

Item for the Information of the Regional Watershed Alliance

TO: Chair and Members of the Regional Watershed Alliance
Wednesday, May 19, 2021 Meeting

FROM: Sameer Dhalla, Director, Development and Engineering Services

RE: **UPDATES ON CARRUTHERS CREEK WATERSHED PLAN AND
ETOBICOKE CREEK WATERSHED PLAN**

KEY ISSUE

To provide an update on the current status of both the Carruthers Creek Watershed Plan and Etobicoke Creek Watershed Plan.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) has concluded public engagement on the draft Carruthers Creek Watershed Plan;

AND WHEREAS TRCA has provided the final draft of the Carruthers Creek Watershed Plan to the Region of Durham for consideration;

AND WHEREAS TRCA has concluded watershed characterization for the Etobicoke Creek Watershed Plan;

AND WHEREAS TRCA has initiated the future management scenarios stage for the Etobicoke Creek Watershed Plan;

IT IS RECOMMENDED THAT this report and presentation be received;

AND FURTHER THAT the Regional Watershed Alliance members advise how they wish to be kept informed about progress made on these watershed plans.

BACKGROUND

Watershed Planning and Reporting staff is in the process of finalizing the Carruthers Creek Watershed Plan (CCWP) and has completed watershed characterization for the Etobicoke Creek Watershed Plan (ECWP).

Carruthers Creek Watershed Plan

In 2015 the Region of Durham engaged Toronto and Region Conservation Authority (TRCA) to develop an updated watershed plan for Carruthers Creek. The draft CCWP was released in March 2020 for an expected 90-day public review period. On April 8, 2020, Regional Council paused the public review period until in-person engagement could occur. Due to the continuing Covid-19 situation, Regional Council authorized staff to recommence public engagement virtually on December 16, 2020. Two virtual open houses on the draft CCWP were held in February 2021 that were attended by a total of 134 individuals. The public comment period on the draft CCWP closed on March 19, 2021. A total of 25 submissions were received via the online comment form or direct letter. Additional comments were received by the relevant planning committees of both the City of Pickering and Town of Ajax.

Item 8.2

Etobicoke Creek Watershed Plan

At the Regional Watershed Alliance meeting on September 16, 2020, information was provided on the development of the Etobicoke Creek Watershed Plan and its Engagement Strategy. Members of the Regional Watershed Alliance recommended that faith groups and rotary/Lion's Clubs be added to the Engagement Strategy. It was also suggested that TV spots on local channels be considered to engage seniors in the watershed. Additional community groups have been added to the Engagement Strategy as stakeholders. Additional methods of providing notifications and increasing awareness will be considered throughout the watershed planning process.

RATIONALE

Carruthers Creek Watershed Plan

The CCWP has been updated to reflect the feedback received during the public review period. Most comments related to:

- potential development in the headwaters and the associated process for any Settlement Area Boundary Expansion, including numerous comments related to protecting the headwaters,
- the scope of the future scenarios used in the watershed planning process and the associated implications,
- concerns around existing flooding issues in Ajax and the potential increase in flooding risk associated with potential headwater development, and
- the process for developing the enhanced Natural Heritage System and how exactly it will be protected, enhanced, and restored.

A report summarizing the comments received, responses to those comments, and key changes to the CCWP to address comments has been developed to accompany the report being prepared by Region of Durham staff for approval by Planning and Economic Development Committee and Regional Council. This summary report will be part of the public record through the Region of Durham's Committee and Council process.

It is expected that the final CCWP will be presented to Region of Durham Planning and Economic Development Committee in June. Following that, it will be presented to Regional Council. Assuming the final CCWP is endorsed by Regional Council, it will subsequently be presented to the TRCA Board.

Etobicoke Creek Watershed Plan

Since TRCA presented to the RWA on the ECWP, an initial engagement survey on a possible vision statement and key watershed issues was distributed to watershed stakeholders on September 24, 2020 through the project webpage, including Indigenous groups, Councillors/Board members, and stakeholders as per the Engagement Strategy. Notifications were also distributed via social media. The survey closed on October 19, 2020 and had 50 responses. Based on the results of the survey, the three largest watershed concerns to respondents were urbanization, climate change, and water quality. The survey responses also resulted in the following watershed vision:

Etobicoke Creek watershed is protected and restored to a cleaner, healthier, and more natural state, to sustain its waterways, ecosystems, and human communities.

Item 8.2

Watershed Characterization

Since that time, TRCA has finished compiling the various technical analyses required as part of the watershed characterization stage of the watershed planning process. A consolidated Characterization Report has been developed that is with Steering Committee members (i.e. municipalities, Mississaugas of the Credit First Nation, and the Greater Toronto Airport Authority) for review. The key findings of the characterization stage are that:

Watershed Component	Key Findings
Water Resource System (includes aquatic habitat, in-stream barriers, groundwater conditions, etc.)	<ul style="list-style-type: none"> • Among larger watersheds in TRCA's jurisdiction (i.e. >200 km²), Etobicoke Creek has the second highest annual runoff at 402 mm/year, second only to the Don River. • The average habitat health rating for fish is 'fair' and for benthic communities is 'poor'. There has been little to no change in aquatic habitat quality since 2002. • There are a large number of in-stream barriers that prevent the movement of species and only approximately 49.6% natural cover within the riparian corridor (i.e. within 30 metres of streams).
Natural Heritage System / Urban Forest (includes habitat quantity and quality, tree canopy, sensitive species, etc.)	<ul style="list-style-type: none"> • Approximately 11.7% of the watershed consists of natural cover, which is similar to other heavily urbanized watersheds, with natural cover continuing to decrease (e.g. forest cover). • Generally, habitat quality is poor with some fair quality habitat in the headwaters, but the watershed still supports regional biodiversity including some sensitive plant and animal species, primarily in the headwaters. • Approximately 51% and 18% of the watershed is a priority for regional and local connectivity among habitat patches, respectively. • Existing natural cover is highly vulnerable to the effects of climate change in urban areas. • Urban forest canopy cover (i.e. trees and tall shrubs) is 14.7% and has remained stable from 2009 to 2018.
Water Quality (includes parameters of concern relative to Provincial Water Quality Objectives [PWQO] or Canadian Water Quality Guideline [CWQG])	<ul style="list-style-type: none"> • Surface water quality is generally poor compared to other TRCA watersheds. Contaminants of particular concern include: <ul style="list-style-type: none"> ○ Chlorides (e.g. from road salts) ○ Phosphorus (e.g. from fertilizers) ○ <i>E. coli</i> bacteria (e.g. from sewage/animal wastes) ○ Metals such as copper and zinc (e.g. from industrial sources and/or roadways) • Exceedances of chlorides and nitrates in groundwater were observed.
Natural Hazards (includes flooding and erosion)	<ul style="list-style-type: none"> • There are six FVCs with a total area of 508 hectares (ha).

Item 8.2

	<ul style="list-style-type: none"> Most of the watershed can be categorized as medium or high erosion sensitivity.
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Future Management Scenarios

With the completion of the characterization stage of the watershed planning process, the future management scenarios stage has commenced. Based on the issues in the watershed identified during the characterization stage, the future management scenarios have been designed to:

- Project future land use change based on growth projections by utilizing different land use and infrastructure practices to 2051 (the current land use planning horizon)
- Assess the effects of different levels of ecosystem restoration and enhancement (e.g., increase natural cover quantity and quality)
- Assess the effects of different levels of stormwater quantity and quality control on watershed conditions
- Assess the potential impacts of climate change on watershed conditions

Four scenarios have been developed to conduct the various technical analyses during this stage of the watershed planning process:

Scenario 1: Approved Official Plan + Urban Expansion	Scenario 2: Increase Natural Cover and Stormwater Enhancements with Urban Expansion	Scenario 3: Extensive Natural Cover and Stormwater Enhancements with Urban Expansion	Scenario 4: Extensive Natural Cover and Stormwater Enhancement without Urban Expansion
Assumes full build-out of headwaters outside of the Greenbelt, GTA West highway, and approved Official Plans. No changes to current stormwater management in the already developed portion and no changes to natural cover.	Same as scenario 1, but some improvements to stormwater management in developed portion of watershed and some improvements to urban forest and natural cover.	Same as scenario 1, but an even greater amount of stormwater retrofits and natural cover / urban forest enhancements.	Same as scenario 3, but without the urban expansion and the GTA West highway.

TRCA will conduct various modelling and technical analyses of these scenarios to understand the potential impacts to natural hazards, water quality, aquatic and terrestrial conditions, and groundwater. All analyses will be guided by the following research questions:

- How will trends associated with each watershed component change under each scenario (i.e. improve, deteriorate, stay the same)?
- What interventions would have noticeable impacts on watershed conditions (e.g. priority areas for stormwater retrofits)?
- What impact will intensification and further urbanization have on watershed conditions?

Item 8.2

It is expected that the future management scenario stage will take the remainder of 2021 and part of 2022 to complete.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategies set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 2 – Manage our regional water resources for current and future generations

Strategy 4 – Create complete communities that integrate nature and the built environment

Strategy 12 – Facilitate a region-wide approach to sustainability

FINANCIAL DETAILS

Funds to support the development of the Carruthers Creek Watershed Plan are provided by the Region of Durham (120-80) through a fee-for-service agreement. Funds to support the development of the Etobicoke Creek Watershed Plan are from 120-02, 120-04, and 416-40.

DETAILS OF WORK TO BE DONE

Carruthers Creek Watershed Plan

TRCA will work with the Region of Durham to address any questions or concerns regarding the final CCWP during the Committee and Council review processes. Assuming there is endorsement of the CCWP, it will subsequently be presented to the TRCA Board. After that, TRCA will work with its municipal partners and stakeholders to begin implementing the CCWP.

Etobicoke Creek Watershed Plan

Once the Steering Committee review of the Characterization Report is complete and comments addressed, TRCA will post the report to its project webpage and share with stakeholders, including the Regional Watershed Alliance.

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