

## **MEMORANDUM**

**TO:** Council  
**FROM:** John Lau, System Engineer (Environmental Services)  
**COPY TO:** Gord Miokovic, Manager, System Engineering (Environmental Services)  
Peter Loukes, Director (Environmental Services)  
Brenda J. Librecz, Commissioner (Community & Fire Services)  
**DATE:** 19 March, 2013  
**SUBJECT:** Addendum to the “Citywide Multi-phase Sanitary System Downspout Disconnection Program – Financial Assistance Plan” General Committee Report

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Further to the Committee Meeting on 18 March, 2013, please see below the clarification to the issues that were raised at the meeting:

1. How to ensure the program covers the entire Markham area?

The program will cover the entire Markham area through ongoing waste water catchment area flow monitoring data analysis where sewer capacity will be assessed, flooding records reviewed, and the improvement to the system due to other programs/initiatives within Markham assessed. The flooding risk evaluation will then be conducted on a catchment by catchment basis. The evaluation will identify and prioritize areas within Markham with high risk of waste water based basement flooding issues. Those areas with the higher risk that also have a high potential of direct roof downspouts connection to the underground sewer system will be prioritized for future phases of the Downspout Disconnection Program. Through this program, further tests will be undertaken to quantify the number of such connections.

Under the City’s current design standards and sewer by-law #436-86, no roof downspouts are permitted to connect to the underground sanitary sewer system. All roof runoff should be discharged onto soft surfaces (i.e. lawn or back yard green areas) and through an overland flow path into the storm system.

There might be some homes in areas outside the identified program areas, where the owner/builders have directly connected the roof downspouts into the sanitary system. Once such connections have been identified, enforcement of the Markham Sewer By-Law #436-86 will be performed to address the issue outside of this program.

2. Clarification of Milliken Area

It is noted that the Milliken Area has not been separately identified in the report although work was identified to take place in the area. Revisions have now been made accordingly to the table and Attachment A & C (see enclosed).

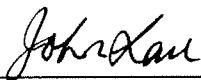
**Revised Table 1: Identified Areas Statistic of the Citywide Multi-Phases Sanitary Sewer Downspout Disconnection Program.**

<b>Locations</b>	<b>Identified Areas</b>	<b>No. of Properties in Area</b>
Thornhill Area	Area A	2,256
	Area B	1,274
	Area C	1,400
Unionville Area	Area A	1,808
Milliken Area	Area A	1,517
Markham Village	Area A	1,351
	Area B	1,520
Total		11,126

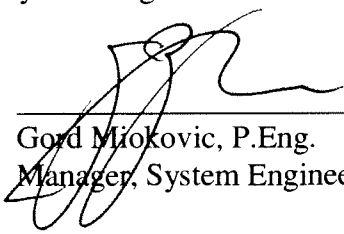
### 3. Public Communication Plan

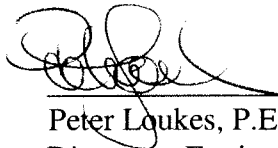
Corporate Communication and Community Engagement will roll out a Public Communication and Education Plan throughout the entire run of each phase of the Multi-phase Program to ensure the residents are aware of and being informed regarding the program. Details of the strategy are provided in Attachment B of the report and include social media, public information meetings, and etc.

**PREPARED BY:**

  
John Lau, M.Eng., P.Eng.  
System Engineer – Environmental Services

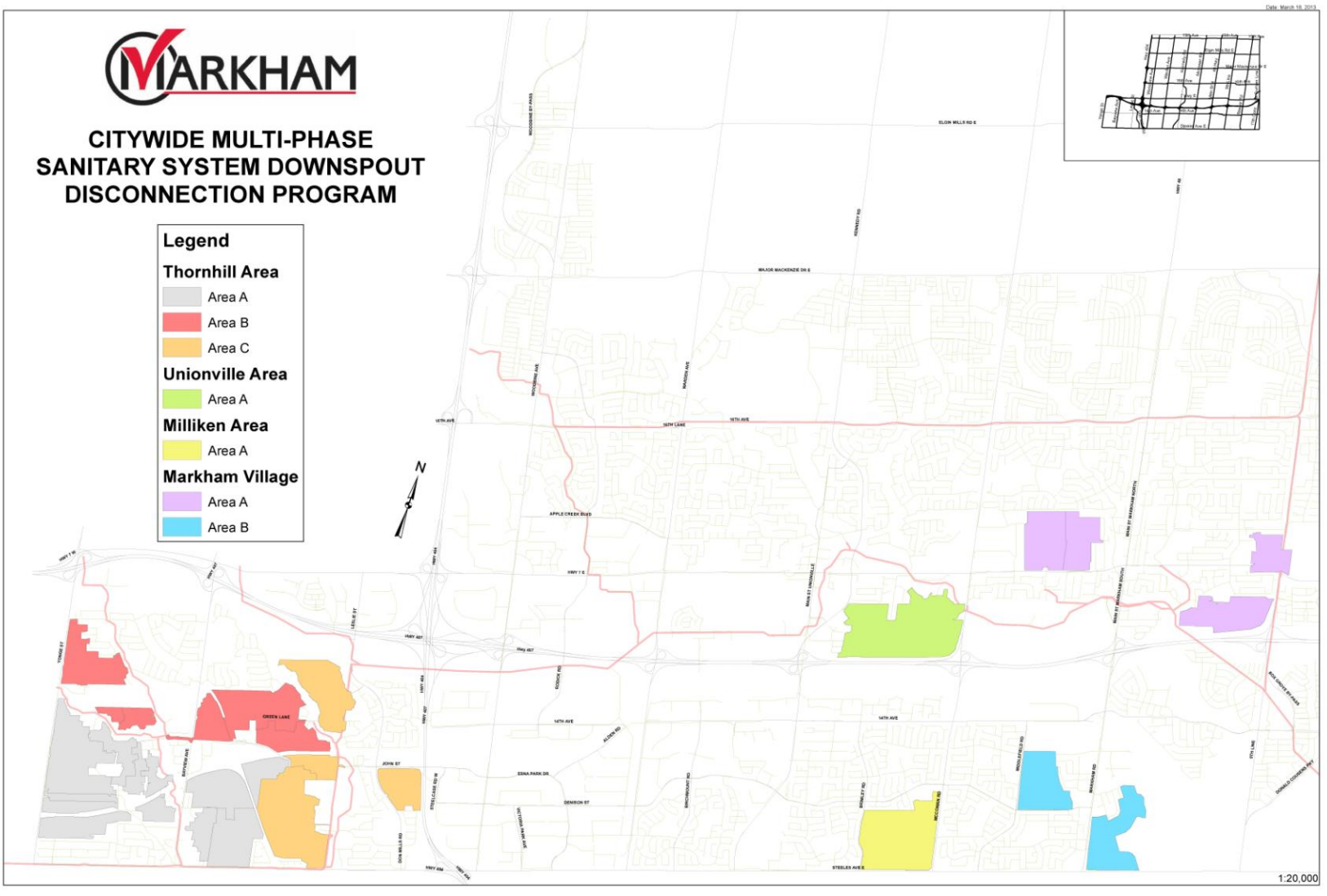
**RECOMMENDED  
BY:**

  
Gord Miokovic, P.Eng.  
Manager, System Engineering - Environmental Services

  
Peter Loukes, P.Eng.  
Director – Environmental Services

  
Brenda J. Librecz  
Commissioner, Community & Fire Services

ATTACHMENT A



# ATTACHMENT C

## Cost Breakdown for the Identified Program Areas

Activities	Thornhill Area			Unionville Area		Milliken Area		Markham Village		Overall Total
	Area A	Area B	Area C	Area A	Area A	Area A	Area A	Area A	Area B	
	Total Cost	Total Cost	Total Cost	Total Cost	Total Cost	Total Cost	Total Cost	Total Cost	Total Cost	
Public Communication and Education	\$12,640	\$7,140	\$7,840	\$10,130	\$8,505	\$8,520	\$7,575	\$8,520		\$62,350
Site investigation	\$342,470	\$187,420	\$192,220	\$236,220	\$196,270	\$196,520	\$186,970	\$196,520		\$1,538,090
Financial Assistant Plan: Downspout Disconnection & Rain Barrel	\$88,400	\$50,050	\$54,600	\$70,850	\$59,800	\$59,800	\$53,300	\$59,800		\$436,800
Flow Monitoring Program	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000		\$525,000
<b>Total</b>	<b>\$518,510</b>	<b>\$319,610</b>	<b>\$329,660</b>	<b>\$392,200</b>	<b>\$339,575</b>	<b>\$339,840</b>	<b>\$322,845</b>	<b>\$339,840</b>		<b>\$2,562,240</b>

Note: The cost estimate is determined base on industrial standard and the pilot program results.