



Report to: General Committee

Date Report Authored: August 28, 2012

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**SUBJECT:** Unauthorized Use of Fire Hydrants-Bulk Water Trucks  
**PREPARED BY:** Noris Dela Cruz, Ext. 4800

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**RECOMMENDATION:**

- 1) That the report titled “Unauthorized Use of Fire Hydrants-Bulk Water Trucks” be received;
- 2) And that Staff be authorized and directed to do all things necessary to give effect to this resolution.

**EXECUTIVE SUMMARY:**

Not applicable.

**PURPOSE:**

This report is in response to Council resolution of April 3, 2012 requesting “that staff report back on the monitoring of water trucks filling up from fire hydrants”.

**CONCERN OVER UNAUTHORIZED FIRE HYDRANTS USE**

At the General Committee meeting of March 26, 2012, concern was expressed about private water trucks unauthorized use of City fire hydrants to obtain bulk water. Council requested staff report back on the issue.

**MARKHAM HAS OVER 8,000 FIRE HYDRANTS**

Fire hydrants are used both for fire services and water system maintenance, flushing, and monitoring. There are over 8,000 city-owned hydrants on the municipal right-of-ways and 53 hydrants at private facilities in Markham. All hydrants are subject to the Ontario Fire Code which requires regular inspection and maintenance.

Fire hydrants also provide temporary authorized access to bulk water for construction, filling of in-ground swimming pools, street sweeping, landscaping, new sod watering, sewer maintenance and flushing.

Waterworks issues and monitors hydrant use permits and has established strict measures to ensure that hydrant use does not endanger water system integrity. A deposit is required and fees are charged to recover the cost of both the water used and services.

Private water trucks can purchase water at the City’s Bulk Water Station located at Rodick Road (at Miller Yard). For convenience, private water trucks can also fill-up at designated metered hydrants that have been rented from the City.

**UNAUTHORIZED FIRE HYDRANT USE DIFFICULT TO MONITOR**

Water theft through hydrants is a common problem shared by many municipalities. It takes less than five minutes to fill up a 4-7 M<sup>3</sup> capacity water truck from one of the 8,000 plus hydrants. Hydrant water theft does not result in significant water loss for Markham. A hundred trucks filling water from hydrants daily over the summer would not represent even 0.25% of Markham’s apparent water loss.

The primary concern is the potential threat for system contamination and infrastructure damage. The absence of a backflow prevention device and improper hookup could result in contamination of the drinking water supply. Improper hydrant operation could result in watermain breaks, and there is a risk of the hydrant's operating mechanism being damaged and inoperable for fire use.

Physical monitoring of private water trucks filling up from fire hydrants is not currently practiced or considered to be operationally feasible.

### **EDUCATION AND PENALTIES MAY HELP REDUCE UNAUTHORIZED HYDRANT USE**

To curtail unauthorized hydrant use, staff will develop an education program to inform water hauling contractors on the risks of hydrant hookups and water theft. In addition, stringent penalties (i.e. increasing fine for water use by-law infraction and criminal prosecution if hookup resulted in system contamination) will be developed in consultation with the Legal department.

To augment our bulk water services, waterworks acquired five additional hydrant meters this year. This brings our hydrant meter rental equipment to 28 units. Staff will also include the cost of providing one additional bulk water filling station in the 2013 capital budget for Council's consideration.

### **FINANCIAL CONSIDERATIONS AND TEMPLATE: (external link)**

Not applicable.

### **HUMAN RESOURCES CONSIDERATIONS**

Not applicable.

### **ALIGNMENT WITH STRATEGIC PRIORITIES:**

Municipal Services – provide more locations for bulk water sales

Public Safety – implement a strategy to reduce if not eliminate the illegal use of hydrants

### **BUSINESS UNITS CONSULTED AND AFFECTED:**

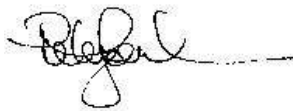
Not applicable.

### **RECOMMENDED BY:**

19/09/2012

9/19/2012

X



Peter Loukes P. Eng  
Director, Environmental Services

X



Brenda Librecz  
Commissioner, Community & Fire Services

**ATTACHMENTS:**

None