
BRIEFING NOTE

Mandatory Downspout Disconnection Program

Issue/Background:

The Wet Weather Flow Management Master Plan was developed using hierarchical approach to stormwater management, where source control measures were considered first, ahead of conveyance and end of pipe controls. Downspout disconnection was found to provide the greatest reduction in stormwater runoff volumes, within the suite of source control measures considered.

Toronto Water has had a city-wide voluntary Downspout Disconnection Program in place since 1998. With the property owners' consent, Toronto Water will disconnect the downspouts of buildings where the downspouts are directly connected to the sewer system, at no cost to the property owner, provided that certain minimum criteria are met. The purpose of the program is to reduce the volume of rainwater flow into the sewer system, which in combined sewers results in less combined sewer overflows (CSO) and in storm sewers results in less stream erosion and volume to be managed in stormwater treatment facilities.

New buildings are not permitted to have downspouts connected to the sewer system unless an engineering report shows that there is no feasible alternative.

Through the development of the Wet Weather Flow Management Master Plan, it was estimated that approximately 40% of the properties in the City could be disconnected through a voluntary program. If the program were made mandatory, it is estimated that approximately 75% of properties could be disconnected.

An in depth review of this issue has been the subject of previous reports to Works Committee (i.e. Item 21 of Meeting 11, held November 9, 2004 and Clause 7 in Works and Utilities Report No. 7 adopted by City Council at its meeting of May 11, 1999).

Key Point(s):

- The City has the authority to require the disconnection of existing downspouts as part of its duty to regulate and maintain the sewage system.
- A mandatory program would need to provide for exceptions in certain cases.
- Average costs to disconnect a downspout, based on the existing program, are about \$650 per property. These costs often include re-grading eavestroughs to allow re-positioning of the downspouts to more suitable locations and providing a rain barrel where downspouts discharge to pavement.
- Costs to disconnect downspouts can vary widely between properties.

- A mandatory program would have to be enforced in order to avoid claims for negligence causing basement flooding.
- There would have to be provisions, either through retraining of existing staff, or hiring of new staff, to ensure that the new by-law was enforced and to investigate requests for exceptions.
- A subsidized, mandatory program would almost double the current cost if rolled out over 11 years, but could result in nearly twice as many properties being disconnected. If fully subsidized, this would translate to an estimated cost of \$150 million, in comparison to a voluntary program cost of \$80 million.
- A mandatory program would not have to be subsidized (ie. no incentive would be necessary). This would save approximately \$2.5 million in annual incentive payments that could be used to promote or advance other source control stormwater management programs (e.g. Green roof incentive program).
- A by-law mandating downspout disconnection would have to apply City-wide. A phased-in approach would be recommended, wherein, implementation in the early phases should focus on properties prone to basement flooding; properties within the service area of forthcoming Class EA projects within the Wet Weather Flow Management Master Plan; properties within the combined sewer service area; followed by those connected to storm sewers.

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Date: October 24, 2005

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