

### Section I – Items for Board of Directors Action

**TO:** Chair and Members of the Board of Directors  
Friday, September 24, 2021 Meeting

**FROM:** Sameer Dhalla, Director, Development and Engineering Services

**RE:** **FINAL CARRUTHERS CREEK WATERSHED PLAN**

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#### **KEY ISSUE**

To request approval of the Carruthers Creek Watershed Plan.

#### **RECOMMENDATION**

**WHEREAS** the development of the Carruthers Creek Watershed Plan was initiated in 2015 at the request of the Region of Durham;

**AND WHEREAS** the public review period of the draft Carruthers Creek Watershed Plan concluded on March 19, 2021;

**AND WHEREAS** Durham Regional Council endorsed the updated Carruthers Creek Watershed Plan on June 23, 2021;

**THEREFORE, LET IT BE RESOLVED THAT** the updated Carruthers Creek Watershed Plan be approved;

**THAT** TRCA staff be directed to communicate the final approval of the Carruthers Creek Watershed Plan to all partners and stakeholders;

**AND FURTHER THAT** staff be directed to commence work on implementing the Carruthers Creek Watershed Plan in collaboration with the Region of Durham, City of Pickering, and Town of Ajax.

#### **BACKGROUND**

Watershed planning provides a framework for establishing goals, objectives, and direction for the protection of water resources, the management of human activities, land, water, aquatic life, and resources within watersheds. It also provides an opportunity for the assessment of cumulative, cross-jurisdictional, and cross-watershed impacts.

Watershed plans are not land use plans, nor would approval of the watershed plan constitute a land use planning decision. However, as required by Provincial Plans, the data, scientific analyses, modelling, scenario evaluation, and management recommendations generated through a watershed planning process are to be used by municipalities to inform land use and infrastructure planning decisions.

The Carruthers Creek watershed is located within the City of Pickering and the Town of Ajax and is on the eastern edge of Toronto and Region Conservation Authority's (TRCA) jurisdiction. The watershed is relatively small, at approximately 3,840 hectares in size, ranging from two to three kilometres in width, and has a total length of 18 kilometres. The headwaters of Carruthers Creek form to the south of the Oak Ridges Moraine, in the city of Pickering, and the creek enters Lake Ontario at Carruthers Marsh in the Town of Ajax.

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The watershed is mainly rural north of Highway 7 and is mainly urbanized south of Taunton Road. Between Highway 7 and Taunton Road, lands are characterized by a mix of rural, estate residential, recreational, and related uses, and are in the Protected Countryside designation of the provincial Greenbelt Plan. There are approximately 41,000 residents within the boundaries of the watershed.

The Carruthers Creek Watershed Plan (CCWP) update took place over two phases. Phase 1 was initiated in June 2015 and culminated in peer reviewed technical reports that characterize watershed conditions. [Characterization Technical Reports](#) are publicly posted on the Carruthers Creek webpage on TRCA's website and include topics of aquatic barriers, aquatic ecology, hydrogeology, terrestrial ecology, surface water quality, fluvial geomorphology, headwater drainage features, and surface water quantity. Phase 2 was initiated in December 2017 and included public consultation, further technical reports, watershed scenario analyses, and the development of management recommendations. The [Scenario Analysis Technical Reports](#) are publicly posted on the Carruthers Creek webpage on TRCA's website and include topics of hydrological assessment, fluvial geomorphic assessment, terrestrial impact assessment, aquatic impact assessment, soil water assessment modelling (water quality), urban forest assessment, stormwater management, and groundwater modelling. A draft CCWP was released for public review and comment on March 13, 2020.

As a result of the Covid-19 pandemic, in-person public consultations scheduled for April 30, 2020 were postponed. At its meeting on December 16, 2020, Regional Council authorized staff to reinstitute the public consultation process. In early 2021, public engagement resumed using online platforms. The final date for comments on the draft CCWP was March 19, 2021.

The watershed plan was designed to meet or exceed provincial requirements while satisfying policy 7.3.11 p) of the Regional Official Plan, which states,

Where a comprehensive review of this Plan includes consideration of lands for Urban Area expansion within the City of Pickering east of the Pickering Airport lands, outside of the Greenbelt, the following additional matters will be assessed and evaluated at that time: . . .

- ii. the preparation and completion of watershed plan update for the East Duffins and Carruthers Creek watersheds.

In accordance with this policy, the completion of the watershed plan will allow for the future consideration of potential development in northeast Pickering. It does not constitute a decision on whether the lands should be developed, since that is a matter that will be addressed through the Region's Municipal Comprehensive Review (MCR) process. A small portion of the East Duffins watershed was included in the study area, given that only a small portion of that watershed is outside of the Greenbelt Plan and that substantial modelling has already been undertaken for the Seaton lands.

### **Previous Reports and Decisions**

Since the commencement of this project, numerous reports have been prepared for Regional Planning and Economic Development Committee and Regional Council as outlined in the June 1, 2021 [Report #2021-P-16](#) to the Region of Durham Planning and Economic Development Committee.

Additionally, the TRCA Board of Directors has regularly been updated at various points during

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the development of this watershed plan. Below is a summary of some of the key dates (from most recent to oldest) during which updates were provided as well as the original Board of Directors resolution to commence this work:

- September 27, 2019 – Annual update received
- June 22, 2018 – Annual update received
- October 27, 2017 – Report on completion of Phase 1 of the CCWP was received
- July 14, 2017 – Report on the installation of groundwater monitoring wells to gather data to support the CCWP
- October 28, 2016 – To clarify the process for completing the CCWP relative to the Authority's amended resolution providing comments on the review of the four provincial plans
- July 22, 2016 – Annual update received
- June 26, 2015 – Service agreement between TRCA and the Region of Durham to collaboratively develop a watershed plan for Carruthers Creek (See Resolution #A106/15 below)

At Board of Directors Meeting held on June 26, 2015, Resolution #A106/15 was approved in part as follows:

*WHEREAS the Region of Durham has requested Toronto and Region Conservation Authority (TRCA) to complete a watershed plan update for Carruthers Creek watershed;*

*THEREFORE, LET IT BE RESOLVED THAT TRCA work with the Region of Durham, and in consultation with the City of Pickering and Town of Ajax, to complete an integrated watershed plan for Carruthers Creek;*

*THAT TRCA staff be directed to enter into a service agreement with the Region of Durham to complete the watershed plan; <...>*

### **Watershed Plan Overview**

The final Watershed Plan (**Attachment 1**) is divided into nine sections. A brief summary of each section is provided below:

1. Introduction and Background: provides an overview of the rationale and policy basis for watershed planning, the local context and considerations, and key partners and stakeholders.
2. Water Resources and Natural Heritage Systems: describes the key components of the Water Resource System (WRS) and Natural Heritage System (NHS), and how each system was mapped.
3. Existing Watershed Conditions: describes the current watershed conditions based on technical evaluations undertaken in Phase 1 of the study. Four key issue areas, being the WRS, the NHS, Water Quality and Natural Hazards (including flooding) are described and rated against benchmark indicators.
4. Future Watershed Conditions: describes the three future scenarios that were modelled to predict the response of the watershed to future land use change, the results of the modelling analyses, and the implications of these scenarios.
5. Management Framework: outlines what needs to be done to protect, enhance, and restore the watershed's health. The management framework includes 35 recommendations divided into three goal areas of: Land Use, WRS, and the NHS. A separate sub-section (5.4) details the management recommendations that would apply, should a future Settlement Area Boundary Expansion be allowed within northeast Pickering.

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6. Monitoring and Evaluation: details the indicators, frequency, and methods in which monitoring should occur. The performance of the Watershed Plan implementation will need to be evaluated on an ongoing basis.
7. Maps, Glossary, and References: These three sections (sections 7, 8, and 9) contain supporting resources in the form of maps, a glossary of terms, and references.

### Engagement Approach

Since project initiation, the CCWP has been a collaborative process with significant stakeholder and public engagement. Below is a summary of the engagement activities that took place over the course of the project:

- I. Dedicated Project Website: Over 2,400 visits
- II. Project information postcards: Over 2,000 distributed
- III. Online survey: Over 70 participants
- IV. Project specific email: Continuously maintained and monitored since October 2017
- V. Popup displays at public events: 7 events
- VI. Stakeholder Workshops (environmental non-government organizations, golf courses, etc.): Hosted 3 workshops
- VII. Update Presentations to Municipal Committees of Council: Durham 2, Ajax 3, and Pickering 2
- VIII. Public Open Houses: 4 (in person on October 8, 2019 and October 10, 2019; virtual on February 1, 2021 and February 4, 2021)
- IX. TRCA, Ajax, Pickering and TRCA staff-to-staff meetings: 8
- X. Presentations to advisory committees (Durham Agricultural Advisory Committee, Durham Environmental Advisory Committee, Ajax Environmental Advisory Committee, etc.): 6
- XI. Commissioner's Reports providing project updates to Durham Planning and Economic Development Committee / Committee of the Whole and Council with circulation to Ajax and Pickering: 12
- XII. Submissions and comments received on the draft Carruthers Creek Watershed Plan Update in 2020/2021: 27

In addition to the above, over the course of the spring and summer of 2020, the Region of Durham received 182 similar emails, each containing identical language, indicating that development should not be permitted in the headwaters. These submissions were also forwarded to TRCA for consideration, with a standardized response clarifying the role of watershed planning within Ontario's land use planning system. All individuals that made a submission were also invited to subscribe as an interested party, so that they could be notified of future project updates and engagement opportunities.

### Public Review of Draft CCWP

The opportunity to review and comment on the draft CCWP remained open for over a year since its initial release on March 13, 2020, until March 19, 2021. During this time, a total of 27 submissions were received. Each comment has been reviewed and considered by TRCA staff and also shared and reviewed with staff from the Region of Durham, City of Pickering, and Town of Ajax. Where appropriate, the CCWP has been updated. A summary of feedback received, responses, and how the CCWP has been updated can be found in **Attachment 2**.

Several themes emerged from the comments received on the draft CCWP, which are discussed below. More details are provided in **Attachment 2**.

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### Scenario Modelling

Several comments were received regarding the three future scenarios included in the CCWP. These comments included preferences on which scenario should be implemented and requests for additional scenarios to be evaluated. In response, TRCA explained that scenario modelling is a tool used to evaluate how a watershed may react under different future land use conditions. It is not meant to analyze the full spectrum of potential future land uses that may occur, nor is it intended to represent any particular development or special interest that may exist. Additionally, it was explained that the scenarios do not assume specific mitigation measures that may be proposed by any particular land use interest. Instead, the management framework in the CCWP accounts for several potential land use scenarios and identifies measures to protect, enhance, and restore watershed health.

Language regarding the purpose of scenario analysis was included in the draft CCWP but has been further clarified in the final CCWP.

The three future management scenarios modelled as part of the CCWP are:

- Scenario 1 assumed the “build out” of the watershed as permitted by current Official Plans to the year 2031.
- Scenario 2 assumed the same “build out” as Scenario 1, but with an enhanced Natural Heritage System throughout the watershed.
- Scenario 3 assumed urbanization of northeast Pickering with the same enhanced Natural Heritage System as shown in Scenario 2.

### Potential Settlement Area Boundary Expansion

Comments were received both for and against a potential Settlement Area Boundary Expansion in northeast Pickering which is part of the headwaters of Carruthers Creek outside of the Greenbelt.

The CCWP explains that watershed plans do not constitute a land use planning decision but are intended to inform land use and infrastructure planning decisions. The CCWP includes management recommendations on future studies and requirements associated with the potential Settlement Area Boundary Expansion in the headwaters of Carruthers Creek. As part of the record of responses on submissions (**Attachment 2**), the Region of Durham explained the MCR process and how that will determine if a Settlement Area Boundary Expansion is needed.

The Region of Durham is currently undertaking their Land Needs Assessment (LNA) to comprehensively assess the Region’s urban structure, its intensification potential, designated greenfield areas, and future urban land needs to accommodate the province’s population and employment forecasts under the Growth Plan. Regional staff will report to Planning and Economic Development Committee on the results of the LNA when the analysis is completed. Should the LNA determine that additional urban land is required to accommodate the province’s forecasts, and should Council recommend that it is appropriate to allow development within this area, then a recommendation to that effect would be provided as part of the Region’s position on the Regional Official Plan. The Minister of Municipal Affairs would then render their decision. If development is permitted, detailed mitigation strategies, community design elements and/or other features to address potential watershed impacts would be developed during the detailed planning stages, but only after the scope of any potential land use change has been determined.

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### Existing and Future Flooding Issues

Throughout the development of this watershed plan, concerns related to existing flooding in the lower Carruthers (Town of Ajax) have been expressed by members of the public and other stakeholders. Additionally, concerns have been expressed with potential increases to flood risk associated with urban development in the headwaters.

Scenario modelling confirmed that urbanization in northeast Pickering, without additional mitigation or flood controls, will increase peak flows in the lower reaches of the watershed. The predicted increased rate of peak flows is based on broad assumptions about future urban land use and would be subject to refinement if a more detailed land use plan and the extent of urban development is determined in the future. Specific mitigation measures, designs, and other solutions would be detailed through subsequent planning studies and Environmental Assessment processes.

### Natural Heritage System

As part of the CCWP, an enhanced Natural Heritage System (NHS) is recommended based on existing and potential natural cover needed to maintain long-term ecosystem resilience and sustainability. A number of comments were received indicating agreement and support for the implementation of the enhanced NHS identified in the CCWP. However, a number of detailed submissions were received outlining concerns with how the enhanced NHS has been identified and treated in the management recommendations. Additionally, comments were received asking how the Region of Durham will implement the enhanced NHS through the MCR and as part of any future Regional Official Plan.

Regional planning staff are considering how to appropriately implement NHSs, including the recognition of enhancement areas through the MCR process. It is acknowledged that the policy treatment for enhancement areas could be different than existing natural cover areas. It is also recognized that the exact boundaries and delineation of the enhanced NHS recommended in the CCWP could be refined during the implementation process for regional and local Official Plans, provided that an analysis demonstrates consistency with the goals and objectives of the CCWP.

The relevant management recommendations in the CCWP were updated to outline this general approach at the regional and local municipal level.

### **Regional Council Endorsement**

On June 1, 2021, Region of Durham and TRCA staff presented on the updated CCWP to Regional Planning and Economic Development Committee. An overview of the public review period and changes to the draft Plan was presented and provided in materials submitted to Committee.

In addition to the presentation from Region of Durham and TRCA staff there were five delegations and 26 correspondence items submitted to Committee regarding the CCWP.

Delegations were made by:

- Phil Pothén, Ontario Environment Program Manager, Environmental Defence
- Andrew McCammon, Executive Director, Ontario Headwaters Institute
- Helen Brenner, Durham resident
- Aidan Dahlin Nolan, Ajax resident

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- Mark Flowers, North East Pickering Landowners Group Inc.

More information on the delegations, correspondence, and presentation by staff are available in the Region of Durham June 1, 2021 [Planning and Economic Development Committee Minutes](#). In the report to Committee, it was recommended to Council that the CCWP be endorsed, which was carried by Committee.

Durham Regional Council met endorsed the CCWP at its' June 23, 2021 meeting.

### **RATIONALE**

With the conclusion of the public review period of the draft CCWP it is now appropriate to finalize and approve the watershed plan. This multi-year collaborative process has resulted in a CCWP that provides a strong basis for the protection and enhancement of the watershed. The CCWP can be used to inform future land use planning processes by the Region of Durham and local municipalities.

With endorsement of the CCWP by Durham Regional Council on June 23, 2021, it is recommended that the TRCA Board of Directors approve the CCWP.

### **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**

### **FINANCIAL DETAILS**

The CCWP is funded by the Region of Durham through a service agreement with TRCA for a total budget of \$1,089,431.

### **DETAILS OF WORK TO BE DONE**

TRCA will communicate the approval of the CCWP to partners, stakeholders, and residents.

In collaboration with the Region of Durham, City of Pickering, and Town of Ajax, TRCA will initiate implementation planning of the CCWP. In collaboration with our municipal partners, TRCA will consider the establishment of a stakeholder advisory committee specific to Carruthers Creek to support implementation.

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**Date: August 4, 2021**

**Attachments: 2**

Attachment 1: Final Carruthers Creek Watershed Plan

Attachment 2: Comment Submissions Summary: Public Review of Draft Carruthers Creek Watershed Plan (May 2021)