Scarborough Waterfront Combined Sewer Overflows/ Stormwater Outfall Control & Flood Protection Study (Basement Flooding Protection Program Area 33)

Municipal Class Environmental Assessment Study Addendum

Virtual public consultation event
November 26, 6:00 to 7:30 pm

Participants: 18 total for Public Meeting + 55 email/tel comments/enquiries

City of Toronto; Toronto Water, Water Infrastructure Management (WIM):
Jennifer Spezza – Project Manager
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Mae Lee

The following is a summary of questions, responses and comments made during the virtual drop in event.

Comments/Questions	Responses
Related to this Study Addendum:	
What is the timing for the next steps?	The EA addendum will be submitted in late December 2020 or early January 2021, for the Ministry of the Environment and the City to review internally. After this internal review, it will be posted for external review. The community will be notified when it is posted for the 30-day external review.
How is the settling pond in Bluffers Park factored into the Environmental Assessment? Is the pond helpful and should it be expanded?	This part of the system is functioning adequately as it is. There have been studies showing that it effectively provides about 80% total suspended solids (TSS) removal along with other benefits for stormwater treatment. This treatment has been accounted for in the current EA study and it is assumed that the facility will continue to operate and be properly maintained. For context: 80% TSS is what the Ministry calls enhanced water treatment', which is the target for water quality in most municipalities.

Comments/Questions	Responses
Is there a Wet Weather Flow Master Plan for the Scarborough Bluffs?	There are wet weather flow management guidelines, which all developments have to adhere to. It basically stipulates the quantity and quality control for each development application. This information can be found here: Wet Weather Flow Management Guidelines
Will this project reduce the load on the Ashbridges Bay Treatment Plant?	This project will not reduce the load on the treatment plant – if anything it might increase it a little bit. However, the peak flows in the sewer pipes heading into the plant will not increase. The small storage facility at the end of Warden Avenue will be able to temporarily store around 1,600 m^3 of wastewater and runoff before it is it pumped back into the system and sent to the treatment plant. There is an advantage to sending some stormwater runoff to the treatment plant because it gets treated, resulting in better water quality in the receiving environment. During smaller storms, there may actually be a decrease in flow to the treatment plant because of the diversion of the stormwater runoff away from the combined sewer.
What level of storm is the City now trying to engineer for?	Most of the City was originally designed to handle a 2-year storm, which is relatively frequent and not very intense. We are now designing for a 100-year storm, which has a 1% chance of happening in any year and is more extreme. This is partially why the extent of these solutions is so great and why it takes a long time to implement. The approach is to reduce the frequency of flooding by instituting much more underground pipe work.
How will the Chine Drive sewage storage system be affected by this project?	The Chine Drive system is an in-line storage system, which is simply an enlarged pipe. Instead of using a regular 300mm diameter pipe, a 1.2 m diameter pipe is provided. It acts as an in-line storage that is passive, so there is no special gates or controls. If there is excessive flow in that area, the smaller downstream pipe will force water to be stored temporarily and then be discharged back into the system. It is a way of limiting the amount of construction work and associated disturbance in the area. The flow coming out of this pipe is controlled by the capacity of the downstream pipe and the storage pipe is large enough that it will not cause backup into the sewer system. Refer to Underground Storage section below.

Comments/Questions	Responses
What are your projections for the reduction of CSO into the lake?	There are currently 6 outfalls, of which 4 are subject to overflows during an average year. The recommended works would eliminate overflows at all these locations during an average year, exceeding provincial guidelines.
How were the plans developed for which storm sewers would need improvement?	This is a multistep process that begins with looking at where potential problems are located and then looking at ways to eliminate those problems with sewer upgrades. Generally, the problems are with the storm system, but certain areas have combined sewers, which is why we recommend separating some combined sewers and adding about 6km of new storm pipe. The City's design guidelines were historically at a lower threshold and therefore the pipes were smaller; we are now targeting a higher level of service, so the pipes need to be larger. The approach is to determine which segments of sewers are at risk by looking at the projected water levels in the pipes. If the projected water level in a pipe is too high and poses a risk to nearby houses, the size of that pipe needs to be increased or the downstream pipes need to be increased, to provide more capacity. This is a very involved process to identify the necessary upgrades to meet the targeted level of protection, which is to ensure that basements are protected during a 1 in 100 year storm event. The tool that is used to do all of this is a complex hydrologic and hydraulic model that represents the rainfall runoff response as well as the collection system, the overland flow components, the inlet components, and includes rooftop connections. This intricate computer-modeling tool is used for sizing and iteratively evaluating the alignments.
Construction related:	
When is construction for these upgrades and improvements expected to begin?	Construction is still a few years away. We are now in the EA (Environmental Assessment) addendum phase, which will be finishing in the spring of 2021. The preliminary design phase for some of these projects will begin in 2022 and can take a few years to complete. Once the preliminary design process is complete, the projects will be reevaluated again, after which they can move on to detailed design and construction.

Comments/Questions	Responses
When does the City expect to know the route of the sewer pipes, and when will the affected properties be identified?	This is something that will not be known until the design phase is underway. Some preliminary corridors have been identified for the piping and about 98% of pipes are within existing City right-of-way corridors and existing roadways. This means that for the most part, we will be reusing the same corridors for the new or upgraded sewers. Through the design process, these details will be refined and any adjustments required to the proposed solutions will be identified.
Do you have any idea how long work will take in specific areas? And what will be involved?	Once a contractor is hired, the actual construction of the project should take anywhere from 6 months to 2 years. Specific streets and neighbourhoods that may be impacted will be identified during the design phase.
How will the local community be notified about the progress of this project?	There will be pre-construction notices sent out in the neighbourhood two months prior to the beginning of construction and then construction notices will be sent out two weeks prior, outlining where the construction will be and which streets will be impacted. Completion of this EA study addendum in 2021 will be announced in the local paper.
When is construction expected to start?	Construction is still a few years away after the preliminary and detailed design phases have been completed.
Will there be road closures?	At the time of construction, there will be road closures and some disruption in the area. The Warden tank is not in the right of way, so there will be some interruption for equipment and materials to be brought in. Residents will be notified well in advance of all road closures and disruptions in the area.
How will it affect local property taxes?	There will not be any impact on property taxes. This program is funded by the water rate. Economic impacts were not part of the scope of this EA study.
City Compensation Programs	
Is the City compensating homeowners after flooding events?	The City has a homeowner subsidy program that will provide up to $3,400 to homeowners who install basement flooding prevention measures. **(Website: toronto.ca/basementflooding)**

Comments/Questions	Responses
How much has the city paid out in compensation to homeowners after flooding events?	This is difficult to answer, but the City has a claims process through which people who experience flooding can make a claim to the City. When it is found that flooding is the result of the City not having done something correctly, the claim is paid out to the homeowner. It is important to keep in mind that the City has no control over an extreme rain event and the City's infrastructure was designed to handle only a certain amount of water, which has become more of a challenge in recent years. **(Website: toronto.ca/claims)**
New (Condo) Developments:	
Have all the new condo developments in the area been taken into consideration in terms of their contribution to flooding?	All condo developments must go through site plan approvals and the stormwater management proposed for each condo is carefully evaluated. This is a separate process from the sewer study. Developers cannot increase peak discharges from their sites as this may cause flooding to the local area.
How are the sewer approval and condo development approvals separate?	The condo development approval process is done through City Planning, which is separate from the Basement Flooding Protection Program. The two departments coordinate when required to ensure that any proposed developments do not increase flow into the sewer system. A developer must apply to the City to get various permits and permissions in order to build and connect to the City's sewer system. In some cases, condo developments are asked to reduce flows into the collection system. Studies done by the City try to anticipate future demands in terms of population growth. The current EA addendum considers both existing conditions and projected growth to 2041. The solutions are sized to handle the project growth conditions.

Comments/Questions	Responses
Sewers (evidently inadequate thus the 300million dollar initiative) and roads (the city has initiated a congestion initiative) and schools (clearly indicated by the board) - on what possible good planning basis can the city planners legitimately support issuing any building permits? The additions to existing homes that increase lot coverage and decrease permeable area to absorb runoff. The construction of new homes, often two new homes on a lot that previously had one, and the corresponding increase in lot coverage and reduction in permeable area. And of course the simple act of enlarging and paving over front side and back yards to increase parking and reduce maintenance. I have seen a substantial reduction in permeable area just on my own street. In particular, new townhouse and stacked townhouse or condo developments almost completely eliminate permeable area.	**NEW after the PIC** The EA Addendum's primary focus is on the mitigation of the impact of wet weather flow to the study area. It is been conducted independent of any specific planning study however projected growth to 2041 within the study has been included in the analysis carried out. The study is also based on a lower up-take of stormwater management on existing developed properties and the expected stormwater management that is required for all new developments. Proposed developments must meet stormwater control requirements which includes quality control, reduction in volume of storm run-off and maintaining or reducing peak discharges from the site into the storm system. The proponent must provide evidence (in the form of a site stormwater management report) that the proposed stormwater management for the site will achieve these requirements before development can proceed. Stormwater management requirement can be found at the following link: Wet Weather Flow Management Guidelines All major developments need to be processed through City Planning. Developments process through planning look at zoning requirements, traffic impact etc. The questions regarding impact of growth to traffic, schools etc., from a planning perspective, is outside the scope of the EA Addendum so is best addressed by City Planning. Questions regarding a specific developments should be directed to the Planner assigned to the project. Information about a specific development application can be found at the following links: https://www.toronto.ca/city-government/planning-development/ https://www.toronto.ca/city-government/planning-development/application-information-centre/ As indicated above, building permits are issued on the basis that the proposed development will maintain or reduce peak discharges from the site into the storm sewer system. The proponent must provide evidence (in the form of a site stormwater management report) that the proposed stormwater management for the site will achieve this target.

Comments/Questions	Responses
Technical/Engineering:	
Will the larger volume of sewage overwhelm the 1950's pumping station in the neighbourhood? This has happened in the past. (Reference to the Wirral Court Pump Station)	The pump station will not be overwhelmed because part of the proposed changes with the in-line oversized pipe will reduce the load on the pump station.
Will the neighbourhood experience any off gasing with this proposed larger storage pipe?	There will not be any more off gasing than there is with a regular sanitary system.
The 2011 Study	
There were studies done in 2010, and then there was flooding in 2012 and again in 2014; it is now 2020 and new studies are being done, which means that any recommendations are still a few years away. The current infrastructure is inadequate, and upgrades are needed.	The study is being completed right now and the next step will be moving onto the design. After the design is completed, the budget will need to be approved and then detailed design and construction can begin. This is part of the Municipal Class Environmental Assessment Process that must be followed by all municipalities according to the Ontario Environmental Assessment Act. This is standard process.
These flooding problems have been going on for over 10 years, why are we waiting to make the necessary improvements?	The Municipal Class Environmental Assessment Process is being followed, which unfortunately takes several years; but we are getting closer. The study expires in 10 years and there are new developments in the area. Thus the data has been updated. Additionally, the study approach has changed in the last 10 years. Originally the study focused on quality control but after the 2012 storm, quantity control also became a focus. The change to this approach takes time because sewer monitoring and additional investigations needed to be done in order to complete the study.

Comments/Questions	Responses
What happened to the original Scarborough Waterfront study from 2010?	The original study was completed in 2011, after which there was a major storm event in 2012 causing the City to reevaluate the proposed solutions. This triggered a technical update to the study where additional flow monitoring was done and the model was updated and reevaluated. It was found that more extensive solutions would be required to address the basement flooding issues in the area. This is what has brought us to the current EA addendum phase. The original EA expires after 10 years, which is why updates are now being completed so that we can move forward with new solutions. The original study had focused more on the quality of stormwater, whereas this study is looking at both the quantity (flooding) and quality.
Why has nothing been done over the past 10 years?	See above responses.
Underground Storage:	
The Chine Drive sewer system is a separate system. The sewage storage tank could experience build-up and then overwhelm the pumping station. Will a new pumping station be required?	The proposed oversized sewer (or in-line tank) is located upstream from the pump station and will attenuate the flow coming into the Wirral Court pump station. Regular maintenance will be required for the system to function properly and perhaps it may require upgrades in the future. Our evaluation indicates that the pump station has adequate capacity to meet future (2041) demands.
Where on Chine Drive is the holding tank?	It is not exactly a holding tank, but rather an oversized pipe located at the top end of Chine Drive just south of St. Clair Avenue. It spans about 2 or 3 blocks and is essentially an enlarged pipe that acts as storage pipe.
Will the storage tank at the foot of Warden Avenue be situated under the residences in that area? And will it be dangerous for the workers to be working close to the bluffs?	There is currently an existing easement located at the south end of Warden Avenue. It is adjacent to a residential area on the east side, and to the west side is the Toronto Hunt Club golf course. This is quite a distance above the bluff, so it is not very close to an area that would raise safety concerns.

Comments/Questions	Responses
Is there any danger of sewage leakage and bad odours in the vicinity of the tank?	There is a remote possibility of leakage from the sewers. However, generally there is an inward flow of groundwater into sewer pipes limiting leakage from the sewers. It is useful to note that the tank will only be used up to about 10 times per year during the more intense storm events. The water that will find its way into the tank will be primarily storm runoff with some dilute sewage and will be decanted over a weir to minimize the transfer of solids. Less solids in the tank means it is less prone to problems with respect to odours. The water in the tank will be pumped out within 12 to 24 hours after the storm event, meaning the water will not sit for an extended time. The mechanism for this system has not yet been designed, but it could potentially be triggered by the water level in the downstream sewer so that as soon a storm event passes and there is more capacity, pumping can be initiated. In the detailed design phase, the potential for odours and the maintenance of the facility will be considered. These can be addressed through various means such as carbon filters or flushing systems.
In the area just east of Warden Avenue where there are new condos being built, is there any possibility that bad sewage odours will increase with this new system?	See previous response.
Schools:	
Will the City consider the location of schools when designing the routes?	The routing of the sewers typically uses existing alignments where there is already a corridor in place. Neighbouring properties will come into play during the planning and then staging of the actual construction.
The City just sent out a notice to the TDSB regarding property requirements at one of the schools. Why was this notice sent so early on in the study and will there be more schools affected? The notice mentioned the potential requirement for sewer easement at the school.	It is unlikely that a request for property will come out of this study. The notice is just a heads up to notify the TDSB that the projects are adjacent to schools, either in front or on nearby streets. There is currently no need for any new sewers across school property. Any recommended sewer upgrades will use existing alignments.

Comments/Questions	Responses
Will there be any easements on school property?	There is one property that still needs to be vetted for existing easements. This is the area just south of the entrance to the Chine Drive Public School. There is an existing storm sewer that may need to be upgraded.
TDSB supports the City's infrastructure projects and requests that school safety and disruptions during construction are considered in the design phase of this project.	Duly noted. Impacts on schools has been considered in the conceptual design, but detailed scheduling and coordinating with the school board will be done in the final design phase, which is still a few years away. However, the City wanted to contact the school board early regarding this project so that they can work together on the implementation schedule.