

### Section III – Items for the Information of the Board

**TO:** Chair and Members of the Board of Directors  
Friday, January 29, 2021 Meeting

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

**RE:** **UPDATE ON THE PICKERING AND AJAX DYKE RESTORATION  
CONSERVATION ONTARIO CLASS ENVIRONMENTAL ASSESSMENT**

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#### **KEY ISSUE**

An update on the completion of the Pickering and Ajax Conservation Ontario Class Environmental Assessment.

#### **RECOMMENDATION**

**IT IS RECOMMENDED THAT the update on the Pickering and Ajax Dyke Restoration Environmental Assessment be received;**

**AND THAT TRCA and municipal partner staff continue to work with all levels of government to fund the proposed works to address the EA findings.**

#### **BACKGROUND**

At Board of Directors Meeting #5/20, held on June 26, 2020, Resolution #A89/20 was approved as follows:

*WHEREAS the Village East and the Notion Road/Pickering Village area is the fourth highest ranked flood vulnerable cluster within TRCA's jurisdiction in terms of flood risk;*

*AND WHEREAS Toronto and Region Conservation Authority (TRCA) has completed a number of technical studies, and last reported on flood risk in the Pickering Village/Notion Road area including next steps in pursuing an Environmental Assessment for dyke restoration at Authority meeting #5/18 held on June 22, 2018;*

*THEREFORE, LET IT BE RESOLVED THAT the Pickering and Ajax Dyke Restoration Conservation Ontario Class Environmental Assessment Update on Progress be received;*

*AND FURTHER THAT TRCA report back to the Board of Directors in the fall of 2020 to provide an update on the status of the project and next steps.*

#### **RATIONALE**

TRCA, as proponent of the Pickering and Ajax Dyke Restoration Conservation Ontario Class Environmental Assessment (PADR EA), can confirm that the 60-day public review period has passed without receiving any significant comment from the public or key stakeholders. As of October 26, 2020, subject to funding for detailed design and construction the TRCA can proceed with the Project in the manner it was developed and designed. The Notice of Project Approval was posted to TRCA's website in November 2020.

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### **Preferred Dyke Restoration Alternatives**

To meet the technical and design requirements of the EA process, TRCA retained KGS Group to provide consulting services in rehabilitation planning and design of the Pickering and Ajax Flood Control Dykes. The design objectives established through the EA process will ensure that the dykes meet current engineering standards and factors of safety (FOS), and reduce the associated risk to public safety and property.

Recognizing the input from stakeholders and the public through the EA process, the preferred alternative solutions include two components:

- A “hard engineering” solution, consisting of dyke configurations that include a hard structural component such as sheet piles (corrugated metal plates) driven through the dyke and rock embankments to achieve the required stability FOS for the dykes. This was selected for those areas of the Pickering Dyke where there is limited space for the rehabilitation works between the creek and private properties. The design concept for the hard engineering solution can be found in **Attachment 1**.
- A “soft engineering” solution, consisting of dyke configurations that do not include a hard structural component for stability; but instead rely on providing earthen embankment slopes that are stable and more gradual than those of the existing dykes. This was selected for areas of the Pickering Dyke where the space available for the rehabilitation work was wide enough to accommodate this solution without impacting private properties or the watercourses. This alternative solution was also selected as preferred for the entire Ajax Dyke. The design concept for the soft engineering solution can be found in **Attachment 1**.

Recommendations were provided for further development of the design concepts during the detailed design phase.

The estimated capital cost of the preferred design concepts, including contingency values appropriate for a 30% level of design, were:

- \$7.0 Million for the hard engineering solution on the segment of the Pickering Dyke with restricted space for the rehabilitation work
- \$3.0 Million for the soft engineering solution on the segment of the Pickering Dyke without restricted space for the rehabilitation work
- \$2.6 Million for the soft engineering solution of the Ajax Dyke

Preliminary dyke footprints for the Pickering and Ajax Dykes can be viewed in **Attachment 1**.

### **Implications on Adjacent Development Opportunities**

TRCA Development Planning and Permits staff is currently working with several landowners downstream of the dyke and will continue to include the results of the EA technical studies in their review of any development proposals.

### **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**

Funding for the Pickering and Ajax Dyke Restoration EA was made available through a fee for service delivery agreement with the Region of Durham, and the National Disaster Mitigation Program within account 107-69.

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While the detailed design and implementation of this project is currently not funded, TRCA is exploring funding opportunities including future Disaster Mitigation and Adaptation Fund intakes, and infrastructure funding through government stimulus packages, with the intent of bringing the project closer to implementation. Discussions are also underway with the City of Pickering, Town of Ajax and the Region of Durham on whether portions of the project could be funded municipally in order to better position the project for investment by senior levels of government.

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

TRCA will work with the City of Pickering and Town of Ajax to coordinate press releases and social media updates communicating the approval of the Environmental Assessment to the public and key stakeholders. Further, TRCA will continue to work with municipal partners on future funding applications to senior levels of government which would allow the project to continue to progress to detailed design and ultimately implementation.

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