



Report
Staff Report
The Corporation of the City of Brampton
9/4/2024

Date: 2024-07-24

Subject: **Recommendation Report - Etobicoke Creek Watershed Plan Update**

Contact: Pam Cooper, Manager, Environmental Planning,
Environment & Development Engineering

Report number: Planning, Bld & Growth Mgt-2024-638

RECOMMENDATIONS:

1. That the report from Pam Cooper, Manager, Environmental Planning, Environment and Development Engineering Division to the Committee of Council Meeting of September 4, 2024, re: **Recommendation Report - Etobicoke Creek Watershed Plan Update**, be received;
2. That the Etobicoke Creek Watershed Plan attached as Attachment 1 to this report be endorsed.

OVERVIEW:

- **Watershed planning is a requirement of Provincial plans and policies and helps identify ways to protect, enhance and restore watershed health to ensure resilient ecosystems and safe communities over the long term.**
- **The last watershed plan for Etobicoke Creek was completed in 2002. Development of a new watershed plan started in 2020 and was completed in 2024. This new Etobicoke Creek Watershed Plan (ECWP) was developed using the latest available science and data to inform future municipal land use and infrastructure planning decisions, however, the ECWP is not a land use plan and does not make land use and infrastructure planning decisions.**
- **The ECWP will also help inform other municipal initiatives aimed at improving watershed health and safety, such as:**
 - **sustainability and climate change adaptation planning,**
 - **green space securement and management,**
 - **ecosystem restoration and management,**
 - **best practices for low impact development and green infrastructure implementation,**

- **stormwater management planning and retrofit, flood and erosion remediation,**
- **urban revitalization initiatives.**

- **The ECWP and its management actions align with City of Brampton policies, programs, and studies, including Brampton’s new Brampton Plan, Lake Enhancement Strategy and Environmental Master Plan.**
- **Work is already underway at a Priority Restoration site (Loafers Lake and Conservation Drive Park) due to \$2.5 million for the Etobicoke Creek Wetlands Enhancement Project from the Government of Ontario's Wetland Conservation Partnership Program. Enhancements include improved shoreline and wetland habitat, viewing platforms, a bio-swale, trail realignment and planting over 6,500 native trees and shrubs.**
- **Following endorsement/approval from participating municipal Councils, the ECWP will be finalized after approval by TRCA’s Board of Directors (anticipated in Fall 2024).**

BACKGROUND:

Watershed planning is a requirement of Provincial plans and policies. The last watershed plan for Etobicoke Creek was completed in 2002. An update of implementation priorities, incorporating new information, was completed in 2010. Watershed Characterization for a new watershed plan started in 2020.

Watersheds

A watershed refers to an area that is drained by a river and its tributaries. Healthy watersheds provide numerous ecosystem services and benefits, such as flood and erosion protection, clean water, biodiversity, climate resiliency, and recreational opportunities. These services and benefits are critical to sustaining healthy and resilient ecosystems and safer human communities over the long term.

The purpose of a watershed plan is to help understand current and potential future watershed conditions at the larger scale, and identify strategic measures and actions to protect, enhance, and restore watershed health and build resiliency to land use and climate changes. Watershed planning accounts for both the natural system and human system and helps inform sustainable land use and infrastructure planning decision-making and climate adaptation planning.

Provincial policy recognizes watershed planning as the most ecologically meaningful scale for integrated and long-term planning. Watershed planning is required by Provincial plans and policies (Provincial Policy Statement, Growth Plan, and Greenbelt

Plan) which require that watershed planning be undertaken to identify and protect natural resources and areas and to protect the quantity and quality of water resources.

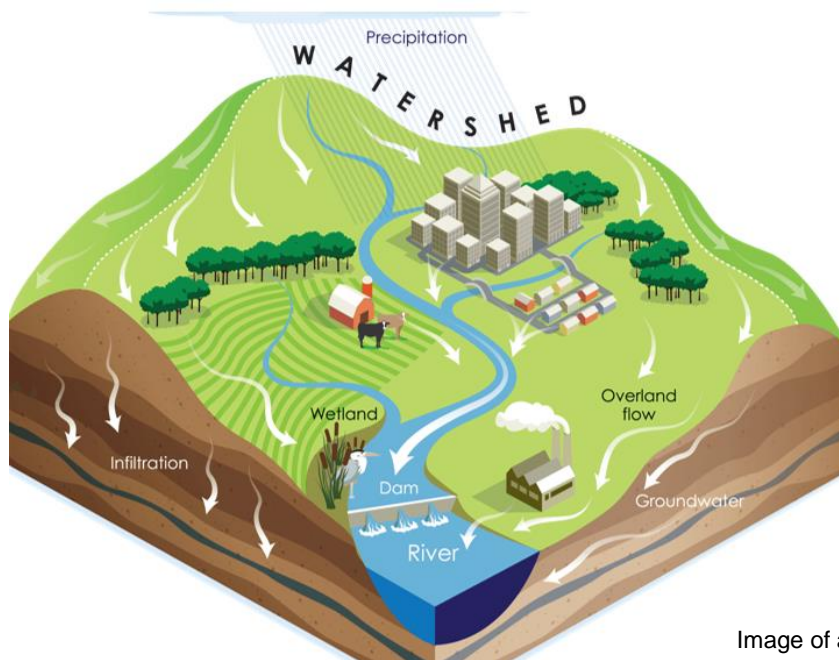


Image of a Watershed

Watershed plans are not land use plans and do not make land use planning decisions. However, the data, scientific analysis, modelling, scenario evaluation, and management actions/priorities generated through a watershed planning process are used by municipalities to help inform future land use and infrastructure planning decisions.

Watershed plans can also be an excellent resource for municipalities to inform:

- sustainability and climate change adaptation planning;
- green space securement and management;
- ecosystem restoration and management;
- best practices for low impact development/green infrastructure implementation;
- stormwater management planning and retrofit, flood and erosion remediation;
- urban revitalization initiatives.

Etobicoke Creek Watershed Plan (ECWP)

Etobicoke Creek is a heavily urbanized watershed and:

- has eight subwatersheds at the western end of TRCA's jurisdiction;
- is approximately 22,404 hectares in size;
- its headwaters originate in the Greenbelt in the Town of Caledon, before flowing south through the City of Brampton and City of Mississauga, and ultimately entering Lake Ontario in the City of Toronto;

- Brampton contains 33.2% of the watershed area (23.8% of the total watershed urban area, 5.1% of the total watershed rural area, and 4.3% of the total watershed natural area).

One important role that the ECWP plays is to ensure that growth decisions occurring in the upstream communities, such as in the Headwaters of the Etobicoke Creek watershed, do not adversely affect downstream communities including in the City of Brampton.

The development of the Etobicoke Creek Watershed Plan (ECWP) was a collaborative effort that started in 2020 with the formation of a Steering Committee, which included staff from TRCA, the City of Toronto, Region of Peel, City of Mississauga, City of Brampton, Town of Caledon, Mississaugas of the Credit First Nation, and the Greater Toronto Airports Authority.

City of Brampton staff (Environmental Planning, Environmental Engineering, Stormwater Programs, Planning, Building, and Growth Management Department) were integral members of the Steering Committee and provided input into development of the ECWP throughout the watershed planning process. Credit Valley Conservation was also engaged to ensure consistency in watershed planning approaches between the two conservation authorities. Other First Nations and Indigenous communities, watershed stakeholders, and members of the public were also engaged and involved through the watershed plan development process.

The development of the ECWP involved the following three key stages:

Stage 1 Watershed Characterization (2020-2021)	understand current watershed conditions and trends over the last 20 years, such as habitat quality and quantity, sensitive species, surface and groundwater quality and quantity conditions, and flooding and erosion issues. This stage culminated in the release of a Watershed Characterization Report in June 2021.
Stage 2 Future Management Scenarios (2021- 2022)	examine different potential future land use scenarios and the impacts of climate change (where possible) to understand how watershed conditions may change over time. A Future Management Scenario Analysis Report was released in July 2022. This report contains detailed information on the various scenarios analyzed and presents the findings from extensive watershed modelling and technical analyses for each technical component. The information contained in both the Characterization and Future Management Scenario Analysis Reports was used to inform the next stage of the watershed planning process.
Stage 3 Implementation Planning (2022- 2024)	developed a realistic management framework with priority actions to protect, enhance, and restore watershed health, and led to the development of the draft ECWP document. The management framework and draft ECWP were developed with extensive input and review by TRCA's internal Technical Committee and the ECWP Steering Committee. Information on the inventory, monitoring, and evaluation required to track implementation progress and watershed conditions was also included in the watershed plan.

The draft ECWP was released in Summer 2023 for a 60-day public review period (from August 1 to September 29, 2023). TRCA, with input from the Steering Committee, considered all the input and feedback received on the draft ECWP and have now updated the watershed plan to address the comments received.

CURRENT SITUATION:

Etobicoke Creek Watershed Plan Overview

The ECWP (Attachment 1) is divided into nine sections. A summary of each section is provided below. In addition, the ECWP includes a section on 'The Land and Water' which was developed in collaboration with Mississaugas of the Credit First Nation and includes information on the treaties within the watershed, the history of the land, and the Mississaugas' relationship to water.

Section	Summary
Introduction and Background	overview of the rationale and policy basis for watershed planning, the local context and considerations, and details of engagement
Water Resource and Natural Heritage Systems	key components of each system and provides an overview of how these two integrated systems provide essential ecosystem services
Existing Watershed Conditions	<p>current watershed conditions for four key watershed components, including the Water Resource System, Natural Heritage System and Urban Forest, Water Quality, and Natural Hazards, and a comparison of trends over the last 20 years. The findings show that the key issues in the Etobicoke Creek watershed that will need to be addressed to improve watershed health include:</p> <ul style="list-style-type: none"> • Water Resource System: aquatic habitat conditions are poor, and the watershed has a high amount of runoff and in-stream barriers that affect aquatic ecosystem health. • Natural Heritage System and Urban Forest: there is a low amount of natural cover and habitat quality is generally 'poor'. The remaining natural cover is highly vulnerable to the effects of climate change. • Water Quality: surface water quality is generally poor compared to other TRCA watersheds. • Natural Hazards: the watershed can be categorized as medium/high erosion sensitivity and has six Flood Vulnerable Clusters (two in Brampton, three in Mississauga, and one in Toronto).
Future Watershed Conditions	four potential future management scenarios assessed to help understand how watershed conditions may change in the future. This included examining the impacts of different levels of land use change, climate change (where possible), and the benefits of watershed enhancements on watershed health. Watershed enhancements included improvements to natural cover, urban forest canopy cover, and stormwater management practices, such as low impact development measures. Generally, the scenario analysis determined that as urbanization increases and the climate changes, there will be negative impacts to all four watershed components, which affects watershed health and resilience. However, the watershed

	enhancements help mitigate these impacts and contribute to a safer, healthier, and more resilient watershed
Management Framework	what needs to be done to protect, enhance, and restore the health of the watershed. The management framework includes eight objectives, 10 indicators, and 36 management actions under three main goals related to: 1) Land Use; 2) Water Resource System; and 3) Natural Heritage System and Urban Forest.
Implementation, Monitoring and Evaluation	overview of the process to be used for implementation, tracking, and reporting of the ECWP. This includes identifying resources and funding required for implementation. Additionally, this section provides information on the inventory, monitoring, and analysis that will take place to evaluate watershed health over time and inform adaptive management
Maps, Glossary, References, and Appendices	supporting resources in the form of key maps showing priority areas to help focus implementation, a glossary of terms, references, and two appendices with supporting information.

Engagement

The development of the ECWP has been a collaborative process with TRCA, the municipalities within the watershed, Mississaugas of the Credit First Nation, and the Greater Toronto Airports Authority. Engagement with Credit Valley Conservation, other First Nations and Indigenous communities, watershed stakeholders, and the public has taken place throughout the watershed plan development process.

The purpose of this engagement was to receive input and feedback on the watershed plan and to raise awareness about key issues in the watershed. Engagement has occurred using a variety of methods and activities to ensure the greatest degree of engagement possible. This included regular updates to the [ECWP project webpage](#), social media posts, and seeking input using online interactive tools.

TRCA also sent out direct notifications at key milestone points to First Nations and Indigenous communities, local and regional Councillors whose wards have boundaries within the watershed, TRCA Board members, Regional Watershed Alliance members, webpage subscribers, and watershed stakeholders, residents and the public on the project stakeholder list.

Watershed stakeholders who were directly engaged throughout ECWP development included Building Industry and Land Development Association (BILD) and other developers in the watershed, community groups and resident associations, golf courses, major private landowners, and non-governmental organizations. In addition, TRCA also completed a series of targeted engagement sessions from 2020 to 2023, including four webinars, five open houses, and one watershed tour.

Key engagement activities that have taken place over the course of development of the ECWP include:

- **Dedicated project website:** 10,622 visits (January 2021 - March 2024)

- **Project specific email:** continuously maintained and monitored since 2020
- **Project webpage/email subscribers:** 35 subscribers
- **Project stakeholder list:** 83 stakeholders
- **Fall 2020 online engagement survey** related to issues of concern/watershed vision: 50 responses
- **Spring 2022 online engagement survey** related to results of characterization and scenario analysis and soliciting feedback on the management framework: 145 responses
- **Spring 2022 open houses and webinars:** three public open houses in May 2022 held in Mississauga, Brampton, and Caledon (20 attendees total); two virtual webinars in May 2022 (30 participants total)
- **Summer 2023 open houses and webinars for draft ECWP:** two public open houses in September 2023 held in Mississauga and Brampton (21 participants); two virtual webinars in September 2023 (18 participants); approximately 420 watershed stakeholders, residents, and the public directly engaged during draft ECWP public review period (excluding social media/media campaign)
- **[Online interactive ECWP](#):** 1221 views since publication in July 2023
- **Fall 2023 watershed tour:** hosted by TRCA on October 17, 2023 for TRCA Board members, municipal Councillors, municipal senior leadership staff, and ECWP Steering Committee members (31 participants)

Engagement Summary Reports were prepared throughout the watershed planning process to document feedback from watershed stakeholders and the public, and are publicly available on the [project webpage](#). The most recent report ([Engagement Summary 3](#)) outlines all comments received on the draft ECWP and responses as well as a summary of the key changes made to the ECWP based on engagement feedback.

ECWP Alignment with City of Brampton Policies, Programs, and Studies

The ECWP and its management actions align with the Council adopted Brampton Plan and are complemented by other City of Brampton policies, programs, and studies including:

- Lake Enhancement Strategy (adopted 2021)
- Our 2040 Energy Transition: Community Energy and Emissions Reduction Plan (adopted 2020)
- Brampton Eco Park Strategy (adopted 2019)
- Brampton One Million Trees Program (adopted 2019)
- Natural Heritage and Environmental Management Strategy (adopted 2015)
- Brampton Grow Green Environmental Master Plan (adopted 2014, refresh 2020)

Implementation

Once final approvals and endorsements of the Etobicoke Creek Watershed Plan have been obtained in 2024 from municipal Councils and from TRCA's Board of Directors,

implementation of the watershed plan will begin. The Etobicoke Creek Watershed Plan is intended to be in effect for 10 years from when it is finalized and approved.

There are 8 sub-watershed priority restoration sites that lie within Brampton and 4 of these are also part of the top 10 priority restoration sites for the entire watershed. This includes Loafers Lake and Conservation Drive Park. The City of Brampton was awarded \$2.5 million for the Etobicoke Creek Wetlands Enhancement Project from the Government of Ontario's Wetland Conservation Partnership Program. Work is already underway on enhancements as outlined in Brampton's Lake Enhancement Strategy, including improved shoreline and wetland habitat, viewing platforms, a bio-swale, and trail realignment. Over 6,500 native tree, shrubs and aquatic plants will be planted within the project area.

CORPORATE IMPLICATIONS:

Financial Implications:

There are no financial implications resulting from endorsement and support of the ECWP.

The City of Brampton will support implementation of the ECWP through existing and planned municipal plans, processes, guidelines, strategies, and initiatives. The City will also collaborate with TRCA to explore opportunities for implementation such as funding/grants.

Other Implications:

There are no other corporate implications associated with the recommendations in this report.

STRATEGIC FOCUS AREA:

The information in this report directly fulfills the "Environmental Resilience and Sustainability" Strategic Focus Area, in particular "Increasing Parkland, Trees and Naturalized Areas."

It also contributes to the "Health & Well-Being" Strategic Focus Area of "Improving Safety" by helping to decrease flood risk and also the "Culture & Diversity" Strategic Focus Area of "Supporting Indigenous Heritage and Culture" as the ECWP includes a section on 'The Land and Water' which was developed in collaboration with Mississaugas of the Credit First Nation and includes information on the treaties within the watershed, the history of the land, and the Mississaugas' relationship to water

CONCLUSION:

Through the implementation of the Etobicoke Creek Watershed Plan, Brampton and all

stakeholders can contribute to a healthier, more sustainable, and more resilient watershed that can provide long-term benefits to all residents. The work undertaken is used to help inform future land use and infrastructure planning decisions. Watershed plans can also inform and continue to build resiliency in Brampton’s sustainability and climate change adaptation planning and initiatives.

The ECWP is intended to be in effect for 10 years from when it is finalized and approved (2024-2034). Collaborative and comprehensive implementation, tracking, and reporting of all aspects of the watershed plan will occur to fully realize the vision for the watershed and to improve watershed health and ensure safe and sustainable waterways, ecosystems, and human communities.

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Attachments:

- Attachment 1 – Etobicoke Creek Watershed Plan