

City of Toronto

Municipal Class Environmental Assessment (EA) Black Creek Sanitary Drainage Improvement Study (Keele Street area/Finch to St Clair Avenue)

COMMENT SHEET

Public Consultation Drop-in Event # 2 – April 4, 2019

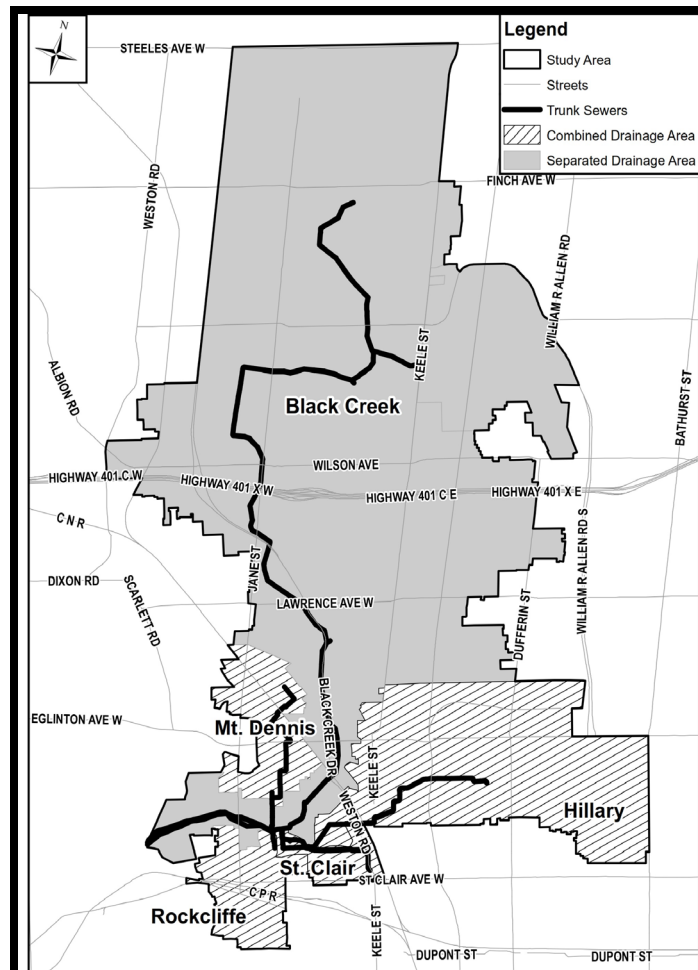
Falstaff Community Centre – 50 Falstaff Avenue (Jane Street, south of Highway 401 area)

Approximately 55 residents attended

10 written comments received; 13 email enquiries, approximately 15 calls.

Canada Post unaddressed mail – notice invitation to 40,000 in the study area

North York Mirror, York Guardian Advertisement on March 14 & 21, 2019 – Full Page



Background

The City of Toronto is carrying out a Municipal Class Environmental Assessment (Class EA) Study to assess the sanitary servicing needs of the Black Creek Sanitary Trunk Sewer drainage area to develop a plan to:

- Ensure the trunk sewer system has capacity to service projected future growth;
- Better manage flows in the trunk system during heavy rainfall events;
- Reduce sewer overflows to the Black Creek watercourse
- Reduce stormwater entering the trunk system

The City is interested in your comments and suggestions about this study, the potential solutions being considered and the draft evaluation criteria. Please take a few minutes to complete this comment sheet. All comments will be considered.

Some comments and questions received at PIE # 2 concerned basement flooding during severe storm events are related to the local sewer system. These comments and questions were responded to and are presented in a separate table as they are **outside of the scope** of the Black Creek STS EA study.

Question 1.

Do you have any comments about the recommended solutions being considered to improve the Black Creek Sanitary Trunk Sewer system?

Issues/Questions	Response
Very good plan	Comment noted
Alternative 2 looks great, get Council to fund it	Comment noted
Just do it – from Cordella Avenue I don't want to stress and be anxious about being flooded, please do whatever you need to.	Comment noted
Agree Alternative 2 most efficient. Keep residents informed on a regular basis. This is important as to stages and progress.	Communities will continue to be informed at the next stage in Fall 2019 and early 2020 when study is complete.
Alternative 2 being the preferred solution, as a resident of this area, I look forward to this project being facilitated sooner rather than later. A solution to this problem is needed ASAP. Long overdue	Council funding will follow after this study is complete – construction budget to be included in the 10-year Toronto Water Rate Budget.

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<p>Should have someone here to explain, present to have opportunity to ask questions as a group. We would then learn/be better informed.</p> <p>We take the time to come to the session, then it would be respectful to have representation and do a formal presentation.</p>	<p>Project team from the City and Consultants of 25 staff there to answer questions one on one basis.</p> <p>Phone, questions/comments and email enquiry available 24 hours.</p> <p>Materials also explained and available online.</p>
<p>Consideration should be given to movement of water and sewage, not necessarily combined in a west to east direction. Example: Flooding of Ridge Road (south of Humber Hospital).</p> <p>It seems to me that despite designs for an "overflow pond" to address excess water from Keele St to Ridge Road. October 2018 – residences flooded because I guess water backed up from Black Creek Trunk line to exit at Ridge Road ponds. MPP Roman Barbar is keeping the community informed. Will the newly proposed Keele infrastructure reduce the possibility of occurrence?</p>	<p>Because of the long distance and high elevation difference between Ridge Road and the nearest point of the Black Creek Sanitary Trunk Sewer it is highly unlikely that the trunk sewer backed up to flood Ridge Road. The flooding was likely due to a stormwater drainage issue.</p> <p>Ridge Road is in close proximity of provincial infrastructure (hospital, MTO offices, parking facility, stormwater pond and Highway 401).</p> <p>Ministry of Transportation and Infrastructure Ontario is working on stormwater drainage improvements related to the sites.</p> <p>The provincial item is not within the scope of this study.</p>
<p>March 12, 2019 email</p>	
<p>The potential for a relief sewer on Jane St is interesting, but Jane St ends at Bloor. More information is required.</p>	<p>Three alternatives plus the do nothing, were developed and assessed as part of the Black Creek Sanitary Trunk Sewer (STS) Drainage Area Class EA. Alternative 2 (along Keele Street) and Alternative 3 (Jane St/Keele St) both connect into the Humber STS in the area of Scarlett Rd/Dundas St.</p> <p>The Jane St./Keele St. Alternative 3 was not selected as the preferred, as its overall score was lower than Alternative 2 (Keele St). The social and technical issues with implementation and more complex operation were generally the reasons that Jane St/Keele St. option scored lower. See evaluation summary sheet on Slide 18.</p>
<p>How much sewage escapes from the trunk sewers during storm events?</p>	<p><u>Sewage from the Existing Black Creek STS</u></p> <p>During the typical year 1991 (identified by the City as an average rainfall year), the overflows mainly occurred at the Combined Sewer Overflow (CSO) locations. See Slide 20 for existing overflows for 8 CSO locations. During</p>

How much additional infiltration is possible if the sewer is enlarged. Infiltration from Black Creek can quickly overwhelm any storage tank on the sewer. Flow in the creek is an order of magnitude greater than the sewer.

extreme events, the Black Creek STS surcharges and overflows occur along the Black Creek STS in addition to the overflows at the 8 CSO locations.

The preferred alternative (Alternative 2) will meet the Ministry of Environment, Conservation and Parks (MECP) Procedure F-5-5 for CSO control. The results will be a net improvement to water quality in the Black Creek watercourse.

Infiltration/Inflow to the Existing Black Creek STS

The volume of I/I that enters the trunk sewer varies for different rainfall event conditions and is influenced by the creek water level as well. Flow monitoring data from approximately 20 locations between 2014 and 2016 in the study area were reviewed, analysed, and used for the model calibration and validation. The results from the calibrated model can be used to answer this question for a particular event.

Sanitary sewers for the City of Toronto are designed to convey peak sewage flow plus an allowance (0.26 l/s/ha) for inflow and infiltration from the drainage area. Results of the modelling, for the existing Black Creek Sewer system, found that the inflow and infiltration is well beyond the design allowance.

The preferred solution (Alternative 2) will reduce I/I to the system, including backflow from the creek to the STS. The new relief sewer along Keele Street will be a deep tunnel with minimal inflow and infiltration along the tunnel length. The storage facilities in the Rockcliffe and Mt. Dennis area will be designed such that the Black Creek watercourse cannot back up into these storage facilities.

Additional Inflow and Infiltration (I/I) reduction measures are already being implemented, including replacing perforated Maintenance Hole covers along the Black Creek STS, and installation of back flow prevention valve at the Mt. Dennis CSO outfall , as well as local sewer

	<p>I/I control measures as part of the Basement Flooding Protection Program. The interim measures and the proposed EA solution will result in a net improvement in stormwater reduction from the sewer system.</p> <p><i>A detailed discussion on the operations of the preferred solution and how it will reduce CSO and control I/I were discussed at the face-to-face May 14, 2019 Meeting at Mt Dennis Library. (Minutes are attached)</i></p>
<p>No mention of capacity studies on the Humber STS. I was told the Humber STS is unable to handle more flow during storms, so how does it help to increase capacity within Black Creek STS if there is no capacity at Humber STS to absorb increased Black Creek flow?</p>	<p>It should be noted that the proposed EA solution will increase storage capacity in the Black Creek sewer system and reduce peak wet weather flows from the Black Creek STS to the Humber STS improving the capacity along the Humber STS compared to existing conditions.</p> <p>The system has been modelled as a whole to ensure that the design criteria of 5 m³/sec is met. By providing the proposed relief sewer's additional storage capacity, inflow and infiltration reduction measures, the preferred Alternative 2 will work to ensure that peak flow to the Humber STS does not exceed 5m³/sec. The proposed EA solution focuses on storing flows within the Black Creek drainage area and will not increase peak flows to Humber STS and eventually to the Humber Sewage Treatment Plant under wet weather flow conditions.</p> <p><i>A detailed discussion on the benefit of the EA proposed solution on the operations and capacity of the Humber STS were discussed at the face-to-face May 14, 2019 Meeting at Mt Dennis Library. (Minutes are attached)</i></p>
<p>No mention of enforcing downspout disconnection, which I see has not been enforced. Would that not be a very low cost measure to reduce infiltration?</p>	<p>"In order to further increase the disconnection rate and achieve the maximum potential disconnection rate, Toronto Water will continue to employ the multi-year enhanced education, communication, and outreach strategy that was utilized during the implementation of the Mandatory Downspout Disconnection Program. Toronto Water will also undertake focused field</p>

	<p>studies in wards with low disconnection rates, reduced disconnection rates, or as required for other program considerations."</p> <p>The above is an excerpt from the May 2017 City Council approved Wet Weather Flow Master Plan Implementation Status Update Report – Page 8 (Mailed hard copy of Staff Report in March 2019.)</p> <p>While this provides much benefit, the reduction in flows possible through this and other inflow and infiltration reduction programs does not fully address the problems with the system and an ultimate solution is required that includes construction of significant infrastructure to store peak flows for eventual release into the Humber STS during low flow conditions. The City will continue with downspout disconnection and other I/I reduction measures, while pursuing this proposed solution (Alternative 2).</p> <p><i>The downspout disconnection program was discussed at the face-to-face May 14, 2019 Meeting at Mt Dennis Library. (Minutes are attached)</i></p>
<p>NEW – April 12, 2019 email post PIC # 2</p>	
<p>The relationship between local rainfall and water levels in Black Creek.</p> <p>The raw data shows that upstream rainfall tends to elevate the water level at Rockcliffe before or at the same time as there is a surge from local rainfall.</p>	<p>The time of concentration of Black Creek watershed (drainage area 37,500 hectares) is significantly different than the time of concentration of the Black Creek STS sewershed (5,500 hectares) and the time of concentration of the local drainage area along Cordella Avenue (<50 ha.), as an example. The time of concentration influences the peak water levels in the Black Creek watercourse, Black Creek STS sewershed and the local sewer systems.</p> <p>The precipitation pattern across the watershed, as well as across the sewershed, which are particular to each wet weather event also influence the times of concentration.</p> <p>The sewershed model was used to simulate</p>

	<p>and account for various conditions, including the 5-year design event, the extreme event of May 12, 2000, and the 100-year design storm event. As mentioned in the response for the March 12, 2019 e-mail, flow monitoring data from approximately 20 locations between 2014 and 2016 in the study area with the Black Creek water level boundary conditions were used for the model calibration and validation. The model was further verified by applying the past events, such as May 12, 2000, August 19, 2005, July 8, 2013, June 25, 2014, and August 8, 2018, that caused flooding issues in some parts of the study area.</p> <p>The installation of backflow prevention valves will prevent the water levels in the Creek that would have a negative impact on the hydraulic grade line (HGL) in the sewer system. The storage will function to retain the flow until the existing trunk sewer system has the capacity to receive and convey the stored flow to the treatment plant.</p> <p><i>The relationship between the local rainfall events and the water levels in Black Creek, and the implications on the performance of the preferred solution were discussed in detail at the face-to-face May 14, 2019 Meeting at Mt Dennis Library. (Minutes are attached)</i></p>

Basement Flooding Study/Cases – outside the scope of Black Creek STS Study

Issues/Questions	Response
64 & 68 Hilldale Road, Basement Flooding Study Area 4 improvement – when is new sewer upgrade construction?	<p>Provided Toronto Water March 2018 Council approved report "Sewer System Flood Reduction Measures in the Rockcliffe area" (for Hilldale Road and area sewer upgrades) – TW sewer improvement works will follow TRCA study completion recommendations.</p> <p>Also, referred to current minor road upgrades at</p>

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	Humber Blvd adjacent to Hilldale Road area.
120 Falstaff Avenue property backs onto Hwy 401, flooding into the basement from walls and floors.	<p>Not in BF Area 45. BF project team advised the owner to:</p> <p>Check cracks in the basement wall, flood likely caused by groundwater; plumber to check weeping tiles.</p> <p>The area behind her backyard is a "City Wide Open Space" (provided TWAG map. If the water is coming from there, owner can try following up with PF&R. If the water is coming from the highway embankment, MTO may be able to comment on the highway drainage ditches</p>
<p>123 Brownville Avenue (adjacent to Hydro lines) Wet basement in general, no flooding Called 3-1-1 at times</p> <p>Believe an old underground tank adjacent to her property fills water and cause area around her property to be very saturated.</p>	<p>Toronto Water operations crew (in response to 3-1-1 calls) attended to pipe issues in March 2007, July 2013 & Jan 2017 and found no issues.</p> <p>TWAG/DCAD mapping does not have any information on such an underground structure.</p> <p>Basement Flooding Study Area 45 continues to review this area to find suitable mitigation.</p>
<p>18 Rustic Road: Looking for TW Operations.</p>	Toronto Water Distribution and Collection team to follow up.
<p>137 Cordella Ave: New couple just moved in and discover flooding issues.</p>	Advised \$3,400 subsidy program.
<p>32 & 35 Liscombe Rd, BF Area 16 Sewer downstream is a 24-inch sewer discharging into a 10-inch sanitary, therefore it is a restriction that caused back up to the sani sewer.</p>	Toronto Water Distribution and Collection team checked about Area 16 upgrades. Conducted site visits. Determining mitigation to reduce back up from the 10-inch sanitary sewer restriction. Not easy to fix, may install orifice plate, then observe and adjust.