

Basement Flooding Studies Follow-up

Date:	May 15, 2009
To:	Public Works and Infrastructure
From:	Lou Di Gironimo, General Manager, Toronto Water
Wards:	All
Reference Number:	P:\2009\Cluster B\TW\pw09017

SUMMARY

This report responds to a request by City Council to report on options to assist with downspout disconnection, the quantity of impervious area in the Basement Flooding Study areas, a suggestion to involve the community in catch basin cleaning and establishing a priority response for extreme basement flooding.

Financial Impact

There are no financial implications resulting from the adoption of this report.

DECISION HISTORY

City Council at its meeting on September 23 and 24, 2008 adopted the report from the Executive Committee (Item EX23.16) entitled “Update on the Engineering Review Addressing Basement Flooding”. One of the recommendations of the Executive Committee was that the General Manager, Toronto Water report back on:

- further options to assist with downspout disconnection in the mandatory areas;
- the percentage of impervious surface that exist in the study areas; and
- in conjunction with TEO, the possibility of a Neighbourhood Catch Basin Clean Up program modelled after programs such as Neighbourhood Watch and the Block Parent.

The corresponding City Council Decision Document can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2008/cc/decisions/2008-09-24-cc24-dd.pdf>

Also, City Council at its meeting on November 6, 2008 while considering the Toronto Water 2009 – 2018 Capital Program, contained in report EX25.1 from Executive Committee, requested the General Manager, Toronto Water to report back on how to offer unique and immediate help to residents with incidents of extreme basement flooding, within a two or three-hour period of the first call, such report to include how this can be done and any impacts this would have on the Toronto Water Budget.

The corresponding City Council Decision Document can be viewed at:
<http://www.toronto.ca/legdocs/mmis/2008/cc/decisions/2008-11-06-cc26-dd.pdf>

COMMENTS

Options to assist with Downspout Disconnection

As a result of amendments made by City Council to Municipal Code Chapter 681 (Sewer Use Bylaw) at the above-noted meeting, roof downspouts must be disconnected for buildings located within:

- the City's combined sewer service area by November 20, 2011;
- designated basement flooding prone areas by December 13, 2013; and
- the remainder of the City by December 13, 2016.

It is the property owners' responsibility to comply with the Sewer Use Bylaw. The City will provide assistance in the form of general information, but will not provide property specific advice or financial support to property owners. However, as per the Council directive, financial assistance is provided to low-income property owners by way of a reimbursement for the cost of eligible works, provided they comply with the eligibility and administrative requirements, detailed in Attachment 3 of the original report, which can be found at:

<http://www.toronto.ca/legdocs/mmis/2007/pw/bgrd/backgroundfile-7842.pdf>

Further, property owners who previously registered for the City's former voluntary downspout disconnection program are entitled to a free disconnection, performed by a City contractor, or receive up to \$500 if they disconnect their downspouts themselves, in accordance with the terms of the grant application form.

In accordance with the Bylaw, where disconnecting a downspout would create a hazardous situation, provision is made for the General Manager to exempt the property. However, it is the property owners' responsibility to apply for an exemption and provide supporting evidence.

The City is developing a public education program, designed to assist property owners in carrying out their disconnections. It is particularly important that property owners and contractors are aware of the potential for flooding neighbouring properties or damaging their own property if the disconnection is not appropriately completed.

Impervious Surface Area

On average, the impervious surface (e.g. pavement and roof) area in the Basement Flooding Study areas, accounts for approximately 45% of the total surface area. The impervious surface area can vary from as low as 28% for large residential lots to as high as 75% in industrial areas.

Community Catchbasin Cleaning

Catchbasin grates blocked by debris can cause surface flooding during rainfall events by preventing stormwater from entering the storm sewer system. While the City's regular street sweeping program is the primary defence, areas which have been known to be problematic receive increased attention from Transportation Services. Further, Transportation Services will send out crews to check catchbasins in low points, when they receive weather forecast for heavy rains. Residents can call Transportation's customer service number (i.e. 416-338-9999, to be replaced by 311 in the future) to get emergency attention for blocked catchbasins.

Block Parent and Neighbourhood Watch are programs that have been set up by community based non-governmental organizations to provide specific services in neighbourhoods. It is recognized that residents already maintain boulevards, sidewalks and street trees in front of their properties; and that a significant effort would be required to set up and maintain a formal network of volunteers. Rather, continued messaging and communication to residents stressing the importance of keeping streets and catchbasin grates clear and keeping yard waste off of the street is advocated instead.

Priority response to incidences of extreme basement flooding

It has been suggested that there should be a list of properties that would receive priority service if they call to report basement flooding. However, this is not supported because of the inequities this would present in customer service delivery; and the challenges it would present in scheduling work crew responses during extreme storm or emergency conditions.

As documented in the above-noted report to Council on basement flooding, the existing sewer systems perform as designed; and flooding is generally observed during extreme storms, when the flows exceed the sewer design capacity. During these types of emergency events, calls are responded to by Toronto Water staff on a first call, first serve basis; or if the storm is wide-spread, the crews are dispatched on a geographical basis.

Responding to a priority list during these types of emergencies, would effectively require establishing dedicated teams which would only respond to priority list sites or the redirection of already dispatched crews to priority locations, irrespective of the severity of site damage. In either case, this is impractical and establishes an inequity in customer service delivery.

For example, there could be situations where, given similar geographic, topographical and sewer system characteristics, a property owner who has not endeavoured to help guard his basement from flooding (e.g. installation of a sewer backwater valve,

disconnection of roof downspouts, proper lot grading, etc.) would receive preferential treatment over a property owner who has, and the preferential treatment effectively penalizes the proactive property owner.

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SIGNATURE

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