



## STAFF REPORT ACTION REQUIRED

### Mitigation of Stormwater Overflow from Kew Gardens

<b>Date:</b>	April 17, 2007
<b>To:</b>	Public Works and Infrastructure Committee
<b>From:</b>	General Manager, Toronto Water
<b>Wards:</b>	32
<b>Reference Number:</b>	P:\2007\Cluster B\TW\pw07011 (AFS# 3071)

#### SUMMARY

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The purpose of this report is to present the findings of investigations into measures on mitigating stormwater overflow onto private property from Kew Gardens Park. It is being recommended that minor adjustments to site grading be undertaken, including the planting of additional trees, at the southwest corner of Kew Gardens Park to provide flood protection to abutting Waverley Road properties. The proposed work will not impact recreational activities in the park and could be completed this year.

#### RECOMMENDATIONS

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The General Manager of Toronto Water recommends that:

1. Pending the results of consultation with the affected community regarding the proposed flood protection works, the Parks, Forestry and Recreation Division be authorized to undertake site re-grading, including the planting of additional trees, at the southwest corner of Kew Gardens Park to provide flood protection to the homeowners along Waverley Road and that the cost of such work be paid for by Toronto Water as part of the 2007 capital works program.

## **FINANCIAL IMPACT**

Funding for this initiative is available in the approved 2007 Toronto Water Capital Budget, WBS Element CWW421-05 – Basement Flooding.

## **DECISION HISTORY**

City Council at its meeting on September 25, 26, and 27, 2006, adopted Clause 37 of Works Committee Report 6, entitled “Preliminary Assessment of Options to Address Surface Flooding During Extreme Storms in the Eastern Beaches Area of Ward 32” authorizing the Toronto Water and Parks, Forestry and Recreation Divisions to investigate options for mitigating stormwater overflow from Kew Gardens and report back on the findings. An electronic copy of the report can be obtained at: <http://www.toronto.ca/legdocs/2006/agendas/council/cc060925/wks6rpt/cl037.pdf>

## **ISSUE BACKGROUND**

On May 17, 2006, the Eastern Beaches area experienced a particularly severe storm, which was recorded in some areas as having an intensity greater than a 25 year return frequency storm. Significant surface flooding resulted along Kew Beach Avenue, and at the south end of Waverley Road and Lee Avenue. The rear yards of several properties on the east side of Waverley Road, which back onto Kew Gardens Park, were flooded by the overflow of stormwater from Kew Gardens Park. These properties have been flooded on several occasions in the past during extreme storm events and flash spring snow melts.

## **COMMENTS**

The natural contours of Kew Gardens Park create a low point at the southwest end of the park near the rear of the properties along Waverley Road. During heavy rainfall or rapid snow melt, when the ground is saturated and existing park drain and off-site stormwater structures are unable to handle the stormwater runoff volumes generated, rainwater or melted snow from Kew Gardens Park accumulates at this low point and overflows into the backyards of some homeowners on the east side of Waverley Road.

An investigation of the stormwater overflow problem from Kew Gardens Park has been completed by staff from Toronto Water and Parks, Forestry and Recreation Divisions. A closed circuit television inspection of the storm drain located within the park was completed on September 19, 2006, and was found to be clear of any obstructions. An assessment of various measures to mitigate the overflow problem has identified that minor site re-grading at the southwest corner of the park would provide the affected homeowners with additional protection from flooding during major storms such as occurred on May 17, 2006. The proposed re-grading of this area of the park would gradually raise the low point behind 39 and 41 Waverley Road approximately 0.6 metres.

The proposed re-grading in Kew Gardens Park will have very shallow slopes that will blend seamlessly into existing park contours with negligible visual impact and will not impede open access to the park or impact the recreational activities in the park, even during construction. Staff from Toronto Water and Parks, Forestry and Recreation Divisions plan to consult with the affected residents on Waverley Road and address any concerns before the work is carried out.

Parks, Forestry and Recreation staff have reviewed the proposed flood protection feature for any potential impacts it may have on the existing trees and have identified that one 35 cm diameter willow tree would need to be removed due to the amount of fill required around the root area. To compensate for the willow tree removal, ten trees will be planted. A selection of moisture-loving tree species will assist in removing excess water from this area.

The proposed re-grading work and tree planting is estimated to cost \$30,000. Construction of the proposed re-grading work is estimated to take two weeks to complete and could be carried out in July/August of this year, weather permitting. The trees would be planted either in the fall of 2007 or spring of 2008.

This report was prepared in consultation with Parks, Forestry and Recreation staff.

## **CONTACT**

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## **SIGNATURE**

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