

**Report from** Engineering, Facilities and Environmental Services, Engineering and Construction

**Date of Report:** September 25, 2019

**Date of Meeting:** October 16, 2019

**Report Number:** EFES-B039-2019

**File:** 68.81.5

**Subject:** Maplewood Area Storm Sewer Study (ST18-11) project update

## Recommendation

That report EFES-B039-2019, regarding Maplewood Area Storm Sewer Study (ST18-11) project update, be received for information.

## Background

At the meeting held [September 16, 2019](#), the Budget Standing Committee requested an update on flooding along Walker's Creek and an ongoing storm drainage study for the neighbourhood south of Linwell Drive including Maplewood Drive.

From Regent Drive to Linwell Road, Walker's Creek runs through Realty Park, then through private lands and finally alongside McDermid Road. For approximately 260 metres the creek flows parallel to McDermid Road, the existing Niagara Peninsula Conservation Authority (NPCA) 100-year floodplain extends across McDermid Road to the west and also includes much of the backyards of properties fronting Maplewood Drive to the east. Appendix 1 shows a location plan for the area and highlighted in green is the existing floodplain limit.

The 2019 Capital Budget includes \$20,000 for ST18-11, Maplewood Storm Sewer Study. The City hired a consultant in May 2018 to undertake a review of the storm flooding issues in the vicinity of Maplewood Drive.

Also in the spring of 2018, the City became aware that NPCA was in the process of updating its 30-year-old hydraulic and hydrologic model and 100-year floodplain mapping for the whole of Walker's Creek. NPCA also hired an engineering consultant to undertake their update project.

### Other related reports:

A 2018 Bridge bi-annual inspection of the existing concrete bridge which conveys Walker's Creek under Linwell Road does not recommend rehabilitation or replacement in the foreseeable future.

A 2015 Watercourse Flooding and Erosion Control Priority Study confirmed that the existing hydraulic capacity of the bridge at Linwell Road meets MTO conveyance capacity guidelines for the type of road above it.

## Report

Since May 2018, the City's consultant has completed all components of ST18-11 that can be completed independently of the NPCA's floodplain update including a topographical survey. However, the impact of potential recommendations on the flood elevations have not yet been analyzed.

As of October 3, 2019, NPCA advised City staff that the updated hydrologic and hydraulic model for Walker's Creek is not yet available for use by others. It is now anticipated to be available by December 2019. Staff do not recommend proceeding with ST18-11 without an updated NPCA model. To do so with the existing model would not produce reliable results.

Subject to the updated NPCA model being available by December 2019, the following is a tentative schedule:

Duration	Activity
+ / - 3 months	Finalization of ST18-11 by the City's consultant
+ / - 3 months	For recommendations with large estimated costs: Incorporate ST18-11 recommendations with Citywide priorities for storm sewer construction program, watercourse rehabilitation program or other construction programs as appropriate
+ / - 3 months	For minor expenditures (unlikely): Arrange for repairs by City forces or external contractors
June 2020	Submission deadline for 2021 Capital Budget
+ / - 1 year (2021)	Engineering services, environmental assessments, detailed design, agency approvals
+ / - 1 year (2022)	Construction

## Financial Implications

This report contains no financial implications. Proposed construction costs arising out of the recommendations of ST18-11 will be submitted for funding in future Capital Budgets.

## Relationship to Strategic Plan

Social Sustainability Pillar – 4. Strive for the highest quality of life for all citizens.

Environmental Sustainability Pillar – 7. Lead in the protection of our environment for future generations.

### Prepared and Submitted by:

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Manager of Engineering and Construction

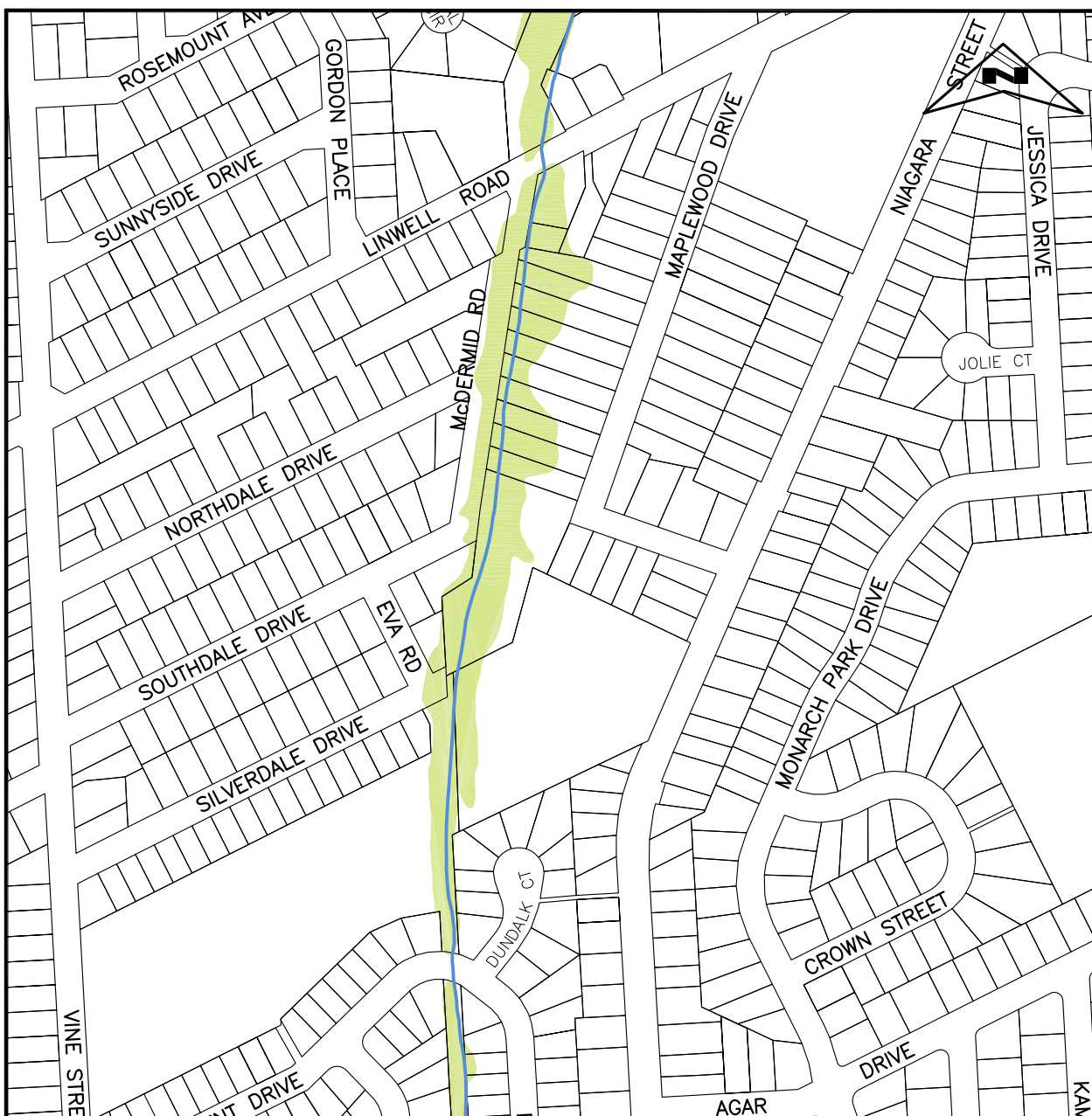
**Approved by:**

Anthony Martuccio

Director, Engineering, Facilities and Environmental Services

**Appendices:**

Appendix 1 – Location plan – Maplewood Area Storm Drainage Study



## Location Map N.T.S.

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## Maplewood Area Storm Drainage Study