TORONTO

REPORT FOR ACTION

Supplementary Report - De Havilland 'Mossie' Park Underground Storage Tank

Date: June 21, 2024
To: City Council
From: General Manager, Toronto Water
Wards: 6

SUMMARY

The purpose of this report is to provide an update on Basement Flooding Protection Program (BFPP) Project #16-03. This project aims to address local basement flooding in the Winston Park Neighbourhood, including the construction of an underground storage tank at De Havilland 'Mossie' Park.

The preliminary design for this project was completed in 2015. At that time, the cost estimate exceeded the BFPP cost threshold of $32,000 per benefiting property, resulting in the project being added to the BFPP deferred projects list.

In 2020, Council directed the cost threshold be increased to $68,000 per benefitting property. To ensure equitable application, previously estimated project costs were adjusted for construction cost escalation and re-evaluated against the new threshold.

After adjusting for inflation, the cost estimate for Project #16-03 still exceeds $68,000 per benefitting property. Consequently, as directed by Council, the project will not advance to the detailed design, and will be reconsidered only after all projects under the $68,000 threshold have been scheduled for implementation.

A design review was conducted in 2013 to review BFPP alternatives for the underground storage tank at De Havilland 'Mossie' Park. The design review determined that proposed sewer upgrades are required to convey flow to the underground storage tank during severe storms. Constructing the tank separately from the sewer work will not alleviate basement flooding in the neighbourhood. Therefore, the construction of the underground storage tank and the project remains on the BFPP deferred projects list.

RECOMMENDATIONS

The General Manager, Toronto Water, recommends that:

1. City Council receive this report for information.

FINANCIAL IMPACT

There are no direct financial impacts from the adoption of the recommendation in this staff report.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its meeting on May 28, 2024, the Infrastructure and Environment Committee directed the General Manager, Toronto Water to report to City Council on when the detailed design for project 16-03 will be completed and when construction will commence, and, as an alternative solution to address basement flooding in the Winston Park Neighbourhood, to advance construction of the underground storage tank at De Havilland Park. Link: https://secure.toronto.ca/council/agenda-item.do?item=2024.IE14.15

At its meeting on November 25 and 26, 2020, City Council directed that projects identified through Basement Flooding Studies proceed to detailed design and construction if the cost per benefitting property is less than $68,000, and that projects that exceed the cost per benefitting property threshold be prioritized according to greatest impact criteria. Link: https://secure.toronto.ca/council/agenda-item.do?item=2020.IE17.5

At its meeting on July 16, 17 and 18, 2019, City Council requested the General Manager, Toronto Water to consider including as part of the 2020-2028 Capital Plan, a review of preferred infrastructure associated with the Anthony Park Underground Storage System included in the completed Basement Flooding EA study for Area 16 and allocating resources towards upgrading the underground storage tank and associated sewers to remediate flooding around the Winston Park community. Link: https://secure.toronto.ca/council/agenda-item.do?item=2019.EX7.26

At its meeting on July 16, 2013, City Council directed the General Manager, Toronto Water to review the engineering analysis for Project 16-03, to identify potential cost reduction opportunities that would lower the cost per benefitting property value below the $32,000 threshold and advance the project in the Capital Budget, and, if the cost reduction cannot be reached, the underground storage tank planned for Anthony Park be separated and considered for inclusion in the Capital Budget. Link: https://secure.toronto.ca/council/agenda-item.do?item=2013.MM37.60

At its meeting on September 21 and 22, 2011, City Council adopted the recommendations in a staff report titled "Wet Weather Flow Master Plan and Basement Flooding Protection Program Update". The staff report noted that the costs of implementing works identified in Environmental Assessments completed among the 32 Chronic Basement Flooding Study Areas far exceed the availability of funding. The report provided an update to the criteria for the prioritization of recommended improvement works coming from BFPP studies and preliminary designs, including the criteria of a $32,000 per benefitting property threshold.
Link: http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.PW7.6

COMMENTS

Basement Flooding Study Area 16 and Project #16-03 Status

In 2012, the Basement Flooding Protection Program (BFPP) Environmental Assessment (EA) study for Area 16 was completed. The study recommended solutions to mitigate basement flooding and surface ponding including Project #16-03. This project involves upgrading sewers on Winston Park Boulevard, Anthony Road, Northgate Drive, Lady York Drive, Hartham Place and Whitley Avenue, and an underground storage tank at Anthony Road School Park (De Havilland 'Mossie' Park). A map of the location of Project #16-03 is included in Attachment 1.

In 2015, a preliminary design was completed for Project #16-03, refining the solution and updating the cost estimate. The preliminary design cost estimate for the project was $9,515,000, with a cost per benefitting property of $60,968.

Following Council direction in 2011 (agenda item 2011.PW7.6), BFPP projects were prioritized based on protecting the greatest number of properties as soon as possible within approved funding envelopes and coordinating with other City capital programs. BFPP projects would proceed to detailed design and construction if the cost to benefiting property, as determined during the preliminary design phase, was less than or equal to $32,000. Since the cost per benefitting property for Project #16-03 exceeded this threshold, it was added to the deferred projects list for future prioritization.

In November 2020 (agenda item 2020.IE17.5), City Council directed that BFPP threshold cost per benefitting property be increased to $68,000, and directed that BFPP projects that exceed the threshold of $68,000 be sequenced in accordance with the principle of implementing projects that achieve the greatest impact.

To ensure equitable application between the projects that are already identified, and those yet to be identified, previously estimated project costs were adjusted for inflation and construction cost escalation and tested against the $68,000 threshold.

The cost estimate and cost per property calculation for Project #16-03 were adjusted accordingly. The adjusted project cost per benefitting property is $94,743, which exceeds the $68,000 per benefitting property threshold and the project remains on the deferred projects list.

Based on the study phase, the estimated cost of all BFPP projects identified across the City is approximately $18.6 billion. As of the end of 2023, the BFPP has constructed projects valued at an estimated $1.1 billion. Of the remaining $17.5 billion, $12.1 billion (including Project #16-03) exceed the threshold of $68,000 per benefitting property and are on the deferred projects list. Approximately $5.4 billion worth of projects meet the $68,000 threshold and will be advanced through the design process. Only projects meeting the cost per benefitting property threshold at the completion of preliminary design advance to construction.

There is no policy basis to advance Project #16-03, or any deferred project at this time. Once the estimated $5.4 billion of projects that meet the threshold have been scheduled for implementation, the remaining $12.1 billion of deferred projects, including Project #16-03, will be assessed and sequenced in accordance with the principle of implementing projects that achieve the greatest impact.

All 67 BFPP EA studies are scheduled for completion by the end of 2024. After all studies are finalized, the cost and schedule to design and construct all identified solutions will be summarized.

Advancing the Underground Storage Tank Separately from Project #16-03

In 2013, City Council directed Toronto Water to review the engineering analysis for Project #16-03, identify potential cost reduction opportunities, and, if the cost reduction could not be reached, plan the Anthony Park underground storage tank separately and include it in the Capital Budget (agenda item 2013.MM37.60).

A design review was undertaken in 2013. Since Project #16-03 consists of multiple storm sewer upgrades designed to convey flow to the storage tank, constructing the storage tank separately from the sewers would not provide basement flooding benefits for the neighbourhood. The design review also determined that alternatives to achieve the basement flooding criteria and reduce the cost per property are not viable.

CONTACT

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SIGNATURE

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ATTACHMENT 1

Basement Flooding Protection Program Project #16-03 Map