



Report to: General Committee

Meeting Date: September 18, 2017

**SUBJECT:** Flood Control and Watermain Projects – Clean Water and Wastewater Fund (CWWF)

**PREPARED BY:** Prathapan Kumar, Senior Manager ROW & Environmental Assets, Ext. 2989  
Robert Muir, Manager, Stormwater, Ext. 2894

**RECOMMENDATION:**

- 1) That the Report entitled “Flood Control and Watermain Projects – Clean Water and Wastewater Fund (CWWF)” be received; and
- 2) That the funding sources for Capital Project #17201 - West Thornhill Flood Control Implementation - Phase 2B with a budget of \$10,117,600 be revised as follows based on a 50% - 25% - 25% shared funding structure with the Government of Canada, Province of Ontario and City of Markham respectively:

CWWF: Government of Canada (50%) (A)		\$5,058,800
CWWF: Province of Ontario (25%) (B)		<u>\$2,529,400</u>
CWWF Total (C) = (A) + (B)		\$7,588,200
City's Portion (25%):		
Funding from Project # 17201		
Gas Tax (D)	\$2,000,000	
Stormwater Fee Reserve (E)	\$529,400	
Total City's Portion (F) = (D) + (E)		<u>\$2,529,400</u>
<b>Total Funding (G) = (C) + (F)</b>		<b>\$10,117,600</b>

- 3) That the previously approved funds from Capital Project #17201 West Thornhill Flood Control Implementation Program – Phase 2B Construction in the amount of \$7,588,200 of which \$6,550,200 from the Stormwater Fee Reserve and \$1,038,000 from the Lifecycle Replacement and Capital Reserve Fund be returned to the original funding sources; and
- 4) That the City of Markham approve the undertaking of a new infrastructure project “Cast Iron Watermain Replacement/ Rehabilitation Program” for a total cost of \$4,119,900.00, based on a 50% - 25% - 25% shared funding structure with the Government of Canada, Province of Ontario and City of Markham respectively, to be funded from the following sources:

CWWF: Government of Canada (50%) (A)		\$2,059,950
CWWF: Province of Ontario (25%) (B)		<u>\$1,029,975</u>
CWWF Total (C) = (A) + (B)		\$3,089,925
City's Portion (25%):		
Waterworks Reserve (D)		<u>\$1,029,975</u>
<b>Total Funding (E) = (C) + (D)</b>		<b>\$4,119,900</b>

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- 5) That a new capital project in the amount of \$4,119,900 be established to undertake the work for the Cast Iron Watermain Replacement/ Rehabilitation Program; and
  - 6) That the Mayor and Clerk be authorized to execute the Clean Water and Wastewater Fund (Ontario) Transfer Payment Agreement (TPA) (and any related documents), in a form and content satisfactory to the City Solicitor and the Commissioner of Community & Fire Services, and that the Commissioner of Community & Fire Services (or designate) be authorized to act as an authorized signing officer for the City under the TPA (including for the purpose of submitting required TPA reports and confirmations); and
  - 7) That the Chief Administrative Officer (CAO) be delegated authority to award (and execute) the construction contract for the Cast Iron Watermain Replacement/ Rehabilitation work to the successful bidder, provided that the contract award amount is within budget or can be made to come within budget through selected scope changes and/or corresponding price adjustments and/or budget allocation changes; and
  - 8) And further that Staff be authorized and directed to do all things necessary to give effect to this resolution.

**PURPOSE:**

The purpose of this report is to inform Council that the City of Markham has been notified that the following two projects have been approved by the Ministry of Infrastructure of Ontario to receive funding from the Clean Water and Wastewater Fund (CWWF):

- (i). West Thornhill Flood Control Implementation - Phase 2B, in the amount of \$ \$7,588,200; and
- (ii). Cast Iron Watermain Replacement/Rehabilitation Program in the amount of \$3,089,925.

In addition Staff seeks the following approvals from Council:

- Previously approved funds from Capital Project #17201 West Thornhill Flood Control Implementation – Phase 2B Construction in the amount of \$7,588,200 of which \$6,550,200 from the Stormwater Fee Reserve and \$1,038,000 from the Lifecycle Replacement and Capital Reserve Fund to be returned to the original funding sources; and
- The City’s share of funding in the amount of \$1,029,975 for the Cast Iron Watermain Replacement/Rehabilitation Program” to be funded from the Waterworks Reserve.

**BACKGROUND:**

The Government of Canada established the Clean Water and Wastewater Fund (the “CWWF”) in its 2016 Budget and has committed two billion dollars (\$2,000,000,000) towards projects to improve water, wastewater, and storm water systems. Under a Bilateral Agreement, the Province of Ontario has agreed to identify projects, and manage the transfer of CWWF funds to recipients subject to the execution of Transfer Payment Agreements (TPA). On October 31, 2016, the City submitted an application for CWWF-eligible funding for two projects:

- (a) West Thornhill Flood Control Implementation Phase 2B; and

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(b) Cast Iron Watermain Replacement/Rehabilitation Program.

On June 6, 2017, the City was informed by the Ontario Ministry of Infrastructure that the two projects have been approved for funding and may begin immediately. Subject to the terms and conditions of the Transfer Payment Agreement (TPA), the federal and provincial governments will each provide up to a maximum of 50% and 25% respectively toward the total eligible costs of the projects.

Council approved Capital Project #17201 “West Thornhill Flood Control Implementation - Phase 2B Construction” in the amount of \$10,117,600 which is part of the long term City-wide Flood Control Implementation Program. The project represents the fifth stage of implementation and includes the components of detailed design, contract administration, and construction that have been previously awarded as well as internal staffing costs for project management. This is the first Flood Control Implementation project that is partially funded through CWWF.

The City of Markham’s Water Distribution system is governed by the comprehensive Ministry of Ontario Environment and Climate Change’s (MOECCs) *Safe Drinking Water Act* (SDWA) and associated Regulations. The MOECC conducts a yearly inspection of the Drinking Water Distribution System to determine compliance to the SDWA and Regulations. The City undertakes preventative and corrective maintenance to repair/ replace or modify watermains, in particular cast iron watermains that may be prone to breakage.

Due to the receipt of the CWWF grant of \$3,089,925, the City will undertake a new infrastructure project Cast Iron Watermain Replacement/Rehabilitation Program in the amount of \$4,119,900 at the following locations:

- (1) Bayview Avenue: from Steeles Avenue East to John Street (1700 m),
- (2) John Street: from Bayview Avenue to Porterfield Cr (280 m).

**OPTIONS/ DISCUSSION:**

The City has been informed that the CWWF application for stormwater and water distribution works described as “West Thornhill Flood Control on Three Streets with Structural Sewer Replacement in the City of Markham” and “Cast Iron Watermain Replacement on Two Streets in the City of Markham” have been approved for eligible funding. One of the conditions of the funding is that the projects are to be completed by August 31, 2018 unless agreed in writing by representatives of the parties to the CWWF (Ontario) Transfer Payment Agreement.

- To achieve completion by August 31, 2018 for the storm sewer works, the West Thornhill Flood Control Implementation – Phase 2B Storm Sewer Replacement contract shall continue on its currently approved schedule.
- To achieve completion by August 31, 2018 for the cast iron watermain rehabilitation works, detail design work will need to commence immediately in order to release the tender for the Cast Iron Watermain Replacement/Rehabilitation Program construction contract by September 2017. As construction must commence in the fall of 2017, in order to expedite

the contract award process Staff recommends that (notwithstanding the provisions of the *Purchasing By-Law*) the Chief Administrative Officer (CAO) be delegated authority to award (and execute) the construction contract. In addition, Cured In Place Pipe (CIPP) structural lining construction method, which involves less excavation and construction time than open cut method, will be used to ensure construction is completed in the allowable timeframe.

Staff has requested clarifications on the eligibility of certain project cost elements regarding easement costs and staffing costs associated with the stormwater project. Adjustments to the amount of CWWF and other City funding allocated to particular project activities may be required pending clarifications on eligibility.

### **FINANCIAL CONSIDERATIONS AND TEMPLATE:**

The project costs for the 'Flood Control and Watermain Projects – Clean Water and Wasterwater Fund (CWWF)' are \$10,117,600 and \$4,119,900 respectively on a cost shared basis of 50% with the Government of Canada, 25% with Province of Ontario and 25% funded by the City of Markham.

#### **Stormwater Project:**

CWWF: Government of Canada (50%) (A)		\$5,058,800
CWWF: Province of Ontario (25%) (B)		<u>\$2,529,400</u>
CWWF Total (C) = (A) + (B)		\$7,588,200
City's Portion (25%):		
Funding from Project # 17201		
Gas Tax (D)	\$2,000,000	
Stormwater Fee Reserve (E)	\$529,400	
Total City's Portion (F) = (D) + (E)		<u>\$2,529,400</u>
<b>Total Funding (G) = (C) + (F)</b>		<b>\$10,117,600</b>

Previously approved funds from Capital Project #17201 'West Thornhill Flood Control Implementation Program – Phase 2B Construction' in the amount of \$7,588,200 of which \$6,550,200 from the Stormwater Fee Reserve and \$1,028,000 from the Lifecycle Replacement and Capital Reserve Fund will be returned to the original funding sources.

#### **Watermain Project:**

CWWF: Government of Canada (50%) (A)		\$2,059,950
CWWF: Province of Ontario (25%) (B)		<u>\$1,029,975</u>
CWWF Total (C) = (A) + (B)		\$3,089,925
City's Portion (25%):		
Waterworks Reserve (D)		<u>\$1,029,975</u>
<b>Total Funding (E) = (C) + (D)</b>		<b>\$4,119,900</b>

The City's funding portion in the amount of \$1,029,975 will be funded from the Waterworks Reserve. A new capital project will be established.

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**OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT**

The constructed stormwater pipes and associated infrastructure is estimated to last 100 years and the rehabilitated CIPP liner watermain are estimated to last for 50 years. As such, there is no incremental impact to the Life Cycle Replacement and Capital Reserve over the next 25 years. There is no incremental operating budget impact.

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

The proposed flood remediation and watermain rehabilitation programs are aligned with the City's goal to provide better quality services to the public and is consistent with the "Building Markham's Future Together" strategic priority on "Growth Management" and the "Environment" as it considers sustainability on the built environment.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

The Finance Department has been consulted for both input and review of this report.

**RECOMMENDED BY:**

2017-09-06

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Phoebe Fu  
Director, Environmental Services

2017-09-06

A handwritten signature in black ink, appearing to read 'Brenda Librecz', is written over a large 'X' mark.

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Brenda Librecz  
Commissioner, Community & Fire Services