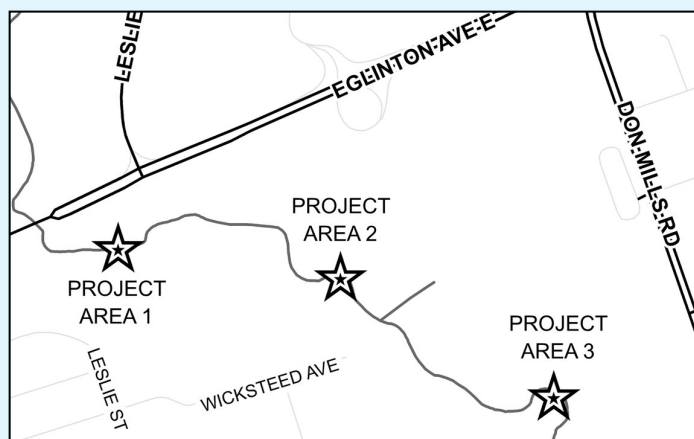


WEST DON RIVER IN E.T. SETON PARK MAJOR MAINTENANCE PROJECT



PROJECT OVERVIEW

- The E.T. Seton Park Major Maintenance Project is being planned under the **Toronto Ravine Major Maintenance** portfolio.
- This project aims to mitigate erosion risks at three erosion sites along the West Don River which poses risks to surrounding sanitary infrastructure, parklands and trails.
- To determine the best approach for completing maintenance works, Toronto and Region Conservation Authority (TRCA) is undertaking a *Conservation Ontario Class Environmental Assessment for Remedial Flood and Erosion Control Projects (amended 2013)* ("Class EA").
- As part of the Class EA, a range of alternative solutions are being evaluated for environmental effects. The preferred approach is expected to improve bank stability and health of the watercourse.
- TRCA in collaboration with their consultant, Palmer Inc., plans to complete the Class EA by Fall 2021.



PROJECT BENEFITS

TRCA's monitoring of erosion control structures along this section of West Don River over many years has shown that several of these structures are in failing condition. Erosion concerns within the project area are threatening existing trails, parkland and sanitary infrastructure. This project intends to address bank stability and erosion issues to protect public health and safety while enhancing the surrounding environment.

DESCRIPTION OF PROPOSED WORKS

In 2021, TRCA intends to continue the ongoing Class EA with support from Palmer. To-date, TRCA has prepared concept alternatives for each of the priority areas and held two consultation meetings (with the public and key stakeholders). Based on feedback received from these meetings, TRCA is refining the preferred concept. In Summer 2021, TRCA will proceed with preparation and review of the project plan and detailed designs, and lastly, obtain Project Approval in late Fall 2021. A tentative schedule for project implementation is provided below for reference purposes; actual implementation timelines for each priority area may vary.

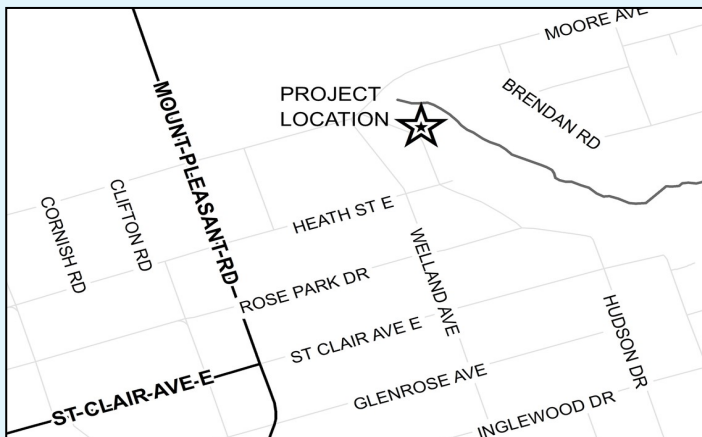
WORK DESCRIPTION (AREAS 1, 2 AND 3)	SCHEDULE
Planning and Design	September 2020-December 2021
Permitting and Approvals	January 2022-June 2022
Implementation	2022 – 2024

MOORE PARK RAVINE BETWEEN 193 & 195 HUDSON DRIVE SLOPE STABILIZATION PROJECT



PROJECT OVERVIEW

- This project has is planned as part of the **Valley Erosion Hazards** portfolio
- Reports of slope instability affecting residential properties and a City of Toronto parkette date back to 2008
- The results of a 2008 geotechnical investigation indicate long term risk to the residential homes at 193 & 195 Hudson Drive
- From 2016 through 2020, additional geotechnical and soil characterization investigations were completed confirming the extent of risk to the residential homes.
- TRCA will be soliciting proposals for design-build services through 2021 based on constraints identified in the previously completed engineering studies
- The slope stabilization solution will be determined during detailed design phase of the design-build



PROJECT BENEFITS

- Long term, low maintenance protection of two residential homes on Hudson Drive which were confirmed as at-risk from slope instability
- Homeowners at 193 and 195 Hudson Drive are contributing financially to this project in accordance with TRCA policies
- Cost-effective solution that minimizes environmental impacts and fosters resiliency in Mud Creek

DESCRIPTION OF PROPOSED WORKS

- Request for Pre-Qualification (RFPQ) and Request for Proposal (RFP) for design-build services
- Preparation and execution of Erosion Control Agreements (ECAs) for participating properties.
- Design-Build contractor to secure all necessary permits and approvals to proceed
- Design-Build contractor to proceed with construction in 2022

WORK DESCRIPTION	SCHEDULE
Planning and Design	January 2021-March 2022
Permitting and Approvals	January 2022-May 2022
Implementation	June 2022-December 2022

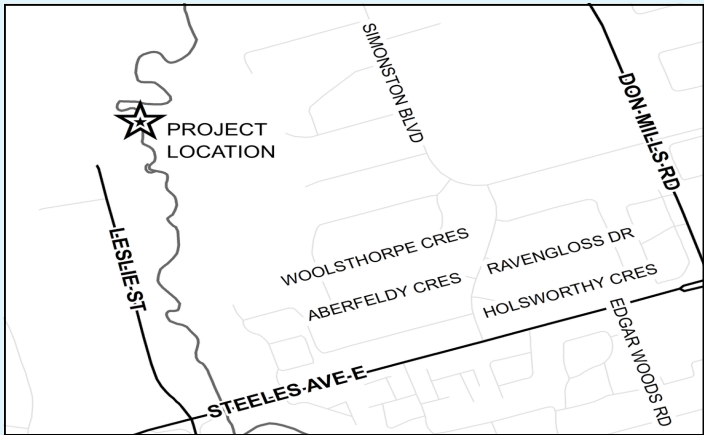
GERMAN MILLS SETTLERS PARK

SANITARY INFRASTRUCTURE PROTECTION PROJECT



PROJECT OVERVIEW

- The project is being planned in coordination with York Region Environmental Services under the **Streambank Infrastructure Erosion Control Management Program (SIECMP)** and in partnership with the City of Markham
- Channel erosion has placed the Region’s Leslie Collector sewer at risk of exposure in six locations along a 260 metre section of German Mills Creek in German Mills Settlers Park
- A Schedule B Municipal Class Environmental Assessment was completed in 2019 and determined the preferred alternative for a major channel realignment and pedestrian bridge extension
- The Lake to Lake multi-use trail and pedestrian bridge are also at risk from erosion within the project area. The City of Markham is partnering with TRCA and York Region to replace the pedestrian bridge and protect the trail through this initiative



PROJECT BENEFITS

- Protect the Leslie Collector Sewer from exposure and secure long-term sewer maintenance access
- Protect and enhance Lake to Lake Trail infrastructure
- Mitigate safety risks to the general public
- Enhance aquatic habitat through the creation of two new online wetlands and terrestrial habitat through native riparian plantings

DESCRIPTION OF PROPOSED WORKS

- Finalization of detailed design drawings for sewer protection, trail infrastructure improvements and natural channel design
- Obtain all permits & approvals, including a Fisheries Act Authorization from the Department of Fisheries and Oceans Canada
- Implementation of a 300 metre major channel realignment, pedestrian bridge extension & aquatic and terrestrial restoration
- Post-construction regulatory approval monitoring

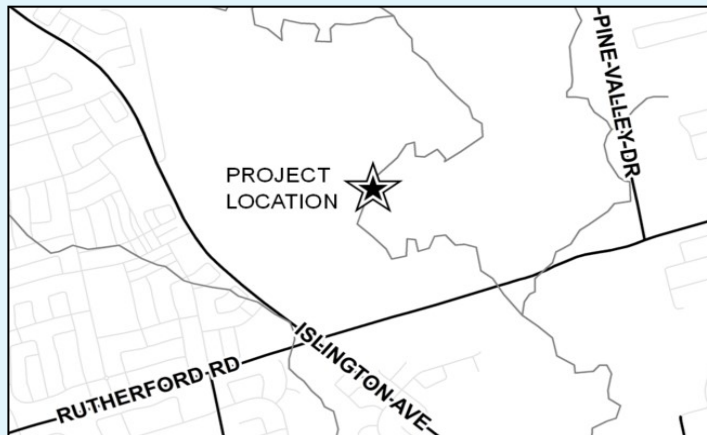
WORK DESCRIPTION	SCHEDULE
Planning and Design	January 2018-July 2021
Permitting and Approvals	September 2020-January 2022
Implementation	September 2022-March 2023

EAST HUMBER (EMS789) BANK STABILIZATION PROJECT



PROJECT OVERVIEW

- An erosion hazard threatening a pedestrian bridge and trail is currently being monitored under the **TRCA Maintenance & Other Hazards (York Region)** portfolio
- The at-risk trail and bridge abutment is a part of the William Granger Greenway trail system located within the City of Vaughan
- Construction of bank stabilization works along the east bank of the watercourse have been deemed necessary given the potential risk to public safety



PROJECT BENEFITS

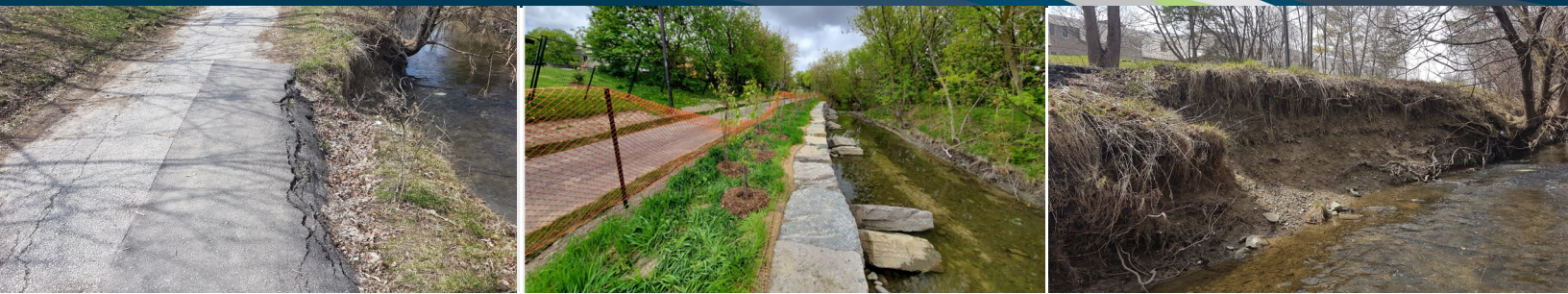
- Addressing erosion hazard on heavily used recreational trail
- Mitigation of any potential safety risk to the general public
- Provide protection to publicly owned assets
- Enhancement of the surrounding riparian and aquatic habitat through the installation of native shrub plantings

DESCRIPTION OF PROPOSED WORKS

- Development of detailed designs for remedial bank stabilization measures that may include a vegetated rip rap revetment
- Implementation of bank stabilization measures to mitigate risk and provide protection to the William Granger Greenway pedestrian bridge and trail

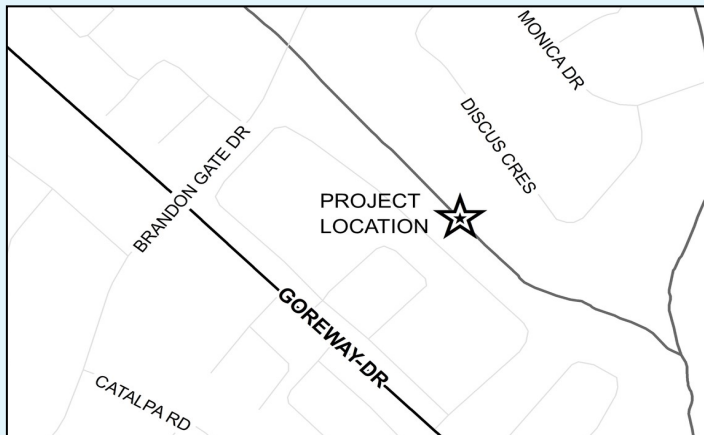
WORK DESCRIPTION	SCHEDULE
Planning and Design	June 2021—April 2022
Permitting and Approvals	November 2021—May 2022
Implementation	Summer 2022

BRANDON GATE PARK BANK STABILIZATION PROJECT



PROJECT OVERVIEW

- Project works are being completed under the **Peel Capital and Special Projects Portfolio**
- The site is located within Brandon Gate Park in the City of Mississauga on the west bank of East Mimico Creek
- TRCA Erosion Hazard Monitoring staff have been inspecting this site since 2010 and observed a rapid increase in erosion in 2016
- Slumping and scouring of the bank had impacted an adjacent asphalt pedestrian path
- During a planning visit by ERM staff, a second scour was observed downstream of the original site and was incorporated into the scope of work
- Implementation is being completed under Schedule A+ of the *Municipal Class Environmental Assessment*



PROJECT BENEFITS

- Improved public safety with reduced risk of failure of the pedestrian path
- Localized protection minimizes the footprint of the works while providing protection against further erosion of the bank

DESCRIPTION OF PROPOSED WORKS

- The implemented works involved construction of a 45 meter long armourstone retaining wall along the right bank with eight (8) flow deflectors installed along the base of the wall
- A double row of brush layering was installed at the transition from the existing bank and new armourstone retaining wall
- Restoration included Terraseeding, planting of native trees and shrubs, and repaving of the asphalt pedestrian path

WORK DESCRIPTION	SCHEDULE
Planning and Design	November 2019 –November 2020
Permitting and Approvals	September 2020—November 2020



PROGRAM OVERVIEW

In 2010, The City of Toronto and Toronto and Region Conservation Authority (TRCA) developed a long-term monitoring partnership to assess the risks to Toronto Water infrastructure within the City's stream valleys and along the shoreline of Lake Ontario.



PROGRAM BENEFITS

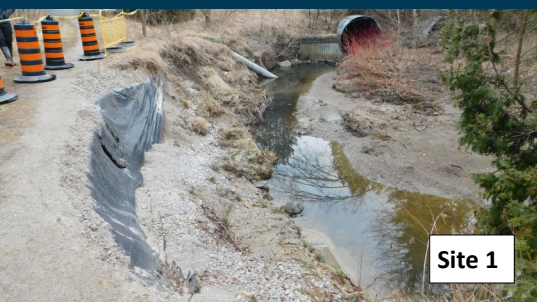
- Identify Toronto Water infrastructure that is at risk or has been damaged due to erosion before a complete failure occurs
- Supports Toronto Water with asset management activities by identifying current potential future concerns

DESCRIPTION OF WORK

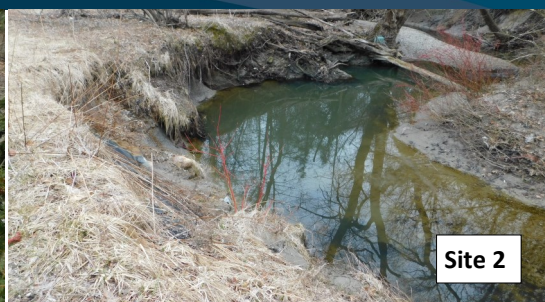
- Inspections performed by trained technical assistants that utilize high accuracy GPS units and rugged computers to enter information directly into an internet accessible database
- Imminent or urgent hazards to Toronto Water infrastructure are immediately flagged to identified staff
- Monthly summary reports from May to November are prepared and submitted to Toronto Water to document progress
- A final report is submitted that describes any observations, conclusions, or trends that pertain to the findings from the fieldwork and subsequent analysis

WORK DESCRIPTION	SCHEDULE
Monitoring fieldwork	April 26, 2021 - November 26, 2021
Quality control of records and report preparation	April 1, 2021 - March 31, 2022

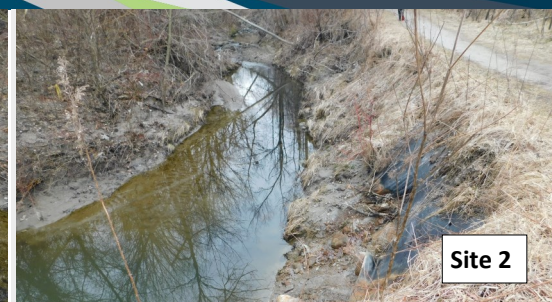
NEWTONBROOK CREEK EROSION CONTROL PROJECT



Site 1



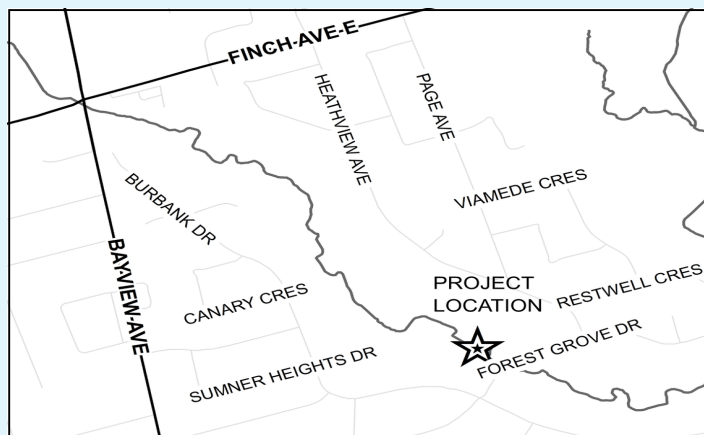
Site 2



Site 2

PROJECT OVERVIEW

- This is a **fee-for-service** project funded by City of Toronto's Parks, Forestry, and Recreation Division
- Implementation will be completed under a Schedule A+ of the *Municipal Class Environmental Assessment*
- The site is located within Newtonbrook Park along the north bank Newtonbrook Creek, a tributary of the East Don River in the City of Toronto
- The City has identified four (4) erosion sites along the East Don River Trail on the north bank of the creek requiring stabilization
- The current scope of work involves interim erosion control works at the two highest risk sites to protect the trail and pedestrian bridge abutment



PROJECT BENEFITS

- Interim works shall reduce the rate of erosion at Sites 1 and 2 and will provide the City with time to acquire funds for long term stabilization works for all four (4) erosion sites
- Improved public safety

DESCRIPTION OF PROPOSED WORKS

- The Project Team is currently in discussions with the City and is working on an addendum to the existing Phase 2 agreement
- The proposed works under this addendum shall include updates to baseline data, contract management for engineering design services, development of interim erosion control works at Site 1 and 2 and bridge abutment protection, coordination of permits and approvals for construction, and preparation of a cost estimate for implementation

WORK DESCRIPTION	SCHEDULE
Planning and Design	*May—September 2021
Permitting and Approvals	*August—October 2021