anicoll@matrix-solutions.com)> wrote:

Good afternoon Jaimie and Daniela,

Matrix is completing the East Morrison Creek Erosion Mitigation Environmental Assessment for the Town of Oakville and in support of this project we would like to request information regarding utilities within the study area. Please find our request for information attached, and let me know if you have any questions.

Thank you,

Amy

**Amy Nicoll**, M.Sc., P.Geo. (Limited) (She/Her) | Fluvial Geomorphologist

**MATRIX SOLUTIONS INC.** | A Montrose Environmental Company

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**D** 289.323.3781 | **C** 647.382.3181 | **T** 905.877.9531

**24-Hour Emergency Spill Response** 1.877.774.5525

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## Amy Nicoll

---

**From:** Dave Gadbois <Dave.Gadbois@enbridge.com>  
**Sent:** January 17, 2024 11:30 AM  
**To:** Amy Nicoll  
**Cc:** Roger Phillips; Philip Campbell  
**Subject:** [External] RE: Request for utilities information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville  
**Attachments:** trd20240117\_112544.pdf

Good morning All,

Please see the attached copy of the Enbridge plant in the affected area. Admittedly the quality is not great on the scan, our GIS doesn't like following the creek path!

Please let me know if you require any clarification or additional information.

Thanks,

Dave

---

**From:** Amy Nicoll <anicoll@matrix-solutions.com>  
**Sent:** Tuesday, January 16, 2024 4:52 PM  
**To:** Dave Gadbois <Dave.Gadbois@enbridge.com>  
**Cc:** Roger Phillips <rphillips@matrix-solutions.com>; Philip Campbell <pcampbell@matrix-solutions.com>  
**Subject:** [External] Request for utilities information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville

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Good afternoon Dave,

Matrix is completing the East Morrison Creek Erosion Mitigation Environmental Assessment for the Town of Oakville and in support of this project would like to request utilities data within the study area. Please find our request for information attached, and let me know if you have any questions.

Thank you,  
Amy

**Amy Nicoll, M.Sc., P.Geo. (Limited) (She/Her) | Fluvial Geomorphologist**

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## Amy Nicoll

---

**From:** Paul Syrett <paul.syrett@hcetelecom.com>  
**Sent:** January 17, 2024 8:18 AM  
**To:** Amy Nicoll  
**Cc:** Roger Phillips; Philip Campbell  
**Subject:** [External] RE: Request for utilities information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Amy

HCE Telecom has no plant in your study area.

Paul

**Paul Syrett**  
Field Services Supervisor



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21 King Street W | Suite 1400, Hamilton, ON, L8P 4W7

---

**From:** Amy Nicoll <anicoll@matrix-solutions.com>  
**Sent:** Tuesday, January 16, 2024 4:59 PM  
**To:** Paul Syrett <paul.syrett@hcetelecom.com>  
**Cc:** Roger Phillips <rphillips@matrix-solutions.com>; Philip Campbell <pcampbell@matrix-solutions.com>  
**Subject:** Request for utilities information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville

Good afternoon Paul,

Matrix is completing the East Morrison Creek Erosion Mitigation Environmental Assessment for the Town of Oakville and in support of this project we would like to request information regarding utilities within the study area. Please find our request for information attached, and let me know if you have any questions.

Thank you,  
Amy

**Amy Nicoll, M.Sc., P.Geo. (Limited) (She/Her) | Fluvial Geomorphologist**

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## Amy Nicoll

---

**From:** Travis Graham <Travis.Graham@rci.rogers.com>  
**Sent:** January 17, 2024 11:30 AM  
**To:** Daniel Mulindwa; Amy Nicoll  
**Cc:** Roger Phillips; Philip Campbell  
**Subject:** [External] FW: Request for information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville  
**Attachments:** 36236 Oakville E Morrison Creek EA - Utility and Infrastructure 2024-01-09 final v1.0.pdf

Hi Daniel,

Can you please assist Amy with forwarding her EA project to our markup team, they are looking for Rogers plant information within their project's study area in Oakville.

Thanks,

**Travis Graham**  
**Sr. Analyst, Campaign Management**

Rogers Communications Canada Inc.  
333 Bloor Street East, 8th Floor, Toronto, ON M4W 1G9  
o: 416-913-1243 | m: 647-244-7837  
Email: [travis.graham@rci.rogers.com](mailto:travis.graham@rci.rogers.com)



---

**From:** Amy Nicoll <anicoll@matrix-solutions.com>  
**Sent:** January 16, 2024 4:58 PM  
**To:** Travis Graham <Travis.Graham@rci.rogers.com>  
**Cc:** Roger Phillips <rphillips@matrix-solutions.com>; Philip Campbell <pcampbell@matrix-solutions.com>  
**Subject:** Request for information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville

Good afternoon Travis,

Matrix is completing the East Morrison Creek Erosion Mitigation Environmental Assessment for the Town of Oakville and in support of this project we would like to request information regarding utilities within the study area. Please find our request for information attached, and let me know if you have any questions.

Thank you,  
Amy

**Amy Nicoll, M.Sc., P.Geo. (Limited) (She/Her) | Fluvial Geomorphologist**  
**MATRIX SOLUTIONS INC. | A Montrose Environmental Company**  
3001 - 6865 Century Ave., Mississauga, ON L5N 7K2  
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---

## Amy Nicoll

---

**From:** Shah, Moxa <Moxa.Shah@Telecon.ca>  
**Sent:** January 26, 2024 10:33 AM  
**To:** Amy Nicoll  
**Cc:** GTAW.Markups  
**Subject:** [External] M24A266\_RE: Request for information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville  
**Attachments:** M24A266 - Response Letter.pdf; M24A266.dwg

Hi,

Please find the attached completed markup request.

Regards.

**Moxa Shah**

CAD, Engineering - Central Canada

E : [Moxa.Shah@telecon.ca](mailto:Moxa.Shah@telecon.ca)

7777 Weston Rd, Woodbridge (Ontario) L4L 0G9



---

[telecon.ca](http://telecon.ca)

---

**From:** Amy Nicoll <[anicoll@matrix-solutions.com](mailto:anicoll@matrix-solutions.com)>  
**Sent:** January 16, 2024 4:58 PM  
**To:** Travis Graham <[Travis.Graham@rci.rogers.com](mailto:Travis.Graham@rci.rogers.com)>  
**Cc:** Roger Phillips <[rphillips@matrix-solutions.com](mailto:rphillips@matrix-solutions.com)>; Philip Campbell <[pcampbell@matrix-solutions.com](mailto:pcampbell@matrix-solutions.com)>  
**Subject:** Request for information - East Morrison Creek Erosion Mitigation Environmental Assessment, Town of Oakville

Good afternoon Travis,

Matrix is completing the East Morrison Creek Erosion Mitigation Environmental Assessment for the Town of Oakville and in support of this project we would like to request information regarding utilities within the study area. Please find our request for information attached, and let me know if you have any questions.

Thank you,  
Amy

**Amy Nicoll, M.Sc., P.Geo. (Limited) (She/Her) | Fluvial Geomorphologist**

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Rogers Communications  
Outside Plant Engineering  
3573 Wolfdale Road  
Mississauga, ON  
L5C 3T6

## Markup Response Form

**Application Date** January 17, 2024      **Applicant:** Matrix Solutions  
**Date Returned:** January 26, 2024  
**Rogers Ref. No.:** M24A266      **Applicant Ref. No.:** N/A  
**Location / Municipality:** East Morrison Creek

**Rogers Communications has reviewed your drawing(s) as requested.  
Our comments follow below with an "X" indicating Rogers' stance on your proposed plan.**

**Markup Response is valid for 6 months from the date issued.**

Please inform Rogers Communications a minimum of 6 - 12 months in advance of the proposed construction schedule in order to coordinate our plant relocation.

Contact Ontario One Call at 1-800-400-2255 or [www.on1call.com](http://www.on1call.com) at least 5 business days before beginning work to obtain utility locates. Hand dig / Vac truck when crossing, or within 1.0m of existing Rogers plant. Plant is to approximation.

### Comments:

- Markup Only** Not for PUC Approval
- For your Reference** Rogers Communications currently has existing plant as marked on your drawing. Our standard depth in this municipality is: 1m. Please ensure you maintain clearances of 0.3m vertically and 0.6m horizontally.
- No Conflict** Rogers Communications currently does not possess existing plant in the area indicated on your attached plans.
- CONFLICT** Your proposed construction appears to encroach within existing Rogers Communications plant. Please ensure you maintain clearances of 0.3 m vertically and 0.6 m horizontally. For hand dig maintain 0.6 m and for directional bore maintain 1.0 m horizontally. Please relocate your proposed construction to allow adequate clearance.

### CAUTION NOTES:

- Use vactruck and expose ducts, maintain minimum of 0.6m clearance.
- Rogers Communications has aerial plant in this area, as it is indicated on the attached plans.
- Fiber Optic Cable is present in the area of your proposed construction. Please obtain locates and maintain minimum 1.0m/1.0m clearance.
- Proposed Fiber Optic Cable in a joint use duct structure .
- Plant currently under construction.

---

## **APPENDIX H3**

### **Public Information Centre (PIC) 1**

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## **APPENDIX H3a**

### **PIC 1 Documents**

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## Notice of Public Information Centre (PIC) Tuesday September 17th, 2024

### Town of Oakville East Morrison Creek Erosion Mitigation Study Schedule 'B' Municipal Class Environmental Assessment

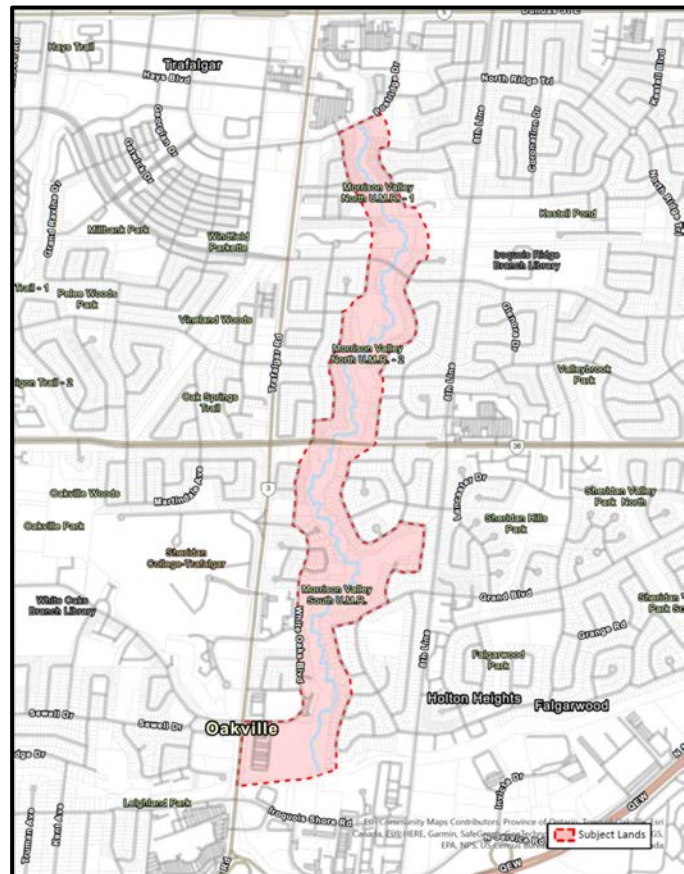
#### Study Overview

The Town of Oakville has initiated the East Morrison Creek Erosion Mitigation Study to identify erosion risks, define erosion hazards, and develop preferred options to mitigate erosion in the study area.

The study area of East Morrison Creek extends from the Morrison-Wedgwood diversion channel, directly east of Oakville Town Hall, upstream to the culvert at Postridge Drive. This area of concern was identified in the 2021 Creek Inventory and Assessment Study.

#### The Process

This study is being undertaken as a Schedule B project under the Municipal Class Environmental Assessment (EA) Process, approved under the Ontario Environmental Assessment Act. As part of the EA process, public engagement is undertaken to review project problems/opportunities, define existing conditions, review alternative solutions, and identify preliminary preferred alternative solutions. This is the first of two PICs being planned for the study.



*Please see reverse for additional information*

[Town of Oakville](#) | [1225 Trafalgar Road, Oakville L6H 0H3](#) | [905-845-6601](#) | [oakville.ca](#)

## Public Information Centre Detail

You are invited to come to the Public Information Centre to review and discuss the EA study with the project team. The PIC is scheduled for:

**Tuesday September 17<sup>th</sup>, 2024**  
**6:30pm to 8:30pm**  
**Oakville Town Hall**  
**South Atrium**  
**1225 Trafalgar Road, Oakville, ON L6H 0H3**

Meeting materials will be made available on the Town's website prior to the meeting:

<https://www.oakville.ca/home-environment/environment/environmental-projects-studies/east-morrison-creek-erosion-mitigation-study/>

### Your Input is Important!

Please direct all comments, concerns, and input on the project to the following contacts via email, mail or phone call.

**Jing Liu, P. Eng.**  
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1225 Trafalgar Road  
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Senior Geomorphologist  
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T: (226) 314-1950  
rphillips@matrix-solutions.com

\*Information collected will be used in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of person information, all comments will become part of the public record.

\*Project and notice information will be made available in an alternate format upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.

This Notice was first issued on September 3, 2024



# East Morrison Creek Erosion Mitigation Study

Welcome to the September 17, 2024  
Public Information Center for the  
East Morrison Creek Erosion Mitigation Study  
Municipal Class Environmental Assessment  
Schedule B

For additional information, please contact one of the  
study team members:

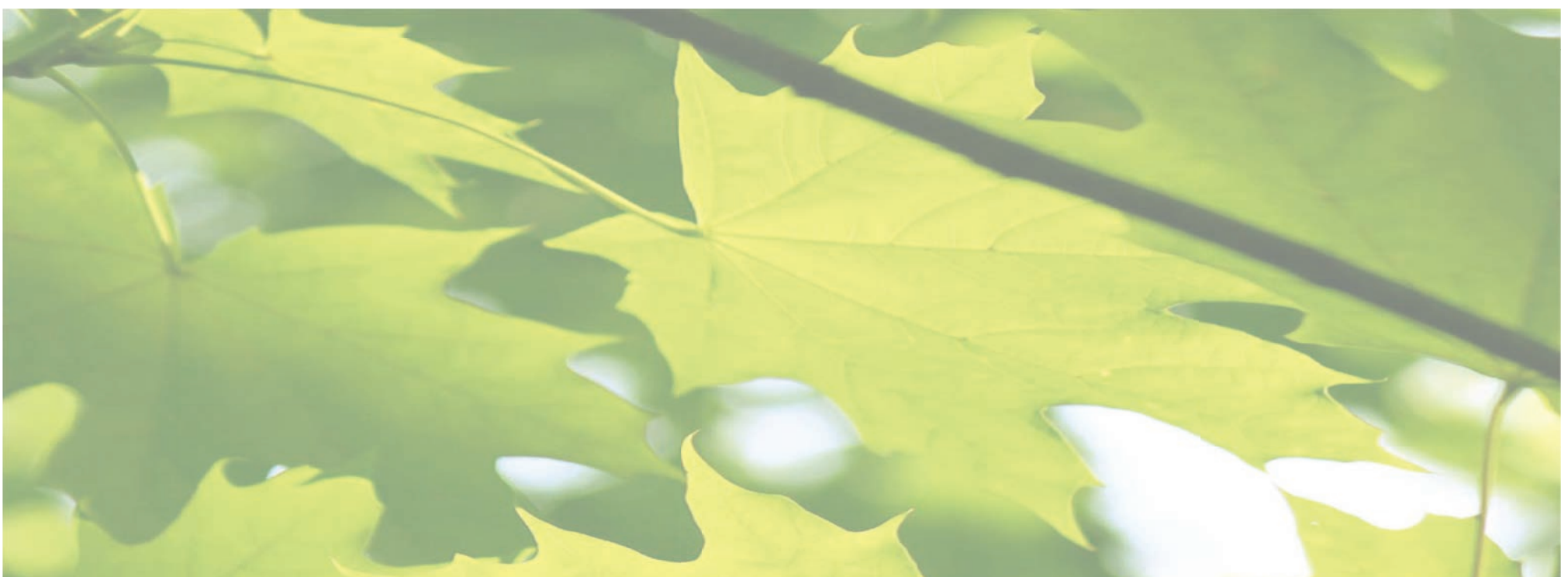
**Jing Liu, P.Eng.**  
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**Roger Phillips, Ph.D., P.Geo., FGC**  
Senior Geomorphologist, Project Manager  
-  
Matrix Solutions Inc.  
6865 Century Ave #3001  
Mississauga, ON L5N 7K2

# Land Acknowledgement

## Honouring the Land and Territory

- Oakville, as we know it today, is rich in the history and modern traditions of many First Nations. From the lands of the Anishinaabe, to the Attawandaron and Haudenosaunee, these lands surrounding the Great Lakes are steeped in First Nations history. As we gather today on the sacred lands of Treaties 14 and 22, we are in solidarity with Indigenous brothers and sisters to honour and respect Mother Earth, the original nations of the trees and plants, the four legged, the flyers, the finned and the crawlers as the original stewards of Mother Earth. We acknowledge and give gratitude to the waters as being life and being sacred and to the carriers of those water teachings, the females. We acknowledge and give gratitude for the wisdom of the Grandfathers and the four winds that carry the spirits of our ancestors that walked this land before us.
- The Town of Oakville is located on the Treaty Lands and Territory of the Mississaugas of the Credit. We acknowledge and thank the Mississaugas of the Credit First Nation, the Treaty holders, for being stewards of this traditional territory.



# Study Area/Background

## Town of Oakville Erosion Studies

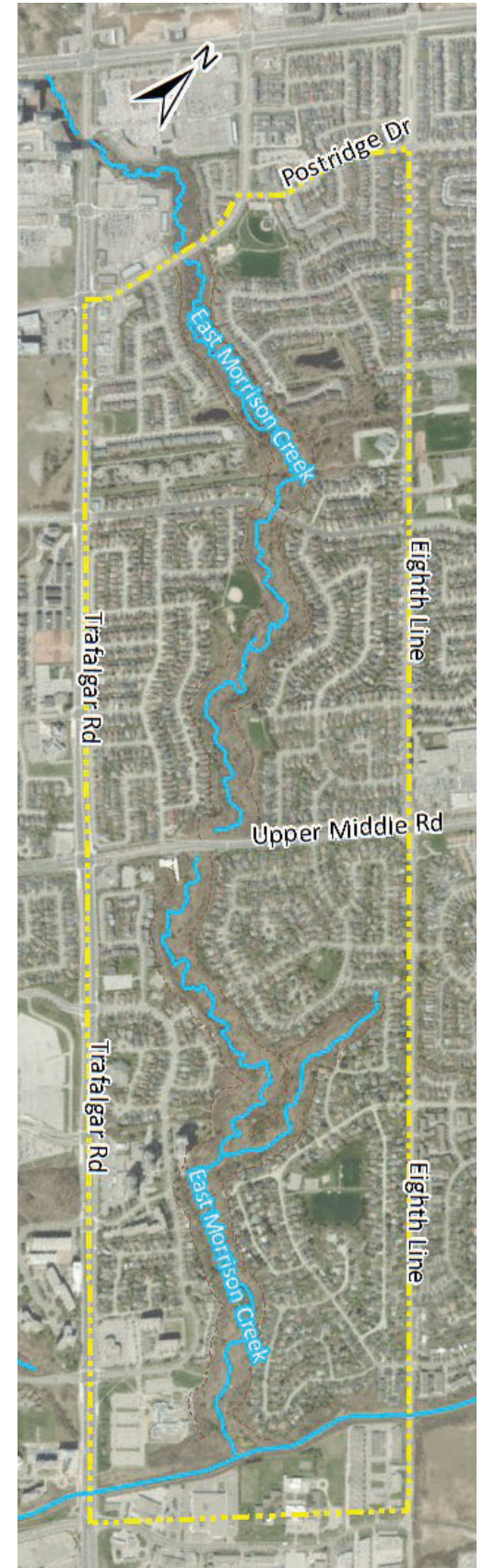
- Stream erosion is routinely assessed within the Town of Oakville and has been documented in a series of reports since 2001. Stream erosion is a natural process, but historic land use changes can result in accelerated rates of erosion that put infrastructure and property at risk when near the watercourse.
- The most recent Creek Inventory and Assessment Study was completed in 2021. This study identified East Morrison Creek, from the Morrison-Wedgewood Diversion Channel to Postridge Drive (Reaches 39-45), as the highest priority “long” reach of concern. The 2021 study recommended an Environmental Assessment (EA) to address erosion issues within these reaches. The current study fulfills this recommendation.

## East Morrison Creek Erosion Mitigation EA Study

- The purpose of this study is to mitigate stream erosion risks and to identify stream restoration opportunities. Given the potential environmental impacts and public implications, this study will conform with the Municipal Class EA planning process (Schedule B) which includes public consultation. Schedule B projects include Phase 1 to identify the problems and Phase 2 to evaluate alternative solutions. This study focuses on fluvial erosion and is not related to flood mitigation.

## Study Area Conditions

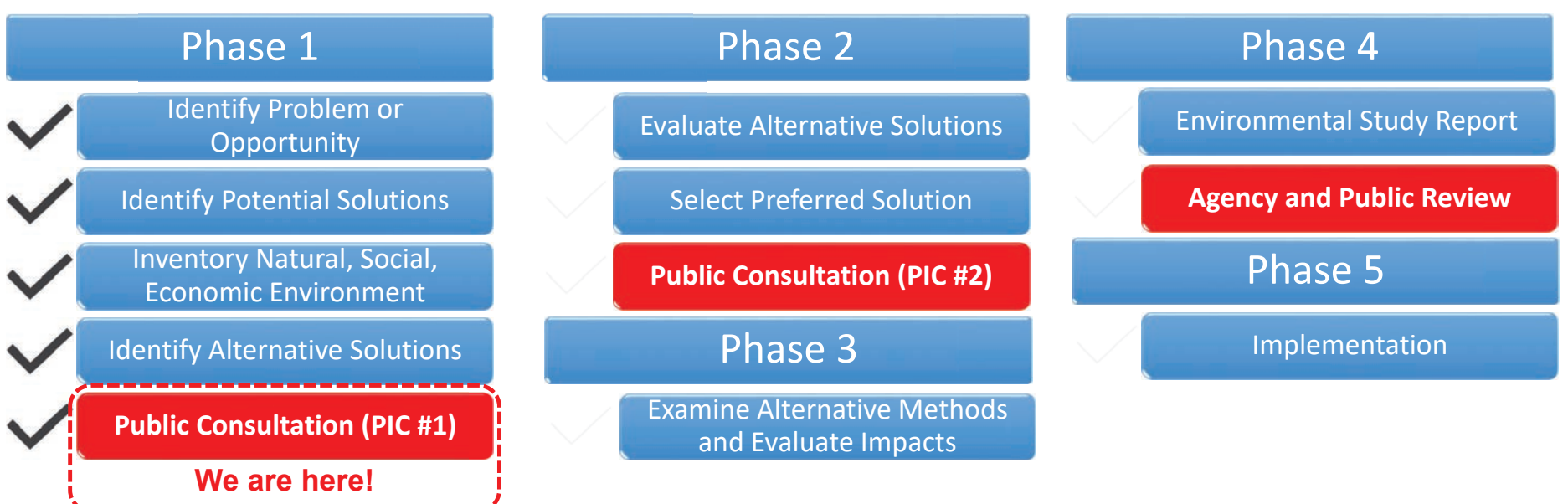
- The study area is situated from the Morrison-Wedgewood diversion channel located in the downstream lengths of the watershed to the upstream boundary along Postridge Drive. A pedestrian pathway is located through the Morrison Valley along East Morrison Creek. Through the study area, East Morrison Creek is generally characterized by active erosion, with local bank hardening measures including gabion baskets, armourstone and rip rap bank protection. In some locations, these channel engineering structures are failing.



# Environmental Assessment Study Outline

- Through its ongoing erosion monitoring program, the Town of Oakville identified this reach of East Morrison Creek as a high priority site to review possible rehabilitation opportunities. Key concerns include bank erosion within the creek, bank and valley slope stability, failure of erosion control measures, and threats to private property and municipal infrastructure.
- The study will examine the creek and associated natural resources to identify existing erosion concerns, potential future risks, and opportunities for restoration and environmental enhancement. Through the Class EA process, multiple alternative solutions will be developed and evaluated by the Study Team and refined through public and agency consultation (see below) and including engagement with interested Indigenous Peoples. The Study Team will then select a Preferred Alternative. Detailed design and construction would be scheduled in the future through capital budget process. The Town will work with CH to obtain permits for detailed design and construction of erosion mitigation measures as necessary
- This study is being completed under Schedule “B” of the Municipal Class EA process. This portion of the study specifically addresses Phases 1 & 2 of the EA Process.

## Class EA Process:



# Indigenous Engagement and Archeology

## Indigenous Engagement

There are legal duties to consult with Indigenous Peoples. The project study area is located in treaty 13a, 1805 Mississaugas, within the traditional territory and claim of the Mississaugas of the Credit, and within the 1701 Nanfan Deed. As such, consultation is required with:

- Mississaugas of the New Credit First Nation
- Six Nations of the Grand River
- Haudenosaunee Confederacy Chiefs Council
- Métis Nations of Ontario

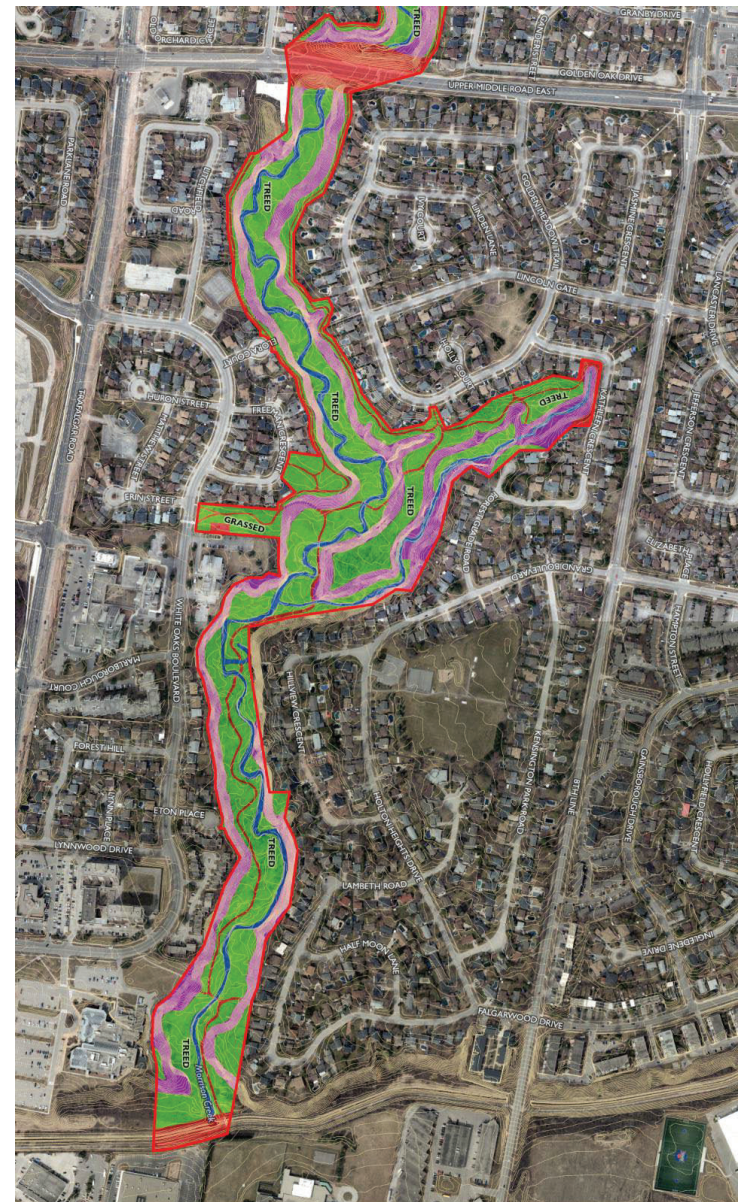
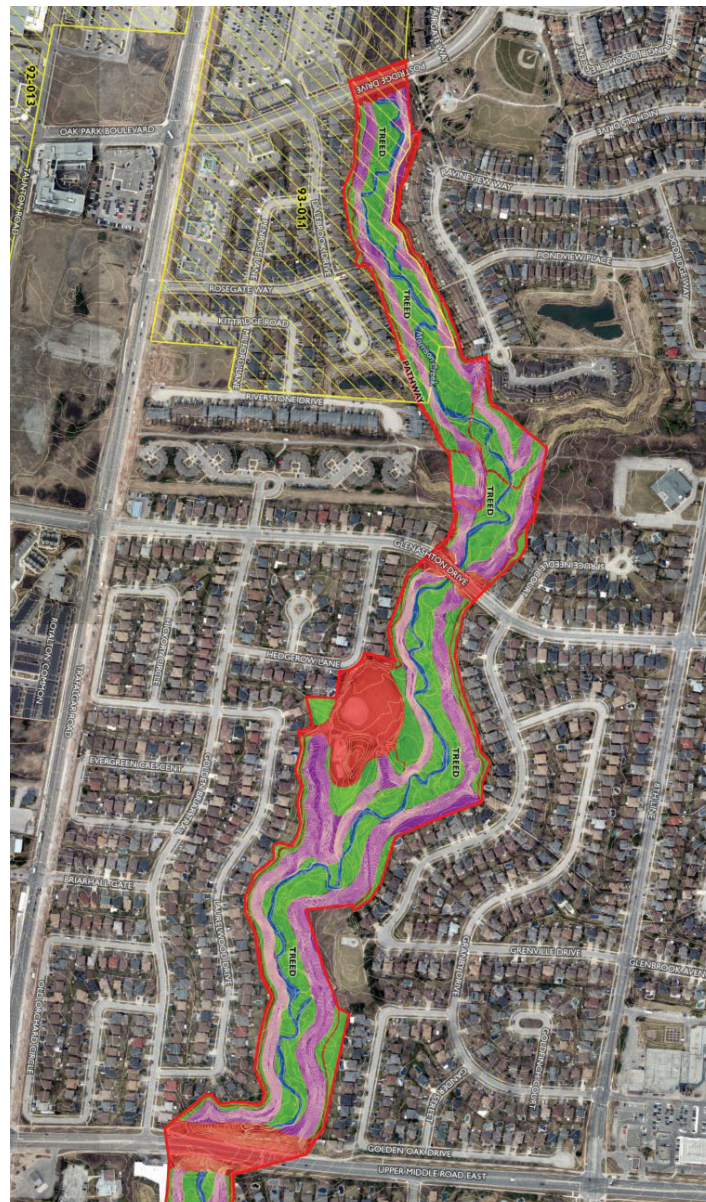
With the distribution of the initial Notice of Commencement for the project, interested Indigenous Peoples will be invited to review and comment on draft EA and archeological reports.

## Archeological Assessment

A Stage I archeological assessment of the study area has been completed by TMHC Inc., included a review of current land use, historic and modern maps, registered archaeological sites and previous archaeological studies, past settlement history for the area, and a consideration of topographic and physiographic features, soils and drainage. Known, registered archeological sites are limited to the upstream study area near Postridge Drive, however most undisturbed grassed and treed areas surrounding East Morrison Creek have archaeological potential and would require Stage 2 test pits for areas likely to be impacted by future erosion mitigation works during detailed design.

### STAGE 1 RESULTS & RECOMMENDATIONS

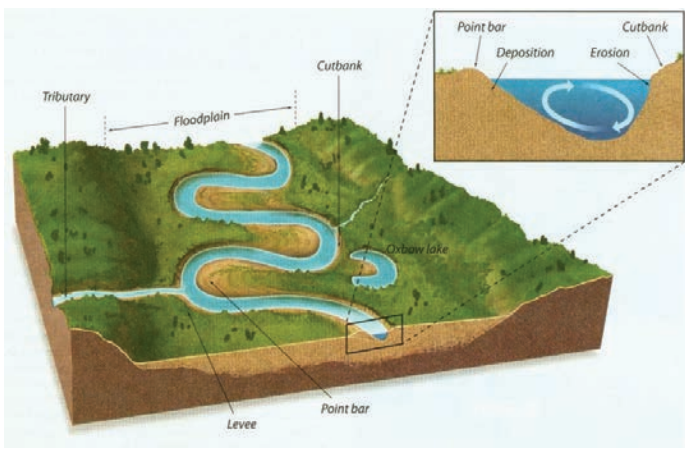
- Project Area
- Contours (1m)
- STAGE 1 ASSESSMENT RESULTS**
- Areas of Archaeological Potential*
- Grassed, Treed (Test Pit Survey Required)
- Areas of Low Archaeological Potential (No Assessment Required)*
- Disturbed (Channelized Drain, Pathways, Roads)
- Steeply Sloped
- Low-Lying/Wet



# Erosion Assessment Introduction

## What is Fluvial Geomorphology

Fluvial geomorphology is the study of rivers and streams to understand how channels change over time due to erosion and deposition of sediment.



East Morrison Creek (2023)

It helps engineers and geoscientists to better manage erosion and flooding hazards around watercourses, and to develop more environmentally sensitive solutions that can help restore and protect our green spaces and wildlife habitat.

## Erosion Assessment

The objective is to identify the risks due to erosion hazards.

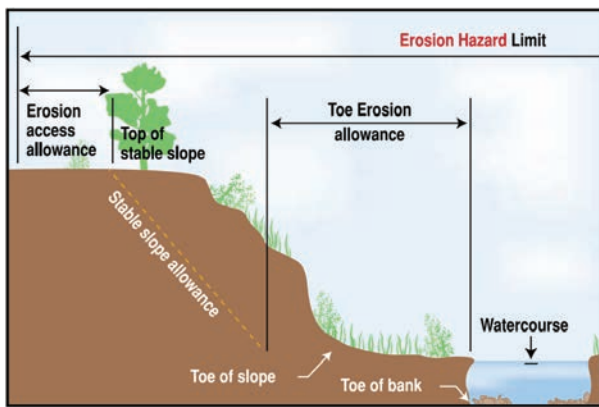
### Erosion Hazards

- Bed Erosion
- Bank Erosion
- Slope Instability



### Risks to

- Public Infrastructure
- Private Property
- Environment, habitat



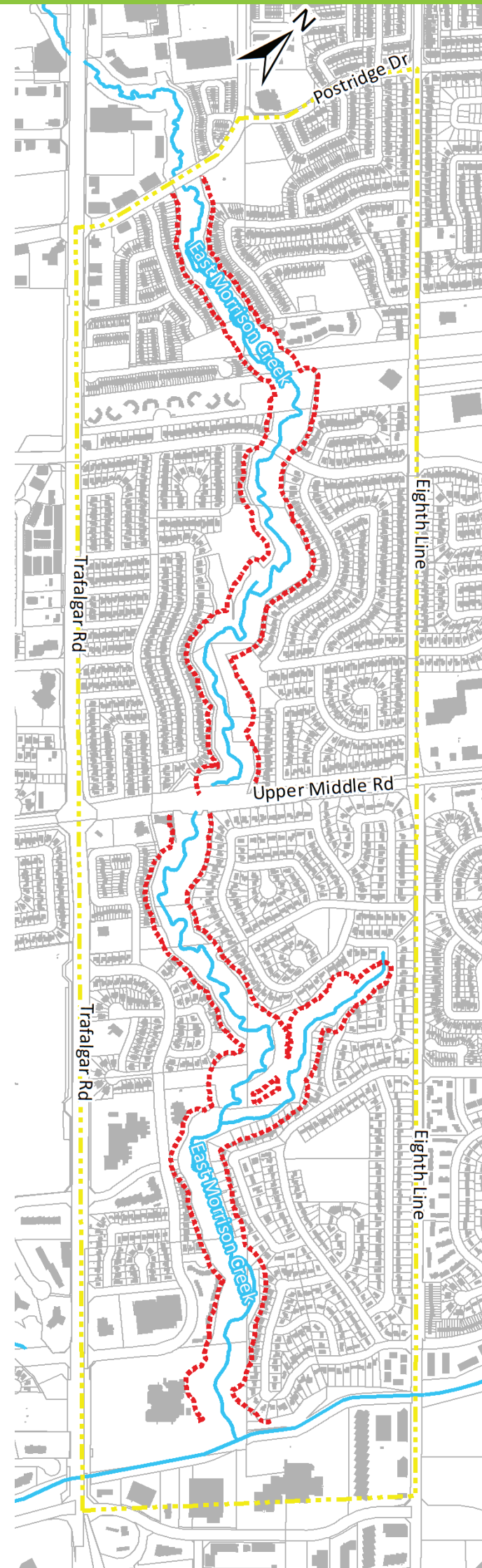
Source: Ontario Ministry of Natural Resources, 2001



East Morrison Creek (2023)

## Erosion Hazard Zones

Long-term, streams and rivers have erosion hazard zones. Engineering and channel design can mitigate erosion risks in hazard zones, but such works may require ongoing maintenance. Managing risks within the erosion hazard zone may require collaboration between the Town and private landowners to mitigate future problems.



# Erosion Assessment Methodology

## Erosion Site Scores

Erosion sites were reassessed in 2023 following the scoring framework applied in the 2021 erosion inventory.

Sites were scored based on 8 erosion hazard criteria. A total erosion score out of 100 was calculated for each site by summing the score for the 8 criteria.

Criteria	Weight
Risk Type	45
Distance to Risk	20
Site Length	5
Site Height	5
Erodibility	10
Erosion Potential	5
Riparian Habitat	5
Aquatic Habitat	5
<b>Total</b>	<b>100</b>

Erosion Site	Risk Type	Total Score
E11	Critical Infrastructure (sanitary sewer)	79
E4	Private Property	65
E6	Private Property	64
E10	Private Property	60
E24	Private Property	59
E7	Private Property	56
E14	Private Property	54
E9	Private Property	53
E16	Private Property	53
E15	Private Property	53
E17	Private Property	51
E5	Secondary Infrastructure (gabion baskets)	51
E22	Private Property	44
E19	Private Property	44
E20	Pedestrian Bridge	43
E21	Pedestrian Bridge	43
E13	Pedestrian Bridge	43
E12	Secondary Infrastructure (stormwater outfall)	42
E18	Trail	39
E8	Trail	38
E23	Trail	37
E1	Trail	35
E3	Trail	34
E2	Trail	26

## Erosion Sites Included in EA Evaluation of Alternatives

The highest scoring erosion sites with scores of 50/100 and above have been identified for inclusion in the Environmental Assessment evaluation of alternatives. These sites were assessed to be higher risk and require consideration of erosion mitigation opportunities. The higher priority sites are typically located at valley slope contacts (or within the Tributary) where private property or critical infrastructure is at risk. For private properties, rear yards, trees and fences may be at risk. All higher priority erosion sites are located south of Upper Middle Road.

Lower priority erosion sites (scores below 50/100) will continue to be monitored as part of the Town’s regular watercourse monitoring program. These sites are typically in locations where non-critical infrastructure, such as recreational trails, are at risk.

The erosion site scores will be confirmed following a site inventory update being completed to document any impacts from the July 2024 storm event.

# East Morrison Creek Erosion Sites Reaches 43-45



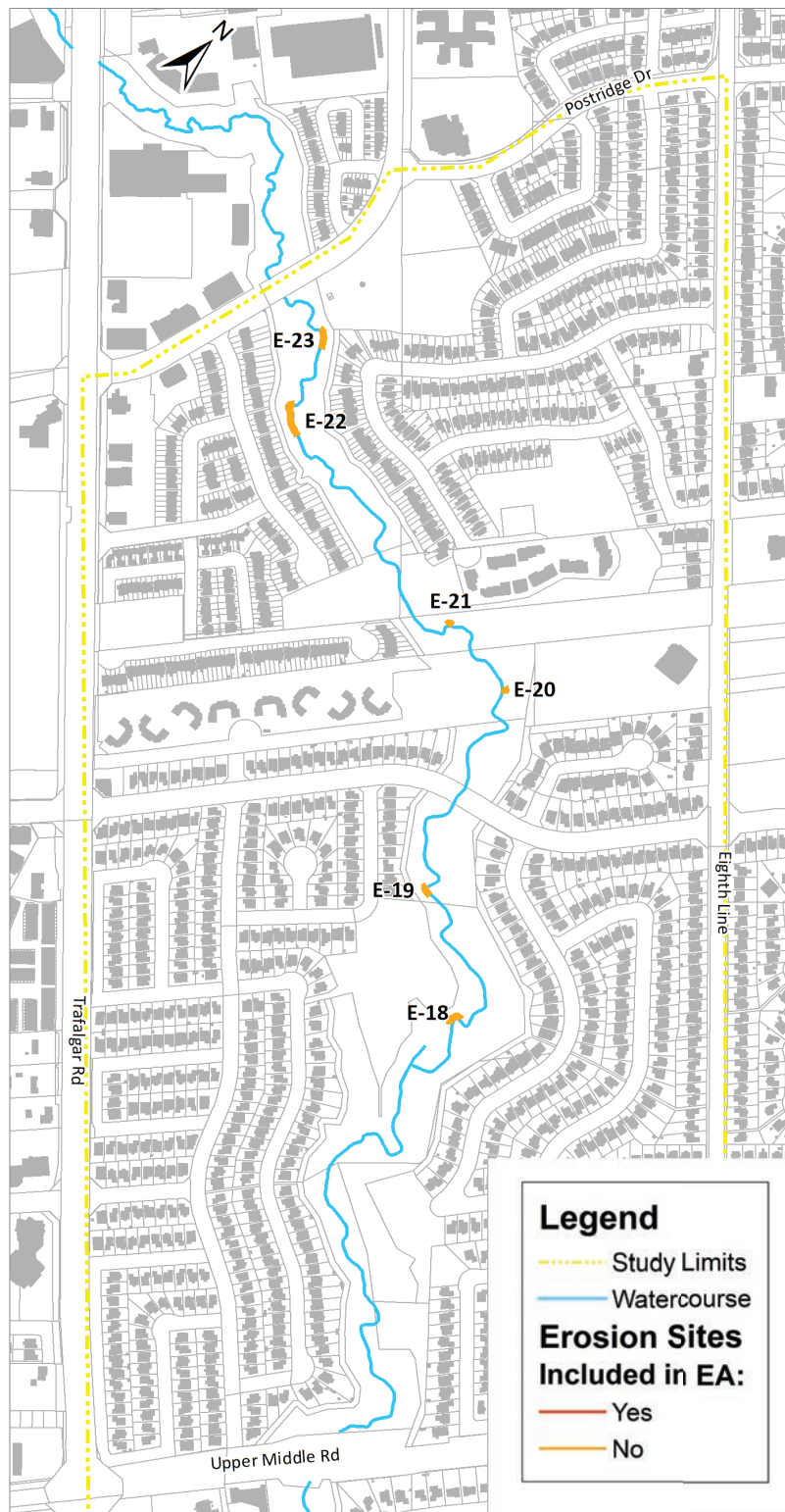
**Site:** E23  
**Score:** 37  
**Issue:** Valley wall contact; eroding valley slope  
**Risk:** Potential risk to pedestrian trail system and private property  
**Length:** 10 – 20 m



**Site:** E21  
**Score:** 43  
**Issue:** Erosion around pedestrian bridge; footing exposed within the channel. No damage to the concrete footing currently.  
**Risk:** Trail infrastructure including pedestrian trail and pedestrian bridge crossing  
**Length:** < 10 m



**Site:** E19  
**Score:** 44  
**Issue:** Valley wall contact along meander bend (90 degrees); gabion basket protection in fair condition (leaning)  
**Risk:** Pedestrian trail system; private property  
**Length:** 20 – 50 m



**Site:** E22  
**Score:** 44  
**Issue:** Valley wall contact; eroding valley slope  
**Risk:** Potential risk to pedestrian trail system and private property  
**Length:** 10 – 20 m



**Site:** E20  
**Score:** 43  
**Issue:** Erosion around pedestrian bridge crossing; footing exposed on the outer meander bend.  
**Risk:** Trail infrastructure including pedestrian trail and pedestrian bridge crossing  
**Length:** < 10 m



**Site:** E18  
**Score:** 39  
**Issue:** Valley wall contact; toe erosion along valley slope  
**Risk:** Pedestrian trail system; park  
**Length:** 20 – 50 m

# East Morrison Creek Erosion Sites Reaches 39-42



**Site:** E14, E15, E16, E17  
**Score:** 54, 53, 53, 51  
**Issue:** Toe erosion at valley contact (unprotected). ~5 to 10 m from fence line.  
**Risk:** Private property, pedestrian trail  
**Length:** 20 – 50 m



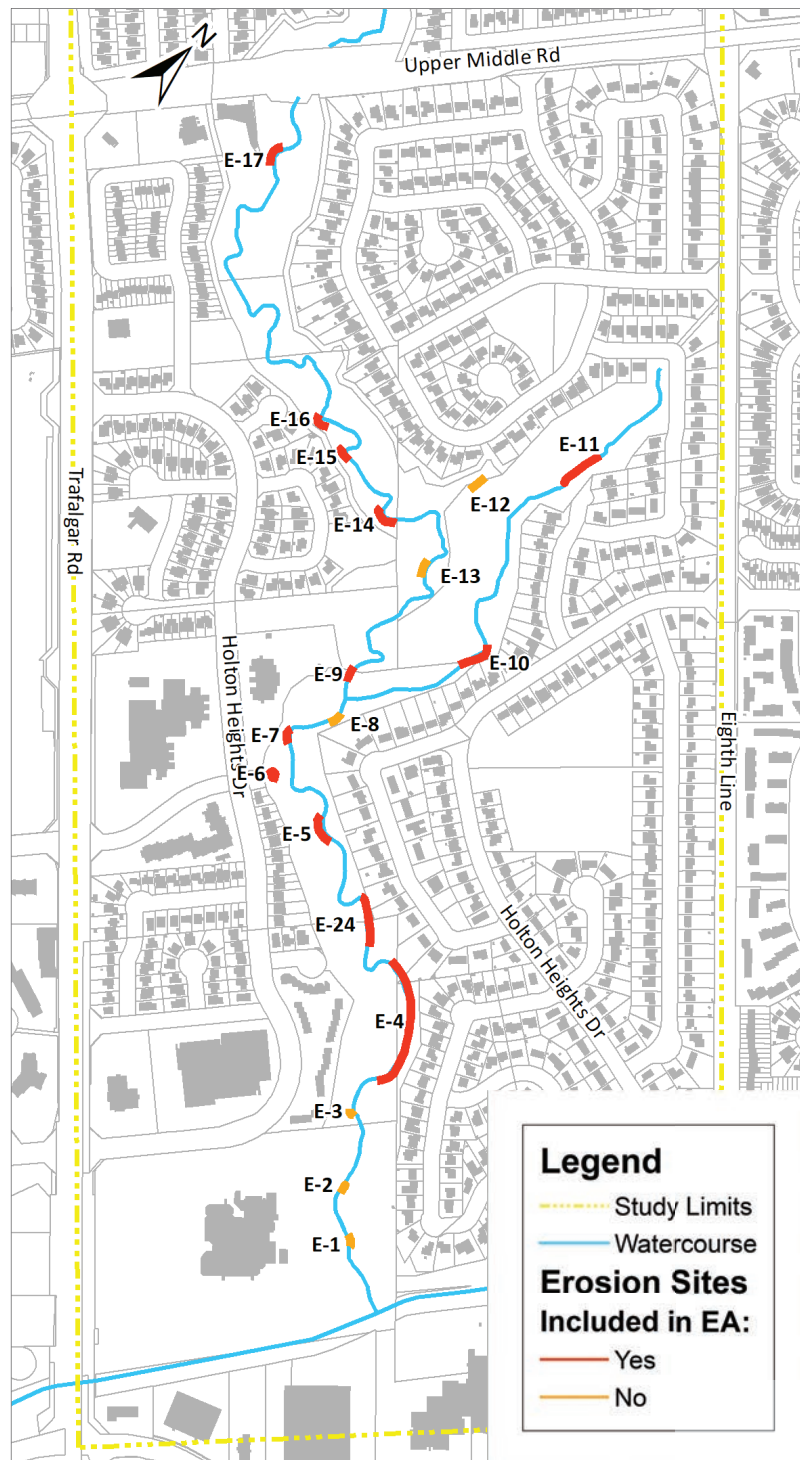
**Site:** E7, E9  
**Score:** 56, 53  
**Issue:** Toe erosion of valley slope (unprotected)  
**Risk:** Private property (parking lot)  
**Length:** 10 – 20 m



**Site:** E6  
**Score:** 64  
**Issue:** Perched outfall on valley slope, outfall drop structure suspended, scour pool below  
**Risk:** Private property; secondary infrastructure (outfall)  
**Length:** 50 – 100 m



**Site:** E5  
**Score:** 51  
**Issue:** Gabion baskets lining both banks. Failing at downstream end and large scour pool.  
**Risk:** Secondary infrastructure (gabion baskets), pedestrian trail  
**Length:** 20 – 50 m



**Site:** E1, E2, E3, E8, E12, E13 (not included in EA)  
**Score:** 35, 26, 34, 38, 42, 43  
**Issue:** Bank erosion in proximity to pedestrian trail system; not valley contacts.  
**Risk:** Mainly pedestrian trail system, pedestrian bridge (E13), secondary infrastructure (stormwater outfall - E12)  
**Length:** varies



**Site:** E11  
**Score:** 79  
**Issue:** CSP culvert below trail, bottom corroded. Scour pool downstream. Buried sanitary sewer.  
**Risk:** Critical infrastructure (sanitary sewer), pedestrian path/crossing  
**Length:** 20 – 50 m



**Site:** E10  
**Score:** 60  
**Issue:** Erosion at toe of valley slope in tributary (unprotected); private property at top of slope.  
**Risk:** Private property  
**Length:** 10 – 20 m



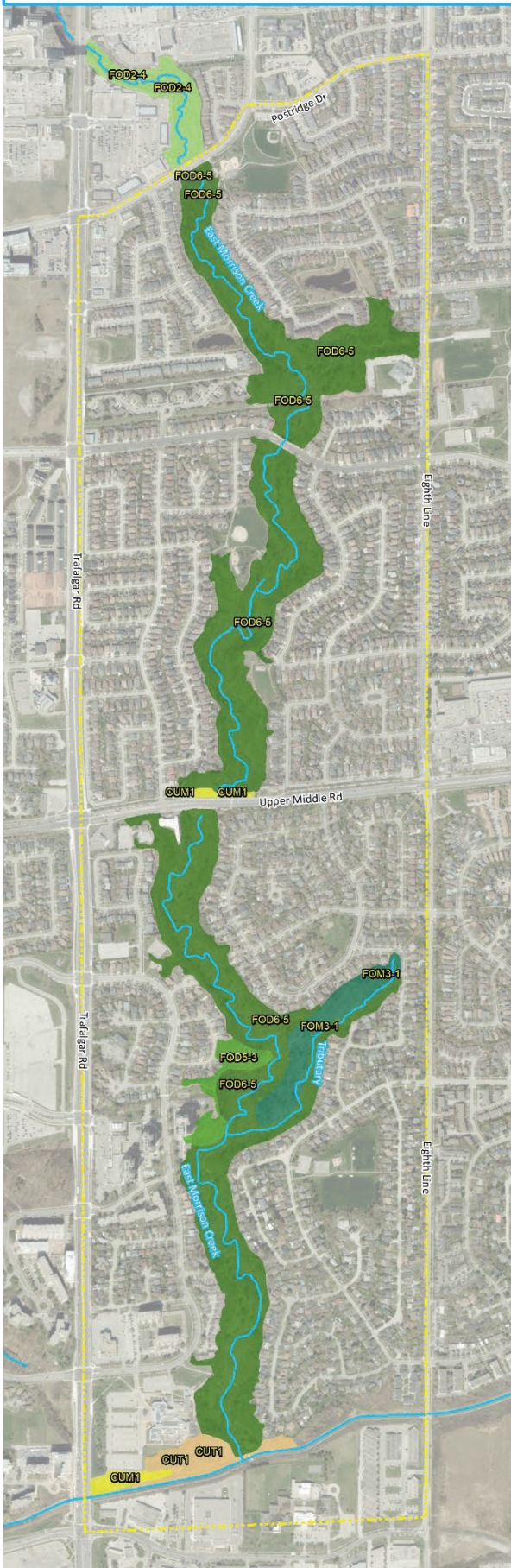
**Site:** E24 (new site)  
**Score:** 59  
**Issue:** Valley contact/slope erosion. Gabion toe protection - fair condition (functioning, some wire failure at toe)  
**Risk:** Private property  
**Length:** 20 – 50 m



**Site:** E4  
**Score:** 65  
**Issue:** Valley wall contact and slope erosion. Gabion protection near upstream end of erosion is in poor condition (bottom tier corroded/emptied)  
**Risk:** Private property  
**Length:** > 100 m

# Ecology and Natural Heritage Assessment

## Ecological Land Classification (ELC)



- Study Limits
- Watercourse
- Ecological Land Classification**
- CUM1: Mineral Cultural Meadow
- CUT1: Mineral Cultural Thicket
- FOD2-4: Dry-Fresh Oak-Hardwood Deciduous Forest
- FOD5-3: Dry-Fresh Sugar Maple - Oak Deciduous Forest
- FOD6-5: Fresh-Moist Sugar Maple-Hardwood Deciduous Forest
- FOM3-1: Dry-Fresh Hardwood - Hemlock Mixed Forest

## Vegetation Community

- Valley contains extensive areas of mature woodland
- Contains a mixture of native and exotic species, high amounts of sugar maple and red oak

- Red Oak
  - Sugar Maple
  - White Birch
  - Shagbark Hickory
  - Ironwood
  - Blue Beech
  - American Elm
  - Black Cherry
  - Crack Willow (I)
  - Manitoba Maple (I)
  - Norway Maple (I)
  - European Buckthorn (I)
  - European Privet (I)
  - Dog-strangling Vine (I)
  - Garlic Mustard (I)
  - English Ivy (I)
- \* (I) indicate non-native



Typical woodland along East Morrison Creek

## Terrestrial Wildlife

- Mature trees and understory habitat support numerous wildlife species, including birds and mammals

### Birds

- Hairy Woodpecker
- Northern Flicker
- Great Crested Flycatcher
- Blue Jay
- Black-capped Chickadee
- Cardinal

### Mammals

- Chipmunk, Raccoon, Squirrel, skunk, bat



Black-capped Chickadee

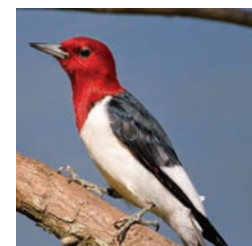


Big Brown Bat

## Species at Risk & Special Concern

- Habitat is present which may support protected species
- Species at risk with potential to occur in the study area include:

- Species at Risk bats (Little Brown Myotis, Northern Myotis, Tri-coloured Bat)
- Chimney Swift
- Red-headed Woodpecker



Red-headed Woodpecker



Tri-coloured Bat

## Aquatic Habitat

- Substrate variability and cool-water temperatures with substantial erosion and anthropogenic pressures

- Minnow species
- Creek Chub
- Brook Stickleback
- Blacknose Dace
- Common Carp
- Goldfish



Creek Chub



Brook Stickleback



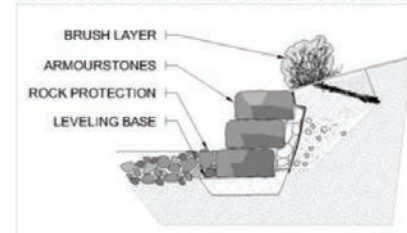
Common Carp

# Long List of Erosion Mitigation Techniques

There are many techniques used to rehabilitate creeks that have been degraded due to erosion and that address the erosion mechanisms identified above. The use of each technique will depend on the site-specific requirements, including the available space, flow and velocity characteristics, location along the creek (i.e., at a riffle or bend), aquatic habitat requirements and the height of the bank. Common erosion mitigation techniques include:

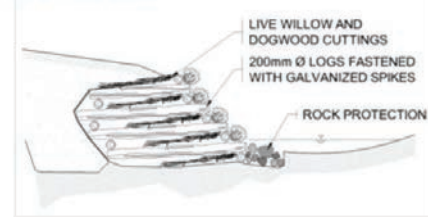
- **Armourstone Retaining Wall**
  - 'Hard' solution
  - Cost-effective way to mitigate high erosion potential in constrained situations but provide less habitat potential
- **Rock Vanes and Vortex Rock Weirs**
  - Reduces stream energy and redirects flow
  - Provides grade control to minimize bed erosion
- **Live Log Crib Wall**
  - Structure of logs filled with soil and rocks
  - Can be used in constrained situations (similar to armourstone walls) while providing habitat
- **Vegetated Rock Revetment**
  - Use of rock on sloping banks
  - Bioengineering features can be placed between rock ('soft' solution)
- **Bioengineering** (brush mattress, brush layer, live fascine)
  - Use of live dormant plant material to stabilize banks
  - Does not generally resist high velocities
- **Terraced Floodplain**
  - Cost-effective way to decrease the stream energy by expanding the channel cross-section and flow area
  - Requires a large amount of space
- **Creek Realignment**
  - Channel realignment away from risk
  - Opportunity to use natural channel design concepts
  - Requires large area and high initial cost but can offer the most long-term benefit
- **Morphological Channel Modifications**
  - Modification to channel planform, profile, or cross section
  - Opportunity to use natural channel design concepts

ARMOURSTONE WALL WITH BRUSH LAYER



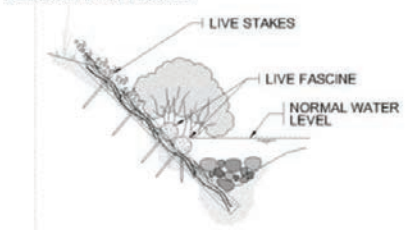
Armour Stone Wall with Brush Layer Concept

LIVE CRIB WALL



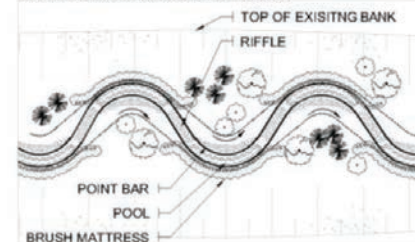
Live Log Crib Wall Concept

BRUSH MATTRESS



Brush Mattress Concept

NATURAL CHANNEL DESIGN



Stream Realignment Design Concept

# Alternatives to be Evaluated

Evaluation of alternatives will be completed for each erosion site:

## 1: Do Nothing

- Do nothing must be considered as part of Municipal Class EA process. Regular monitoring
- May be recommended where, for example, other alternatives have extensive environmental impacts and/or are not economically feasible



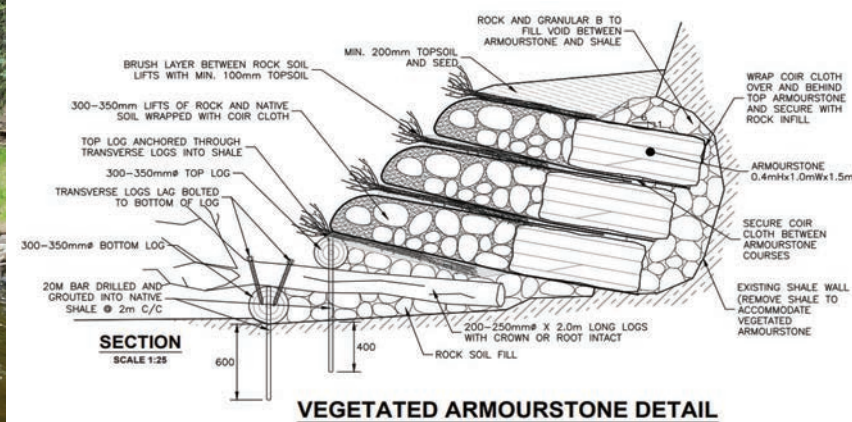
## 2: Continuous Monitoring

- Detailed study of erosion site for up to 5 years
- Accurate measurements of erosion hazard rates
- In cases where detailed studies identify higher risk sites, an addendum to the EA study may be submitted to allow for additional mitigation works



## 3: Selective Works

- Localized erosion mitigation
- Addresses erosion risks over years to decades
- Promoting '**green solutions**' to incorporate use of natural materials



## 4: Reach-Scale Natural Channel Design

- Channel design over longer lengths of the creek
- Balance between 'hard' control and 'soft' restoration approaches
- Higher costs and disturbance of habitat



## 5: Remove from Hazard Zone

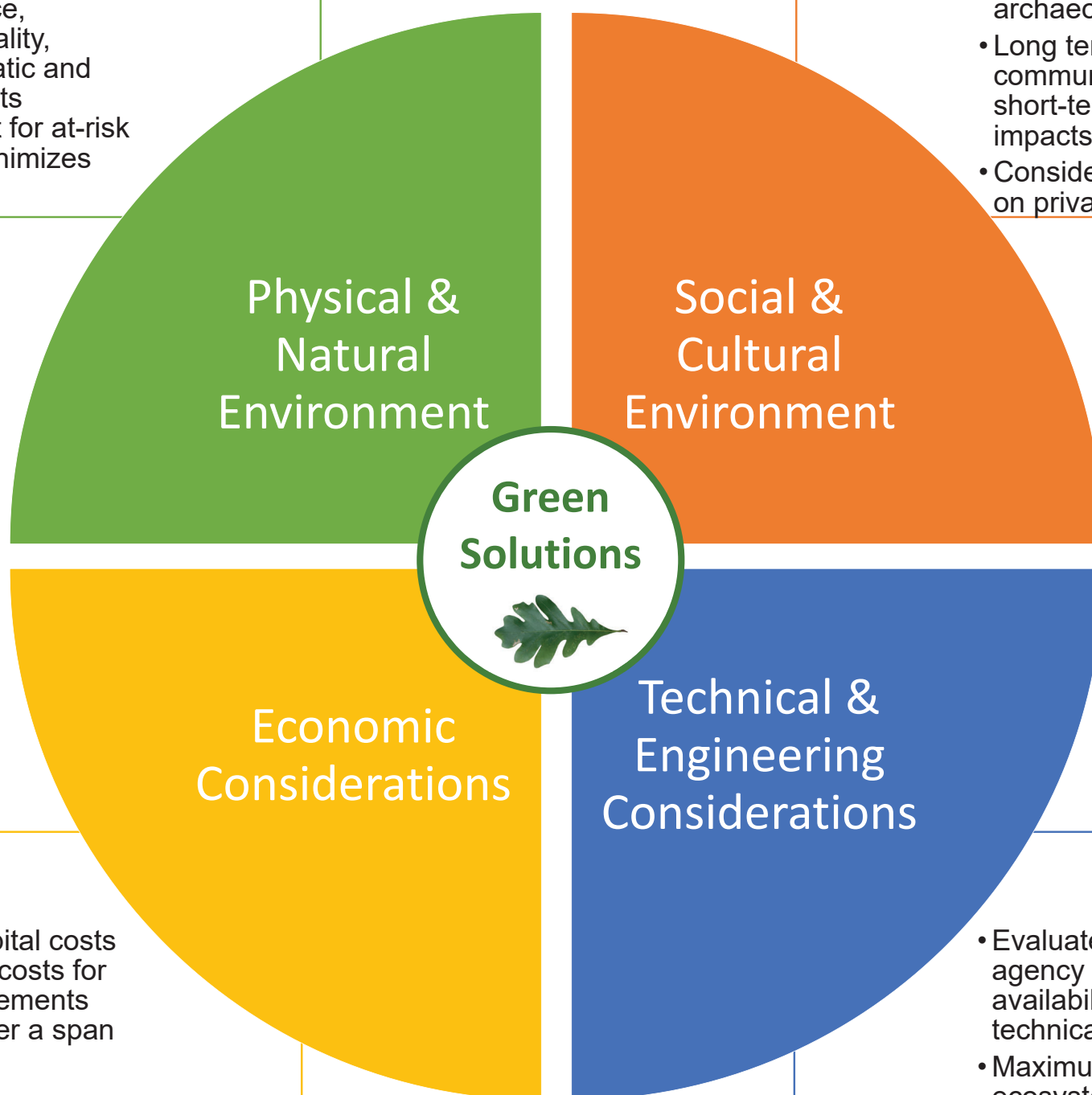
- Remove infrastructure or property from hazard zone
- Easements and/or land acquisition within hazard zone
- See erosion hazard zones on alternative concept figures

# Evaluation Criteria

The following four (4) categories of criteria are used to evaluate alternatives. Evaluation of alternatives will be completed for each erosion site:

- Improves stability of stream and valley walls, flood conveyance, groundwater quality, vegetation, aquatic and terrestrial habitats including habitat for at-risk species, and minimizes tree removals

- Protects built and cultural heritage landscape and archaeological resources
- Long term benefits for the community, minimum or short-term negative impacts
- Consideration for impacts on private property



- Evaluate total capital costs against recurring costs for maximum improvements and outcomes over a span of 30 years

- Evaluate regulatory agency standards, availability of staff and technical resources
- Maximum improvement for ecosystem and infrastructure

## **Promote Green Solutions:**

Promoting 'green solutions' which emphasize use of natural materials / natural channel design approaches in combination with engineering techniques to encourage environmentally sustainable solutions. Emphasis on reduction of impacts (spatial and temporal) of the selected alternatives on the natural environment.

# Potential Erosion Mitigation Concept

Reaches 40-42 (including Tributary)

Note: Sites upstream of Upper Middle Road were deemed lower priority and not included in the EA evaluation

## Alternative 1: Do Nothing or Alternative 2: Continuous Monitoring

**'Do Nothing' Alternative:** Active valley wall / channel erosion anticipated to continue, increasing potential risk to infrastructure and private property. Town-wide erosion is monitored on a 5-year cycle. The erosion sites will continue to be monitored as part of the Town's routine watercourse monitoring program



**Continuous Monitoring Alternative:** Continuous monitoring of active erosion sites to identify rates of erosion and assess potential of increased risk in the future. Erosion sites will be monitored in detail for a 5-year period following the EA to provide an accurate assessment.

## Alternative 3: Selective Works

Erosion Sites for 'Soft' Selective Works (Green) Erosion Sites for 'Hard' Selective Works (Yellow)

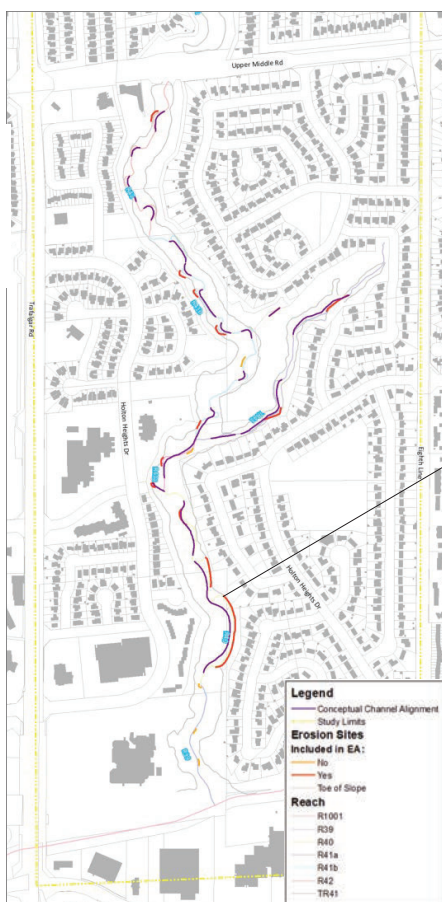
**'Soft' solutions** (i.e., vegetated rock revetment) and/or channel reconfiguration to reduce risk of erosion to assets (infrastructure, private property)



**'Hard' solutions** (i.e., armourstone) and/or channel reconfiguration in areas where erosion site is within proximity to assets (infrastructure, private property)

## Alternative 4: Reach-Scale Natural Channel Design

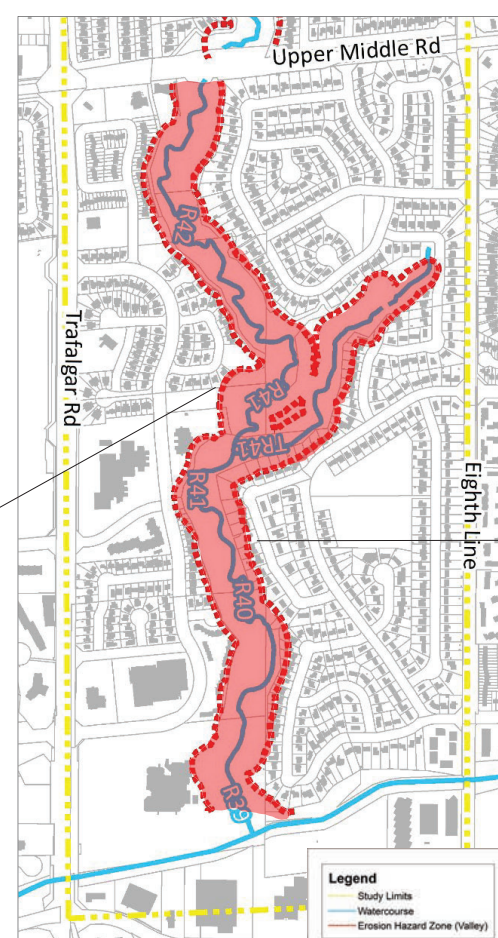
Local channel re-alignment and reconfiguration works through Reach 41 – 42



Re-alignment of the channel planform away from erosion hazard; potential cross-section reconfiguration

## Alternative 5: Removal of Risk

Removal of select infrastructure from hazard zone (valley), including trail realignments further from hazard



Potential land acquisitions and easements along private properties

# Public Feedback & Next Steps

## Thank you for your participation!

### Please submit a comment sheet

After tonight's meeting, the study team will gather your comments, review your input, and undertake the following steps:

#### Erosion Mitigation EA Study

- Evaluate erosion mitigation alternatives – **Fall 2024**
- Identify the preferred erosion mitigation solutions – **Fall 2024**
- Prepare preliminary functional designs – **Winter 2025**
- Present findings at a second public meeting – **Spring 2025**
- EA finalization – **2025**
- Detailed design – **2026, subject to budget approval**
- Phased Construction to start – **2028 to 2029, subject to budget approval**

**For additional information, please contact one of the study team members:**

**Jing Liu**  
Water Resource Engineer  
Transportation and Engineering  
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**Roger Phillips, Ph.D., P.Geo.**  
Senior Geomorphologist  
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East Morrison Creek (2023)



East Morrison Creek (2023)

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## **APPENDIX H3b**

### **PIC 1 Sign In and Comment Sheets**

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East Morrison Creek Erosion Mitigation Study  
Comment and Feedback Sheet – PIC – September 17, 2024

Your comments are appreciated. Please use this form to provide comments on any aspect of the project that you consider important. Please return your completed form to the front desk, or send by October 1, 2024 to:

Jing Liu, P.Eng.  
Water Resource Engineer  
Transportation and Engineering  
Town of Oakville  
jing.liu@oakville.ca  
Phone: 905-845-6601 Ext. 3234

Roger Phillips, Ph.D., P.Geo., FGC  
Senior Geomorphologist  
-  
Matrix Solutions Inc.  
rphillips@matrix-solutions.com  
Phone: 226-314-1950

Please provide any additional comments on the study or information that may be useful for the study team.

Most welcoming, knowledgeable, affable & enjoyable to meet & explore the study with.  
Thank you.  
*[Signature]*

May we contact you to discuss the problems and/or information? Yes  No

Note: With the exception of personal information, comments provided above will become part of the public record and a copy of this document may be attached to future reports.

Please provide your property address. Also provide your name and phone number or email so that we may contact you if necessary. The bottom of this page will be excluded from future reports.

Name	Address	Phone Number / E-mail
Kirby James	1361 Golden Meadows Trail	416 843 0453

Disclaimer: Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

**East Morrison Creek Erosion Mitigation Study Schedule 'B' Environmental Assessment**  
**Public Information Centre #1**  
**September 17, 2024**

# Please sign in

Personal information on this form is collected under the authority of the *Municipal Act* for the purpose of receiving feedback and will form part of the public record which may be released to the public. Questions about this collection should be directed to [\[contact email\]](#). If you would like to request material in an alternate format, please speak with town staff.

Name (please print)	Email address	Postal code	Affiliation (if applicable)	Email list ✓
GEORGE WARREN	Georgier warren@gmail.com	L6H-2R8	Condo- 1359 WhiteOaks	✓
Pat Glover	lpg52@gmail.com	L6H 2R8	"	
Bob Mitchell	robertamitchell5@gmail.com	L6H 0A5	Condo 390 Upper Middle	
JOHN MONETTE	john.monette@sympatico.ca	L6H 2C7		✓
Joanna Newman	joanna.newman@sympatico.ca	L6H 2C7		✓
JURGEN BEHN	rver81@gmail.com	L6H 2R8	1359 WHITE OAKS.	✓
Pauline + Richard Hadfield	hadfield@sympatico.ca	L6H 2R8	"	✓
Tom Adams	Council			
ZVI Mamjee	Zmamjee@gmail.com	L6H 5H8		✓
KIRBY JAMES	kirby@kirbyjames.com	L6H 3H1		✓





East Morrison Creek Erosion Mitigation Study  
Comment and Feedback Sheet – PIC – September 17, 2024

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Name	Address	Phone Number / E-mail
Kirby James	1361 Golden Meadow Trail	416 843 0453

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## **APPENDIX H4**

### **Public Information Centre (PIC) 2**

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## APPENDIX H4a PIC 2 Documents

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## Public Information Centre Details

You are invited to come to the Public Information Centre to review and discuss the EA study with the project team. The PIC is scheduled for:

**Wednesday June 11<sup>th</sup>, 2025**  
**6:30pm to 8:30pm**  
**Oakville Town Hall**  
**South Atrium**  
**1225 Trafalgar Road, Oakville, ON L6H 0H3**

Meeting materials will be made available on the Town's website prior to the meeting:

<https://www.oakville.ca/home-environment/environment/environmental-projects-studies/east-morrison-creek-erosion-mitigation-study/>

### Your Input is Important!

Please direct all comments, concerns, and input on the project to the following contacts via email, mail or phone call.

**Jing Liu, P. Eng.**  
Water Resources Engineer  
Town of Oakville  
1225 Trafalgar Road  
Oakville, ON L6H 0H3  
T: (905) 845-6601 ext. 3234  
Jing.Liu@oakville.ca

**Roger Phillips, Ph.D., P.Geo., FGC**  
Senior Geomorphologist  
Project Manager  
Matrix Solutions Inc.  
6865 Century Ave #3001  
Mississauga, ON L5N 7K2  
T: (226) 314-1950  
rphillips@matrix-solutions.com

\*Information collected will be used in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record.

\*Project and notice information will be made available in an alternate format upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.

This Notice was first issued on May 28, 2025



# East Morrison Creek Erosion Mitigation Study

Welcome to the June 11, 2025  
Public Information Center for the  
East Morrison Creek Erosion Mitigation Study  
Municipal Class Environmental Assessment  
Schedule B

For additional information, please contact one of the  
study team members:

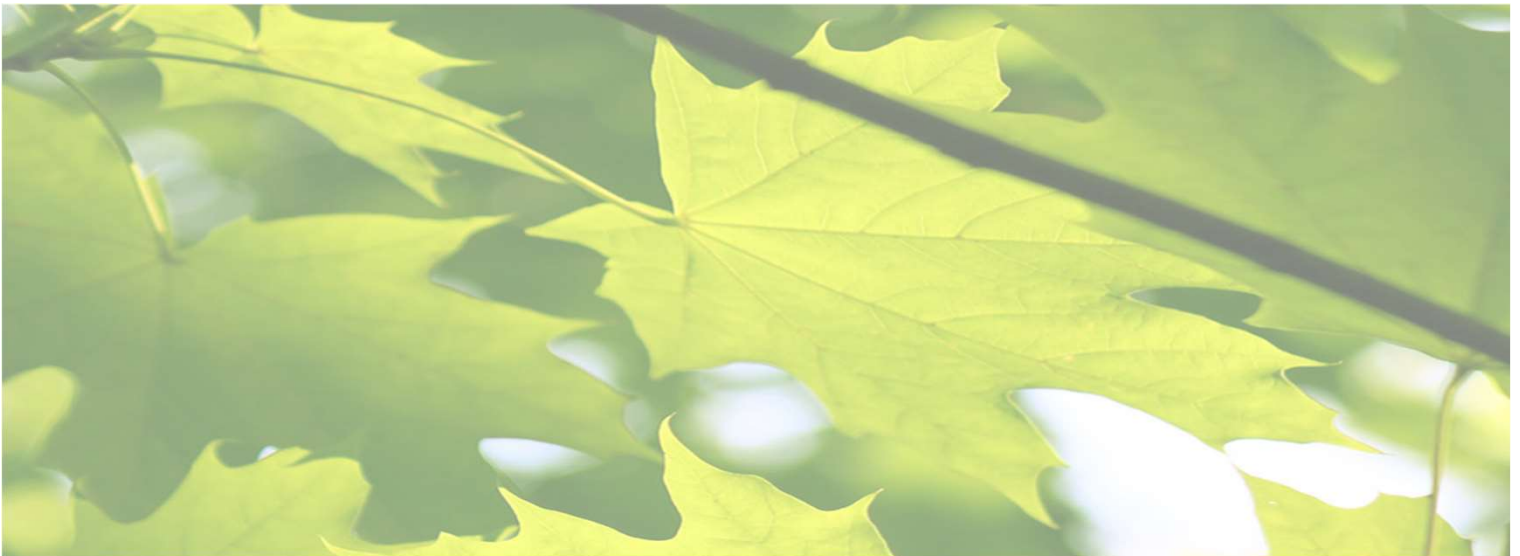
**Jing Liu, P.Eng.**  
Water Resource Engineer  
Transportation and Engineering  
Town of Oakville  
1225 Trafalgar Road  
Oakville, ON L6H0H3  
905.845.6601 Ext. 3234

**Roger Phillips, Ph.D., P.Geo., FGC**  
Senior Geomorphologist, Project Manager  
-  
Montrose Environmental  
100, 2265 Upper Middle Road E  
Oakville, ON L6H 0G5

# Land Acknowledgement

## Honouring the Land and Territory

- Oakville, as we know it today, is rich in the history and modern traditions of many First Nations. From the lands of the Anishinaabe, to the Attawandaron and Haudenosaunee, these lands surrounding the Great Lakes are steeped in First Nations history. As we gather today on the sacred lands of Treaties 14 and 22, we are in solidarity with Indigenous brothers and sisters to honour and respect Mother Earth, the original nations of the trees and plants, the four legged, the flyers, the finned and the crawlers as the original stewards of Mother Earth. We acknowledge and give gratitude to the waters as being life and being sacred and to the carriers of those water teachings, the females. We acknowledge and give gratitude for the wisdom of the Grandfathers and the four winds that carry the spirits of our ancestors that walked this land before us.
- The Town of Oakville is located on the Treaty Lands and Territory of the Mississaugas of the Credit. We acknowledge and thank the Mississaugas of the Credit First Nation, the Treaty holders, for being stewards of this traditional territory.



# Study Area/Background

## Town of Oakville Erosion Studies

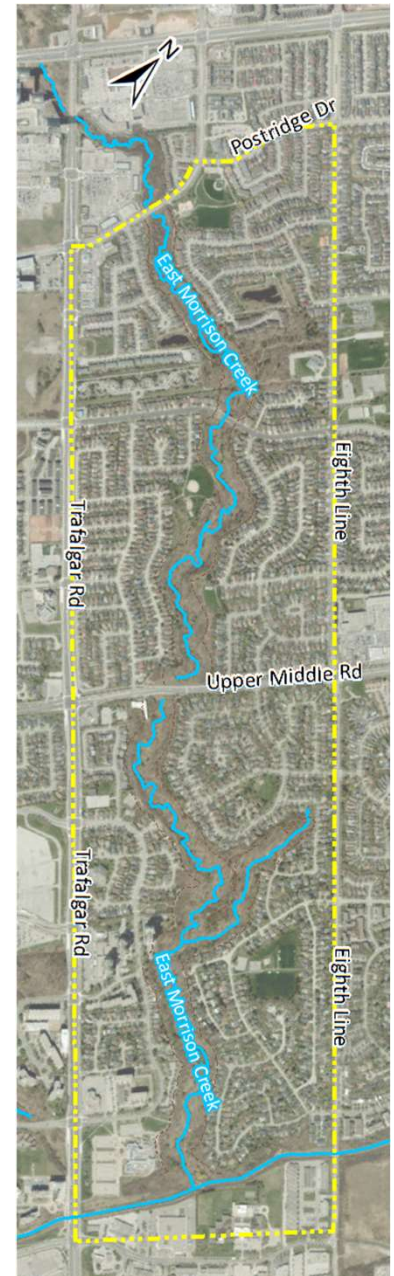
- Stream erosion is routinely assessed within the Town of Oakville and has been documented in a series of reports since 2001. Stream erosion is a natural process, but historic land use changes can result in accelerated rates of erosion that put infrastructure and property at risk when near the watercourse.
- The most recent Creek Inventory and Assessment Study was completed in 2021. This study identified East Morrison Creek, from the Morrison-Wedgewood Diversion Channel to Postridge Drive (Reaches 39-45), as the highest priority “long” reach of concern. The 2021 study recommended an Environmental Assessment (EA) to address erosion issues within these reaches. The current study fulfills this recommendation.

## East Morrison Creek Erosion Mitigation EA Study

- The purpose of this study is to mitigate stream erosion risks and to identify stream restoration opportunities. Given the potential environmental impacts and public implications, this study will conform with the Municipal Class EA planning process (Schedule B) which includes public consultation. Schedule B projects include Phase 1 to identify the problems and Phase 2 to evaluate alternative solutions. This study focuses on creek erosion and is not related to flood mitigation.

## Study Area Conditions

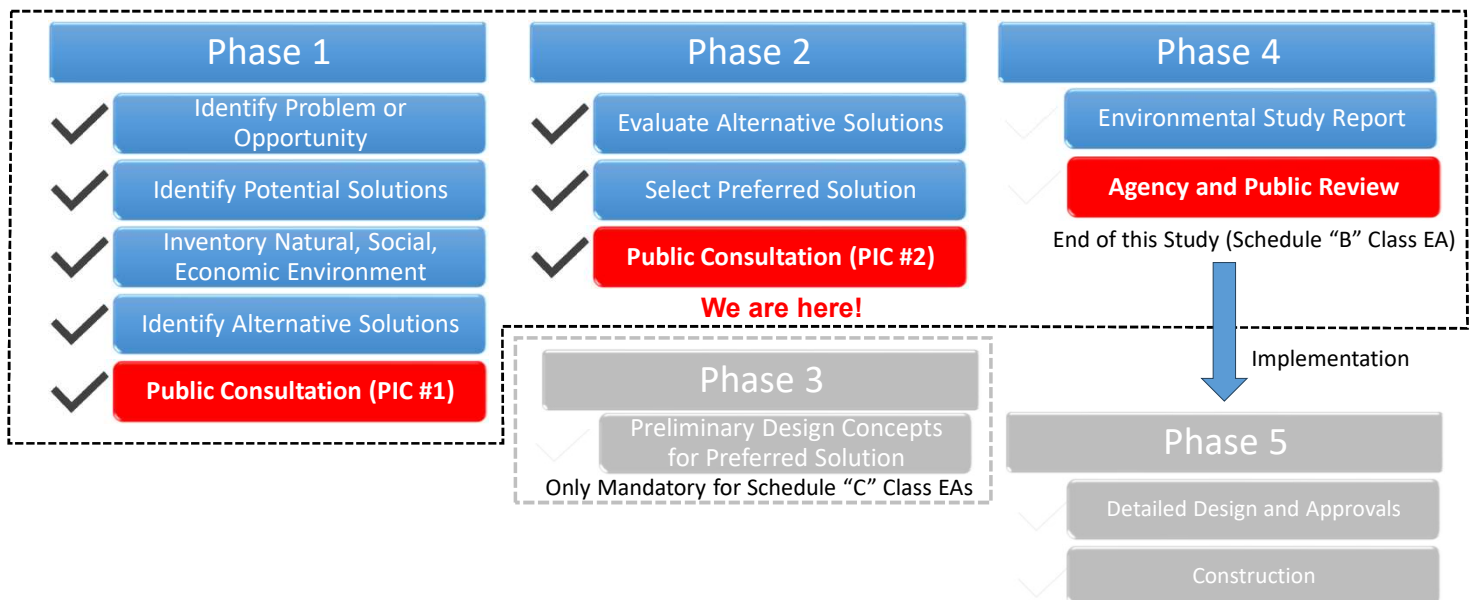
- The study area is situated from the Morrison-Wedgewood diversion channel located in the downstream lengths of the watershed to the upstream boundary along Postridge Drive. A pedestrian pathway is located through the Morrison Valley along East Morrison Creek. Through the study area, East Morrison Creek is generally characterized by active erosion, with local bank hardening measures including gabion baskets, armourstone and rip rap bank protection. In some locations, these channel engineering structures are failing.



# Environmental Assessment Study Outline

- Through its ongoing erosion monitoring program, the Town of Oakville identified this reach of East Morrison Creek as a high priority site to review possible rehabilitation opportunities. Key concerns include bank erosion within the creek, bank and valley slope stability, failure of erosion control measures, and threats to private property and municipal infrastructure.
- The study will examine the creek and associated natural resources to identify existing erosion concerns, potential future risks, and opportunities for restoration and environmental enhancement. Through the Class EA process, multiple alternative solutions will be developed and evaluated by the Study Team and refined through public and agency consultation (see below) and including engagement with interested Indigenous Peoples. The Study Team will then select a Preferred Alternative. Detailed design and construction would be scheduled in the future through capital budget process. The Town will work with Conservation Halton to obtain permits for detailed design and construction of erosion mitigation measures as necessary
- This study is being completed under Schedule “B” of the Municipal Class EA process. This portion of the study specifically addresses Phases 1 & 2 of the EA Process.

## Class EA Process:



# Indigenous Engagement and Archeology

## Indigenous Engagement

There are legal duties to consult with Indigenous Peoples. The project study area is located in treaty 13a, 1805 Mississaugas, within the traditional territory and claim of the Mississaugas of the Credit, and within the 1701 Nanfan Deed. As such, consultation is required with:

- Mississaugas of the New Credit First Nation
- Six Nations of the Grand River
- Haudenosaunee Confederacy Chiefs Council
- Métis Nations of Ontario

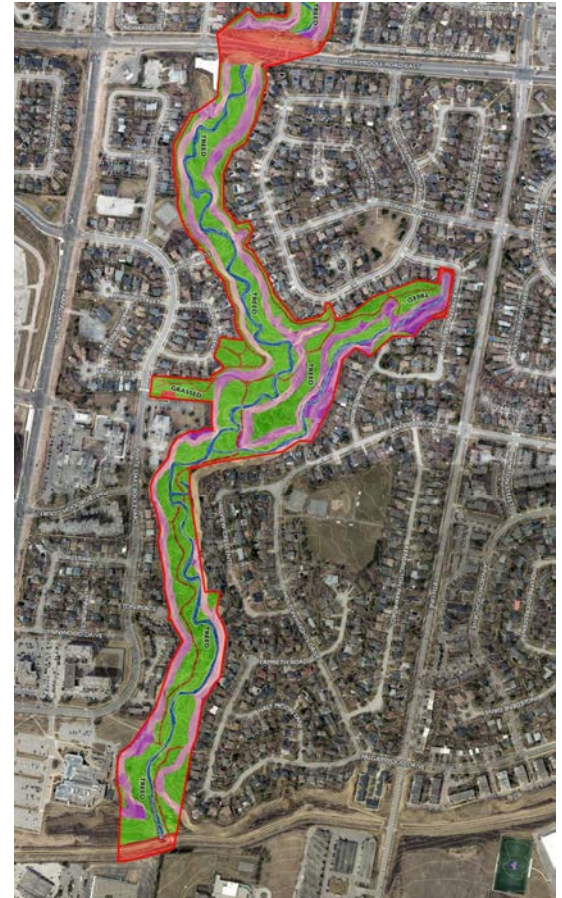
With the distribution of the initial Notice of Commencement for the project, interested Indigenous Peoples will be invited to review and comment on draft EA and archeological reports.

## Archeological Assessment

A Stage I archeological assessment of the study area has been completed by TMHC Inc., included a review of current land use, historic and modern maps, registered archaeological sites and previous archaeological studies, past settlement history for the area, and a consideration of topographic and physiographic features, soils and drainage. Known, registered archeological sites are limited to the upstream study area near Postridge Drive, however most undisturbed grassed and treed areas surrounding East Morrison Creek have archaeological potential and would require Stage 2 test pits for areas likely to be impacted by future erosion mitigation works during detailed design.

### STAGE 1 RESULTS & RECOMMENDATIONS

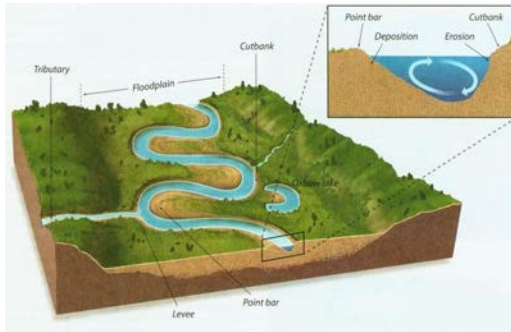
- Project Area
- Contours (1m)
- STAGE 1 ASSESSMENT RESULTS**
- Areas of Archaeological Potential*
- Grassed, Treed (Test Pit Survey Required)
- Areas of Low Archaeological Potential (No Assessment Required)*
- Disturbed (Channelized Drain, Pathways, Roads)
- Steeply Sloped
- Low-Lying/Wet



# Erosion Assessment Introduction

## What is Fluvial Geomorphology

Fluvial geomorphology is the study of rivers and streams to understand how channels change over time due to erosion and deposition of sediment.



East Morrison Creek (2023)

Source: Bierman, P. and Montgomery, D. (2013). Key Concepts in Geomorphology, W.H. Freeman & Co (MacMillan)

It helps engineers and geoscientists to better manage erosion and flooding hazards around watercourses, and to develop more environmentally sensitive solutions that can help restore and protect our green spaces and wildlife habitat.

## Erosion Assessment

The objective is to identify the risks due to erosion hazards.

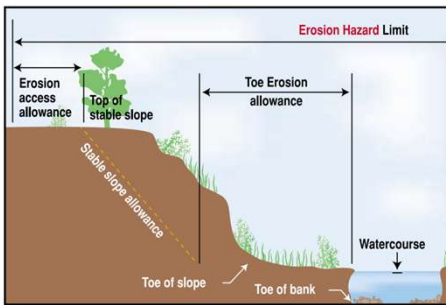
### Erosion Hazards

- Bed Erosion
- Bank Erosion
- Slope Instability



### Risks to

- Public Infrastructure
- Private Property
- Environment, habitat



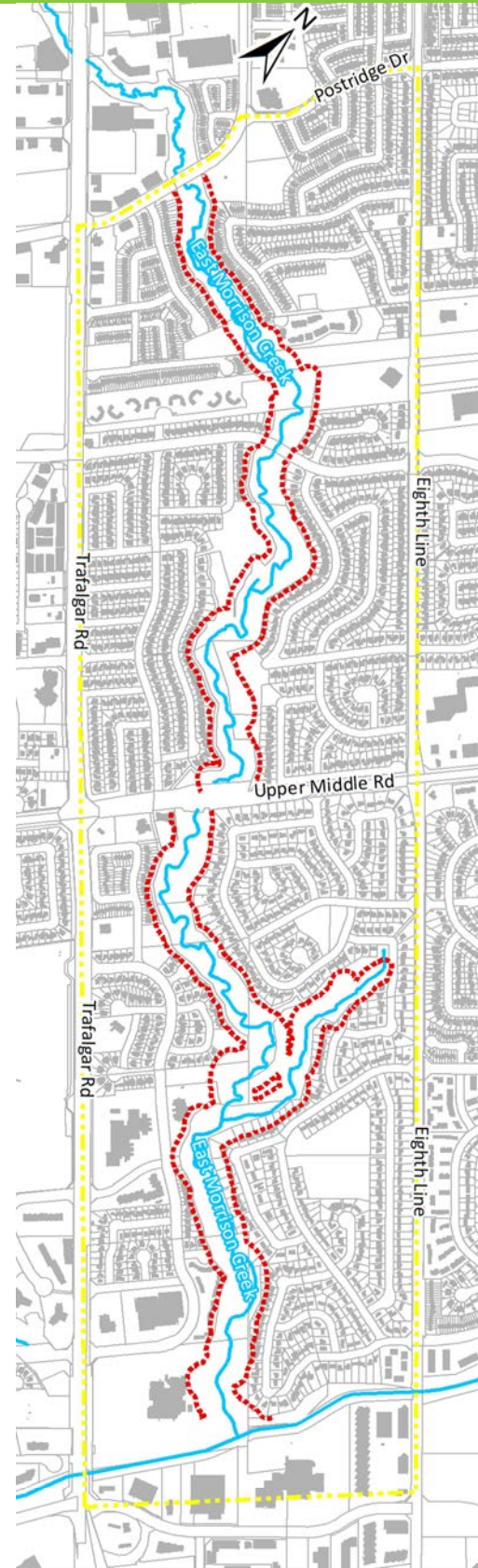
Source: Ontario Ministry of Natural Resources, 2001



East Morrison Creek (2023)

## Erosion Hazard Zones   Approximate

Long-term, streams and rivers have erosion hazard zones. Engineering and channel design can mitigate erosion risks in hazard zones, but such works may require ongoing maintenance and may not change the erosion hazard limit. Managing risks within the erosion hazard zone may require collaboration between the Town and private landowners to mitigate future problems.



# Erosion Assessment Methodology

## Erosion Site Scores

Erosion sites were reassessed in 2023 following the scoring framework applied in the 2021 erosion inventory.

Sites were scored based on 8 erosion hazard criteria. A total erosion score out of 100 was calculated for each site by summing the score for the 8 criteria.

Criteria	Weight
Risk Type	45
Distance to Risk	20
Site Length	5
Site Height	5
Erodibility	10
Erosion Potential	5
Riparian Habitat	5
Aquatic Habitat	5
<b>Total</b>	<b>100</b>

Erosion Site	Risk Type	Total Score
E11	Critical Infrastructure (sanitary sewer)	79
E4	Private Property	65
E6	Private Property	64
E10	Private Property	60
E24	Private Property	59
E7	Private Property	56
E14	Private Property	54
E9	Private Property	53
E16	Private Property	53
E15	Private Property	53
E17	Private Property	51
E5	Secondary Infrastructure (gabion baskets)	51
E22	Private Property	44
E19	Private Property	44
E20	Pedestrian Bridge	43
E21	Pedestrian Bridge	43
E13	Pedestrian Bridge	43
E12	Secondary Infrastructure (stormwater outfall)	42
E18	Trail	39
E8	Trail	38
E23	Trail	37
E1	Trail	35
E3	Trail	34
E2	Trail	26

## Erosion Sites Included in EA Evaluation of Alternatives

The highest scoring erosion sites with scores of 50/100 and above have been identified for inclusion in the Environmental Assessment evaluation of alternatives. These sites were assessed to be higher risk and require consideration of erosion mitigation opportunities. The higher priority sites are typically located at valley slope contacts (or within the Tributary) where private property or critical infrastructure is at risk. For private properties, rear yards, trees and fences may be at risk. All higher priority erosion sites are located south of Upper Middle Road.

Lower priority erosion sites (scores below 50/100) will continue to be monitored as part of the Town's regular watercourse monitoring program. These sites are typically in locations where non-critical infrastructure, such as recreational trails, are at risk.

Erosion site results were confirmed during a site visit in December 2024 to document any impacts from the July 2024 storm event. This included photos, visual observations, and topographic survey points to confirm visual observations at top priority sites. At most sites no significant change was observed. Observed changes at a few sites did not affect the erosion assessment results. All sites within the study area are scheduled to be reassessed in 2026 through the Town inventory.

# East Morrison Creek Erosion Sites Reaches 43-45



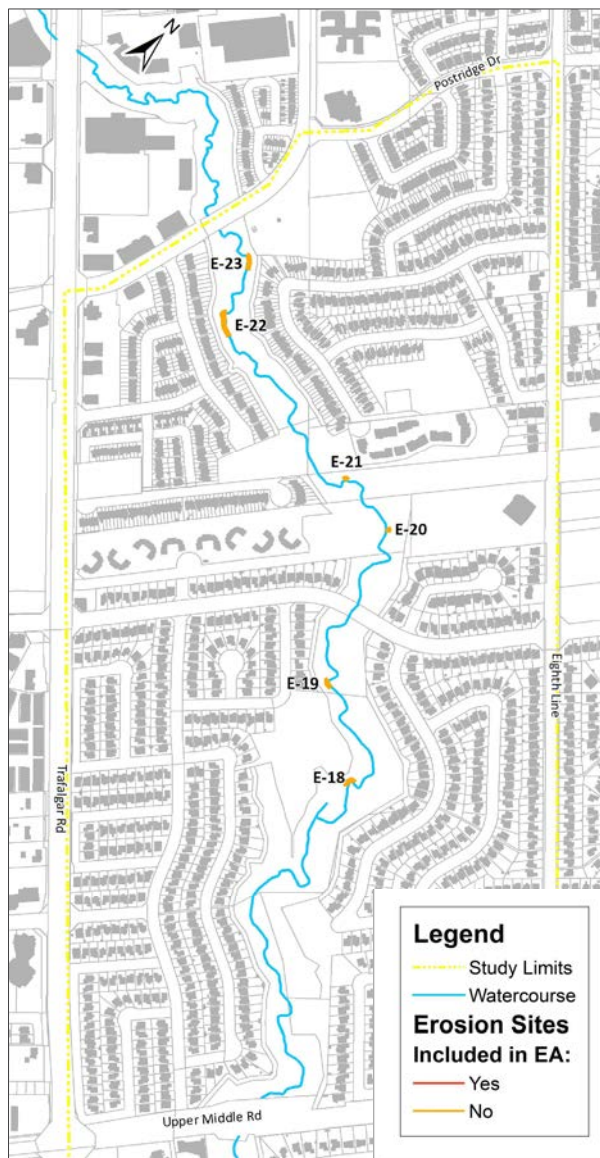
**Site:** E23  
**Score:** 37  
**Issue:** Valley wall contact; eroding valley slope  
**Risk:** Potential risk to pedestrian trail system and private property  
**Length:** 10 – 20 m



**Site:** E21  
**Score:** 43  
**Issue:** Erosion around pedestrian bridge; footing exposed within the channel. No damage to the concrete footing currently.  
**Risk:** Trail infrastructure including pedestrian trail and pedestrian bridge crossing  
**Length:** < 10 m



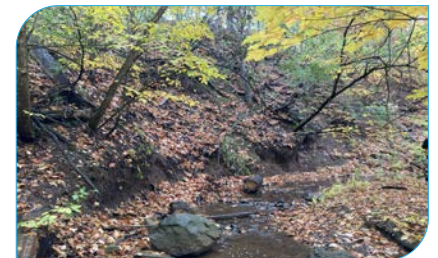
**Site:** E19  
**Score:** 44  
**Issue:** Valley wall contact along meander bend (90 degrees); gabion basket protection in fair condition (leaning)  
**Risk:** Pedestrian trail system; private property  
**Length:** 20 – 50 m



**Site:** E22  
**Score:** 44  
**Issue:** Valley wall contact; eroding valley slope  
**Risk:** Potential risk to pedestrian trail system and private property  
**Length:** 10 – 20 m



**Site:** E20  
**Score:** 43  
**Issue:** Erosion around pedestrian bridge crossing; footing exposed on the outer meander bend.  
**Risk:** Trail infrastructure including pedestrian trail and pedestrian bridge crossing  
**Length:** < 10 m



**Site:** E18  
**Score:** 39  
**Issue:** Valley wall contact; toe erosion along valley slope  
**Risk:** Pedestrian trail system; park  
**Length:** 20 – 50 m

# East Morrison Creek Erosion Sites Reaches 39-42



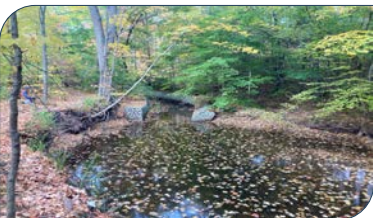
**Site:** E14, E15, E16, E17  
**Score:** 54, 53, 53, 51  
**Issue:** Toe erosion at valley contact (unprotected). ~5 to 10 m from fence line.  
**Risk:** Private property, pedestrian trail  
**Length:** 20 – 50 m



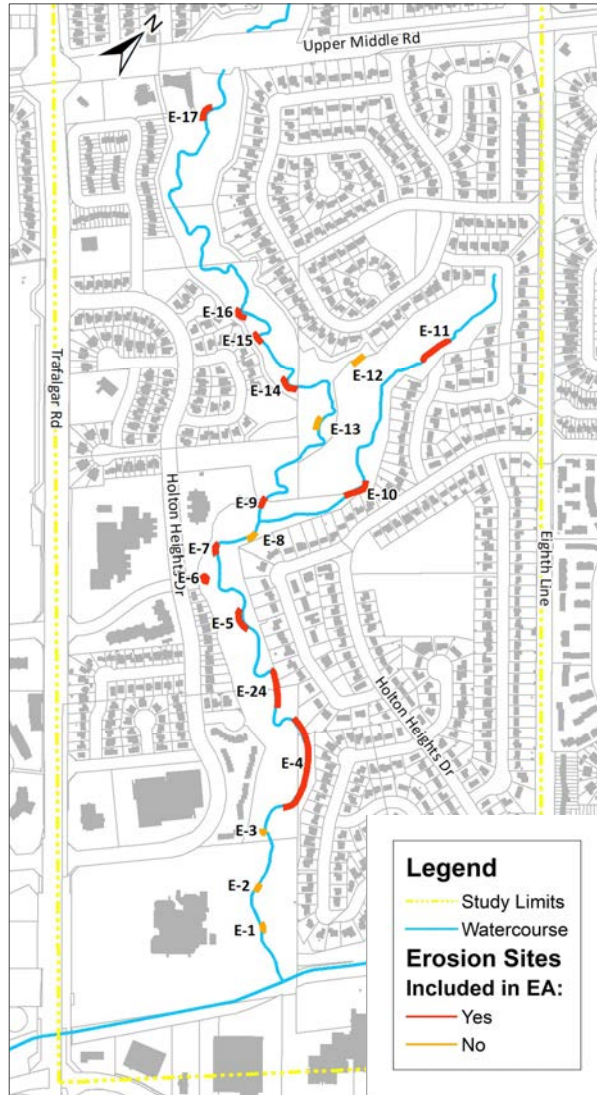
**Site:** E7, E9  
**Score:** 56, 53  
**Issue:** Toe erosion of valley slope (unprotected)  
**Risk:** Private property (parking lot)  
**Length:** 10 – 20 m



**Site:** E6  
**Score:** 64  
**Issue:** Perched outfall on valley slope, outfall drop structure suspended, scour pool below  
**Risk:** Private property; secondary infrastructure (outfall)  
**Length:** 50 – 100 m



**Site:** E5  
**Score:** 51  
**Issue:** Gabion baskets lining both banks. Failing at downstream end and large scour pool.  
**Risk:** Secondary infrastructure (gabion baskets), pedestrian trail  
**Length:** 20 – 50 m



**Site:** E1, E2, E3, E8, E12, E13 (not included in EA)  
**Score:** 35, 26, 34, 38, 42, 43  
**Issue:** Bank erosion in proximity to pedestrian trail system; not valley contacts.  
**Risk:** Mainly pedestrian trail system, pedestrian bridge (E13), secondary infrastructure (stormwater outfall - E12)  
**Length:** varies



**Site:** E11  
**Score:** 79  
**Issue:** CSP culvert below trail, bottom corroded. Scour pool downstream. Buried sanitary sewer.  
**Risk:** Critical infrastructure (sanitary sewer), pedestrian path/crossing  
**Length:** 20 – 50 m



**Site:** E10  
**Score:** 60  
**Issue:** Erosion at toe of valley slope in tributary (unprotected); private property at top of slope.  
**Risk:** Private property  
**Length:** 10 – 20 m



**Site:** E24 (new site)  
**Score:** 59  
**Issue:** Valley contact/slope erosion. Gabion toe protection - fair condition (functioning, some wire failure at toe)  
**Risk:** Private property  
**Length:** 20 – 50 m



**Site:** E4  
**Score:** 65  
**Issue:** Valley wall contact and slope erosion. Gabion protection near upstream end of erosion is in poor condition (bottom tier corroded/emptied)  
**Risk:** Private property  
**Length:** > 100 m

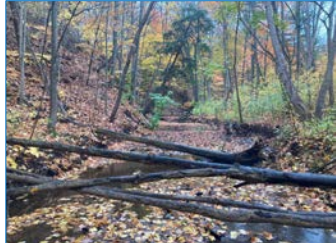
# Ecology and Natural Heritage Assessment

## Ecological Land Classification (ELC)



- Study Limits
- Watercourse
- Ecological Land Classification**
- CUM1: Mineral Cultural Meadow
- CUM2: Mineral Cultural Thicket
- FOD2-4: Dry-Fresh Oak-Hardwood Deciduous Forest
- FOD5-3: Dry-Fresh Sugar Maple - Oak Deciduous Forest
- FOD6-5: Fresh-Moist Sugar Maple-Hardwood Deciduous Forest
- FOM3-1: Dry-Fresh Hardwood - Hemlock Mixed Forest

## Vegetation Community

- Valley contains extensive areas of mature woodland
  - Contains a mixture of native and exotic species, high amounts of sugar maple and red oak
- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Red Oak</li> <li>• Sugar Maple</li> <li>• White Birch</li> <li>• Shagbark Hickory</li> <li>• Ironwood</li> <li>• Blue Beech</li> <li>• American Elm</li> <li>• Black Cherry</li> </ul> | <ul style="list-style-type: none"> <li>• Crack Willow (I)</li> <li>• Manitoba Maple (I)</li> <li>• Norway Maple (I)</li> <li>• European Buckthorn (I)</li> <li>• European Privet (I)</li> <li>• Dog-strangling Vine (I)</li> <li>• Garlic Mustard (I)</li> <li>• English Ivy (I)</li> </ul> |
|---|---|
- \*(I) indicate non-native
- 

Typical woodland along East Morrison Creek

## Terrestrial Wildlife


- Mature trees and understory habitat support numerous wildlife species, including birds and mammals
- |  |   |
|--|---|
| <p style="text-align: center; margin-bottom: 5px;"><b>Birds</b></p> <ul style="list-style-type: none"> <li>• Hairy Woodpecker</li> <li>• Northern Flicker</li> <li>• Great Crested Flycatcher</li> <li>• Blue Jay</li> <li>• Black-capped Chickadee</li> <li>• Cardinal</li> </ul> | <p style="text-align: center; margin-bottom: 5px;"><b>Mammals</b></p> <ul style="list-style-type: none"> <li>• Chipmunk, Raccoon, Squirrel, skunk, bat</li> </ul> |
|--|---|
- 

Black-capped Chickadee




Big Brown Bat

## Species at Risk & Special Concern




- Habitat is present which may support protected species
  - Species at risk with potential to occur in the study area include:
    - Species at Risk bats (Little Brown Myotis, Northern Myotis, Tri-coloured Bat)
    - Chimney Swift
    - Red-headed Woodpecker
- 

Red-headed Woodpecker



Tri-coloured Bat

## Aquatic Habitat

- Substrate variability and cool-water temperatures with substantial erosion and anthropogenic pressures
- |  |  |  |  |
|--|--|--|--|
| <ul style="list-style-type: none"> <li>• Minnow species</li> <li>• Creek Chub</li> <li>• Brook Stickleback</li> <li>• Blacknose Dace</li> <li>• Common Carp</li> <li>• Goldfish</li> </ul> |  <p>Creek Chub</p> |  <p>Brook Stickleback</p> |  <p>Common Carp</p> |
|--|--|--|--|

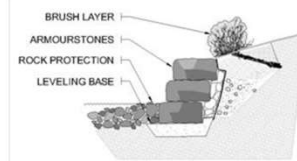
# Long List of Erosion Mitigation Techniques

There are many techniques used to rehabilitate creeks that have been degraded due to erosion and that address the erosion mechanisms identified above. The use of each technique will depend on the site-specific requirements, including the available space, flow and velocity characteristics, location along the creek (i.e., at a riffle or bend), aquatic habitat requirements and the height of the bank. Common erosion mitigation techniques include:

- **Armourstone Retaining Wall**

- 'Hard' solution
- Cost-effective way to mitigate high erosion potential in constrained situations but provide less habitat potential

ARMOURSTONE WALL WITH BRUSH LAYER



Armour Stone Wall with Brush Layer Concept

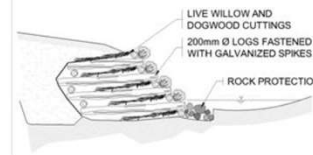
- **Rock Vanes and Vortex Rock Weirs**

- Reduces stream energy and redirects flow
- Provides grade control to minimize bed erosion

- **Live Log Crib Wall**

- Structure of logs filled with soil and rocks
- Can be used in constrained situations (similar to armourstone walls) while providing habitat

LIVE CRIB WALL



Live Log Crib Wall Concept

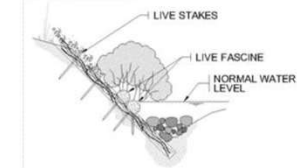
- **Vegetated Rock Revetment**

- Use of rock on sloping banks
- Bioengineering features can be placed between rock ('soft' solution)

- **Bioengineering (brush mattress, brush layer, live fascine)**

- Use of live dormant plant material to stabilize banks
- Does not generally resist high velocities

BRUSH MATTRESS



Brush Mattress Concept

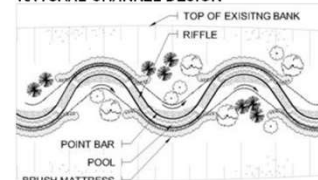
- **Terraced Floodplain**

- Cost-effective way to decrease the stream energy by expanding the channel cross-section and flow area
- Requires a large amount of space

- **Creek Realignment**

- Channel realignment away from risk
- Opportunity to use natural channel design concepts
- Requires large area and high initial cost but can offer the most long-term benefit

NATURAL CHANNEL DESIGN



Stream Realignment Design Concept

- **Morphological Channel Modifications**

- Modification to channel planform, profile, or cross section
- Opportunity to use natural channel design concepts

# Alternatives to be Evaluated

Evaluation of alternatives will be completed for each erosion site:

## 1: Do Nothing

- Do nothing must be considered as part of Municipal Class EA process. Regular monitoring may be recommended where, for example, other alternatives have extensive environmental impacts and/or are not economically feasible



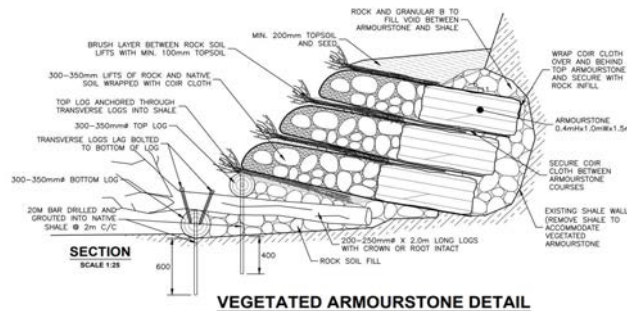
## 2: Continuous Monitoring

- Detailed study of erosion site for up to 5 years
- Accurate measurements of erosion hazard rates
- In cases where detailed studies identify higher risk sites, an addendum to the EA study may be submitted to allow for additional mitigation works



## 3: Selective Works

- Localized erosion mitigation
- Addresses erosion risks over years to decades
- Promoting 'green solutions' to incorporate use of natural materials



## 4: Reach-Scale Natural Channel Design

- Channel design over longer lengths of the creek
- Balance between 'hard' control and 'soft' restoration approaches
- Higher costs and disturbance of habitat



## 5: Remove from Hazard Zone

- Remove infrastructure or property from hazard zone
- Easements and/or land acquisition within hazard zone
- See erosion hazard zones on alternative concept figures

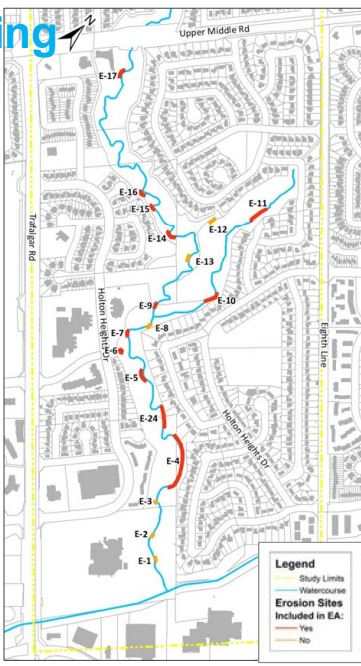
# Potential Erosion Mitigation Concept

Reaches 40-42 (including Tributary)

Note: Sites upstream of Upper Middle Road were deemed lower priority and not included in the EA evaluation

## Alternative 1: Do Nothing or Alternative 2: Continuous Monitoring

**'Do Nothing' Alternative:**  
Active valley wall / channel erosion anticipated to continue, increasing potential risk to infrastructure and private property. Town-wide erosion is monitored on a 5-year cycle. The erosion sites will continue to be monitored as part of the Town's routine watercourse monitoring program

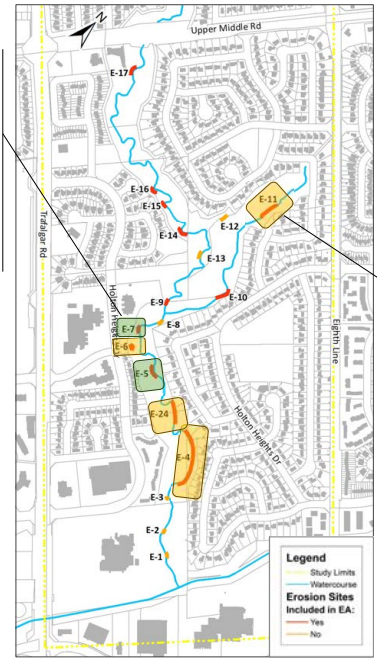


**Continuous Monitoring Alternative:**  
Continuous monitoring of active erosion sites to identify rates of erosion and assess potential of increased risk in the future. Erosion sites will be monitored in detail for a 5-year period following the EA to provide an accurate assessment.

## Alternative 3: Selective Works

Green box: Erosion Sites for 'Soft' Selective Works  
Yellow box: Erosion Sites for 'Hard' Selective Works

**'Soft' solutions** (i.e., vegetated rock revetment) and/or channel reconfiguration to reduce risk of erosion to assets (infrastructure, private property)

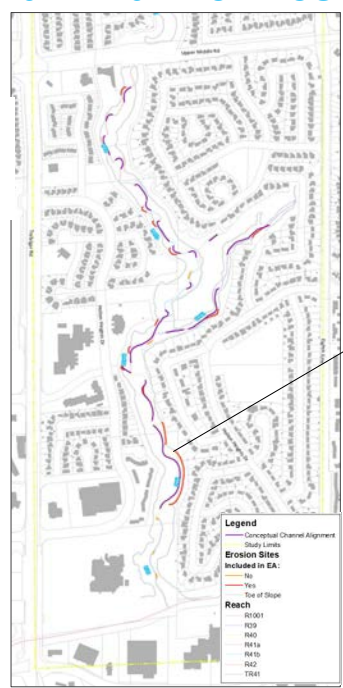


**'Hard' solutions** (i.e., armourstone) and/or channel reconfiguration in areas where erosion site is within proximity to assets (infrastructure, private property)\*

\*Engineering and channel design can mitigate erosion risks in hazard zones, but such works may require ongoing maintenance and may not change the erosion hazard limit.

## Alternative 4: Reach-Scale Natural Channel Design

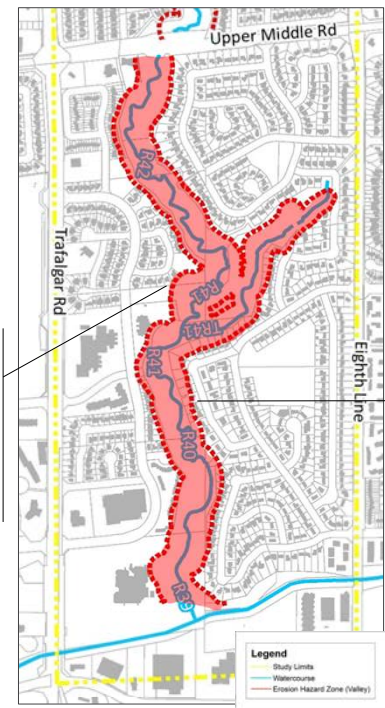
Local channel re-alignment and reconfiguration works through Reach 41 - 42



Re-alignment of the channel planform away from erosion hazard; potential cross-section reconfiguration

## Alternative 5: Removal of Risk

Removal of select infrastructure from hazard zone (valley), including trail realignments further from hazard



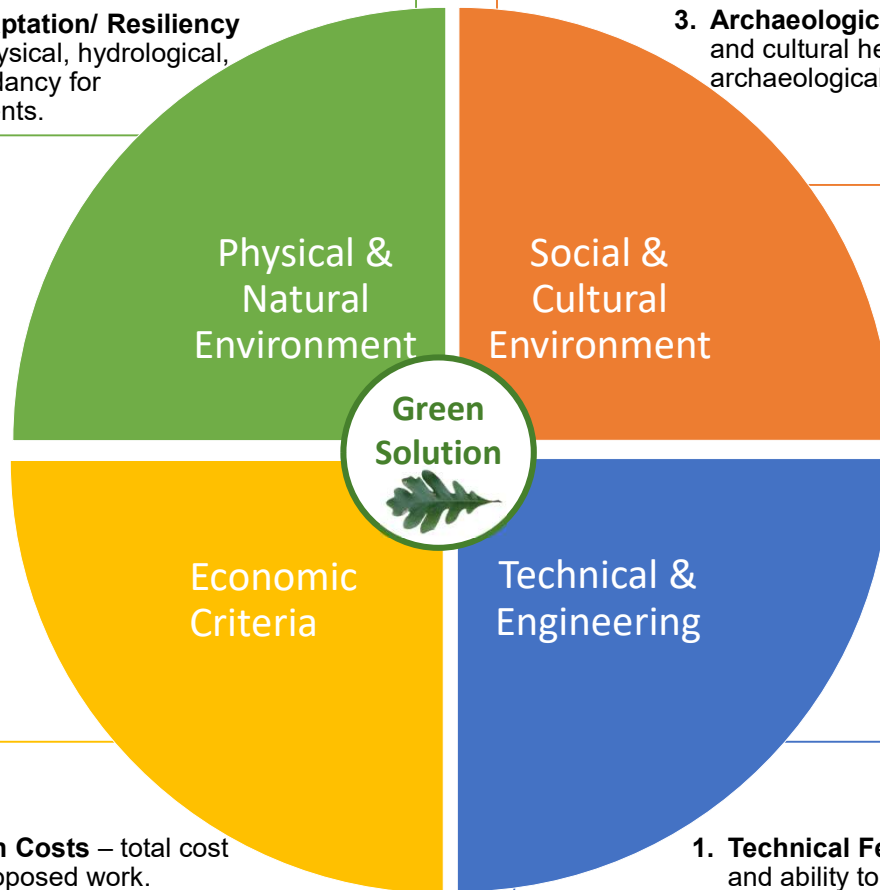
Potential land acquisitions and easements along private properties

# Evaluation Criteria

The following four (4) categories, with three (3) criteria each, were used to evaluate alternatives:

1. **Management of Existing Erosion Risks** – ability to manage existing erosion risks and improve channel stability, relative to urgency.
2. **Impacts to Aquatic and/or Terrestrial Habitat** – potential to provide habitat improvements while considering construction impacts.
3. **Climate Change Adaptation/ Resiliency** – ability to provide physical, hydrological, and ecological redundancy for buffering extreme events.

1. **Community Disruption/Recreational Impacts** – long-term benefits for the community and adjacent properties, minimum or short-term negative impacts.
2. **Landowner and Public Acceptance** – acceptance by landowners, community, and Indigenous consultation (including tree removals).
3. **Archaeological Impacts** – protects built and cultural heritage landscape and archaeological resources



1. **Capital Construction Costs** – total cost to install/construct proposed work.
2. **Maintenance Costs** – relative measure of ongoing maintenance costs.
3. **Life-Cycle Costs** – relative measure of lifespan of erosion protection/existing asset.

1. **Technical Feasibility** – constructability and ability to manage erosion risks.
2. **Approvability** – acceptance by agencies, community members, and stakeholders.
3. **Potential to employ “green solutions”**

## Promote Green Solutions:

Promoting ‘green solutions’ which emphasize use of natural materials / natural channel design approaches in combination with engineering techniques to encourage environmentally sustainable solutions. Emphasis on reduction of impacts (spatial and temporal) of the selected alternatives on the natural environment.

# Evaluation of Alternatives

As part of the EA process, each alternative was assessed across four equally weighted (25%) categories: environmental, technical/engineering, social/cultural, and economic. Within each category, the three evaluation criteria were scored on a scale from 1 (negative impact) to 5 (positive impact), indicated by the shaded dots. The total score, out of 60, determined the overall erosion mitigation performance.

## Selected Example Evaluation for Erosion Site E4:

Criteria	Alternative 1: Do Nothing	Alternative 2: Continuous Monitoring	Alternative 3: Selective Works	Alternative 4: Reach-Scale Works	Alternative 5: Removal of Risk
<b>Physical / Natural Environment (25%)</b>					
Management of Existing Erosion Risks	●○○○○	●●○○○	●●●○○	●●●●●	●●●○○
Impacts to Aquatic & Terrestrial Habitat	●●●○○	●●●○○	●●○○○	●○○○○	●●●○○
Climate Change Adaptation/Resiliency	●○○○○	●●●○○	●●○○○	●●●●●	●●●○○
Subtotal	6	9	9	12	10
<b>Technical / Engineering (25%)</b>					
Technical Feasibility	●●○○○	●●●○○	●●●●●	●●●●○	●○○○○
Approvability	●●○○○	●●●○○	●●●●●	●●●●○	●○○○○
Green Solutions	●○○○○	●●●○○	●●●○○	●●●●●	●●●●●
Subtotal	6	9	13	13	7
<b>Social / Cultural Environment (25%)</b>					
Community Disruption & Recreational Impacts	●●●○○	●●●○○	●●●●○	●●○○○	●○○○○
Landowner & Public Acceptance	●○○○○	●●○○○	●●●●●	●●●●○	●○○○○
Archaeological Impacts	●●●●○	●●●●○	●●●○○	●○○○○	●●○○○
Subtotal	8	9	12	7	4
<b>Economic (25%)</b>					
Construction & Capital Costs	●●●●●	●●●●○	●●●○○	●●○○○	●○○○○
Maintenance Costs	●●●○○	●●●○○	●●●○○	●●●●●	●●●○○
Life-Cycle Costs	●●●○○	●●●○○	●●●●○	●●●●●	●●●●●
Subtotal	11	10	11	12	10
<b>Total Score</b>	31/60	37/60	45/60	44/60	31/60
<b>Total Score (%)</b>	51.7	61.7	75.0	73.3	51.7

## Selected Example Evaluation for Erosion Site E14:

Criteria	Alternative 1: Do Nothing	Alternative 2: Continuous Monitoring	Alternative 3: Selective Works	Alternative 4: Reach-Scale Works	Alternative 5: Removal of Risk
<b>Physical / Natural Environment (25%)</b>					
Management of Existing Erosion Risks	●○○○○	●●●●○	●●●●○	●●○○○	●●●○○
Impacts to Aquatic & Terrestrial Habitat	●●●○○	●●●○○	●●○○○	●○○○○	●●○○○
Climate Change Adaptation/Resiliency	●○○○○	●●●○○	●●○○○	●●●●○	●●●○○
Subtotal	7	12	9	7	8
<b>Technical / Engineering (25%)</b>					
Technical Feasibility	●●●○○	●●●●●	●●●○○	●●○○○	●○○○○
Approvability	●●●○○	●●●●●	●●●○○	●●○○○	●○○○○
Green Solutions	●○○○○	●●●○○	●●●○○	●●●●○	●●●●●
Subtotal	9	13	9	8	7
<b>Social / Cultural Environment (25%)</b>					
Community Disruption & Recreational Impacts	●●●○○	●●●●○	●●○○○	●○○○○	●○○○○
Landowner & Public Acceptance	●●●○○	●●●●○	●●○○○	●○○○○	●○○○○
Archaeological Impacts	●●●●○	●●●●○	●●●○○	●○○○○	●●○○○
Subtotal	10	12	7	3	4
<b>Economic (25%)</b>					
Construction & Capital Costs	●●●●●	●●●●○	●●●○○	●●○○○	●○○○○
Maintenance Costs	●●●○○	●●●○○	●●●○○	●●●●○	●●●○○
Life-Cycle Costs	●●●○○	●●●○○	●●●●○	●●●●●	●●●●●
Subtotal	12	11	10	11	10
<b>Total Score</b>	38/60	48/60	35/60	29/60	29/60
<b>Total Score (%)</b>	63.3	80.0	58.3	48.3	48.3

# Evaluation of Alternatives

The preferred solutions are identified by the highest scoring alternative. Sites that were similar and scored the same are grouped together. Six (6) erosion sites were selected for Alternative 3 (Selective Works) and 6 sites were selected for Alternative 2 (Continuous Monitoring).

**Evaluation Result (%)**

Erosion Site(s)	Alternative 1: Do Nothing	Alternative 2: Continuous Monitoring	Alternative 3: Selective Works	Alternative 4: Reach-Scale Works	Alternative 5: Removal of Risk
<b>E4, E24</b>	51.7	61.7	<b>75.0</b>	73.3	51.7
<b>E11</b>	46.7	58.3	<b>75.0</b>	68.3	53.3
<b>E5</b>	45.0	56.7	<b>75.0</b>	71.7	55.0
<b>E6</b>	51.7	66.7	<b>76.7</b>	58.3	50.0
<b>E7</b>	53.3	68.3	<b>73.3</b>	55.0	50.0
<b>E9, E10, E17</b>	60.0	<b>76.7</b>	65.0	50.0	50.0
<b>E14, E15, E16</b>	63.3	<b>80.0</b>	58.3	48.3	48.3

**Sites E9, E10, E14, E15, E16, E17**  
Continuous Monitoring

**General Recommendations:**

- Annual topographic surveys for accurate measurement of erosion rates (5 years)
- Monumented photos

**Risk Probability Trigger for Intervention:**

Monitoring & erosion hazard assessment studies to indicate time to contact of less than 25 years

**Cost Estimate:** \$300,000 for 6 sites for 5 years with reporting (\$60K/year)\*

*\*Costs may be less if combined with other sites from Town's Major Slope monitoring program (not including geotechnical investigations if required)*

**Sites E5, E6, E7**  
Selective Works

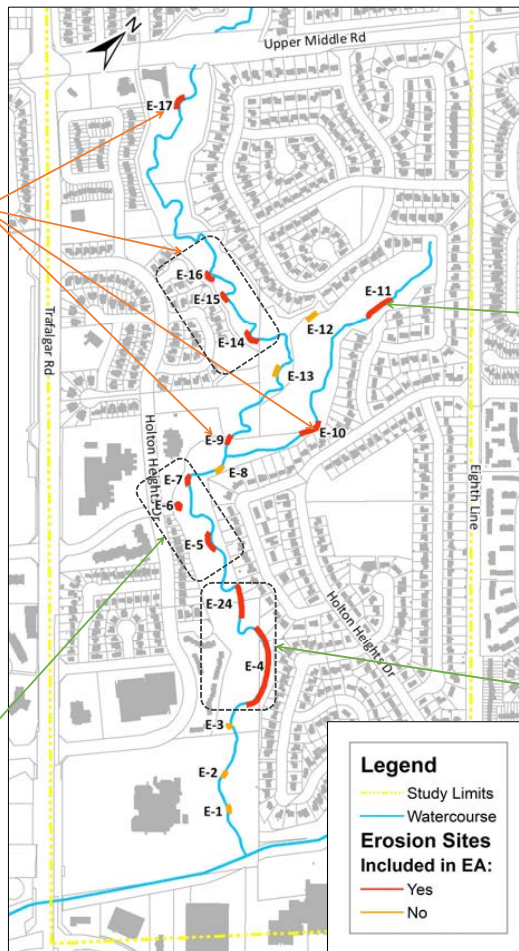
**General Recommendations:**

- Natural Channel Design with Soft Engineering
- Vegetated Flagstone Buttress
- Flagstone Riffle Substrate
- Bank Restoration, Bioengineering

**Site Recommendations:**

- E5:** Removal of Gabion Baskets And Larger Span Pedestrian Bridge
- E6:** Reinforce Outfall (Armourstone) And Restoration of Outfall Channel
- E7:** Channel Realignment and Vegetated Flagstone Buttress at Toe of Slope Erosion

## Preferred Alternatives



**Green Solutions**

All proposed works will include bioengineering and plantings to restore native vegetation

**Site E11**

Selective Works

**Recommendation:**

Retrofit CSP Crossing, Stabilize Trail Embankment with Armourstone Walls And Stabilize Channel Downstream

**Site E4 & E24**

Selective Works

**General Recommendations:**

- Natural Channel Design with Combined Hard & Soft Engineering Approaches
- Vegetated Flagstone Buttress
- Flagstone Riffle Substrate
- Bank Restoration, Bioengineering

**Site Recommendations:**

**E4 & E24:** Realign Channel Away from Slope with Armourstone Wall, Replacement of Gabion Basket

Note: Cost estimates for selective works are on the following site-specific posters

# Preliminary Functional Design Sites E4 & E24

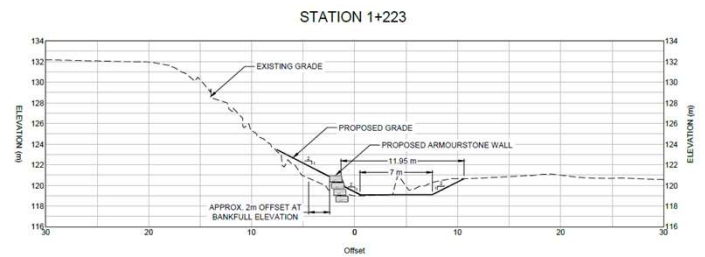
## Existing Conditions

**Issue:** Valley contact with slope and toe erosion. Gabion baskets failing at toe  
**Risk:** Private properties at top of slope  
**Length:** >100 m



## Proposed Conditions

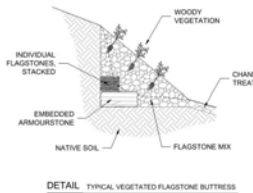
**Preferred Alternative:** Selective Works  
**Recommendation:** Realign channel away from slope and replace gabion baskets with armourstone wall. Restore channel and banks with bioengineering.  
**Preliminary Cost Estimate:** \$1,800,000  
**Estimated Tree Removals:** 215 trees (~25% large trees > 30 cm diameter)



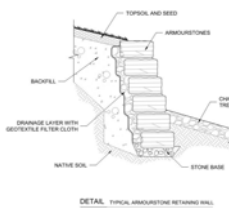
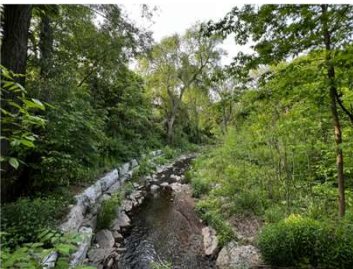
### During Construction



### After Construction



### After Construction



# Preliminary Functional Design Sites E5, E6, & E7

## Existing Conditions



**E5:** Failing gabion baskets with downstream scour pool. Risk to pedestrian bridge/trail



**E6:** Perched outfall on valley slope with suspended drop structure and scour pool. Risk to outfall and private properties at top of slope.



**E7:** Toe erosion of valley slope. Risk to private properties (parking lot) at top of slope.



## Proposed Conditions

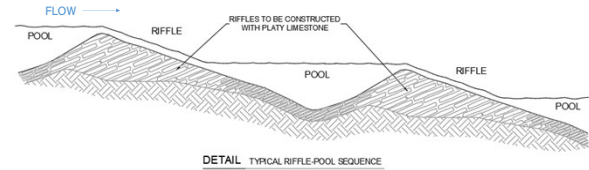
**Preferred Alternative:** Selective Works

### Recommendation:

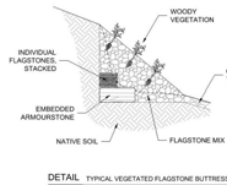
- **E5:** Removal of gabion baskets. Natural channel design with riffle-pool morphology, vegetated flagstone buttress, and bank restoration. Replacement with larger span pedestrian bridge.
- **E6:** Reinforce outfall with armourstone, construct scour pool, and restore outfall channel.
- **E7:** Channel realignment and vegetated flagstone buttress at toe of slope

**Preliminary Cost Estimate (All Sites):** \$1,300,000

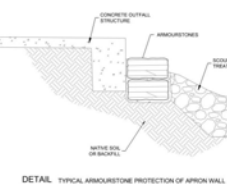
**Estimated Tree Removals:** 110 trees (~25% large trees > 30 cm diameter)



### During Construction



### After Construction



# Preliminary Functional Design Site E11



## Existing Conditions

**Issue:** CSP culvert below trail, bottom corroded. Scour pool downstream. Buried sanitary sewer.

**Risk:** Critical infrastructure (nearby sanitary sewer), pedestrian path/crossing

**Length:** 20 – 50 m



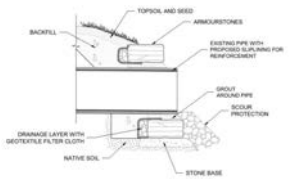
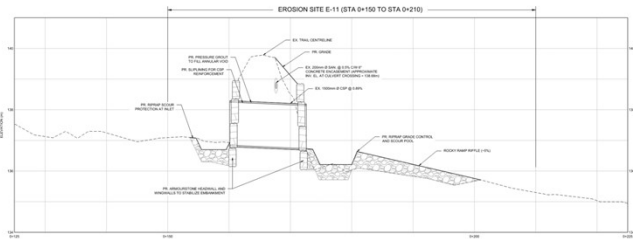
## Proposed Conditions

**Preferred Alternative:** Selective Works

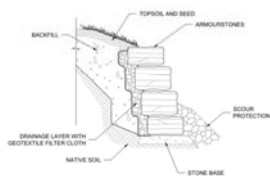
**Recommendation:** Retrofit CSP crossing, stabilize trail embankment with armourstone walls and stabilize channel downstream with scour pool and rocky riffle ramp.

**Preliminary Cost Estimate:** \$400,000

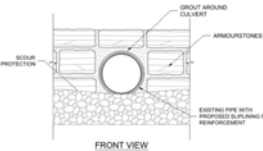
**Estimated Tree Removals:** 60 trees (~10% large trees > 30 cm diameter)



DETAIL: CULVERT THROUGH ARMOURSTONE HEADWALL



SIDE VIEW

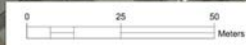


FRONT VIEW

DETAIL: ARMOURSTONE HEADWALL AROUND CULVERT



LEGEND			
	PROPERTY LINE		PROPOSED CHANNEL
	STORM SEWER		PROPOSED CHANNEL C/L
	SANITARY SEWER		BANK RESTORATION
	WATERCOURSE THALWEG		SLOPE RESTORATION
	EROSION SITE		VEGETATED FLAGSTONE BUTTRISS
	TOP OF EMBANKMENT		PROPOSED RIFFLE
	TOE OF EMBANKMENT		PROPOSED POOL



# Implementation - Construction Phase

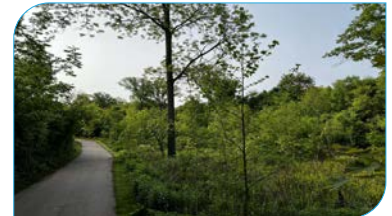
Note: Additional public engagement opportunities will be available during detailed design.



Construction access into creek corridor along existing trail. Tree removals will be required (estimated 100 trees).



Tree protection fencing to be installed



Floodplain to be revegetated and pedestrian trail restored

## Construction Access Map



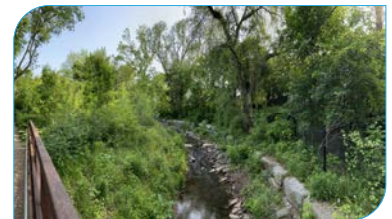
Work Areas Staging Areas Access route along existing trail



Temporary silt fencing for erosion and sediment control to be installed



Channel to be isolated with temporary check dams and pumps to bypass creek flows



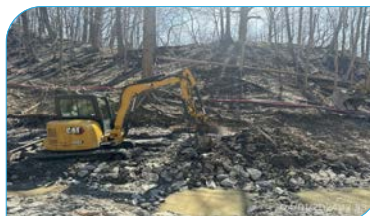
Sites to be restored with native plantings and vegetation



Erosion control blankets to be installed on restored banks



Heavy machinery will be required to build armoured stone structures



Light machinery to be used where possible to minimize footprint and reduce tree removals



Riffles to be constructed with platy limestone (flagstone) similar to native shale material

# Public Feedback & Next Steps

## Thank you for your participation!

Please submit your input by **June 27, 2025** using the comment sheet or online using the QR code below

After tonight's meeting, the study team will gather your comments, review your input, and undertake the following steps:

### Erosion Mitigation EA Study

- EA finalization – **Summer 2025**
- Detailed design – **2026, subject to budget approval**
- Phased Construction to start – **2028 to 2029, subject to budget approval**



For additional information, please contact one of the study team members:

**Jing Liu**  
Water Resource Engineer  
Transportation and Engineering  
Town of Oakville  
1225 Trafalgar Road  
Oakville, ON L6H0H3  
905.845.6601 Ext. 3234



**Roger Phillips, Ph.D., P.Geo.**  
Senior Geomorphologist  
Montrose Environmental  
100, 2265 Upper Middle Road E  
Oakville, ON L6H 0G5



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## **APPENDIX H4b**

### **PIC 2 Sign In and Comment Sheets**

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**East Morrison Creek Erosion Mitigation Study  
Municipal Class Environmental Assessment Schedule B**

**Sign-in Sheet**

PUBLIC INFORMATION CENTRE

June 11, 2025

Name	Address	Contact Number
C. Russell	1473 Litchfield Rd	4167091145
R. Beattrey	" " " "	2262204315
J. BEMN	1359 WHITE OAKS BLVD	905 691-6821
A. BROWN	1359 WHITE OAKS BLVD	905 466-8718
COLIN JOHN + Norma	1356 FOREST GLADE ROAD	905 338 1485
N Dybli	2188 Crenville	905 616 5155
J. Newman + Irene	1312 Hillview Cres	905 599 6775
Tom Adams	Council	
Chris Marmont	301-1230 Marlborough Ct.	905 464 3439

Disclaimer: Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

TestFeedbackID	Please review the posted PIC information and submit your comments by June 27, 2025	Name	Email	Form inserted	Form updated
1	Please optimize work to minimize removal of mature trees. Post construction tree planting should prioritize white pine which has negligible juvenile population in this valley despite existing mature population.	Bret Timmis	btimmis@hotmail.com	6/17/2025 12:57	6/17/2025 12:57

**Abby Yates**

---

**From:** aeyates@montrose-env.ca  
**To:** Jing Liu  
**Subject:** RE: [EXTERNAL] East Morrison Creek Erosion Mitigation Study

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**From:** [charlotte.russell@sympatico.ca](mailto:charlotte.russell@sympatico.ca) <[charlotte.russell@sympatico.ca](mailto:charlotte.russell@sympatico.ca)>  
**Sent:** Monday, June 9, 2025 8:53 AM  
**To:** Jing Liu <[jing.liu@oakville.ca](mailto:jing.liu@oakville.ca)>; Roger Phillips <[rphillips@matrix-solutions.com](mailto:rphillips@matrix-solutions.com)>  
**Subject:** [EXTERNAL] East Morrison Creek Erosion Mitigation Study

Hello –

Just wondering whether anyone is looking into the draining of pools on the east side of Morrison Creek, south of Upper Middle?

We walk daily on the trail on the east side and, particularly in the spring, have noticed that a number of owners appear to be draining their pools out the back of their properties and it is eroding the trail (and pooling) and therefore probably going down the hill to the creek. Not sure of the impact to the creek walls, but the trail stays muddy for weeks.

Thanks - Charlotte

---

## Abby Yates

---

**From:** aeyates@montrose-env.ca  
**Subject:** FW: [External] Fwd: erosion - 1200 Lambeth Rd.

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**From:** Forrest Hu <[hu.forrest@gmail.com](mailto:hu.forrest@gmail.com)>  
**Sent:** Thursday, June 12, 2025 5:30 PM  
**To:** Jing Liu <[jing.liu@oakville.ca](mailto:jing.liu@oakville.ca)>  
**Subject:** Re: [External] Fwd: erosion - 1200 Lambeth Rd.

Hello Jing,

It is unfortunately that I was not able to present PIC last night as my wife was sick since Monday.

I was wondering if any significant information I might be missing or any information about 1200 Lambeth Rd you require further from me ?

Thank you and Best Regards,  
Forrest

**Abby Yates**

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**From:** aeyates@montrose-env.ca  
**Subject:** FW: [EXTERNAL] Re: Notice of Public Information Centre - Town of Oakville East Morrison Creek Erosion Mitigation Study Schedule 'B' Municipal Class Environmental Assessment

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**From:** Jamie Reddekopp <[jreddekopp@outlook.com](mailto:jreddekopp@outlook.com)>  
**Sent:** Sunday, June 15, 2025 10:20 PM  
**To:** Jing Liu <[jing.liu@oakville.ca](mailto:jing.liu@oakville.ca)>  
**Subject:** [EXTERNAL] Re: Notice of Public Information Centre - Town of Oakville East Morrison Creek Erosion Mitigation Study Schedule 'B' Municipal Class Environmental Assessment

Hi Jing,

Unfortunately we were out of town last week when the latest Erosion Study results were shared. The links in the letter we received and in the note below don't appear to be working.

Could you please forward us the material that was covered? What was the outcome of the meeting/next steps?

Thank you.  
Jamie Reddekopp  
Resident at 1272 Hillview Cres.