



OAKVILLE

REPORT**COMMUNITY SERVICES COMMITTEE****MEETING DATE: JUNE 19, 2017**

FROM: Engineering and Construction Department

DATE: May 23, 2017

SUBJECT: **Coronation Park Drainage Improvements Class Environmental Assessment Study Report**

LOCATION: South of Rebecca, East of Third Line to Fourteen Mile Creek

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RECOMMENDATION:

1. That the *Coronation Park Drainage Improvements Class Environmental Assessment Study Report* and the preferred alternatives identified for drainage improvements within the Coronation Park community area, as outlined in the staff report from the Department of Engineering and Construction dated May 23, 2017, be approved.
2. That a *Notice of Completion*, pursuant to the Municipal Class Environmental Assessment process, be issued to initiate a thirty (30) day period for public review.

KEY FACTS:

The following are key points for consideration with respect to this report:

- The Town has carried out an environmental assessment (EA) study for proposed drainage improvements within the Coronation Park community.
- A “Schedule B” EA was undertaken in accordance with EA requirements; a Schedule B EA requires the proponent to keep a project file representing the final study document
- The EA study had several points of contact with the public, stakeholders, various government and technical agencies.
- **The preferred design alternatives identified to alleviate the drainage issues include a combination of new storm sewers, outlet modifications, and re-grading of existing channels.**
- **Subject to Council approval, the EA will be posted on the public record for 30-day review period.**
- A full copy of the EA Project File has been placed in the councillor’s area at Town Hall in advance of the Community Services Committee meeting of June 19, 2017.

BACKGROUND:

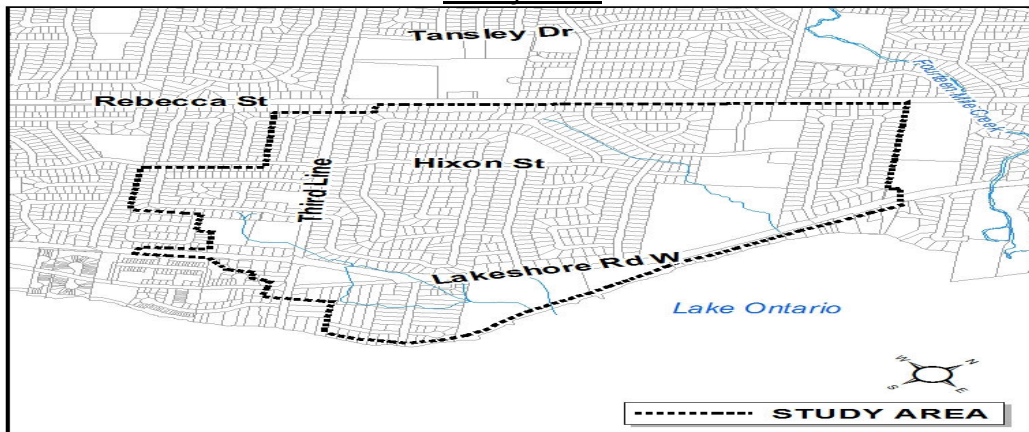
The Coronation Park community is a mature neighbourhood in Ward 2. The community predominantly consists of single detached residences, with larger backyard areas which are typically well vegetated with extensive tree coverage. The area drainage system consists of a mixed use of ditches, storm sewers, curbs/gutters, driveway culverts, and natural outlets for overland drainage.

In the 1960’s, a study entitled *Report on Storm Sewers (J. M Tomlinson & Associates Ltd.)* proposed storm sewer systems throughout Oakville, including several systems within the Coronation Park community connecting to a single outlet at Lake Ontario. Over the years several systems were built in the community with the exception of storm sewers along Lakeshore Road West, Westminster Drive and Woodhaven Drive. The town’s capital forecast includes storm sewers for Westminster Drive and Woodhaven Drive.

In order to implement these storm sewers as well as other drainage improvements within the Coronation Park Community, including a new outlet to Lake Ontario, the town is required to carry out Phases 1 and 2 of a “Schedule B” Municipal Class Environmental Assessment (*Municipal Engineers Association, amended 2015*). A “Schedule B” EA requires the proponent to keep a project file representing the final environmental study report (ESR). The consulting firm of AMEC Foster Wheeler Environment & Infrastructure was retained to assist undertaking the study.

The purpose of the EA study is to develop a comprehensive drainage improvement plan for the community addressing current drainage concerns and developing an implementation plan for the management of flooding and erosion within the area. The study included site investigations and hydrologic modeling of the drainage system in order to develop an understanding of existing conditions and to obtain information on peak flows for various storm frequencies. The study area is presented below:

Study Area



The study was initiated in the late spring of 2014. There were several points of contact with area residents and other stakeholders throughout the study – these are outlined under the *Considerations* section of this report.

A summary of the recommended priority projects resulting from the EA is presented in **Appendix A of this report**. The final draft Environmental Study Project File, representing the ESR, can be viewed via the following link:

<http://www.oakville.ca/residents/coronation-drainage-classea.html>

COMMENT/OPTIONS:

Existing Conditions

Residents frequently express concerns regarding nuisance roadside drainage issues within this community, particularly on Westminster Drive and as a result the area is continuously monitored by Department of Road and Works Operations for routine maintenance.

Existing drainage deficiencies identified in the area include soggy roadside ditches, prolonged standing water in roadside ditches, frequently clogged inlets, damaged or deteriorating driveway culverts, restricted overland drainage system flow capacity and local erosion sites.

The results of the site investigation showed that no major erosion was present; however, minor erosion has been noted along numerous roadside ditches. Standing water was observed in numerous roadside ditch locations, as well as within the majority of the open channels within Coronation Park.

Standing water within ditches is generally attributable to localized grading issues. Within the Coronation Park area, standing water is considered to be attributable to shallow ditch/channel grades and localized pools/depressions, as well as channel obstructions along the Lake Ontario shoreline, which prevent positive channel drainage.

Alternative Solutions Considered

The following alternatives were short-listed from a long-list of alternatives to address the drainage deficiencies identified in the study area.

- Increase size of storm sewers and culverts
- Grading within road right of way to mitigate flooding
- Low impact development best management practices
- New storm sewer systems
- Combination of above alternatives

An evaluation of the short-listed alternatives was undertaken to compare the advantages and disadvantages of each alternative. Each alternative was assessed against a list of criteria including functionality, environment, social, economic and constructability.

Preferred Solutions

Based on the evaluation, high priority drainage system improvements are recommended as follows:

1. Re-grade the existing easterly channel within Coronation Park, complete with new triple cell box culvert to receive flows from proposed storm sewers; also includes 2 new pedestrian bridges
2. **New storm sewers and ditch improvements on Westminster Drive and outlet improvements;**
3. New storm sewer and ditch improvements on Woodhaven Park Drive and outlet improvements;
4. New trunk storm sewer along Lakeshore Road West from Third Line to Coronation Park;

The above improvements are presented in a table shown in Appendix B. Alternative details, benefits and costs for each project are listed in the table.

Preferred Solution Update

While most of the EA study work was completed by the early autumn of 2016, an update of the study recommendations was initiated earlier this year to improve the drainage system in the area along Willowdown Road and Hixon Street where drainage relief currently relies on a drainage channel through private lands. These types of drainage schemes (while somewhat common in mature neighborhood areas) tend to be unintentionally challenged by private owner activities that sometimes conflict with the function of this channel.

While this channel has functioned fairly well over the years, the introduction of a new storm sewer network into this area affords an opportunity to re-direct drainage flows away from these private lands. While there will continue to remain a need for a more typical rear yard drainage swale, the amount of drainage supported by this private network would be notably diminished.

The introduction of a storm sewer in this area would also allow for the introduction of rear yard basins as a condition to future infill (re)development proposals, thereby further improving the lot drainage conditions in this area

The update recommends that the Woodhaven Park Drive storm sewer be modified and extended along Willowdown Road to connect with the existing Willowdown

Road storm sewer. This is considered a very minor amendment and serves to improve the drainage provisions for this area.

Notices have been provided to residents in the vicinity of this proposed plan modification.

Recent Flooding in Coronation Park

Recently, an area of Coronation Park has flooded due to high Lake Ontario levels and easterly winds, requiring closing of the park to the public. Lake Ontario levels have been noted to be the highest on record since record keeping began according to Lake Ontario-St. Lawrence River Board.

The Coronation Park channel (east channel) commencing at south side of the intersection of Lakeshore Road and Westminster Drive, that outlets to Lake Ontario, is recommended to be upgraded as part of this EA. The design objective is to convey additional drainage being redirected from the highly constrained west channel which flows through the Belvedere Drive residential area and within the east Coronation Park area.

The improved east channel has been recommended to have a Lake Ontario outlet elevation that matches the Lake Ontario maximum long-term average monthly water level at this location, therefore reducing the potential for Lake Ontario backing up the channel and restricting the flow from the storm sewer outlet at Lakeshore Road. Based on recent observations by AMEC Foster Wheeler, the existing storm sewer outlet to the channel was not flooded and the storm sewer was discharging normally to the channel. Based on the recommended channel improvements, the current Lake Ontario high water levels would have minimal impacts on the channel operation.

Next Steps

Upon approval of the recommendations of this report, a *Notice of Completion* will be published to establish a mandatory 30-day public review period. Should there be no Part II Orders (stakeholder objections) filed with the Ministry of Environment and Climate Change during the public notification period, the ESR (project file) will be deemed approved.

Permits from Conservation Halton and Ministry of Environment and Climate Change will be required prior to the implementation of the drainage system improvements outlined.

The Storm Sewer Master Plan Study is also underway and it will be prioritizing storm sewer implementations throughout the town; this may affect the implementation timing of the recommendations of this report.

Finally, the drainage improvements identified for Lakeshore Road West will be further assessed during the current Lakeshore Road West Class Environmental Assessment Study which is expected to be completed by the end of 2017.

CONSIDERATIONS:

(A) PUBLIC

Public consultation is a key feature of the EA planning process. Key features of the consultation program undertaken as part of this study include:

- Notice of Study Commencement was published in the local newspaper on May 22, 2014 and May 29, 2014. The notice was also mailed to the study area property owners and technical agencies. The notice was also published on the town's website.
- Public Information Centers were held on June 4, 2014 and November 26, 2014. Notification was provided via mail to the study area property owners and technical agencies, advertisements in the local paper and through the town's website. A total of 44 and 30 people signed in to the first and second PIC's, respectively.
- A notice of update to the preferred solutions and this staff report was provided to residents and technical agencies.
- A Notice of Study Completion will be published in the local newspaper, mailed to area property owners and technical agencies and published on the town website.

(B) FINANCIAL

The estimated cost for implementing the recommendations of this report is \$4,030,000, excluding engineering and landscaping costs. Approximately \$800,000 in funding (works in progress) have been previously approved in the capital budget for the Westminster Drive storm sewer.

\$700,000 was previously allocated for storm sewers on Woodhaven Park Drive in the capital forecast (2018/2019). Based on the cost estimate provided in Appendix B, a modification to the budget for this improvement will be addressed when the 2018 capital budget and forecast is developed.

The town previously applied for and recently received approval for a grant from the Clean Water and Wastewater Fund (CWWF) program for up to \$675,000 for the eastern channel works at Coronation Park. The town's estimated portion of the cost (\$225,000) has been previously approved by Council subject to the approval of the CWWF funding.

Finally, the funding for the Lakeshore Road West Trunk Sewer will be addressed once the Lakeshore Road EA is completed and the capital forecast will be updated to reflect this project.

(C) IMPACT ON OTHER DEPARTMENTS & USERS

The proposed alternatives will reduce the current level of maintenance required by the Department of Road and Works Operations. The results of this study have been shared with staff at the Development Engineering Department who are currently overseeing the Storm Sewer Master Plan Study.

(D) CORPORATE AND/OR DEPARTMENT STRATEGIC GOALS

This report addresses the corporate strategic goal to:

- have environmentally sustainable programs/services
- continuously improve our programs and services
- be accountable in everything we do
- be the most livable town in Canada

(E) COMMUNITY SUSTAINABILITY

The management of storm water drainage benefits the community through protection of lands as well as preserving and protecting aquatic and terrestrial habitat, and all related to environmental, social and economic components of sustainability.

APPENDICES:

A. Table 1: High Priority Preferred Alternatives Summary

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