

## **Water Users Consultation on Water Fees, Charges and Programs**

**Date:** June 21, 2021

**To:** Infrastructure and Environment Committee

**From:** General Manager, Toronto Water and General Manager, Economic Development and Culture

**Wards:** All

### **SUMMARY**

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This report presents the outcomes of consultation with water users ("Consultation") on water fees, charges and programs designed to support business retention, economic growth, investment and employment and the goals of the City's Resilience Strategy.

The Consultation was a multi-divisional initiative led by Toronto Water and Economic Development and Culture in collaboration with staff in the Office of the Controller, and the Policy Planning Finance & Administration Division. Staff in Revenue Services, Technology Services, City Planning, and Environment and Energy Division were consulted in this initiative.

The Consultation comprised two rounds in Fall 2020 and Spring 2021 at which options to support the economic competitiveness of industrial and commercial (I&C) customers, the City's Resilience Strategy goals, administrative efficiency, water conservation and broader environmental objectives were presented. Consultation participants included industrial, commercial and institutional customers, environmental not-for-profit organizations, academia, and the consulting sector.

A broad range of options was developed by City staff and consulted upon based on City Council's prior direction and a review of best practices in other municipal jurisdictions on the following topics:

- current support programs for industrial, commercial and institutional (ICI) customers;
- current policies and practices under Municipal Code Chapter 681, Sewers (Sewers By-law) with a view to achieving further administrative efficiencies;
- an administrative water charge;
- the possible decoupling of industrial and commercial (I&C) customers' costs associated with stormwater management from the water rate;
- a possible dedicated stormwater charge for owners of commercial parking lots; and,
- stormwater management incentives for industrial and commercial customers.

The options were assessed for cost impacts to water customers, City operational and capital costs and savings, resilience and environmental benefits, and implementation requirements. The findings of the options assessment were presented in the second round of Consultation.

Based on the Consultation feedback and the outcomes of the options assessment, this report recommends certain changes to Toronto Water's current support programs for industrial, commercial and institutional (ICI) customers which will streamline program administration, support water efficiency for customers, and provide the opportunity for additional cost savings to participating water customers. Recommended changes include offering the Capacity Buyback (CBB) Program's one-time free water audit and/or one-time cash incentive to certain industrial customers and incorporating a free desktop water audit in the CBB Program's offerings to eligible participants.

In addition, for the Sewer Surcharge Rebate (SSR) Program for customers utilizing process metering satisfactory to the General Manager, Toronto Water, it is recommended that they be provided the option of a tri-annual verification of their water consumption and sewage discharge, instead of the annual verification of water consumption and sewage discharge currently required under § 849-9. of the Municipal Code.

With respect to the Sewers By-law, this report identifies certain measures which will promote Sewers By-law compliance, help achieve increased administrative efficiencies and provide potential additional cost savings to eligible customers. Specifically, it is recommended that Toronto Water develop a Sewers By-law Navigation Guide and undertake a review of the Schedule 1 limits set out in the Industrial Waste Surcharge Agreement (IWSA). In addition, this report recommends further stakeholder consultation on the potential development of risk-based reporting thresholds for subject pollutants as part of a broader, future review of the Sewers By-law and Toronto Water's Pollution Prevention (P2) Program.

This report also provides the findings of an assessment (benefits, costs, implementation requirements) of water fees, charges and stormwater management incentive options considered through the Consultation. These options include an administrative water charge, the possible decoupling of I&C customers' costs for stormwater management from the water rate through a dedicated stormwater charge for industrial and commercial properties, a stormwater charge for owners of commercial parking lots, and stormwater management incentives for I&C customers. This report recommends the City undertake consultation with all water customer classes on the potential establishment of an administrative water charge.

## RECOMMENDATIONS

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The General Manager, Toronto Water and the General Manager, Economic Development and Culture recommend that:

1. City Council amend the City's Capacity Buyback (CBB) Program eligibility criteria, effective January 1, 2022, to include:

- a. customers whose property, or a portion thereof, is assessed on the annual returned assessment roll in the industrial property tax class (industrial customers), solely for the purpose of 1b. and 1c. below;
- b. the provision of one free water audit to industrial customers who have an annual water consumption of no more than 15,000 cubic metres per year; and
- c. the provision of the one-time cash incentive for eligible permanent water savings measures to industrial customers who have an annual water consumption of no more than 5,000 cubic metres per year.

2. City Council delegate the authority to the General Manager, Toronto Water, to continue to establish, implement, administer, and monitor the CBB Program including all related CBB Program policies and procedures, and to make any future changes to the CBB Program eligibility criteria as the General Manager, Toronto Water, considers appropriate on terms and conditions satisfactory to the General Manager, Toronto Water, subject to the requirement that any such future changes to the eligibility criteria for the CBB Program be reported annually through Toronto Water's Capital Budget submission.

3. City Council authorize the General Manager, Toronto Water to continue to prescribe any City form required for the CBB Program, and to amend or revise such forms from time to time.

4. City Council amend Municipal Code Chapter § 849-9 - Water and Sewage Services and Utility Bill, Annual verification of water consumption and sewage discharge as necessary, with respect to the Sewer Surcharge Rebate (SSR) Program, effective January 1, 2022, to include the option of a tri-annual verification of water consumption and sewage discharge for SSR Program participants that meet the following requirements:

- a. Participant has process metering at their facility;
- b. A participant who is in arrears with regard to payments for water rates or sewer surcharges would not be entitled to the exemption; and,
- c. The percentage of water consumption and sewage discharge reported by the SSR Program participant in the preceding two annual verifications of water

consumption and sewage discharge did not vary greater than 10 per cent year to year.

5. City Council authorize the General Manager, Toronto Water to undertake a review and stakeholder consultation on the Sewers By-law and Toronto Water's Pollution Prevention (P2) Program in relation to

- a. The potential use of risk-based thresholds for subject pollutant reporting;
- b. Evaluating the use of existing stormwater limits as potential threshold values; and,
- c. Identifying emerging pollutants to be considered as subject pollutants.

6. City Council direct the General Manager, Toronto Water, to report back in Q4 2022 to Infrastructure and Environment Committee on the outcome of the Sewers By-law and Toronto Water's P2 Program review and stakeholder consultation and any recommended changes to the Sewers By-law following completion.

7. City Council authorize the General Manager, Toronto Water, and the Chief Financial Officer and Treasurer, to consult with City water stakeholders, including residential, multi-residential, institutional, commercial and industrial customers, on the possible implementation of an administrative water charge beginning in the fall of 2021 and throughout the winter of 2022.

8. City Council direct the General Manager, Toronto Water, and the Chief Financial Officer and Treasurer, to report back to Executive Committee on the outcome of the consultation of the City water stakeholder consultation on the possible implementation of an administrative water charge in mid-year 2022 following completion.

9. City Council authorize the necessary amendments be made to Municipal Code Chapter 849 – Water and Sewage Services and Utility Bill, and any other necessary Municipal Code Chapters as may be required, to give effect to City Council's decision.

10. City Council authorize the City Solicitor to introduce any necessary Bills required to give effect to City Council's decision and authorize the City Solicitor to make any necessary clarifications, refinements, including stylistic, format and organization, minor modifications, technical amendments or By-law amendments as may be identified by the City Solicitor, the General Manager, Toronto Water, and the General Manager, Economic Development and Culture.

## **FINANCIAL IMPACT**

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The recommendations with their corresponding financial impacts to Toronto Water's operating and capital costs are presented in Table 1.

**Table 1: Financial Impact Summary**

Recommendation	Estimated Toronto Water Revenue Impacts (Annual)	Estimated Toronto Water Cost Impacts (Annual)	Implementation Timeframe
<p><b>1. Capacity Buyback (CBB) Program</b></p> <p>a. and b. The CBB Program be amended to include the provision of one free water audit to industrial customers who have an annual water consumption of no more than 15,000 cubic metres per year (m<sup>3</sup>/year)</p>	<p>Revenue loss of \$11,750 to \$86,700 from the loss of the sale of water</p>	<p>Operating costs: increase of \$8,845</p> <p>Capital costs: increase of \$23,025</p> <p><b>Total costs: increase of \$31,870</b></p>	<p>Effective January 1, 2022</p>
<p><b>1. Capacity Buyback (CBB) Program</b></p> <p>a. and c. The CBB Program be amended to include the provision of the one-time cash incentive for eligible permanent water savings measures to industrial customers who have an annual water consumption of no more than 5,000 cubic metres per year (m<sup>3</sup>/year).</p>	<p>Not estimated - would depend on the number of additional CBB Program participants</p>	<p>Operating costs: increase of \$4,743 to \$26,033</p> <p>Capital costs: increase of \$45,068 to \$207,425</p> <p><b>Total costs: increase of \$49,791 to \$233,458</b></p>	<p>Effective January 1, 2022</p>
<p><b>2 and 3. Capacity Buyback (CBB) Program</b></p> <p>Toronto Water to establish, implement, and administer a free desktop water audit to commercial, institution and exempt tax class customers subject to the requirement that any such future changes to the eligibility criteria for the CBB program be reported annually through Toronto Water's Capital Budget submission.</p>	<p>Revenue loss of \$0 to \$330,383 from loss of the sale of water</p>	<p>Operating costs: savings of \$2,796 to an increase of \$129,559</p> <p>No capital cost impacts</p>	<p>Effective January 1, 2022</p>
<p><b>4. Sewer Surcharge Rebate (SSR) Program</b></p> <p>Municipal Code Chapter § 849-9 - Water and Sewage Services and Utility Bill, Annual verification of water consumption and sewage discharge, be amended as necessary to include the option of a tri-annual verification of water</p>	<p>No revenue impacts</p>	<p>Operating costs: savings of \$3,500 to \$4,900</p> <p>No capital cost impacts</p>	<p>Effective January 1, 2022</p>

<b>Recommendation</b>	<b>Estimated Toronto Water Revenue Impacts (Annual)</b>	<b>Estimated Toronto Water Cost Impacts (Annual)</b>	<b>Implementation Timeframe</b>
consumption and sewage discharge for SSR Program participants that meet the requirements in Recommendation 4.			
<p><b>Sewers By-law</b></p> <p><b>5.</b> Toronto Water to undertake a review and stakeholder consultation of the Sewers By-law and the Toronto Water's Pollution Prevention Program</p> <p><b>6.</b> Toronto Water to report back in Q4 2022 on the outcomes of the stakeholder consultation and recommended changes, if any, to the Toronto Water's Pollution Prevention Program and Sewers By-law following its stakeholder consultation</p>	No revenue impacts	No operating or capital cost impacts	Start in the second half of 2021 and through 2022
<p><b>Water Fees and Charges</b></p> <p><b>7.</b> Toronto Water and the Chief Financial Officer and Treasurer consult with stakeholders, including residential, multi-residential, institutional, commercial and industrial customers, on the possible implementation of an administrative water charge</p> <p><b>8.</b> Toronto Water and the Chief Financial Officer and Treasurer to report back to Executive Committee on the outcome of the consultation in mid-year 2022 following completion</p>	No revenue impacts	No operating or capital cost impacts	Consultation to commence in the second half of 2021 and report back to City Council in mid-year 2022
<b>Range of Total Estimated Revenue and Cost Impacts</b>	<b>Revenue loss of \$11,750 to \$417,083</b>	<b>Total Operating costs: Net increase of \$10,292 to \$150,692</b>	

Recommendation	Estimated Toronto Water Revenue Impacts (Annual)	Estimated Toronto Water Cost Impacts (Annual)	Implementation Timeframe
		<b>Total Capital costs: Net increase of \$68,093 to \$207,425</b>  <b>Total costs: Net increase of \$78,385 to \$358,117</b>	

Additional details and assumptions for revenue and cost impact estimates are provided in Attachment 1 - Table 1 and footnotes.

No additional funding is required for the 2021 Operating and Capital Budgets for Toronto Water. Future year funding will be requested, if required, through the 2022 Budget Process.

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

**DECISION HISTORY**

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At its meeting on December 17 and 18, 2019, City Council requested the General Manager, Toronto Water, in consultation with the General Manager, Economic Development and Culture, to undertake a stakeholder consultation with water users to determine what, if any, water fees and charges, programs or other measures designed to support business retention, economic growth, investment and employment, Toronto Water might recommend to City Council in furtherance of the objectives of the City's economic competitiveness strategy and the City's resilience strategy; such consultation to include, but not be limited to, consideration of the following:

- a) current support programs offered by Toronto Water for Industrial, Commercial and Institutional customers;
- b) related municipal best practices in other jurisdictions;
- c) current policies and practices under Municipal Code Chapter 681, Sewers, with a view to identifying any potential opportunities for the implementation of further administrative efficiencies;
- d) possible dedicated stormwater management charge for owners of commercial and retail parking lots to recover the serviceable costs of the collection, transmittal and treatment of stormwater run-off generated by those parking lots;
- e) the possible decoupling of industrial and commercial customers' water use rate from costs associated with storm water management, in an effort to promote more transparent and equitable water rates, reduce the cost of water consumption to large consumers, while recovering the full serviceable costs of the collection, transmittal and treatment of storm water run-off generated by different properties; and,

f) possible incentives for industrial and commercial water customers to undertake sustainable storm water and flood management solutions, including, but not limited to, storm water management charge financial credit programs and green infrastructure funding.

City Council further directed the General Manager, Toronto Water, in consultation with the General Manager, Economic Development and Culture, to report back to the Infrastructure and Environment Committee on the outcome of the stakeholder consultation once completed and recommendations, if any, for changes to water fees and charges, programs or other measures in advance of the 2021 Budget process.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.EX11.2>

At its meeting on May 24, 25 and 26, 2017, City Council received a report titled "Proposed Stormwater Charge - Results of Consultation and Next Steps" for information.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX25.6>

At its meeting on May 9, 2017, Public Works and Infrastructure Committee received a report titled "2017 Wet Weather Flow Master Plan Implementation Status Update" for information.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.PW21.6>

At its meeting on January 21, 2016, the Public Works and Infrastructure Committee directed the General Manager, Toronto Water, to undertake a review of chemicals that could be added as subject pollutants under the Sewers By-law because these chemicals could impact the City's wastewater treatment plant operations. The review was to start in the fourth quarter of 2016 with a report back to the Public Works and Infrastructure Committee.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PW10.6%20>

At its meeting on December 9 and 10, 2015, City Council referred the following Public Works and Infrastructure Committee Recommendation to the General Manager, Toronto Water to report back on a risk based approach to minimum reporting thresholds, including evaluating the use of existing storm water limits.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.PW9.5>

At its meeting on November 13, 2015, Budget Committee considered a report on Competitiveness - Municipal User Rates Study Findings - Costs and Levies Charged to Manufacturing and requested the Director of the Energy and Environment Office, in partnership with the Toronto Atmospheric Fund and the General Manager, Economic Development and Culture, to report back on potential programs to help small industrial businesses reduce their energy consumption.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.BU13.5>

At its meeting on February 23 and 24, 2011, City Council adopted a report titled "Water Efficiency Plan Update 2011" which recommended Toronto Water continue to offer the Capacity Buyback Program to the business community to help achieve water efficiencies.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.EX3.2>



## COMMENTS

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This section is presented in three parts, as follows:

**1. Consultation Overview (pages 10 to 11 of this report)** provides an overview of the Consultation process and activities.

**2. Objectives and Opportunities (pages 11 to 12 of this report)** presents the objectives and opportunities considered for the development and assessment of options.

**3. Options Description, Assessment Findings and Consultation Feedback (pages 13 to 47 of this report)** presents the options considered, assessment findings, and the Consultation feedback on each option by topic in the following sequence:

- a. **Toronto Water Industrial, Commercial and Institutional Support (ICI) Programs (pages 13 to 21 of this report)** - options to modify Toronto Water's three programs for industrial, commercial and institutional (ICI) customers to support economic, social and employment objectives and water efficiency. The three programs are:
  - i. Industrial Water Rate (IWR) Program (page 14)
  - ii. Capacity Buyback (CBB) Program (page 16)
  - iii. Sewer Surcharge Rebate (SSR) Program (page 20)
- b. **Sewers By-Law (pages 21 to 27 of this report)** options pertaining to the Sewers By-law which aims to protect public safety, the environment and City infrastructure by, among other things, setting strict limits on what can be discharged into the City's sewers system and natural watercourses.
- c. **Water Fees and Charges (pages 28 to 37 of this report)** options pertaining to Toronto Water fees and charges, which could serve to support the economic competitiveness of I&C customers and the goals and objectives of the City's Resilience Strategy. Options considered include establishing an administrative water charge, the decoupling of industrial and commercial stormwater costs from the water rate through the establishment of a dedicated stormwater charge for I&C properties (I&C SW Charge), and the establishment of a SW Charge for commercial parking lots.
- d. **Stormwater Management Incentives for I&C Customers (pages 37 to 47 of this report)** options including establishing an I&C Stormwater Charge Credits program (with the I&C SW Charge option), an I&C Stormwater Grants program, and stormwater awards program option to promote the implementation of sustainable stormwater and flood management solutions on I&C properties and support the City's Resilience Strategy and other environmental objectives.

The options were assessed based on the following considerations:

- Supporting economic competitiveness, City Resilience Strategy, and other objectives listed in Section 2 of this report;
- Estimated revenue and cost impacts or savings to Toronto Water;

- Estimated cost impacts or savings to water customers, and water rate impacts (Block 1 and 2 Rates) in the near-term and long-term; and,
- Implementation requirements and challenges (e.g., related to administrative, operational, and IT requirements, among others).

A summary of the Consultation feedback and assessment findings for each option is provided in Attachment 1.

## 1. Consultation Overview

The Consultation comprised two rounds of consultation with water customers and stakeholders in the fall of 2020 and spring 2021. The Consultation was led by the City's Public Consultation Unit.

Consultation notification activities included:

- emails and/or letters to industrial, commercial, and institutional water customers and associations, commercial parking lot operators and owners, environmental not-for-profit organizations, City and external agencies, and the consulting sector;
- creation of a Consultation web page on the City's website: [Water Fees, Charges & Programs Consultation](https://toronto.ca/waterconsultation) (toronto.ca/waterconsultation); and,
- a Consultation email account - waterconsultation@toronto.ca

The first round (Round 1) of the Consultation took place from October 2020 to January 2021. Consultation activities included three virtual sessions with water customers and interested persons which included members of the Toronto Industry Network (TIN), industrial, commercial and institutional (ICI) customers, environmental organizations, the consulting sector, and City and external agencies (Toronto Parking Authority and Metrolinx). At the sessions, City staff presented the options being explored and suggested advantages and disadvantages of each option. An opportunity was provided for participant questions and comments. Approximately 90 individuals participated in the first round of the Consultation.

In addition, two discussion guides and an on-line survey were posted on the Consultation web page from December 4, 2020 to January 8, 2021. There were twenty-three (23) respondents to the on-line survey.

A Round 1 Consultation Report was posted on the Consultation web page in early March 2021 that summarized participant comments and questions with responses from City staff by topic area. The Round 1 Consultation Report is provided in Attachment 2 of this report.

The second round (Round 2) of the Consultation took place in April and May 2021. Consultation activities included two virtual sessions with water customers and stakeholders which included members of the Toronto Industry Network (TIN), ICI customers, environmental organizations, and the consulting sector. A meeting was also held with staff from the Toronto Parking Authority. At the sessions, City staff presented the options and any modified options, suggested frameworks for some options, and the options assessment. An opportunity was provided for participant questions and comments at the sessions and afterwards with a two week comment period, which

closed on May 19, 2021. Approximately 60 individuals participated in the second round of the Consultation.

A Round 2 Consultation Report was posted on the Consultation web page in June 2021 that summarized participant comments and questions with responses from City staff by topic area. The Round 2 Consultation Report is provided in Attachment 3 of this report.

## 2. Objectives and Opportunities

There were a number of objectives and opportunities considered for the development and assessment of options for the Consultation pertaining to Toronto Water programs, charges, fees and other measures to support economic competitiveness and the City's Resilience Strategy.

### Economic Competitiveness

This objective is to further the economic competitiveness of the City's industrial and commercial (I&C) sector by supporting business retention, economic growth, investment and employment.

The I&C sector is a critical component of Toronto's economy and generates direct and indirect benefits for Toronto. The most recent economic competitiveness study of the industrial manufacturing sector was undertaken by Watson & Associates for the Economic Development and Culture Division in 2015. The 2015 study compared total annual costs including water, wastewater, stormwater costs, in addition to property taxes and utility costs for the industrial manufacturing sector in Toronto to 19 other municipal jurisdictions in North America.

The 2015 study identified that water, wastewater and stormwater costs for industrial manufacturers and Toronto's economic competitive position for these costs (with one (1) being the least costly and 20 being the most costly) varied depending on the size of the industrial manufacturing operation (small, medium or large operation categories based on the building ground floor area, as follows:

- **Small industrial manufacturing operations** consuming an estimated 7,200 m<sup>3</sup> of water annually at an annual cost of \$21,850. Toronto's competitive position ranked 12<sup>th</sup> out of the 20 jurisdictions, and 4<sup>th</sup> out of the 7 Greater Toronto Area (GTA) jurisdictions;
- **Medium industrial manufacturing operations** consuming an estimated 32,700 m<sup>3</sup> of water annually at annual cost of \$78,870; Toronto's competitive position ranked 8<sup>th</sup> out of the 20 jurisdictions, and 3<sup>rd</sup> out of the 7 Greater Toronto Area (GTA) jurisdictions;
- **Large industrial manufacturing operations** consuming an estimated 426,700 m<sup>3</sup> of water annually at an annual cost of \$960,000; Toronto's competitive position ranked ninth 9<sup>th</sup> out of 20 jurisdictions, and 3<sup>rd</sup> out of the 7 Greater Toronto Area (GTA) jurisdictions;

Options were considered with the potential to further reduce water, wastewater and stormwater costs for I&C customers of different water consumption profiles, thereby supporting economic competitiveness. Opportunities to increase and broaden participation in Toronto Water's current ICI support programs were considered.

## **Supporting the City's Resilience Strategy Goals and Objectives**

Released in 2019, the City's Resilience Strategy titled "Toronto's First Resilience Strategy" sets out a vision, goals, and actions to help Toronto survive, adapt and thrive in the face of any challenge, particularly climate change and growing inequities.

This objective is to support the goals, objectives and actions of the City's Resilience Strategy, in particular making Toronto more resilient to climate change including the hazards of flooding and extreme heat. Options were considered that would support relevant actions of the City's Resilience Strategy including more resilient infrastructure to hazards of flooding, taking action to mitigate the effects of extreme heat and communicating, synthesizing, and scaling up ongoing City efforts to advance a system of green and blue infrastructure.

## **Cost-effectiveness, Transparency and Equity**

Options were considered that would promote enhanced transparency and equity with respect to water rates, charges and fees, optimize revenue management by aligning fees or charges to service demands and recovering the full serviceable costs of the collection, transmittal and treatment of stormwater run-off generated by I&C properties. Water fees and charges options were based on the principle of revenue neutrality and considered maintaining targets and minimizing impacts on reserve funds, and more broadly, providing for the continued financial sustainability of Toronto Water's programs and services.

## **Administrative Efficiency and Customer Service Improvement**

These objectives are interrelated. Options were considered that may serve to streamline the administration and practices of Toronto Water's current ICI support programs and the Sewers By-law with a view to achieving increased efficiencies, improving the level of customer service, and providing potential operational cost savings for the City, as well as cost savings to participating customers.

## **Environmental Stewardship**

Environmental stewardship speaks to a broad range of environmental objectives including pollution prevention, improving surface water quality of Toronto's watercourses and Lake Ontario near shore, and water conservation. Options were considered that may serve to advance environmental stewardship objectives by promoting more sustainable stormwater management practices by I&C customers, further promoting compliance with the Sewers By-law, and providing additional water efficiency incentives and associated cost savings for I&C customers.

### 3. Options Description, Assessment Findings and Consultation Feedback

#### a) Industrial Commercial and Institutional Support Programs

Toronto Water offers three programs for industrial, commercial and institutional (ICI) customers to support economic, social and employment objectives and water efficiency.

Options for each program were considered and consulted upon which may serve to streamline program administration, improve customer service, increase participation and broaden program eligibility (e.g. provide program offerings to customers that are not eligible to participate in current ICI support programs) and provide cost savings to I&C customers.

The Toronto Water ICI support programs and options considered for each program are listed in Table 2.

**Table 2: Toronto Water ICI Support Programs and Options**

ICI Support Program	Options Considered
<p><b>i) Industrial Water Rate (IWR) Program</b></p> <p>Offers a discounted water rate (Block 2 Rate, 30 per cent discount on Block 1 rate) to eligible industrial customers on water consumption in excess of 5,000 m<sup>3</sup> annually.</p>	<p>Lower the 5,000 m<sup>3</sup> annual consumption threshold value</p> <p>Remove the water conservation plan requirement</p>
<p><b>ii) Capacity Buyback (CBB) Program</b></p> <p>Open to eligible customers whose properties are classified by Ontario's Municipal Property Assessment Corporation as Commercial or Institutional and Exempted tax class properties. Offers a free water audit and a one-time cash incentive of up to 30 cents per litre of water saved per average day.</p>	<p>Offer the one-time free water audit to industrial customers consuming between 5,000 m<sup>3</sup> to less than 15,000 m<sup>3</sup> annually</p> <p>Offer the one-time free water audit and one-time cash incentive to industrial customers consuming less than 5,000 m<sup>3</sup> annually</p> <p>Offer a free desktop water audit to commercial, institutional and tax-exempt customers</p>
<p><b>iii) Sewer Surcharge Rebate (SSR) Program</b></p> <p>Provides eligible industrial and commercial customers a rebate on water not discharged into the sanitary sewer system (i.e. water evaporated from cooling towers or used to make a product).</p>	<p>Offer a tri-annual verification option for SSR Program eligible participating customers with process metering at their facilities</p>

## **i) Industrial Water Rate Program**

The Industrial Water Rate (IWR) Program offers a discounted water rate (Industrial Water Rate or Block 2 Rate) to eligible industrial customers on water consumption in excess of 5,000 m<sup>3</sup> annually used for industrial or manufacturing purposes to help support the economic competitiveness of industrial customers with a large water consumption profile.

In addition to supporting economic competitiveness, the IWR Program was designed to advance water conservation and efficiency and pollution prevention objectives by requiring participating industrial customers to meet eligibility requirements related to these objectives. The IWR Program is open to eligible businesses that:

- use more than 5,000 m<sup>3</sup> of water annually;
- fall within the industrial property tax class;
- are in compliance with the Sewers By-law; and,
- submit and complete a comprehensive water conservation plan to the satisfaction of the General Manager, Toronto Water.

As of 2020, there were approximately 100 industrial customers participating in the IWR Program. The total cost savings to participating industrial customers in 2020 is estimated at \$22 million based on the 30 per cent discount provided by the Block 2 rate. Additional cost savings as a result of the implementation of water efficiency projects is estimated at an average \$346,018 per participant annually. The average simple payback period for water efficiency projects implemented by participating IWR Program customers from 2016 to 2019 was 1.8 years.

Two IWR Program options were considered, assessed and consulted upon:

- Lower the 5,000 m<sup>3</sup> annual consumption threshold value; and,
- Remove the water conservation plan requirement.

### *IWR Program Option: Lower the 5,000 m<sup>3</sup> Annual Consumption Threshold Value*

This option would lower the IWR Program's 5,000 m<sup>3</sup> annual consumption threshold in order to expand eligibility to medium-volume water consuming industrial customers and provide cost saving opportunities for these customers through the Block 2 rate 30 per cent discount and the implementation of water conservation and efficiency projects.

The IWR Program eligibility requirements including compliance with the Sewers By-law and submission of a comprehensive water conservation plan would apply to industrial customers who would be eligible if the annual consumption threshold were lowered.

There were very few comments received on this option from Consultation participants. The comments received expressed some support for this option.

Two lower annual consumption thresholds (4,500 m<sup>3</sup>/year and 4,000 m<sup>3</sup>/year) were considered and assessed to determine potential cost impacts and savings to industrial customers and Toronto Water. Estimated cost savings (average per IWR Program

participant and total) for current IWR Program participants and potentially eligible IWR Program participants are shown in Table 3.

**Table 3: Estimated Annual Cost Savings for Current and Potentially Eligible IWR Program Participants for Lower Annual Consumption Threshold Option**

Annual Consumption Threshold	Estimated Annual Cost Savings for Current IWR Program Participants	Estimated Annual Cost Savings for Potentially Eligible IWR Program Participants <sup>1</sup>
Lower to 4,500 m <sup>3</sup> /year	Average (per customer): \$620 <b>Total: \$71,949</b>	Average (per customer): \$282 <b>Total: \$846</b>
Lower to 4,000 m <sup>3</sup> /year	Average (per customer): \$1241 <b>Total: \$143,898</b>	Average (per customer): \$597 <b>Total: \$2,895</b>

Annual revenue loss for Toronto Water for this option is estimated at \$72,795 to lower the water consumption threshold to 4,500 m<sup>3</sup>/year and \$146,793 to lower the water consumption threshold to 4,000 m<sup>3</sup>/year.

Lowering the IWR program consumption threshold to 4,500 m<sup>3</sup>/year or 4,000 m<sup>3</sup>/year would increase IWR Program costs from \$16,630 to \$28,513 annually, comprising an increase in operating costs of \$1,691 to \$3,623 annually, and an increase in capital costs from \$14,939 to \$24,890 annually.

While lowering the water consumption threshold to either 4,000 m<sup>3</sup>/year or 4,500 m<sup>3</sup>/year would provide some additional cost savings to existing IWR Program participants, the cost savings for industrial customers not currently participating in the IWR Program (within the 4,000 m<sup>3</sup> or 4,500 m<sup>3</sup> to 5,000 m<sup>3</sup> annual water consumption range) would be small or nominal.

In addition, when the water consumption threshold was lowered in 2015 from 6,000 m<sup>3</sup>/year to 5,000 m<sup>3</sup>/year, no additional industrial customers within the lowered consumption range were added to the IWR Program. This may be due in part to the challenges communicated by industrial customers related to the costs for developing water conservation plans, implementation of water efficiency projects, and compliance with the Sewers By-law.

Based on the above, staff conclude that this option may provide little benefit to support the economic competitiveness of industrial customers not currently participating in the IWR Program and this option is not recommended for implementation.

*IWR Program Option: Remove the Water Conservation Plan Requirement*

This option would remove the requirement for the submission of a comprehensive water conservation plan as a potential challenge to industrial customers participating in the

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<sup>1</sup> Assumes a 9 per cent uptake from potentially eligible industrial customers (3 of 28 customers consuming between 4,500 m<sup>3</sup>/year to 5,000 m<sup>3</sup>/year and 5 of 60 customers consuming between 4,000 m<sup>3</sup>/year and 5,000 m<sup>3</sup>/year which is based on 2019 consumption profile data from Revenue Services).

IWR Program. This option also has the potential to provide cost savings to Toronto Water by reducing administration of the IWR Program related to the review of water conservation plans.

This option was not supported by participants in the first round of the Consultation. Concerns were expressed about the loss of water efficiency benefits and associated cost savings from implementing recommended projects identified in the water conservation plans. In the second round, participants representing large industrial customers expressed support for this option and commented that the water conservation plan may not add enough cost savings value (i.e., provides initial savings but further conservation and savings are difficult to achieve) and may pose a barrier to smaller companies to participate in the IWR Program.

As noted on page 14, cost savings as a result of the implementation of water efficiency projects is estimated at an average \$346,018 per IWR Program participant annually. The average simple payback period for water efficiency projects implemented by participating IWR Program customers from 2016 to 2019 was 1.8 years.

This option would remove costs for industrial customers interested in participating in the IWR Program for the preparation of a water conservation plan (one-time cost estimated at \$2,000) and implementation of water efficiency projects (one-time cost estimated on average at \$33,139). However, water efficiency cost savings (estimated average of 11% annually per IWR Program participant) would not be realized by these customers.

Cost savings to Toronto Water for IWR Program administration would be nominal at an estimated at \$34,289 annually, comprising operating costs of \$9,399 annually and capital cost savings of \$24,890 annually.

Staff conclude that this option would not support economic competitiveness of industrial customers. Significant cost savings are realized by customers through the implementation of permanent water saving measures identified in water conservation plans and the subsequent reduction in water consumption. The permanent water saving measures may not be identified or implemented if the requirement for the Water Conservation Plan were to be removed. This option is also contrary to a key objective of the IWR Program which is to promote water efficiency. Based on the Consultation feedback and the above assessment, this option is not recommended for implementation.

## **ii) Capacity Buyback Program**

The Capacity Buyback (CBB) Program provides incentives for commercial and institutional and tax-exempt eligible customers by:

- offering a one-time free water audit involving an engineering consultant site visit to help identify ways to reduce water use; and,
- rewarding participants that implement permanent water-saving measures with a one-time cash incentive of up to 30 cents per litre of water saved per average day, capped at the project cost.



Three CBB Program options were considered, assessed and consulted upon:

- Offer the free water audit to industrial customers consuming between 5,000 m<sup>3</sup> to less than 15,000 m<sup>3</sup> annually;
- Offer the free water audit and one-time cash incentive to industrial customers consuming less than 5,000 m<sup>3</sup> annually; and,
- Offer a free desktop water audit to commercial, institutional, and tax-exempt customers.

*CBB Program Option: Offer the one-time free water audit to industrial customers consuming between 5,000 m<sup>3</sup> to less than 15,000 m<sup>3</sup> annually*

This option would make available the CBB Program's free water audit to industrial customers consuming between 5,000 m<sup>3</sup> to less than 15,000 m<sup>3</sup> annually to help address the costs to industrial customers of procuring a consultant to prepare a comprehensive water conservation plan to the satisfaction of the General Manager, Toronto Water, which is a requirement to apply for the IWR Program. This option may thereby increase participation in the IWR Program.

Support for this option was expressed by Consultation participants in that it would support water efficiency objectives and provide the opportunity for cost savings by potentially increasing participation in the IWR Program and through the implementation of water saving measures. Some participants suggested the CBB Program's one-time cash incentive also be made available to industrial customers consuming between 5,000 m<sup>3</sup> and 15,000 m<sup>3</sup> annually. Another suggestion was to include Sewers By-law compliance as a requirement of the CBB Program if it is offered to industrial customers. Although compliance with the Sewers By-law is a legal requirement, currently, the CBB Program does not include Sewers By-law compliance as an eligibility requirement.

This option would support industrial customers consuming between 5,000 m<sup>3</sup> and 15,000 m<sup>3</sup> annually by providing the one-time free water audit which would help them meet the requirement of the IWR Program to prepare a comprehensive water conservation plan as noted above. These customers could then apply to receive the Block 2 Rate. If eligible, these customers could realize cost savings from water efficiency measures implemented and from the Block 2 Rate, which represents a 30 per cent discount on the Block 1 Rate.

Annual cost savings per new IWR Program participant consuming between 5,000 m<sup>3</sup> and 15,000 m<sup>3</sup> annually are estimated at \$2,350 to \$17,430 in addition to a one-time cost savings of \$2,000 for the preparation of a water conservation plan.<sup>2</sup> This option also supports water efficiency objectives.

This option would increase CBB Program operating and capital costs depending on the rate of uptake and the consumption profile of new IWR program participants. An increase in CBB Program uptake of 100 per cent (from 5 to 10 new customers annually) would result in an increase in CBB Program costs annually of \$31,870 in total, comprising an increase of \$8,845 in operating costs and \$23,025 in capital costs. Revenue loss for Toronto Water would range from \$11,750 to \$86,700 annually.

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<sup>2</sup> After average 1.8 year payback period

Currently, the CBB Program Capital Budget can accommodate an additional 28 water audits and the IWR Program Capital Budget can accommodate an additional 16 program participants per year. Should the CBB Program or IWR Program uptake exceed the current funding envelopes, additional funding would be requested through the annual Capital Budget planning and approval process.

Based on the economic competitiveness and water efficiency benefits above, this option to offer the one-time free water audit to industrial customers consuming between 5,000 m<sup>3</sup> to less than 15,000 m<sup>3</sup> annually is recommended for implementation.

*CBB Program Option: Offer the one-time free water audit and one-time cash incentive to industrial customers consuming less than 5,000 m<sup>3</sup> annually*

This option would make available the CBB Program's free water audit and one-time cash incentive (\$0.30/litre water) for permanent water efficiency measures implemented, to industrial customers consuming less than 5,000 m<sup>3</sup> annually. Currently, industrial customers consuming less than 5,000 m<sup>3</sup> of water annually are not eligible to benefit from the potential cost savings available to participants in either the CBB Program or the IWR Program.

Support for this option was expressed by participants in the Consultation as this option would provide an opportunity for cost savings for industrial customers and support water conservation objectives. Again, some participants suggested Sewers By-law compliance be added as an eligibility requirement if the CBB Program is offered to industrial customers.

Depending on the CBB Program rate of uptake by newly eligible industrial customers, this option would reduce water consumption by these customers by an estimated 52,791 m<sup>3</sup> to 95,024 m<sup>3</sup> annually.<sup>3</sup> Cost savings per new industrial CBB Program participant is estimated at approximately 11 percent (based on average consumption reductions realized by industrial participants in the IWR Program from 2016 to 2019).

This option would result in a loss of revenue for Toronto Water based on average reduction in consumption of 11 percent per new industrial CBB Program participant. This option would also increase CBB Program operating and capital costs by an estimated \$49,811 to \$223,458 depending on the uptake rate.<sup>4</sup>

Staff conclude this option would support economic competitiveness for industrial customers with small and medium water consumption profiles by providing the free water audit and one-time cash rebate to help them achieve water efficiency cost savings. This option also supports water efficiency objectives. Based on these benefits, this option to offer the one-time free water audit and one-time cash incentive to eligible industrial customers consuming less than 5,000 m<sup>3</sup> annually is recommended for implementation.

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<sup>3</sup> Based on increase from the current program average of 38 new participants per year to 47 to 80 participants per year

<sup>4</sup> Based on increases in new CBB Program participants from 38 per year to between 47 to 84 per year, or from 0.04 per cent to between 0.05 per cent and 0.09 per cent of active businesses with employees in the City

### *CBB Program Option: Offer a Free Desktop Water Audit*

This option would offer a free desktop water audit to CBB Program eligible participants with a relatively small water consumption profile in place of the current site visit by a third-party Technical Services Consultant contracted by the City. The objective of this option is to streamline the administration and application process of the free water audit component of the CBB Program and potentially increase program participation, in particular for customers with standard equipment and simple facility operations (e.g., once-through cooling and refrigeration equipment). A similar program is offered to water customers in the City of Guelph.

This option proposes that the applicant would collect and submit equipment and operating information to the CBB Program. City staff would conduct a site visit to verify the information submitted. A third-party Technical Services consultant would review the information submitted and water consumption data, and provide upgrade/retrofit options and other water savings measures that could be implemented by the customer at their choice and expense.

Participant feedback from the Consultation on this option was varied. Some participants expressed support for this option if it would simplify the CBB application process. Other participants commented on the value of the Technical Services consultant site visit and expressed the concern that this option would result in less comprehensive water audits.

Based on the assumption that this option would increase uptake of the CBB Program, which is currently 0.04 per cent of active businesses with employees in the City<sup>5</sup>, and depending on the rate of increased uptake, this option would increase CBB Program costs and reduce water consumption, which would impact Toronto Water revenue.

At the CBB Program's current rate of uptake<sup>6</sup> this option would result in CBB Program capital cost savings estimated at \$2,796. At higher rates of uptake, CBB Program capital costs could increase by up to \$129,559 annually and water consumption could be reduced by up to 79,907 m<sup>3</sup>/year<sup>7</sup>. The reduction in water consumption at the higher rate of program uptake could result in a loss of revenue for Toronto Water estimated at up to \$330,383 annually.

While this option is expected to increase CBB Program costs and decrease Toronto Water revenue, based on the assumption of increased participation in the CBB Program, it would result in water consumption and cost savings and thus support the economic competitiveness of commercial customers. This option also supports water efficiency objectives. Based on these conclusions, this option is recommended for implementation.

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<sup>5</sup> 2018 Economic Indicator from Toronto at Glance web page

<sup>6</sup> 0.04 per cent of active businesses with employees based on 2018 Economic Indicator from Toronto at Glance web page

<sup>7</sup> Based on an increase in number of new program participants from 38 per year to 66 per year, an increase from 0.04 per cent to 0.07 percent of active businesses with employees

### iii) Sewer Surcharge Rebate Program

The Sewer Surcharge Rebate (SSR) Program provides eligible ICI customers a rebate on water not discharged into the sanitary sewer system (i.e. water evaporated from cooling towers or used to make a product).

Eligibility criteria for the SSR Program are based on the property's total annual water consumption and sanitary contribution amount. The SSR is based on the percentage of water not returned to the sanitary sewer system and is applied to the sewer portion of the water rate. Currently, SSR Program participants are required to submit an annual verification of water consumption and sewage discharge, including a detailed engineering report issued by an independent licensed professional engineer no later than nine months from the date of application, setting out the customer's water consuming processes and providing a water balance for the account (at an estimated cost of \$4,000 to \$5,000) on an annual basis.

*SSR Program Option: Offer a tri-annual verification of water consumption and sanitary contribution (tri-annual verification) option for eligible participating customers with process metering*

One option was considered for the SSR Program which is to decrease the frequency of verification from annually to every three years for participating industrial and commercial customers with process metering in their facility while still maintaining program eligibility. This option was referred to as a "3 year renewal option" throughout the Consultation. Process metering in this context refers to sub-metering within a facility of the water consumed or discharged by a particular operating or manufacturing process.

The proposed framework for this option is as follows:

- The tri-annual verification would be optional for facilities, i.e. SSR Program participants without process metering would continue to be required to submit an annual verification of water consumption and sanitary contribution and may continue to rely on calculations and/or mass balance studies where these include data to account for the year's seasonal variations for production and/or process, to estimate facility service water diverted;
- Participants who are in arrears with regard to payments for water rates or sewer surcharges would not be entitled to the tri-annual verification; and,
- The percentage of water consumption and sewage discharge reported in the preceding two annual verifications of water consumption and sanitary contribution did not vary greater than 10 per cent year to year based on water process meter data.

Support for this option was expressed by Consultation participants as this option would reduce the number of verifications of water consumption and sanitary contribution over a three year period. However, participants expressed concerns about the costs for participating customers without process metering to install process meters in order to be eligible for the tri-annual verification. Comments also identified that process meter installation may not be technically feasible for certain facility processes. Based on the Consultation feedback, staff clarified that the tri-annual verification would be an optional offering of the SSR Program.

SSR Program data shows that 170 SSR Program applications out of approximately 200 participants (annually) indicate that their facilities have in place some type of process metering. It is estimated 50 to 70 participants would opt in for the tri-annual verification option. Based on this assumption, this option would provide estimated cost savings for SSR Program participants that currently have process meters of \$8,000 to \$10,000 per participant over three years, totalling \$400,000 to \$700,000 over 3 years. Cost savings for SSR Program participants without existing process meters would vary depending on the upfront costs to install process meters and savings on engineering fees over multiple verification of water consumption and sanitary contribution cycles.

SSR Program operating costs would decrease by an estimated \$3,500 to \$4,900 annually as a result of a reduction in the number of annual SSR Program applications that would have to be reviewed and processed.

Staff conclude that this option would support economic competitiveness by reducing costs for eligible participating customers with respect to savings on the preparation and submission of engineering reports from annually to every three years. This option could also provide an incentive for SSR Program participants to install process metering which would benefit their operation by providing more accurate readings for their facilities. While this option would provide nominal cost savings for the SSR Program, it would enhance program accountability, transparency and customer service (i.e., more accurate rebate values based on actual metered water diverted from sewer). Based on these considerations, this option is recommended for implementation.

## **b) Sewers By-law**

The Sewers By-law aims to protect public safety, the environment and City infrastructure by, among other things, setting strict limits on what can be discharged into the City's sewers system and natural watercourses. Sewers By-law enforcement and compliance is overseen by Toronto Water's Environmental Monitoring and Protection Unit (EM&P).

Some substances are completely prohibited, while others are restricted to defined parameter limits. Every subject sector industry and any industry discharging any amount of 33 subject pollutants is required to submit an initial Pollution Prevention (P2) Plan to Toronto Water and identify steps to reduce, substitute or eliminate the subject pollutant. P2 plans are required for any amount, including trace amounts, of a subject pollutant which is discharged unless exempted from the Sewers By-law.

Under Section 6 of the Sewers By-law, a business may be authorized, by way of an Industrial Waste Surcharge Agreement (IWSA) or Industrial Waste Surcharge (IWS) Permit to discharge certain prescribed treatable parameters in excess of Sewers By-law limits, otherwise prohibited, subject to the terms and conditions of the Sewers By-law and the IWSA or IWS Permit including payment of applicable fees.

Prior to the issuance of any such IWS Permit or the entering into of an IWSA, Toronto Water EM&P will conduct an assessment to:

- Establish whether the conditions of Subsection 2 A(4) and Section 6 of Chapter 681 are met and the upper limits to be used in Schedule 1 of the IWSA; or,
- Determine the appropriate form of authorization – IWS Permit or IWSA

Subject to Subsection 11(c) of the IWSA and provided that the discharge is not a Prohibited Waste, under the IWSA, if a Discharger exceeds the permitted parameter limits, it is in default of Subsection 11(a) of the IWSA. However, if the exceedance is by less than 20 per cent and there have been not been more than three exceedances within the Term of the IWSA in total, the City will not suspend or terminate the IWSA, provided that the Discharger has remedied each default to the satisfaction of the General Manager, Toronto Water. This allows a Discharger some margin of error for operational changes without having the IWSA suspended or terminated.

Through the Consultation, options were considered which may serve to:

- further promote compliance with Sewers By-law requirements which supports pollution prevention and environmental stewardship objectives; and,
- streamline processes thereby increasing the potential for further increased efficiencies and cost savings in the City's administration of the Sewers By-law, and result in potential cost savings for customers.

The following options were considered concerning Sewers By-law practices and administration:

- Develop a Toronto Sewers By-law Navigation Guide;
- Establish risk-based subject pollutant reporting thresholds for trace amounts of subject pollutants;
- Industrial Waste Surcharge Agreements (IWSAs)
  - Increase the number of exceedances (currently three) of IWSA Schedule 1 parameter limits (less than 20 per cent) per term of the IWSA;
  - Reassess IWSA Schedule 1 Limits; and,
- Establish a self-reporting and monitoring option in the Sewers By-law.

An issue raised by participants during the Consultation was the outstanding direction from City Council in 2015 and Public Works and Infrastructure Committee in 2016 for Toronto Water to undertake a review of the Sewers By-law and Toronto Water's Pollution Prevention (P2) Program and report back on a risk-based approach to reporting thresholds, and chemicals that could be added as subject pollutants in the Sewers By-law, respectively. In addition, City Council requested that staff review the use of existing stormwater limits as potential reporting thresholds.

In 2018, an external consultant was hired by Toronto Water to review and undertake the initial risk based evaluation of the subject pollutants. The consultant's recommendations provide a basis for further analysis by Toronto Water to determine whether a risk-based reporting threshold could be applied and the identification of the threshold value for each subject pollutant.

Staff recommend that Toronto Water undertake a review and stakeholder consultation on the Sewers By-law and Toronto Water's P2 Program in relation to:

- The potential use of risk-based thresholds for subject pollutant reporting values;

- Evaluating the use of existing storm water limits as potential threshold values; and,
- Identifying emerging pollutants to be considered as subject pollutants.

Toronto Water will undertake the review of the Sewers By-law and its P2 Program with Toronto Public Health and other City divisions. The review and consultation with the City's water stakeholders is expected to start in the second half of 2021 with a report back to the City in Q4 2022 on the outcome of the review and water stakeholder consultation and any recommended changes to Toronto Water's P2 Program and Sewers By-law following completion.

*Option: Develop a Toronto Sewers By-law Navigation Guide*

This option is to develop a Sewers By-law Navigation Guide ("Guide") which may serve to promote customers' understanding of their compliance obligations under the Sewers By-law. The Guide would be developed in-house by Toronto Water with other City divisions including Toronto Public Health and Strategic Communications, among others. The Guide would be made available as a web-based Guide on the City's website and also in an AODA compliant format available for download on the City's website.

Suggested content for the Guide was presented to participants in the second round of the Consultation for feedback. The Guide would provide information on the purpose of the Sewers By-law, discharge limits and prohibited substances, monitoring and compliance processes, compliance measures (the Compliance Program, IWSAs, Sanitary Discharge Agreements and Permits, and Hauled Sewage Discharge Agreements), the Pollution Prevention (P2) Program, enforcement, and spills among other topics. The Guide would also include helpful contacts and links. The estimated cost to develop the web-based Guide in-house is \$3,000.

This option was supported by a broad range of Consultation participants. In the first round of the Consultation, suggestions were received on content to be included in the Guide, which were incorporated in the suggested Guide content presented in the second Consultation round. Suggestions were also received to make the Guide available in multiple languages and that the Guide be prepared and released after a review of the Sewers By-law and Toronto Water's P2 Program is completed so to incorporate any changes that might arise as a result of that review and report back to City Council.

Staff conclude that this option would have many benefits. It supports City Council's objective to promote Sewers By-law compliance by educating and informing the public. This option has the potential to increase Sewers By-law compliance, especially for new dischargers, which would support pollution prevention objectives and potentially provide cost savings to customers by increasing awareness of Sewers By-law requirements that result in compliance actions (i.e., potential to reduce Notices of Violations, fines and legal costs). The Guide would also support the objective of administration efficiency by promoting compliance and potentially reducing enquiries to Toronto Water EM&P. The City of Ottawa has released a Sewer By-law Guide and feedback from users has been positive.

Based on the Consultation participants' feedback and the expected benefits of the Guide, Toronto Water EM&P staff will undertake the development of the Guide with an expected release in 2023 after completion and report back to City Council on the outcomes of the review of the Sewers By-law and Toronto Water's P2 Program in Q4 2022. The Guide would have to be revised if and when any amendments to the Sewers By-law were made that impact its contents and, accordingly, the public would need to consult the most recent version.

*Option: Establish risk-based subject pollutant reporting thresholds for trace amounts of subject pollutants*

This option would establish risk-based subject pollutant reporting thresholds for trace amounts of subject pollutants. Currently, Section 5 of the Sewers By-law requires industry sectors or individual dischargers that discharge subject pollutants in any amount to prepare a P2 plan. This functionally sets the threshold for planning at the laboratory method detection limits (MDL). Enhanced laboratory analytical technology can detect even trace amounts of a subject pollutant, which will trigger a P2 Plan reporting requirement.

Risk-based reporting thresholds have been incorporated in some reporting programs by federal departments and provincial ministries.<sup>8</sup> This option is aimed at maintaining and ensuring proactive environmental protection and removing unnecessary regulatory reporting requirements on industry. This option would not impact discharge limits in the Sewers By-law.

Participants in the two rounds of the Consultation had different perspectives on this option. Some participants expressed support for reducing reporting requirements and P2 Plan submissions for trace amounts of subject pollutants "without compromising environmental quality". Other participants commented that any changes to the Sewers By-law reporting and P2 Plan requirements should happen after the Sewers By-law review is completed.

Staff conclude that this option has benefits with respect to providing potential cost savings for customers through reduced reporting and P2 Plan preparation for trace amounts of subject pollutants. Environmental consultants typically charge \$3,000 to \$6,000 for each P2 Plan review which does not factor in the cost of laboratory tests. The introduction of threshold reporting limits would eliminate the P2 planning requirement when only trace values are identified, which would reduce the cost to industries of consultant and laboratory fees. This option would also streamline administration of the Sewers By-law by reducing the number of P2 Plans submitted for trace amounts of subject pollutants.

This option will be further considered and consulted upon by Toronto Water EM&P as part of the Sewers By-law review which is planned to commence in the second half of 2021.

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<sup>8</sup> Environment Canada and Climate Change National Pollutant Release Inventory, Toronto Public Health ChemTRAC and Ontario Ministry of the Environment Conservation and Parks Toxics Reduction Act.



*Option: Industrial Wastewater Surcharge Agreements - Increase Number of Exceedances (from 3 to 4 or 5) of IWSA Schedule 1 Parameter Limits (less than 20 per cent) Per Term of the Agreement*

As noted previously, the City will not suspend or terminate an IWSA for an exceedance of less than 20 per cent provided that there have not been more than 3 exceedances of the parameter limits in a Term or a breach of subsection 11(c) of the IWSA, provided that the default is remedied to the satisfaction of the General Manager, Toronto Water. This allows a Discharger some margin of error for operational changes without having the IWSA suspended or terminated.

This option would increase the number of parameter exceedances to 4 or 5 exceedances (of less than 20 per cent) in the above circumstances. The objective of this option is to provide greater operational flexibility for the Discharger without the risk of suspension or termination of their IWSA.

Participant feedback from the two rounds of the Consultation on this option was varied. Some participants supported this option because it recognizes the operational realities of facilities and would provide operational flexibility for IWSA participants. Other participants expressed opposition to this option and suggested that additional exceedances should only be permitted with increased monitoring and testing. Concerns were also expressed about any changes to the Sewers By-law being implemented prior to the Sewers By-law and P2 Program review and report back to City Council.

Information from the Industrial Waste Surcharge Program for 2020 shows there were 337 active IWSAs. The number of IWSA holders that exceeded their IWSA limits as identified in Schedule 1 of the IWSA was 118, which represents 35 per cent of IWSA holders in that year. There was a total of 429 exceedances over an IWSA limit in 2020. Thirteen (13) of these exceedances were less than 20 per cent over the IWSA limit, while 416 over the 20 per cent the IWSA limit.

Based on the data above, staff conclude that this option to increase the number of allowable exceedances to 4 or 5 (from 3) of IWSA Schedule 1 parameter limits per Term of the IWSA would not achieve the objective of providing additional operating flexibility for IWSA holders and reducing the number of IWSA defaults. This option is not recommended for implementation.

*Option: Reassess IWSA Schedule 1 Limits*

This option was presented in the second round of the Consultation as an alternative to the option above. This option would involve Toronto Water EM&P reassessing IWSA Schedule 1 limits for IWSA holders so that they capture a facility's annual production cycle.

The current sampling period by EM&P for setting of IWSA Schedule 1 limits involves taking four composite samples over a one month period, which may not capture the full annual production cycle of a facility in the setting of the IWSA Schedule 1 limits. Staff conclude that this may be contributing to the number of IWSA parameter limit exceedances which may result in an IWSA default.

This option would involve Toronto Water EM&P reassessing IWSA Schedule 1 limits for current IWSA holders based on the results of approximately two (2) years' worth of sample results collected through the normal sampling periods, which would capture the full annual production cycle of a facility. For new IWSA holders, initial IWSA Schedule 1 limits would be set based on four composite samples over a month period. The IWSA Schedule 1 limits would be reassessed after approximately two (2) years' worth of sample results collected through the normal sampling periods.

Toronto Water EM&P would discuss the findings of the reassessment and any proposed changes to the IWSA Schedule 1 limits with the IWSA holder. The new limits would then be incorporated in the Schedule 1 of the facility's IWSA. Section 6(b) of the IWSA includes a provision that the Surcharge limits outlined in Schedule 1, may be revised from time to time via mutually written agreement between the parties.

No comments were received on this option in the second round of the Consultation.

Staff conclude that this option has the potential to reduce the number of companies exceeding IWSA Schedule 1 limits and defaulting on their IWSA which may result in a discharge suspension or an IWSA termination. This option could serve to reduce administration for Toronto Water EM&P and has the potential to achieve administrative cost savings based on the expected reduction of IWSA Schedule 1 exceedances resulting in IWSA defaults, suspension and/or termination. This option could also reduce costs for IWSA holders associated with an IWSA default, suspension and/or termination.

Based on these conclusions, Toronto Water will proceed with implementation of this option. The reassessment of IWSA Schedule 1 limits will be undertaken by Toronto Water EM&P and is planned to commence for current IWSA holders starting in the second half of 2021. The expected timing for any amendment of IWSA Schedule 1 limits for current IWSA holders based on the outcomes of the reassessment is expected to be in early 2022.

*Option: Establish a self-reporting and monitoring option in the Sewers By Law*

This option was considered based on a suggestion from large industrial customers. It would involve allowing a Discharger to self-report effluent testing and analysis to the City, which would be used by the Toronto Water EM&P to monitor compliance with the Sewers By-law and IWSAs.

Currently EM&P collects samples in order to determine compliance with the Sewers By-law and for billing purposes in accordance with IWSAs. Compliance sampling frequencies are determined based on the industry's classification, compliance history, and risks to the environment and sewer infrastructure. For billing, the sampling frequency is determined by the overall loading on the City's sewer system by the parameters being billed.

Feedback on this option from the two rounds of the Consultation was varied. Some participants commented many Dischargers already conduct their own sampling and use

the results for their own treatment system at their facilities and that self-reporting is permitted in other jurisdictions. This option would allow Dischargers to utilize their own sample results and take corrective actions sooner at their facility, if required, and could potentially reduce sampling and analysis costs for Toronto Water and customers. It was suggested that City could develop a tiered structure with baseline monitoring remaining free and if additional monitoring is required due to a Notice of Violation (NOV), the City could bill a customer to keep costs low for compliant facilities. It was also suggested that the City establish a self-reporting pilot project with a few large industrial customers.

Other participants expressed satisfaction with the City's sampling of their facilities and concerns about the costs for smaller and medium-sized industrial customers to conduct their own sampling and hire a third-party laboratory to undertake the analysis. These participants and others commented that sampling and analysis should continue to be undertaken by Toronto Water's EM&P Unit.

Staff conclude that this option poses implementation challenges. A key consideration is that the City cannot use independent sampling data for Sewers By-law enforcement purposes. While the Sewers By-law could potentially be amended to permit the use of independent sampling for the Sewers By-law, there would be concerns about sampling data reliability and the potential for data manipulation.

The City of Ottawa permits self-reporting. City of Ottawa staff have advised that self-reporting has resulted in operational challenges with respect to the need for sampling agreements, additional unscheduled sampling, the need for manual quality assurance and quality control of sampling data, and lack of consistent reporting.

While this option would reduce costs for Toronto Water's laboratory for analysis of sampling results, there would be additional costs to implement this option as follows:

- Need for IT and database integration requirements with EM&P's current iPACs system, which would necessitate the implementation of a new IT framework;
- EM&P would still need to collect samples and follow-up with companies that do not submit their sampling results or to verify sampling results received if there are issues; and,
- Additional staff resources could be required to obtain missing, incomplete or unreported sample data, develop Standard Operations Procedures (SOPs) and follow-up with non-compliance of sample result submissions.

Staff conclude that this option would be challenging and costly for small to medium-sized customers to implement. The costs to IWSA customers for sampling by the City is as low as \$955.33 for an initial assessment fee and a \$500 minimum annually. The estimated additional costs to companies for the installation of self-sampling equipment (e.g. composite samplers at an estimated cost of \$5,000) and analysis by a third party laboratory are anticipated to be higher, which is a comment expressed by some participants.

Based on the challenges above, this option is not recommended for implementation. However, Toronto Water will continue to monitor the experience of self-reporting and self-monitoring in other jurisdictions.

## c) Water Fees and Charges

Toronto Water's water and wastewater (includes stormwater) services are funded on a "pay-as-you-go" system through a combined water and wastewater consumption rate ("water rate"). Revenue for these services comes primarily (92 per cent) from the water rate which is charged based on the volume of water consumed. Toronto Water also has in place various water and wastewater fees, exclusive of the water rate, to recover the cost of certain water and wastewater services provided.

Options were considered for charges or fees which could serve to support the economic competitiveness of industrial and commercial (I&C) customers and the goals and objectives of the City's Resilience Strategy, as follows:

- Establish an administrative water charge;
- Decouple stormwater costs for I&C customers from the water rate through the establishment of a dedicated stormwater charge for I&C properties ("I&C SW Charge"); and,
- Establish a dedicated stormwater charge for commercial parking lots.

### *Option: Establish an Administrative Water Charge*

This option would involve establishing a fixed charge to recover administrative costs of water and sewer services and programs ("administrative water charge"). These costs are currently fully funded by the water rate.

Other municipalities in Ontario including Halton Region, Durham Region, City of Hamilton, City of Ottawa, City of London, and, in Canada, including City of Vancouver and City of Halifax have implemented a fixed service charge on their water and sewer utility bill. The fixed service charge is based on the concept of recovering "fixed" costs that are not related to the volume of water consumed and relate primarily to customer services such as billing, water meter readings and meter repairs.<sup>9</sup> Costs that are driven largely by the volume of water consumed, typically water supply, wastewater treatment, distribution, collection and storage costs are recovered through a volumetric water consumption rate.

Telephone interviews were held with staff in some of the municipalities above, who identified a number of reasons for implementing a fixed service charge including supporting economic development, revenue stability, greater transparency, and the user pay principle (also expressed as "fairness"), among others.

The application of a fixed service charge is different in each municipality. The most common approach used is a tiered flat charge based on the size of the customer's water meter. Some municipalities, e.g. Halton Region, apply a different service charge based on water meter size for ICI customers than residential customers. The approach considers increasing costs for the installation, maintenance and replacement of larger

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<sup>9</sup> Fixed costs included in the service charge in other municipalities include water billing and administrative activities, installation and maintenance of water meters, maintenance of water and sewer service connections, customer assistance programs, and the provision of fire protection capacity in the water system.

water meters, and a larger meter size reflects a greater share of infrastructure capacity and therefore the customer should be paying more for that capacity.

Based on the approaches and experience of municipalities that have implemented a stormwater charge, staff developed a suggested framework for the administration charge option, which was presented at the two rounds of Consultation for feedback.

The administrative water charge would:

- recover costs (\$57.6 million in 2021) for the administration of the water and sewer services portion of the utility, interdivisional charges, rent, insurance costs, and the costs for maintaining water meters;
- be revenue neutral so that revenues generated by the administrative water charge would be removed from the water rate;
- be structured as a tiered flat rate charge based on the size of the customer's water meter;
- apply to all water customer accounts and be charged even if no water is consumed in the billing period; and,
- appear as a separate charge on the tri-annual or monthly utility bill.

The suggested framework identified a preliminary administrative flat rate charge comprising three tiers based on water meter size. The three tiers, number and type of water accounts and estimated flat administrative water charge value for 2021 is shown in Table 4.

**Table 4: Administrative Water Charge Tiers and Values**

<b>Administrative Water Charge Tiers and Customer Classes</b>	<b>Number (and percentage) of water accounts (2019)</b>	<b>Estimated Administrative Water Charge (2021)</b>
Tier 1: Small (<= 1 inch water meter) 80% residential, 20% ICI	474,910 (95.3%)	\$79
Tier 2: Medium (>1 to 3 inch water meter) Mix of ICI (50%) and multi-residential	15,947 (3.2%)	\$220
Tier 3: Large (>3 inch water meter) Mix of multi-residential and ICI (30%)	7,503 (1.5%)	\$2,200

An assessment was undertaken to determine impacts to the water rate with the removal of costs that would be included in the administrative water charge. The Block 1 Rate and Block 2 Rate would both decrease by approximately 4.5 per cent in 2021. The Block 1 rate would decrease from \$4.1346/m<sup>3</sup> to \$3.9056/m<sup>3</sup>, and the Block 2 Rate would decrease from \$2.8939/m<sup>3</sup> to \$2.7651/m<sup>3</sup> in 2021.

The cost impacts of the administrative charge option to customers with different consumption profiles were assessed and are presented in Table 5. The impact assessment showed a reduction of annual average costs for the large water consuming customers. Costs would increase for small (average consumption of 230 m<sup>3</sup> annually)

and some medium (average consumption of 600 m<sup>3</sup> annually) water volume consumers. The majority of these customers are residential.

**Table 5: Administrative Water Charge Cost Impacts**

Customer Profiles	Consumption (m <sup>3</sup> annually)	Current 2021 Water Costs (Annual Average)	Estimated 2021 Water Costs ( <i>and Percentage Change</i> ) with Administrative Water Charge Option (Annual Average)
Small volume water customers	230	\$951	\$988 (+3.9%)
Medium volume water customers	600	\$2,481	\$2,590 (+4.4%)
	3,000	\$12,404	\$12,072 (-2.7%)
	5,000	\$20,673	\$19,973 (-3.4%)
Large volume water customers (Block 1 Rate)	10,000	\$41,346	\$41,706 (+0.9%)
	100,000	\$413,460	\$397,261 (-3.9%)
Large industrial water customers (Block 2 Rate)	100,000	\$295,594	\$284,640 (-3.7%)

The feedback from participants from the two rounds of Consultation on this option was varied. Participants that supported this option stated that it would make the utility bill more transparent, share costs more fairly for all water customers, and would support economic competitiveness for large commercial and industrial customers. Participants opposed to this option were concerned about increased costs to small volume water customers.

The administrative water charge option would provide more transparency on the water and sewer service component of the utility bill, it aligns with the user pay principle, and it would reduce costs for industrial and commercial customers with large and medium volume water consumption profiles. However, costs would increase for small and some medium sized volume water consumers, primarily residential customers. The implementation of an administrative water charge would incur minor one-time operational costs to implement the charge on the utility bill and communicate the change on the utility bill to customers.

The Consultation did not include residential or multi-residential customers based on the scope of the Consultation which was focused on programs for industrial and commercial customers. Staff recommend the City consult with all water customers on an administrative water charge option in order to receive broader feedback on this option and report back to City Council on the outcomes of the consultation in mid-year 2022.

*Option: Decouple stormwater costs for industrial and commercial (I&C) customers from the water rate through the establishment of an I&C SW Charge*

This option explored, as requested by City Council, the possible decoupling of I&C customers' costs associated with stormwater management from the water rate, in an effort to promote more transparent and equitable stormwater servicing costs and to support economic competitiveness of the City's industrial large water users.

A stormwater charge is a charge that is based on impact of a property to the storm sewer system. This impact can be attributed to direct discharges from a property to the City's storm sewer system through a storm sewer connection and/or stormwater runoff from a property that enters the storm sewer system through catch basins in the right-of-way. A stormwater charge recovers the costs for municipal stormwater management services through a dedicated revenue stream based on the contribution of each property to stormwater management. Typically, a stormwater charge is shown as separate line item from the water consumption charge on a municipal utility bill. A stormwater charge model and structure (i.e., how it is calculated and applied) varies by municipality.

In 2016 and 2017, Toronto Water consulted with the public and other stakeholders and reported back to City Council on a stormwater charge implementation plan. The 2017 stormwater charge implementation plan contemplated a stormwater charge for all customer classes that would be structured and applied based on the type, size and impervious area of a property.

Several issues related to the implementation of a stormwater charge were identified through the consultation in 2016 and 2017. Key issues identified included requests for exemptions from a stormwater charge, concerns that reductions in the utility bill resulting from the implementation of a stormwater charge would not be passed on to tenants (in multi-residential buildings), a strong demand from participants for more individualized stormwater charge formulations, and requests for stormwater charge incentives for residential property owners. As a result of these issues, the 2017 staff report did not recommend the implementation of a stormwater charge at that time.

In the current Consultation, a stormwater charge option was considered which would apply only to I&C properties ("I&C SW Charge") as per the City Council direction to report back on the possible decoupling of I&C stormwater costs from the water rate.

An I&C SW Charge option would:

- apply to properties in the industrial and commercial class only;
- provide funding dedicated to recovering capital and operating costs for Toronto Water's stormwater management programs and services;

- be premised on the impact of a property to the storm sewer system, which is based on a property's impervious area as a representation of the amount of stormwater runoff they contribute to the City's stormwater management system;
- appear as a separate charge on the tri-annual or monthly utility bill;
- be revenue neutral in that revenues raised by the I&C SW Charge would be removed from water rate (Block 1 and 2 Rates);
- require restructuring of the water rate (two block rate) structure; and,
- require the creation of a stormwater management reserve using a portion of the water and wastewater reserve.

A suggested framework was presented in the Consultation on how a I&C SW Charge would be structured and applied, consistent with the framework from the 2017 stormwater charge proposal. An I&C SW Charge would be applied based on the gross size (area) and impervious area of an industrial and commercial property. For I&C properties less than one (1) hectare in size, the I&C SW Charge would be a tiered flat rate based on a gross area range and average impervious area for all properties within each tier. I&C properties one hectare or greater in size would be assessed individually based on the actual impervious area of the property.<sup>10</sup>

An analysis was undertaken to determine the impact of an I&C SW Charge to the water rate and to estimate cost impacts to I&C properties. Based on the 2017 GIS analysis, I&C properties account for an estimated 7,609 hectares or 36 per cent of the total impervious area across the City (estimated at 21,025 hectares in 2017).

The 2021 stormwater management program capital and operating costs are \$324.9 million, which if funded through a stormwater charge would equal \$1.55 per m<sup>2</sup> of impervious area. The total funding allocation for I&C properties for the stormwater management program based on the I&C 36 per cent impervious area (representing stormwater contributions) is \$116.96 million in 2021, which would be recovered from a SW Charge applied to I&C properties (at \$1.55 per m<sup>2</sup> of impervious area).

An I&C SW Charge would be expected to increase over the next 10 years to fund increasing costs for the stormwater management program in the Toronto Water 2021 to 2030 Capital Budget. The five (5) year average was estimated at \$2.04 per m<sup>2</sup> of impervious area, and the 10 year average was estimated at \$2.25 per m<sup>2</sup> of impervious area.

Removing the stormwater management costs for I&C properties from the 2021 water rate would result in a decrease in both the Block 1 and 2 Rates for I&C customers by an estimated 25 per cent in 2021. The Block 1 Rate would decrease from \$4.1346/m<sup>3</sup> to \$3.0978/m<sup>3</sup> and the Block 2 Rate would decrease from \$2.8939/m<sup>3</sup> to \$2.1682/m<sup>3</sup> in 2021. The Block 1 and 2 Rates would not change for all other customer classes.

Staff assessed the cost impact of an I&C SW Charge in 2021 (based on the \$1.55 per m<sup>2</sup> of impervious area) on I&C properties of different sizes and water consumption

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<sup>10</sup> Properties greater 1 ha or greater in size account for approximately one per cent of properties in the City and an estimated 42 per cent of impervious area. ICI properties represent 78 per cent of properties 1 ha or greater in size. The estimated percentage of impervious area for these properties is from the GIS analysis undertaken for the 2017 SW Charge proposal.



profiles. I&C properties have a large range of consumption and impervious area and the individual property cost impacts would vary substantially depending on these two parameters for each property. In general, there would be an increase in annual costs with the addition of an I&C SW Charge for commercial properties with low water consumption and some impervious area. Annual costs for commercial properties with large impervious areas (e.g., a shopping centre with a large surface parking lot area) would be expected to increase. Annual costs for industrial properties consuming large volumes of water would be expected to decrease depending on the impervious area size of their property. Examples of cost impacts of an I&C SW Charge for I&C properties with different water consumption profiles and impervious area are presented in Attachment 4.

A preliminary estimate is that about 30 percent of the I&C properties could see a 10 to 20 per cent reduction in costs with the implementation of an I&C SW Charge. About 45 per cent of the I&C properties could see a moderate increase of about 6 to 10 percent, and about 25 per cent of I&C properties could see a 50 per cent or greater increase in costs, based on average impervious area and median consumption.

The costs to the City to implement a SW Charge program identified in the 2017 stormwater charge proposal were estimated at \$2.09 M (one-time costs over 18 months) and \$1.35 M annually for 11 new permanent FTEs for Toronto Water, Revenue Services and Technology Services. These costs include communications and marketing, professional services, business analysts for business process development, and customer service and training, changes to the utility bill (e.g., billing system programming and integration with Technology Services data), a new stormwater only bill for properties without water accounts, handling “exception” bills and data audits, as well as the development and sustainment of new City-wide impervious/pervious GIS layer.<sup>11</sup>

In the two rounds of Consultation, a broad range of participants expressed support for an I&C SW Charge. Comments were that this option would provide for a sustainable and fair financing strategy for the City's rising stormwater costs and needs, and support economic competitiveness. It was noted that a SW Charge has been implemented in many jurisdictions across North America and the City should adopt this funding approach for its stormwater management program.

Participants supported implementation of an I&C SW Charge as I&C properties account for a significant percentage of impervious area in the City and commented that a stormwater charge should be expanded to all property classes over time. Participants suggested an I&C SW Charge should be implemented at the same time as a SW Charge Credits Program (discussed in the I&C stormwater incentives section of this report on page 40) to support the City's Resilience Strategy objectives and adoption of green infrastructure/low-impact development (GI/LID) solutions for improved stormwater management. Some participants expressed concerns about the cost impacts of the I&C SW Charge option to properties with large impervious areas and suggested there should be exemptions for I&C properties that can demonstrate that they do not

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<sup>11</sup> The cost estimate includes the development and implementation of a SW Charge Credits Program option.

discharge stormwater to the City's sewer system (i.e., capture and re-use stormwater in facility processes).

Based on the information from the jurisdictional scan, the option assessment and feedback from Consultation participants, staff conclude that an I&C SW Charge option would provide greater transparency for stormwater services billing. The option aligns with the user pay principle in that the customer would pay for stormwater services based on a property's stormwater contribution (based on impervious area) to the City's sewer system and not based on the volume of water consumed.

An I&C SW Charge would also support economic competitiveness for large industrial properties with large consumption profiles depending on the impervious area size of these properties. These costs would shift to smaller and medium sized industrial and commercial properties with a lower water consumption profile and with large impervious areas. Finally, an I&C SW Charge would provide a mechanism to support improved stormwater management if paired with a SW Charge Credit Program option for I&C properties, which is presented in the I&C stormwater incentives section on page 40 of this report).

The merits of the I&C SW Charge option above reflect the benefits of a SW Charge concept. However, a SW Charge that applies only to I&C properties poses significant implementation challenges for the City. The jurisdictional scan did not identify a municipality in North America that has implemented a SW Charge for I&C properties only. In these municipalities, a SW Charge has been implemented for all property classes at the same time (though exemptions have been offered for houses of worship, properties without water accounts, etc.).

If it were to be implemented, an I&C SW Charge would result in the City charging different customer classes for stormwater services costs on a different basis (i.e., a SW Charge based on the impervious area for I&C properties, and the water rate based on water consumption for all other property classes). This would necessitate a restructuring of the current two block water rate structure to a more complex class-based structure.

Another challenge with an I&C SW Charge is that it would result in a very complex billing and administration for mixed-use properties (e.g., a multi-residential property with ground level commercial uses). Mixed-use properties in other municipalities with a stormwater charge are commonly included in the commercial or ICI category for application of the charge. Applying an I&C SW Charge to mixed-use properties is problematic with respect to determining the impervious area for the commercial component that would be charged an I&C SW Charge for their stormwater services and separating that out from the residential component that would be charged for stormwater services based on water consumption.

Given the challenges presented above, the I&C SW Charge option is not recommended for implementation.

### *Option: Establish a Stormwater Charge for Commercial Parking Lots*

This option would establish stormwater charge for owners of commercial parking lots to recover the serviceable costs of stormwater management services for these properties ("Commercial Parking Lot SW Charge"). A Commercial Parking Lot SW Charge would be revenue neutral so that new revenue raised by this Charge would be removed from the water rate.

A Commercial Parking Lot SW Charge would apply to properties in the commercial tax class with a parking lot that charges for parking services and does not have a water account (i.e., are not currently paying for stormwater management services through the water rate). Only properties that contribute stormwater to the City's storm sewer system through a direct storm sewer connection to the City's storm sewer system and/or stormwater generated from their property that runs off to the City's sewer system were considered for this option including ground surface parking lots and multi-level parking garages with a roof.<sup>12</sup> Properties to which a Commercial Parking Lot SW Charge would apply would receive a new SW Charge only bill from the City.

A suggested framework was presented in the Consultation for how a Commercial Parking Lot SW Charge would be structured and applied, consistent with the framework presented for the I&C SW Charge option and the 2017 SW Charge proposal. A Commercial Parking Lot SW Charge would be applied based on the gross size (area) and impervious area of the property. For properties less than one hectare in size, a Commercial Parking Lot SW Charge would be a tiered flat rate based on a gross area range and average impervious area for all properties within each tier. Properties one hectare or greater in size would be assessed individually based on the actual impervious area of the property.

An analysis was undertaken to determine the number of commercial parking lots to which a Commercial Parking Lot SW Charge option could apply, which involved determining the parking structure (i.e., surface, above-ground garage or underground), identifying if the property has a water account, and a GIS analysis of the total impervious area of the property. A starting point for the analysis was a listing of commercial parking lots licensed with the City (through the Municipal Licensing and Standards Division) and Toronto Parking Authority lots since these stand-alone parking lots are unlikely to have water accounts.

The analysis identified 339 surface parking lots and multi-level parking garages with a roof, comprising privately owned commercial parking lots and Toronto Parking Authority (TPA) parking lots, without a water account as of May 2021. The total impervious area of these properties was approximately 147 hectares, representing approximately 0.7 per cent of impervious area in the City.<sup>13</sup>

The total funding allocation for these properties for the stormwater management program based on the 0.7 percentage contribution would be approximately \$2.3 million in 2021. The Commercial Parking Lot SW Charge would be \$1.55 per m<sup>2</sup> of impervious

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<sup>12</sup> Underground parking garages would be exempt from a Commercial Parking Lot SW Charge.

<sup>13</sup> The GIS analysis of impervious area was based on the parking lot area from City mapping data.

area in 2021 and would be expected to increase over the next 10 years to fund increasing costs for the stormwater management program.

Removing the stormwater management costs for these properties from the 2021 water rate would result in a decrease in both the Block 1 and 2 Rates for I&C customers by an estimated 0.2 per cent in 2021. The Block 1 Rate would decrease from \$4.1346/m<sup>3</sup> to \$4.1274/m<sup>3</sup> and the Block 2 Rate would decrease from \$2.8939/m<sup>3</sup> to \$2.888/m<sup>3</sup> in 2021.

In the two rounds of Consultation, there were differing perspectives on this option. Some participants expressed support for the option with respect to fairness for all water customers by recovering costs from properties that are contributing stormwater to the City's sewer system but are not currently paying for stormwater management services through the water rate. Suggestions included pairing a Commercial Parking Lot SW Charge with a stormwater charge credits option to encourage the installation of GI/LID solutions (e.g. permeable pavers, bioswales, etc.) that would help reduce stormwater volumes and improve stormwater quality (e.g. mitigate particulate settlement from automobile contaminants in parking lot surfaces).

Participants representing commercial parking lots and Toronto Parking Authority (TPA) staff expressed concerns about the significant financial impact of this option to their operations which would magnify financial difficulties in near-term due to revenue losses being experienced from the Covid-19 pandemic. Private commercial parking lot participants commented that many of their properties are likely to be developed over the next five to ten years, and there would be not be a business case to invest in GI/LID solutions to reduce the Parking Lot SW Charge if a SW Charge credit (presented in the I&C stormwater incentives section on page 40 of this report) were to be offered by the City.

The TPA provided comments outlining that this option would negatively impact net income generated by the TPA which is provided to the City to fund other programs, services and projects under the TPA's Net Revenue Sharing Agreement with the City. The TPA also commented that its 2015 Capital Budget included a multi-year plan and commitment to retrofit and apply the City's Design Guidelines for 'Greening' Surface Parking Lots. On an annual basis, TPA undertakes its' Surface Car Park Repaving Program (SCPRP) which identifies surface car parks where pavement surfaces have reached the end of their lifecycle and need to be replaced. The SCPRP incorporates opportunities for the installation of GI/LID solutions to help manage stormwater runoff from TPA properties. TPA commented that the Parking Lot SW Charge option would not accelerate the TPA's implementation of new stormwater controls and may compromise TPA's ability to fund its State of Good Repair Program and investment in new stormwater management controls.

Staff conclude that the Parking Lot SW Charge option aligns with user pay principle by recovering costs from properties with commercial parking lots that generate stormwater but do not currently pay for stormwater services. The revenue raised would be removed from the water rate and would marginally reduce the water rate (by 0.2 per cent) and costs for all other water customers including I&C customers, which would support economic competitiveness to some degree. Based on the feedback from

Consultation participants and the small percentage of impervious area of the properties to which the option would apply, this option may have a limited impact in supporting Resilience Strategy objectives.

Other considerations for implementation of this option is that no other municipality (of the 20 included in the jurisdictional scan) has implemented a SW Charge only for commercial parking lots. Parking lots are included as part of the commercial class in municipalities that have implemented a SW Charge. City staff experienced difficulties in assessing this option with respect to identifying the impervious area, property ownership and water account status of each property because many of the parking lots span several property parcels, have irregular addresses (e.g., within a hydro or rail right-of-way), and multiple property owners. It was necessary to manually inspect each parcel using GIS data layers and street images to verify the addresses of the properties with parking lots, the parking structure (i.e. above ground or underground), property ownership, and whether the property parcel had a water account or was associated with an adjacent parcel with a water account owned by the same property owner. If this option were to be implemented, it would require an IT solution to integrate City mapping data, property ownership information, and water account information for billing purposes of a Commercial Parking Lot SW Charge.

A final consideration is the changing nature of parking in Toronto and how this would impact future revenues from a Parking Lot SW Charge. A 2019 mapping analysis of surface parking lots in downtown Toronto identified that the number of surface parking lots in the City's downtown has decreased by approximately 40 per cent from 1978 to 2019. The majority of these properties have been redeveloped with underground parking lot structures or parking above the ground floor of the building.<sup>14</sup> These development trends are expected to continue in the future as commented on by participants in the Consultation.

Based on the assessment of this option, the Consultation feedback and the considerations above, this option is not recommended for implementation. Staff conclude that a SW Charge for commercial parking lots would most effectively be implemented as part of a SW Charge that includes all commercial properties.

#### **d) Stormwater Management Incentives for I&C Customers**

This component of the Consultation considered stormwater management incentive options for I&C customers which may serve to promote the implementation of sustainable storm water and flood management solutions on I&C properties and support the City's Resilience Strategy and other environmental objectives.

**The City's Wet Weather Flow Master Plan (WWFMP)** is a foundational document for the City's stormwater management program. Adopted by City Council in 2003, the WWFMP is a 25-year plan to reduce stormwater and protect the environment for healthy streams, rivers and Lake Ontario. The WWFMP is based on the philosophy that rainwater and snowmelt are a valuable resource and incorporates a hierarchical approach towards managing stormwater, starting first with source controls (at the lot

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<sup>14</sup> Analysis is from <http://www.mapto.ca/maps/parkinglots>

level), conveyance system controls (in the road allowance) and end-of-pipe controls (before discharge).

The Toronto Water 2021-2030 Capital Plan allocates approximately \$4.3 billion for the implementation of the WWFMP over the next 10 years. Major program areas include:

- **Basement Flooding Protection Program (BFPP) (\$2.185 billion from 2021-2030)** – includes the provision of a financial subsidy of up to \$3,400 per property for eligible property owners to install flood protection devices, public education and outreach, and the completion of Basement Flooding Protection Studies of the City's sewer system and overland drainage routes in 67 study areas. The BFPP studies recommend sewer system improvement projects to provide an enhanced level of flooding protection. Constructed projects include storm and sanitary sewer upgrades, underground storage tanks, and stormwater management ponds;
- **Watercourse Erosion Management Program (\$0.2896 billion from 2021-2030)** - involves the undertaking of studies to identify watercourse restoration projects which protect vulnerable City sewer infrastructure from stream erosion impacts, improve watercourse channel hydraulics, water quality and riparian habitat and incorporate improved stormwater management; and,
- **Water Quality Improvement Projects (\$1.821 billion from 2021-2030)** - involves studies and the construction of recommended infrastructure projects such as stormwater ponds, and underground storage tanks and tunnels to improve water quality in Toronto's watercourses and Lake Ontario waterfront. This category also includes funding for Toronto and Region Conservation Authority projects that support improved water quality, and funding for green infrastructure projects in the City's right-of-way (approximately \$5.5 million) as part of the City's Green Streets initiative with Transportation Services, City Planning and Parks Forestry and Recreation, described on page 39.

The City's most significant water quality improvement project is the **Don River and Central Waterfront Project (DRCW)**, the largest combined sewer overflow (CSO) control project of its kind Canada, which is aimed at advancing the delisting of Toronto's waterfront as a polluted Area of Concern in the Great Lakes Basin. The DRCW Project comprises an integrated system of 22 km of tunnels, storage shafts, a high-rate treatment facility and other elements to keep CSOs out of the Lower Don River, Taylor-Massey Creek and Toronto's Inner Harbour by capturing and conveying CSOs for treatment. Construction of the DRCW Project began in 2018 and is being implemented in phases over 25 years at an estimated total cost of over \$2.5 billion. Construction of the DRCW Project began in 2018 and projected completion of all DRCW Project components is 2038.

In addition to the above, the City has in place a broad range of programs, policies and guidelines, and other initiatives aimed at improving stormwater management on I&C properties and other property classes and land uses, including:

- **Design Guidelines for 'Greening' Surface Parking Lots** - Released by City Planning in 2007 and updated in 2013, the Design Guidelines for 'Greening' Surface

Parking Lots provide design strategies and measures for surface parking lots to help meet Official Plan policies and environmental performance targets of the Toronto Green Standard. Specific stormwater management guidance includes site grading to reduce stormwater flows, integration of trees and vegetation to absorb water, installation of permeable pavement and opportunities to harvest rainwater from rooftops and other hard surface for landscape irrigation.

- **EcoRoof Incentive Program** - Launched in 2009 and administered by the Environment and Energy Division, the EcoRoof Incentive Program provides grants to support the installation of green roofs and cool roofs on Toronto homes and buildings including Green Roof Incentives of \$100 per m<sup>2</sup> installed; up to \$1,000 for a structural assessment; and Cool Roof Incentives of \$5 per m<sup>2</sup> for a cool roof with a new membrane and \$2 per m<sup>2</sup> for a cool roof coating over an existing roof.
- **Green Roof Bylaw** - sets out a graduated green roof requirement for new development or additions that are greater than 2,000 m<sup>2</sup> in gross floor area. The requirement ranges from 20 to 60 per cent of the Available Roof Space of a building.
- **GreenForceTO** - A pilot program to create local green jobs in landscaping and property maintenance, build employment skills, and aim to develop career pathways for the GreenForceTO team. This pilot program supports Toronto Green Streets.
- **Green Streets** - Green Streets are roads or streets that incorporate green infrastructure, which includes trees, green walls, and low impact development (LID) stormwater infrastructure that aim to manage rainfall where it falls at the source. The City has established an interdivisional Green Streets Working Group, led by Transportation Services, to build on the 2017 Green Streets Technical Guidelines and coordinate the implementation of green infrastructure (GI). The goal of the Green Streets Working Group is to establish consistent, scalable processes to implement GI across the city, through various delivery mechanisms including State of Good Repair, growth related-expansion projects and new roads and streetscapes created through development.
- **Green Streets Technical Guidelines** - Released by City Planning in 2017, this document provides technical guidance about green street techniques, design and construction considerations, and maintenance and monitoring considerations to successfully implement green infrastructure in the City's right-of-way and address challenges such as tree impacts, infrastructure conflicts, limited space, the need to retrofit sites based on unique site conditions, etc.
- **Mandatory Downspout Disconnection Program** – Administered by Toronto Water, the Sewers By-law requires the disconnection of roof downspouts City-wide, unless an application for exemption is made by the property owner on the basis that the disconnection would create a hazardous condition or is not technically feasible and such application is approved by the General Manager under ss. § 681-11S(6).
- **Toronto Green Standard (TGS) Program** - Toronto's sustainable design requirements for new private and City-owned developments. The TGS is managed

by City Planning and consists of tiers (Tiers 1 to 4) of performance measures with supporting guidelines that promote sustainable site and building design including stormwater management. Tier 1 of the Toronto Green Standard is a mandatory requirement of the planning approval process. Where development charges apply (excludes industrial development), the **TGS Development Charge (DC) Program** offers a partial development charge refund for projects that have demonstrated higher levels of sustainable design beyond the Tier 1 required level to Tier 2, 3 or 4 near zero emissions levels of environmental performance in accordance with the Development Charge By-law.

- **Tree Planting** - the Parks Forestry and Recreation Division, with \$1.95 million in annual funding from Toronto Water, operates a program for tree planting and naturalization efforts, which increases evapotranspiration.
- **Wet Weather Flow Management Guidelines (WWFMG)** – As part of the development approval process, the WWFMG set out stormwater management control targets for all new and redevelopment sites in the City including water balance, water quality, water quantity, among others.

City programs, policies and guidelines, and initiatives that incorporate stormwater management objectives, noted above, were considered in order to identify additional opportunities to support the objective of promoting more sustainable stormwater management for I&C customers in the City. Stormwater management incentive programs for I&C properties in other jurisdictions were also reviewed.<sup>15</sup>

The following options were considered for establishing potential stormwater management incentives applicable specifically to I&C customers:

- Establish an I&C Stormwater Charge Credits Program (with a SW Charge option)
- Establish a I&C Stormwater Grant Program
- Establish a Stormwater Management Awards and Recognition Program

Other suggested stormwater management incentive options for I&C customers from Consultation participants are presented at the end of this section (on page 46).

*Option: Establish an I&C SW Charge Credits Program (with an I&C SW Charge option)*

This option would provide a credit or reduction of the I&C SW Charge option (presented on pages 31 to 34 of this report) for I&C customers that implement stormwater management measures to reduce stormwater contributions to the City's sewer system. The objective of this option is to promote more sustainable stormwater management on I&C properties by incentivizing GI/LID solutions and other best practices in stormwater management. The implementation of this option would be contingent on the implementation of the I&C SW Charge option.

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<sup>15</sup> The I&C stormwater management incentives desktop jurisdictional scan included municipalities in Ontario: Aurora, Guelph, Kitchener, London, Mississauga, Newmarket, Orillia, Richmond Hill, St. Thomas, Thunder Bay, Waterloo (City), Vaughan; in Canada: Calgary AB, Edmonton AB, Halifax NS, Saskatoon SK, Victoria B.C.; and in the United States: Austin TX, Baltimore MD, Chicago IL, Montgomery County MD, Northeast Ohio Regional Sewer District OH, Philadelphia PA, Portland OR, Santa Monica CA, Seattle WA, Syracuse NY, and Washington DC.



Of the 20 North American jurisdictions included in the scan of municipal SW Charge programs, 16 offer a SW Charge credit or rebate as a component of their SW Charge program. The details of the SW Charge programs vary by municipality to meet the stormwater objectives of their individual programs. In Ontario, the typical value of the SW Charge credit is 50 per cent. Some municipalities in the United States offer a 100 per cent discount depending on the level of stormwater control achieved. Participation rates for the SW Charge credit vary by municipality. The average total value of credits issued annually varies as well.<sup>16</sup> Municipalities contacted did not provide data on stormwater reductions achieved by their SW Charge credit programs.

Staff presented suggested objectives for this option for feedback from Consultation participants. The I&C SW Charge Credits Program option would:

- target credits to I&C properties that generate and contribute the greatest volumes of stormwater to City's sewer system;
- help to incentivize retrofits on I&C properties that improve stormwater management with the objective of supporting these properties to meet WWFMG stormwater management objectives;
- help to reduce stormwater costs for new and re-developed I&C properties that have implemented stormwater management measures to meet WWFMG requirements;
- be based on the principle of revenue neutrality so that revenue loss from the I&C SW Charge credits would be recovered by the I&C stormwater charge option, if it were to be implemented.

Based on the suggested objectives above, a suggested framework for how an I&C SW Charge credits program would be structured with respect to credit eligibility, how credits would be earned and other components of the option was presented in the second round of Consultation for feedback. The suggested framework was developed based on a review of SW Charge credit program practices in other municipalities but tailored to the City's stormwater management objectives.

The framework suggested the following:

- *Credit eligibility:* SW Charge credits would be available to I&C properties one hectare or greater in size since these properties provide the greatest potential to achieve significant reductions in stormwater contributions based on their large impervious area (i.e., properties 1 ha or greater in area make up 42 percent of impervious area in the City and 78 per cent of these properties are ICI properties);
- *Credit type:* would be an annual credit on an I&C SW Charge;
- *Earning of credits:* The applicant would be required to demonstrate how the overall performance of proposed stormwater management measures would achieve stormwater management control targets of the WWFMG; The applicant would decide which stormwater management measures to implement to best and most feasibly achieve the credit requirements for each property;

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<sup>16</sup> In Mississauga, approximately 170 non-residential properties currently participate in their SW Charge Credits Program representing a less than 2 per cent uptake with the average value of credits issued annually at approximately \$770,000. As of 2020, there were 1180 properties (includes all eligible property classes) in the City of Philadelphia's SW Charge Credits Program, representing a 2 per cent uptake with the average value of credits issued annually at \$19 million (\$ US).

- *Credit categories and value:* Performance categories would include water balance, water quality and water quantity; the maximum credit value would be a 50 per cent reduction of an I&C SW Charge which is typical in other Ontario municipalities with a SW Charge and credits program;
- *Credit application:* Would require application and submission of an engineer certified stormwater management report which demonstrates how the property meets WWFMG requirements and a renewal application with an updated stormwater management report every 5 years;
- *Verification and Monitoring:* The City would need to establish a verification process comprising desktop audits and targeted property inspections to confirm proper installation, ongoing maintenance and performance of stormwater management infrastructure installed; and,
- *Stormwater Credits Guidance:* The City would need to develop guidelines with design criteria with acceptable assumptions for performance, application forms and review process, which would emphasize GI/LID solutions to meet credit requirements.

This option was supported by a broad range of participants in the two rounds of Consultation. I&C customers identified that the implementation of stormwater management controls is a consideration for their properties.<sup>17</sup> However I&C customers face significant upfront capital costs to retrofit older buildings to incorporate stormwater management solutions. Ongoing maintenance costs are another cost barrier. Participants commented that the value of incentives should correlate to an acceptable return on investment period.

Many participants suggested that I&C SW Charge Credits should prioritize the implementation of green infrastructure solutions on I&C properties, which in addition to providing stormwater retention and quality benefits, support other City Resilience Strategy objectives such as the reduction of the urban heat island effect (i.e. by reducing hard surface area) and environmental and healthy community co-benefits such as improving air quality, promoting healthy and beautiful communities, supporting other public health objectives, and many other socio-economic benefits. It was suggested that I&C SW Charge Credits should also be offered to properties less than one hectare in size.

It is estimated an I&C SW Charge credits would reduce total stormwater costs for an I&C SW Charge in a range from \$386,000 to \$966,000 for eligible I&C properties. This estimate is based on a 2 to 5 per cent uptake rate of the I&C SW Charge credits. The costs for the development and implementation of an I&C SW Charge credits program are included in the I&C SW Charge option implementation costs presented on page 33 of this report.

I&C SW Charge credits would help to incentivize improved stormwater management practices on I&C properties, specifically for existing, retrofit situations and support the City's Resilience Strategy objectives for stormwater management. This would depend

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<sup>17</sup> A Consultation survey was undertaken in Fall 2020 as part of the first round of consultation which asked about stormwater management practices. 71 percent of participants that responded to this question responded that the implementation of stormwater management controls is a consideration for their property.

on the rate of uptake of the I&C SW Charge Credits and designing the I&C SW Charge Credit program so that incentive value provides a sufficient rate of return to reduce cost barriers for I&C customers to implement improved stormwater management solutions.

This option would help to reduce I&C SW Charge option costs for eligible I&C properties. However, revenue losses from the I&C SW Charge credit would be recovered from the I&C SW Charge, as is the practice in other municipalities, which would increase the I&C SW Charge rate for all I&C customers.

SW Charge credits are an important component of a SW Charge Program to support stormwater management and other objectives of the City's Resilience Strategy. Based on the Consultation feedback and the common use of SW Charge credits in other jurisdictions, a SW Charge Credits option should be considered for incorporation in a SW Charge program, if one were to be implemented. This would require a Consultant assignment to assess stormwater reduction benefits, determine credit values and other particulars of the SW Charge Credits program. Since the I&C SW Charge option is not recommended for implementation, the I&C SW Charge credits option is also not recommended for implementation.

*Option: Establish an Industrial and Commercial (I&C) Stormwater Grant Program*

This option would establish a Stormwater Grant Program which would offer grants to eligible I&C customers to help reduce the upfront costs of implementing GI/LID solutions on their properties. The objectives of this option are to reduce stormwater runoff from I&C properties entering the City's sewer system which may provide operating cost savings for the City's stormwater management program, and achieve the other benefits of GI/LID, which may serve to support objectives of the City's Resilience Strategy.

The jurisdictional scan identified several municipal programs in the United States that offer stormwater grants or rebates to communities including I&C customers. These programs include the City of Philadelphia's Stormwater Grants Program, the Green Infrastructure Grant Program in the Northeast Ohio Regional Sewer District (NEORS), the City of Seattle's Rain Wise Rebate Program, Washington DC's RiverSmart Communities Program, the Green Improvement Fund Program in Syracuse/Onondaga County NY, the Rainscapes Rewards Program in Montgomery County MD, and Rain Harvest Rebate Programs in Santa Monica CA and Austin TX. Many of these grant or rebate programs were established to meet the US Environmental Protection Agency (US EPA) Consent Agreement requirements to reduce the amount of pollution, specifically combined sewer overflows (CSOs), being introduced into creeks, streams and rivers. Two of the municipal stormwater grant programs in the US (City of Philadelphia's Stormwater Grants Program and the NEORS's Green Infrastructure Grant Program) were explored in more detail through interviews with program staff in these jurisdictions.

The City of Philadelphia's Stormwater Grant Program started in 2013 and provides grants to all properties for GI/LID retrofit projects. Projects must include stormwater management practices that promote infiltration and water quality treatment and commit the property owner to additional funding, among other requirements. Development and redevelopment projects are also eligible for the program if they manage additional

stormwater runoff from the private property beyond Philadelphia's stormwater management requirements for development review and approval. Applications must also demonstrate that the projects are cost-effective (i.e., total cost under \$200,000 (US) per greened acre). The Program has a budget of approximately \$30 million (US) in 2021 and the average grant award is \$550,000 (\$US) per approved application. The total value of grant awards and estimated stormwater runoff reductions achieved by Philadelphia's Stormwater Grant Program from 2014 to 2020 are shown in Table 6.

The Northeast Ohio Regional Sewer District (NEORS) Green Infrastructure Grant Program provides grants to fund GI/LID projects to reduce stormwater runoff entering the District's combined sewer collection system. NEORS's Green Infrastructure Grant Program is open to member communities, governmental entities, non-profit organizations or businesses in the District's combined sewer area. The total value of grant awards and estimated stormwater runoff reductions achieved by the NEORS's Green Infrastructure Grant Program for the years 2014, 2016 and 2018 to 2021 are shown in Table 6.

City staff reviewed elements of the above stormwater grant programs in the US to develop a suggested framework for the I&C Stormwater Grant Program option for the City, which was presented to Consultation participants for feedback. The I&C Stormwater Grant Program option would:

- Supplement existing City stormwater management programs with a focus at-grade GI/LID on I&C properties to promote runoff volume reduction, quality treatment and peak flow control;
- Provide one-time grants for implementation of best practice GI/LIDs (e.g, bioswales, permeable pavement, etc.) with minimum sizing and other performance requirements;
- Make available grants for stormwater management projects that meet program objectives and criteria, which would need to be developed; For new development or redevelopment projects, grants would be made available only for projects that exceed WWFMG requirements (incorporated in the TGS Tier 1);
- Require submission of project applications which would be reviewed and approved by City staff – limited number of projects would be approved annually based on program criteria (which would need to be developed);
- The grant amount would have a limit and would not cover all the project costs incurred by the property owner; and,
- An agreement would be required between the property owner and the City requiring the property owner to maintain the installed GI/LIDs in good condition and there would be a one-time inspection by City staff.

Consultation participants expressed support for this option and commented on the many benefits of GI/LID, which have been noted earlier in this report. It was suggested that an I&C Stormwater Grant Program should be a multi-divisional initiative to fully assess and realize the benefits of GI/LID, beyond stormwater management objectives. It was also suggested that this option incorporate an incentive for urban food production (e.g. fruit bearing trees).

Staff assessed potential stormwater program cost savings for the City if an I&C Stormwater Grant Program option were to be implemented based on stormwater

reductions achieved by the City of Philadelphia and NEORSD's Green Infrastructure Grant program. Staff conclude there would be no capital cost savings for Toronto Water for WWFMP capital program expenditures (i.e., Basement Flooding Protection Program and DRCW Project) since the recommended projects would remain necessary to achieve the City's objectives for enhanced basement flooding protection and CSO control. The I&C Stormwater Grant option could, however, reduce stormwater operating costs for pumping and conveyance, as shown in Table 6.

**Table 6: City of Philadelphia and NEORSD Stormwater Grant Programs and Equivalent Toronto Water Stormwater Operating Cost Savings**

Program and Years	Total Grant Awards (\$ US)	Estimated Stormwater Runoff Reduction Achieved	Equivalent Percentage of Stormwater Pumped by Toronto Water in 2020	Equivalent Toronto Water stormwater operating (Pumping and Conveyance) Cost Savings <sup>18</sup>
City of Philadelphia Stormwater Grant Program (2014-2020)	\$149 million (\$ US)	2.6 million cubic feet or 73,624 m <sup>3</sup>	1.1 per cent	\$114,796 (\$ Cdn)
NEORSD Green Infrastructure Grant Program (2014, 2016 2018-2021)	\$9.231 million(\$ US)	30.3 million gallons (US) or 114,704 m <sup>3</sup>	1.72 per cent	\$179,106 (\$ Cdn)

GI/LID provides many environmental and community benefits, which have not been quantified in this report, in addition to reducing stormwater runoff and improving stormwater quality. From a stormwater management cost/benefit perspective, an I&C Stormwater Grant Program for the City comparable to the City of Philadelphia or NEORSD programs with grant awards equalling approximately \$180 million (Cdn) over seven years or \$11.2 million (\$ Cdn) over six years could achieve comparable stormwater reductions of 76,624 m<sup>3</sup> or 114,704 m<sup>3</sup>, which would provide operating cost savings ranging from approximately \$114,900 or \$179,100 over these time periods, respectively. The funding for developing and implementing an I&C Stormwater Grant Program, if funded solely by Toronto Water, would have to come from the water rate, which would increase costs for all water customers.

Based on the assessment of stormwater management costs and benefits, this option is not recommended for implementation. Toronto Water in collaboration with other divisions will continue to implement WWFMP source control, conveyance control and end-of-pipe control programs and projects to support the City's Resilience Strategy and broader environmental objectives.

<sup>18</sup> Cost savings estimate is based on Toronto Water stormwater conveyance and pumping costs of approximately \$10.4 M in 2020 for 6.67 million m<sup>3</sup> of stormwater pumped in 2020

### *Option: Establish a Stormwater Management Awards and Recognition Program*

This option would establish a program that showcases exemplary stormwater management projects of industrial and commercial customers that have implemented sustainable stormwater management practices on their properties. The objective of this option is to help promote recognition of businesses for environmental stewardship and help increase I&C sector awareness and actions of improved stormwater management practices.

Staff reviewed awards programs in the United States that incorporate stormwater management awards. Examples of these programs include:

- *Washington D.C. Sustainability Awards* - annual awards that recognize businesses and organizations that have implemented projects and practices that exemplify environmental stewardship including sustainable stormwater management
- *City of Portland Businesses for an Environmentally Sustainable Tomorrow (BEST)* – annual awards to Portland area companies that have demonstrated excellence in business practices that promote economic growth and environmental benefits

Consultation feedback was varied on this option. A few participants commented that the City should showcase leadership and innovation in stormwater management practices which would encourage I&C customers to adopt improved stormwater management practices on their properties. Other participants commented that this option would be less effective than the others being considered as it would not address the cost challenges I&C customers face to implement improved stormwater management practices.

This option would require the development of criteria for awards, submission and review/approvals with operating cost and staff resource implications. Based on the feedback from the Consultation and the fact that municipal awards programs have been discontinued in the past decade, e.g. City of Portland BEST Program was discontinued in 2020, this option is not recommended for implementation.

### *Other Participant Suggested Stormwater Management Options*

Participants suggested other options concerning stormwater management as follows:

- the City establish a stormwater loan program for I&C customers to finance the implementation of stormwater management solutions on their properties; and,
- the City provide free or subsidized stormwater assessments or audits to ensure the most effective solutions are being implemented by I&C customers.

The above suggestions were noted for future consideration.

Participants also suggested the City revisit restrictions in the Sewers By-law concerning the re-use of stormwater, which can be a viable option to achieve stormwater management targets of the WWFMG. Specifically restrictions were noted in *Clause 681-2c. Sanitary and combined sewer requirements. C. Discharge of private water. (a) 'The discharge is in accordance with a sanitary discharge agreement or permit entered into in accordance with § 681-6 which is in good standing; provided, however, that this requirement shall not apply to rainwater used for washroom facilities'*. Participants

commented that the Sewers By-law is "unnecessarily stringent with regard to the potential valuable and sustainable uses of harvested rainwater." This suggestion has been noted for future policy consideration.

With respect to re-use of stormwater, Toronto Water, in collaboration with other divisions (Toronto Public Health, Toronto Building, and City Planning) is currently investigating safe and acceptable rainwater re-use options in the City, including work on guidelines for rainwater reuse in cooling towers.

## **CONTACT**

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## **SIGNATURE**

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## **ATTACHMENTS**

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Attachment 1: Summary of Consultation Feedback and Assessment of Options  
Attachment 2: Round 1 Consultation Report  
Attachment 3: Round 2 Consultation Report  
Attachment 4: I&C Stormwater Charge Option - Property Impact Examples