

Consultation on Water Fees, Charges and Programs

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Meeting Recording

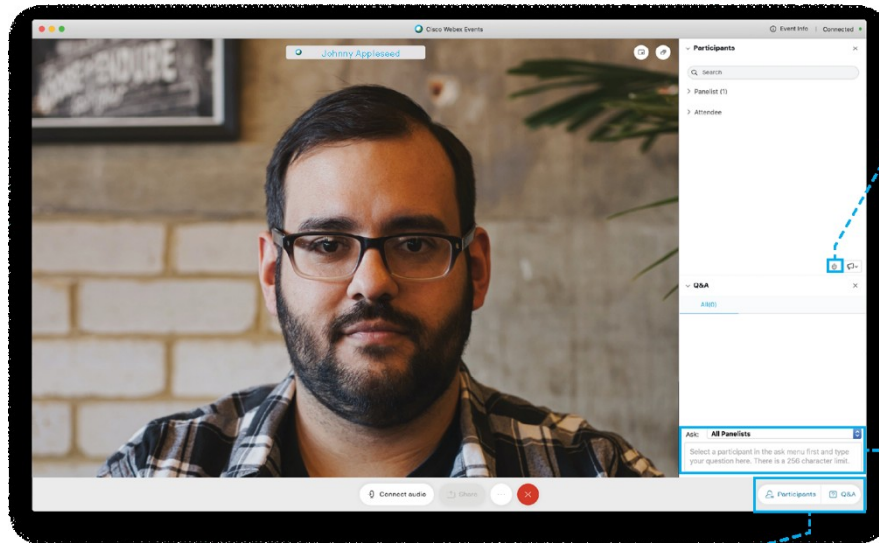
This meeting is being recorded for purposes of creating a meeting summary which will be shared with all meeting participants.

Land Acknowledgement

We acknowledge the land we are meeting on is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples.

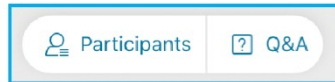
We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.

Participating by Desktop and Laptop Computers



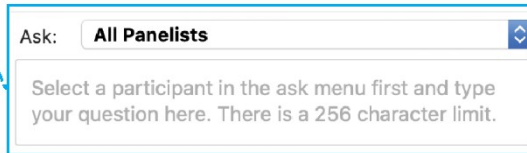
Raise your Hand: Submit a Verbal Question

- Press the icon to raise your hand.
- If selected, the Facilitator will say your name and unmute you.
- After your question is asked, the Facilitator will put you back on mute.
- Press the icon again to put down your hand.



Open the Participants and Q&A Panels

- Press to toggle between opening and closing Participants and Q&A Panels
- Opened
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Q & A Box: Submit a Typed Question

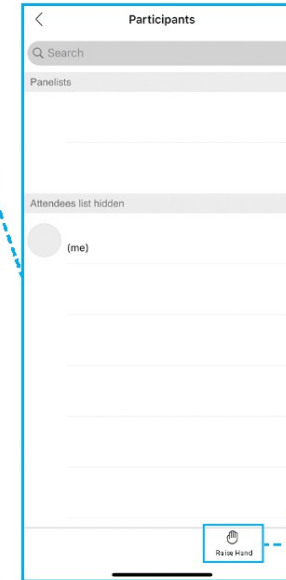
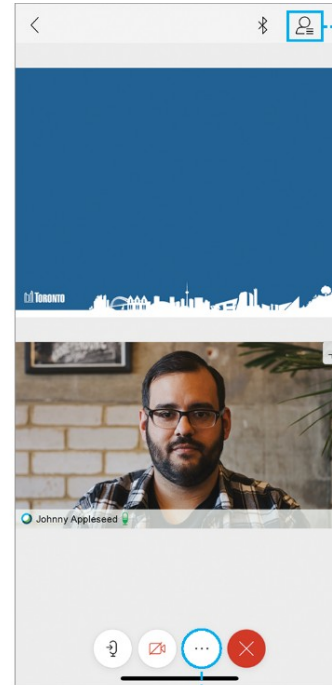
- Only staff will be able to see submitted questions.
- Ask questions to All Panelists.
- Your question will be redirected to a Panelist to answer verbally.

Participating by Smartphone and Tablets

Ask a Question >

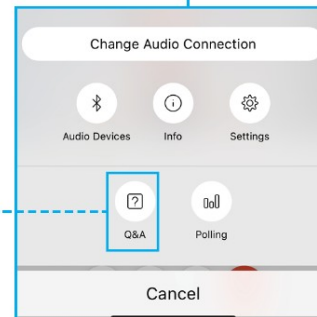
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Participating by Phone

- To ask a question, raise your hand by pressing ***3**.
- The Facilitator will call on you by mentioning the first few digits of your phone number and will be unmuted. You'll be muted again after your question has been asked.
- After you've asked your question, press ***3** to put your hand down.

Code of Conduct for Meetings

- **One voice at a time.**

Facilitator will call on participants who have their hands raised.

Be direct and frame questions to specific speakers

- **Be brief** and limit yourself to one question or comment at a time

- **Be a good listener**

- **Be respectful.** The City of Toronto is an inclusive public organization. Racist or other forms of discriminatory, prejudicial or hateful comments and questions will not be tolerated and you will be removed from the meeting

Welcome!

Purpose of Today's Meeting

- Present feedback, suggested frameworks, the assessment, and any changes to options from the Fall 2020 consultation to support economic competitiveness of industrial and commercial businesses and the City's Resilience Strategy objectives
- Hear from you - questions and feedback



Meeting Agenda

1. Presentation of Options and Assessment

- Toronto Water support programs for industrial, commercial and institutional customers (ICI)
- Municipal Code Chapter 681, Sewers (Sewers By-law)
- Water charges and fees
- Stormwater management incentives for industrial and commercial (I&C) customers

2. Discussion questions after each topic area

3. Next Steps



Council Direction

- As directed by City Council in 2019.EX11.2, Toronto Water and Economic Development and Culture are undertaking 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 of Toronto (City) economic competitiveness strategy and the City's Resilience Strategy.
- Expected report back to July 5, 2021 Infrastructure and Environment Committee

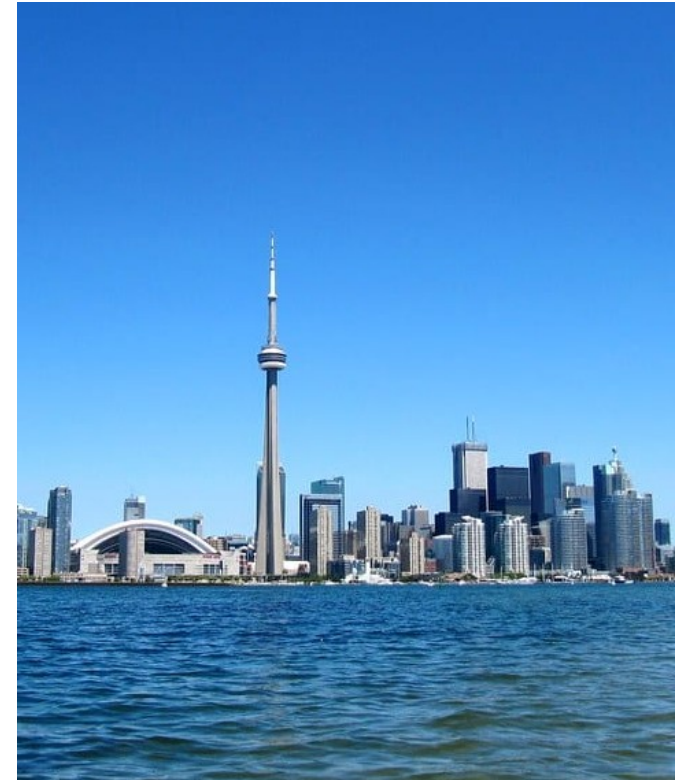
Goals and Objectives

- **Support the economic competitiveness of Industrial and Commercial (I&C) businesses**
 - Opportunities to provide cost savings related to water, wastewater and stormwater costs for large I&C customers
 - Increase and broaden participation in the City's current support programs for I&C customers, as well as institutional customers
- **Further the City's Resilience Strategy objectives** - make City water and sewer infrastructure more resilient to climate change and reduce the hazards of flooding



Goals and Objectives (cont'd)

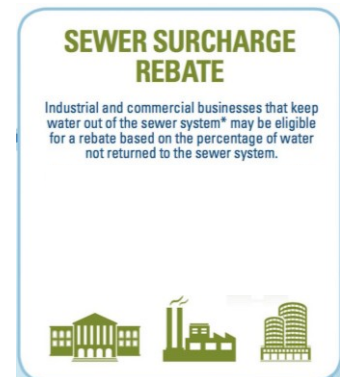
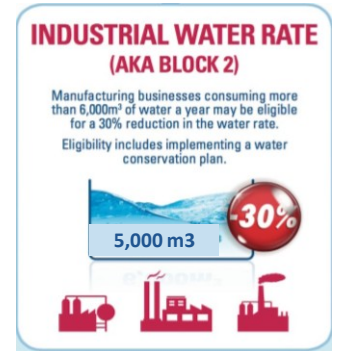
- **Cost-effectiveness and transparency**
 - Promote enhanced transparency with respect to water rates, charges and fees while recovering the full serviceable costs of the collection, transmittal and treatment of stormwater run-off generated by I&C properties
 - Provide for the continued financial sustainability of Toronto Water's programs
- **Administrative efficiencies and customer service improvement** - streamline processes thereby increasing the potential for further increased efficiencies in the City's administration of ICI support programs and its Sewers By-law
- **Environmental stewardship** - improve surface water quality by promoting more sustainable stormwater management practices by I&C businesses on their properties



Industrial, Commercial and Institutional Support Programs

Industrial, Commercial and Institutional Sector Support Programs

- Toronto Water provides three programs for industrial, commercial and institutional (ICI) customers to support economic, social and employment objectives and water efficiency
- Toronto Water's current programs include:
 - **Industrial Water Rate (IWR) Program** - Offers a discounted water rate (Block 2 Rate, 30% discount on Block 1 rate) to eligible industrial customers on water consumption in excess of 5,000 m³/year
 - **Capacity Buyback (CBB) Program** – Open to eligible commercial and institutional customers and offers a free water audit and a one-time cash rebate of up to 30 cents per litre of water saved per average day
 - **Sewer Surcharge Rebate (SSR) Program** - 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)
- Through this consultation, options are being explored that may serve to streamline program administration, improve customer service, increase participation and broaden program eligibility, and provide cost savings to I&C customers



IWR Program Option: Lower the 5,000 m³ Consumption Threshold Value

Option Description

- Lowering the Industrial Water Rate (IWR) Program's 5,000 m³ consumption threshold to broaden eligibility and provide cost savings to industrial customers that do not meet the 5,000 m³ threshold
- IWR participants would have to meet current IWR Program requirements including compliance with Toronto's Sewers By-law; and submission of a comprehensive water conservation plan to the satisfaction of the General Manager, Toronto Water

Round 1 Consultation Feedback

- Very few comments (some support) received for this option

Option Assessment

- IWR program with 5,000 m³ threshold provides estimated cost savings of approximately **\$22 M annually (2020) based on the 30% discount for Block 2**
- Two lower consumption thresholds considered:

Consumption Threshold	Estimated Cost Savings for Current IWR Program Participants (Annual)	Estimated Cost Savings for Potentially Eligible IWR Program Participants (Annual)**
Lower to 4,500 m ³	Average: \$620 Total: \$71,949	Average: \$282 Total: \$7,900
Lower to 4,000 m ³	Average: \$1241 Total: \$143,898	Average: \$597 Total: \$35,833

**** Assumes 9% uptake from potentially eligible industrial customers (28 customers between 4,500 m³ to 5,000 m³ and 60 customers between 4,000 m³ and 5,000 m³)**

Option Assessment (cont'd)

- Would provide additional cost savings for existing Block 2 customers but may provide little benefit to support economic competitiveness of industrial customers not currently participating in the IWR Program
 - No additional IWR Program participants when threshold was lowered from 6,000 m³ to 5,000 m³
 - Does not address challenges to IWR participation related to costs for water conservation plans, implementation of water efficiency projects, or Sewers Bylaw compliance
- Capacity Buyback Program options would be more effective in supporting industrial customers to participate in the IWR Program and in supporting water efficiency objectives

IWR Program Option: Removing Water Conservation Plan Requirement

Option Description

- Remove the requirement for submission of a comprehensive water conservation plan as a potential barrier to industrial customers participating in the IWR Program and to provide IWR Program administrative cost savings

Round 1 Consultation Feedback: Concerns about the loss of water efficiency benefits and associated cost savings from implementing recommended projects from water conservation plans

Option Assessment

- Water efficiency cost savings is estimated at **\$346,018 per participant annually on average**
- The **average simple payback period** for water efficiency projects implemented from **2016 to 2019** is **1.8 years**
- Estimated IWR Program Cost Savings and Participant Cost Impacts:**

IWR Program Cost Savings (Annual)	IWR Participant Cost Impacts Per Participant (Average)
\$34,289	<ul style="list-style-type: none">Retrofit cost savings (one-time): \$33,139Water Conservation Plan savings (one-time): \$2,000Minus average water efficiency cost savings not realized of 11% annually (estimated average)

Option Assessment (cont'd)

- Would not support economic competitiveness of industrial customers as a result of loss of cost savings for new Block 2 customers that would be realized from the implementation of recommended water efficiency measures in water conservation plans
- Does not support the intent of the IWR Program
- Would result in nominal administrative cost savings for Toronto Water
- Capacity Buyback Program options being explored would be more effective in supporting industrial customers to participate in the IWR Program and achievement of water efficiency objectives

Capacity Buyback (CBB) Program: Expand Eligibility to Industrial Customers Consuming between 5,000 m³ and 15,000 m³ per year

Option Description

- Expand eligibility for the **CBB Program free water audit** to industrial customers consuming between 5,000 and 15,000 m³/year to remove the IWR program challenge of procuring a consultant for preparation of a Water Conservation Plan

Round 1 Consultation Feedback

- Participants expressed support for this option as it would support water efficiency and provide potential cost savings to smaller and medium-sized industrial customers
- Suggestions: Offer one-time cash incentive for permanent water efficiency measures option to these customers; Sewers By-law compliance be added as requirement of the CBB Program

Option Assessment

- Estimated industrial customer cost savings for new CBB Program participants:**

Industrial Customer Cost Savings (One Time)	Industrial Customer Cost Savings* (Annual)
\$2000.00 Water Conservation Plan cost	Per new IWR participant: \$2,350 to \$17,340

**After average 1.8 year payback period*

- Would address cost challenges for the preparation of a water conservation plan required for IWR Program eligibility
- Would support additional industrial customers consuming between 5,000 m³ and 15,000 m³ annually to participate in the IWR Program and receive Block 2 (30 %) discount as well as cost savings from water efficiency measures implemented

Capacity Buyback (CBB) Program Option: Expand Eligibility to Industrial Customers Consuming Less Than 5,000 m³ per year

Option Description

- Industrial customers consuming < 5,000 m³ / year would be eligible for the CBB Program **free water audit and one-time cash rebate (\$0.30/litre water)** for permanent water efficiency measures implemented

Round 1 Consultation Feedback

- Support expressed for this option; some participants suggested Sewers By-law compliance be added as requirement of the CBB Program

Option Assessment

- Estimated total additional reduction in water consumption of approx. 53,000 m³ to 95,000 m³ annually depending on rate of CBB Program uptake for newly eligible industrial customers
- Estimated water consumption and cost savings for new CBB Program participants:**

Year	IWR Avg facility consumption savings	CBB Avg % of water savings eligible for financial incentive	CBB Average Estimated Total Upgrade/Retrofit Costs	CBB Cost / m3 Saved
Average (2016-2019)	11.36%	26%	\$29,340	\$33.69

- Would expand opportunity for small and medium industrial customers to participate in the CBB Program
 - Would support economic competitiveness for small and medium industrial customers by providing free water audit and one-time cash rebate to help them achieve water efficiency cost savings
 - Would further support CBB Program's water efficiency objectives

Capacity Buyback (CBB) Program Option: Free Desktop Water Audit

Option Description

- Streamline the CBB Program Free Audit component and potentially increase program participation by:
 - Offering a free desktop water audit that does not require a third-party Technical Services Consultant site visit
 - The free desktop audit would be limited to a site visit by City staff, and a review of data and equipment specifications / water balance evaluation by the City's Technical Services Consultant
- Proposed framework:
 - Applicant would collect and submit equipment and operating information to the CBB Program
 - City staff would conduct site visit to verify information
 - Third-party Technical Services consultant would review information submitted and water consumption data, and provide upgrade/retrofit options and other water meter savings measures that could be implemented

Capacity Buyback (CBB) Program Option: Free Desktop Water Audit (cont'd)

Round 1 Consultation Feedback: Differing perspectives on this option with support for simplifying application process vs. concerns about the loss of value of the site visit; some participants suggested more comprehensive audits

Option Assessment

- Would simplify the CBB Program application process which could increase participation of commercial and institutional customers with standard equipment/simple facility operations to provide cost savings to new participants
 - Would reduce water consumption and provide cost savings for additional CBB participants
- Would streamline administration and reduce water audit costs for the CBB Program
- **Estimated CBB program uptake, water consumption impacts and participant cost savings:**

CBB Program Uptake Rate	Desktop Reviews	Water Audits	Verifications	Water Consumption Impacts	Cost Savings for Additional CBB Program Participants (2021 Block 1 rate)
0.04% (Current Program – no increase in uptake rate)	4	34	7	No change	None
0.05%	5	42	8	- 52,791 m ³	\$218,270
0.06%	6	50	10	- 63,349 m ³	\$261,922
0.07%	7	59	12	- 79,907 m ³	\$330,383

Sewer Surcharge Rebate Program (SSR) Option: 3-Year Annual Renewal Period with Addition of Process Metering

Option Description

- Increase the renewal period from annually to every three years contingent on SSR Program participants adding process metering to their facility (and maintaining SSR Program eligibility)
- Proposed Framework:
 - 3 year renewal **would be optional** for facilities, i.e. SSR Program participants without process metering would remain on 1 year renewal
 - Participant would have a minimum previous 2 year “good standing” in the SSR program
 - Annual discharge percentage reported in the preceding 2 annual program applications / renewal did not vary greater than 10% year to year

Round 1 Consultation Feedback: Support expressed for this option but also concerns about process meter installation costs; 3 year renewal seems appropriate

Option Assessment

- Would provide incentive for SSR Program participants to install process metering with benefits of more accurate readings for their facilities
- Would provide some cost savings to SSR Program participants that currently have process meters
- Would provide nominal cost savings for SSR Program but enhance program accountability, transparency and customer service (i.e., more accurate billing and rebates based on actual metered water diverted from sewer)

Estimated SSR Program Participant Cost Savings (with existing process meters)**	SSR Program Participant Cost Savings (without existing process meters)
Per participant (annual): \$4,000 to \$5,000 Total (annual): \$200,000 to \$350,000 annually	Savings would vary depending on upfront costs to install process meters and savings on engineering fees over multiple renewal cycles
Per participant (over 3 years) : \$12,500 to \$15,000 Total (over 3 years): \$600,000 to \$1.05 M	

***170 SSR applications out of approx. 200 participants (annually) indicate their facilities have in place some type of process metering; estimated 50-70 would opt in to 3 year renewal; the remainder would rely on mass balance studies (\$4,000 to \$5,000 in engineering costs annually) to account for facility service water diverted*

Discussion Questions: ICI Program Options


- Do you have any questions or comments about the options and their assessment (e.g., other considerations)?
 - Industrial Water Rate Program
 - Capacity Buyback Program
 - Sewer Surcharge Rebate Program



Sewers By-law

Sewers By-law: Introduction

- The City's Sewers By-law (Municipal Code Chapter 681, Sewers) ("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. Some substances are completely prohibited, where others are restricted to defined parameter limits.
- The Sewers By-law assists the City in complying with Federal and Provincial environmental statutes and legislation
- Sewers By-law enforcement and compliance is overseen by Toronto Water's Environmental Monitoring and Protection Unit (EM&P)
- Through this consultation, options are being explored which may serve to streamline processes thereby increasing the potential for further increased efficiencies and cost savings in the City's administration of its Sewers By-law
- Separate Council direction for Toronto Water to undertake a review of the Sewers By-law comprising:
 - a review of chemicals that could be added as subject pollutants
 - creation of a subject pollutant threshold reporting list on a risk-based approach

TORONTO MUNICIPAL CODE CHAPTER 681, SEWERS	
Chapter 681	
SEWERS	
ARTICLE I Sewage and Land Drainage	
§ 681-1. Definitions.	
§ 681-1.1. Administration.	
§ 681-2. Sanitary and combined sewer requirements.	
§ 681-3. Prohibition of dilution.	
§ 681-4. Storm sewer requirements.	
§ 681-5. Pollution prevention planning.	
§ 681-6. Agreements.	
§ 681-7. Compliance program.	
§ 681-8. Sampling and analytical requirements.	
§ 681-9. Spills.	
§ 681-10. General.	
§ 681-11. Sewer connections.	
§ 681-12. Confidential information.	
§ 681-12.1. Contact information.	
§ 681-12.2. Access.	
§ 681-13. Self-monitoring and sampling.	
§ 681-13.1. Powers and authority of the General Manager or Inspector.	
§ 681-13.2. General prohibitions and liability for damage.	
§ 681-14. Offences.	
§ 681-14.1. Penalties.	
§ 681-14.2. General enforcement powers.	
§ 681-14.3. Document retention.	
§ 681-14.4. Notice.	
§ 681-14.5. Severability.	

Sewers By-law Option: Establishing Risk-Based Subject Pollutant Reporting Thresholds for Trace Amounts of Subject Pollutants

Option Background

- Every subject sector industry discharging any amount of 33 subject pollutants is required to submit a 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 of a subject pollutant which is discharged
- Some reporting programs in Canada and Ontario have adopted threshold limits to eliminate the requirement for the reporting of trace amounts of subject pollutants

Option Description

- Would involve establishing risk-based reporting threshold limits for subject pollutants to reduce reporting and requirements for P2 plan preparation for trace amounts of pollutants
- This option would not impact discharge limits in the Sewers By-law

Sewers By-law Option: Establishing Risk-Based Subject Pollutant Reporting Thresholds for Trace Amounts of Subject Pollutants (cont'd)

Round 1 Consultation Feedback

- Different perspectives on this option:
 - Would reduce reporting requirements and P2 Plan submission for trace amounts of subject pollutants
 - Sewers By-law changes should take place after a comprehensive review of the Sewers By-law as per Council direction

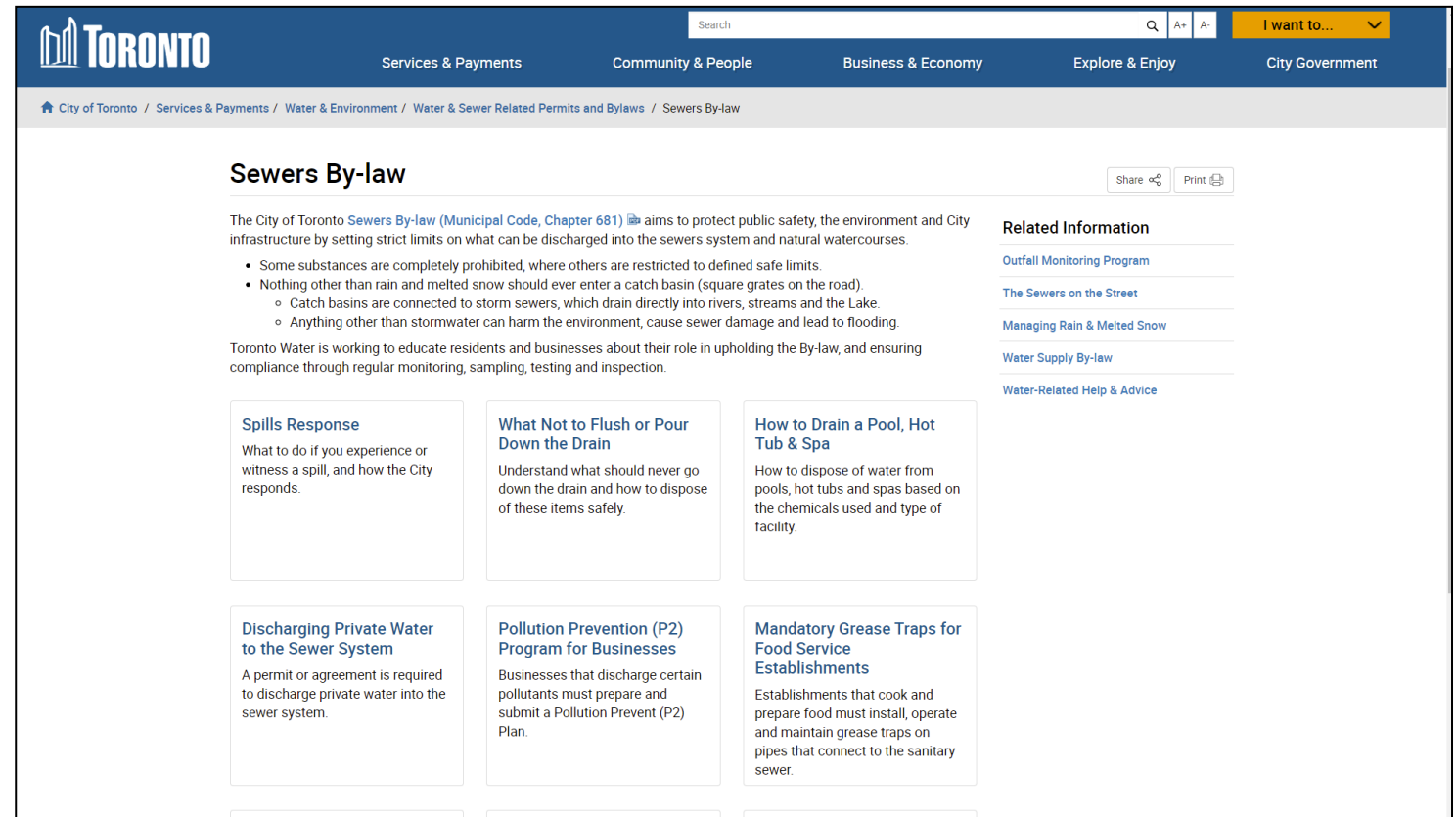
Option Assessment

- Expected to reduce reporting and P2 Plan submission requirements for businesses where only a trace amount of a subject pollutant is present and potential for cost savings (estimated cost of \$3,000 to \$6,000 per P2 Plan)
- Potential to streamline administration processes (i.e., fewer reviews of P2 Plans submitted for trace amounts of subject pollutants)
- Consultant was hired to undertake an initial risk-based evaluation of each subject pollutant. Further work is required to determine whether a risk-based reporting threshold could be applied and the identification of the threshold value, and to undertake consultation with stakeholders
- **Suggested approach:** Given the outstanding Council direction and additional stakeholder consultation required, this option will be incorporated in the comprehensive review of the Sewers By-law (as per Council direction) which is planned to begin in fall 2021

Option: Toronto Sewers By-law Navigation Guide

Option Description

- Develop a Sewers By-law Navigation Guide (Guide) to help businesses better understand their compliance obligations
- Web-based Guide to be developed in consultation with City divisions and agencies (e.g. Toronto Public Health)
- Suggested Guide content:
 1. Why Do We Need a Sewers By-Law?
 2. Doing Your Part
 3. How Is Wastewater Collected?
 4. Discharge Limits and Prohibited Substances
 - 4.1 Sanitary and Combined Sewers
 - 4.2 Storm Sewers
 - 4.3 Washing Wisely Outside
 5. Monitoring and Compliance
 - 5.1 Sampling and Inspections
 - 5.2 Maintenance Access Holes (Manholes)
 6. Compliance Measures
 - 6.1 Compliance Program
 - 6.2 Industrial Waste Surcharge Agreements
 - 6.3 Sanitary Discharge Agreements/Permits
 - 6.3.1 Construction Dewatering
 - 6.3.2 Discharge Agreements
 - 6.4 Hauled Sewage Discharge Agreements
 7. Pollution Prevention Program
 8. Private swimming pools or Hot Tub/Spa
 9. Interceptors
 10. Spills
 11. Enforcement
 12. Appendix
 - Helpful Contacts
 - Helpful Links



Option: Toronto Sewers By-law Navigation Guide (cont'd)

Round 1 Consultation Feedback

- Support expressed by a broad range of participants for this option
- Suggestions: include examples/scenarios, coordinate development of the Guide with Toronto Public Health; consider release timing of Guide after review of Sewers By-law subject pollutants and risk-based thresholds is complete

Option Assessment

- Supports Council's objective to promote Sewers By-law compliance by educating and informing the public
- Potential to increase Sewers By-law compliance (especially for new dischargers) resulting in environmental benefits (e.g., reduce number of spills) and provide cost savings to dischargers by increasing awareness of Sewers By-law requirements resulting in compliance (i.e., potential to reduce Notice of Violations, fines and legal costs)
- Potential to achieve TW administrative efficiencies (e.g. increased compliance and reduction of enquiries)
 - Ottawa's experience with their Sewers By-law Guide has been positive – well received and positive feedback from users
- Suggested timing for the Guide's release is after completion of comprehensive Sewers By-law Review

Option: Industrial Wastewater Surcharge Agreement (IWSA) Changes

Option Background

- Under Section 6 of the Sewers By-law, a business may be permitted to enter into an IWSA (or have a IWS Permit issued) to allow a discharge in excess of certain Sewers By-law limits, otherwise prohibited, if the exceedance is with respect to the prescribed treatable parameters, within authorized limits and the applicable fee is paid to the City for the costs of treatment of the excess concentrations, subject to the terms and conditions of the IWSA/ IWS Permit
- Prior to the issuance of any such Permit or the entering into of an IWSA, 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 – Permit or IWSA
- Subject to Subsection 11(c) of the IWSA and provided that the discharge is not a Prohibited Waste, the IWSA permits a Discharger up to 3 exceedances (of less than 20%) of the parameter limits in the IWSA per Term of the IWSA. This allows a Discharger some margin of error for operational changes

Option Description

- Increase Number of Exceedances (from 3 to 4 or 5) of Parameter Limits (less than 20%) Per Term of the Agreement

Round 1 Consultation Feedback

- Support for option as it recognizes the operational realities of facilities and will provide more operational flexibility for IWSA participants
- Sewers By-law changes should only be undertaken after a subject pollutant review and examination of risk-based thresholds is completed
- Additional exceedances should only be allowed with increased monitoring/testing

Option: Industrial Wastewater Surcharge Agreement (IWSA) Changes (cont'd)

Option Assessment

- Number and Percentage of Companies with IWSA Exceedances**

Year	Number of Active IWSA Agreements	Number (and Percentage) of Companies over IWSA Limits
2017	301	125 (41.5%)
2018	321	115 (35.8%)
2019	324	121 (37.3%)
2020	337	118 (35.0%)
Average (2017-2020)	321	120 (37.4%)

- Number of Exceedances of IWSA limits (less or greater than 20%)**

Year	Number of Results <20% over IWSA Limit	Number of Results >20% over IWSA Limit
2017	13	395
2018	0	379
2019	4	377
2020	13	416

- Increasing the number of allowable exceedances to 4 or 5, would not achieve the objective of providing additional operating flexibility and reducing the number of IWSA defaults

Alternative IWSA Option: Reassess IWSA Schedule 1 Limits

Option Description

- **Reassess IWSA Schedule 1 limits** so that the limits capture businesses' annual production cycle
 - Due to the assessment sampling period (1 month), the full annual production cycle of a business may not be fully captured in the setting of its IWSA Schedule 1 limit
- Toronto Water would reassess and amend (potentially increase) the Surcharge limits outlined in Schedule 1 of the IWSA as per the reassessment. Toronto Water has authority to do so under the IWSA:
 - Section 6(b) of the IWSA, the Surcharge limits outlined in Schedule 1, may be revised from time to time via mutually written agreement between the parties

Option Assessment

- Potential to reduce the number of companies exceeding IWSA limits and defaulting on their IWSA or resulting in an IWSA termination
- Potential administrative cost savings for Toronto Water EM&P with respect to dealing with businesses that exceed IWSA limits

Option: Self-Reporting

Option Description

- Allow companies to self-report effluent testing and analysis to the City

Round 1 Consultation Feedback

- Differing perspectives on this option:
 - Option would allow companies to receive sample results and take corrective actions sooner (if needed)
 - Concerns expressed about cost impacts to smaller and medium-sized industrial facilities associated with conducting their own sampling and analysis
 - Sampling and analysis should continue to be undertaken by Toronto Water's EM&P Unit
- Suggestions:
 - City could develop a tiered structure with baseline monitoring remaining free; if more monitoring is required due to a Notice of Violation (NOV), it could be billed by City to the facility to keep costs low for compliant facilities
 - City could establish required parameter tests and frequencies that are individualized for companies and added as an appendix to the IWSA
 - City would still maintain oversight but with a different auditing function
 - City could implement a pilot project with a few large industrial customers

Option: Self-Reporting (cont'd)

Option Assessment

- The City cannot use independent sampling data for Sewers By-law enforcement purposes; concerns about data reliability
- Potential cost savings for Toronto Water lab but overall additional costs to implement:
 - IT and database integration requirements with current iPACs system; new IT framework would be required
 - EM&P would still need to collect samples and follow-up with companies that do not submit
 - Additional staff resources may be required to obtain missing, incomplete or unreported sample data , develop SOPs and follow-up with non-compliance of sample result submissions
 - Amendment to IWSAs would be required
- Experience in another municipality that permits self-reporting has resulted in operational challenges – need for sampling agreements, additional unscheduled sampling, manual QA/QC of sampling data, lack of consistent reporting
- Would be challenging and costly for smaller to medium sized companies to implement
 - Estimated additional costs to companies (3rd party laboratory, auto samplers and sampling equipment, e.g. Composite samplers cost at approx. \$5000) compared to City sampling at a cost of \$500 minimum annually + \$934.67 initial assessment fee
 - Would require company to take 24 hour composite samples
- **Significant challenges to proceeding with option; Toronto Water will continue to monitor use and experience of self-reporting in other municipalities**

Discussion Questions: Sewers By-law

- Do you have any questions or comments about the options and their assessment (e.g. other considerations)?
 - Suggested approach for establishing risk-based thresholds
 - Sewer By-law Navigation Guide and its contents
 - Alternative option for IWSAs
 - Self-reporting option



Water Fees and Charges

Water Fees and Charges – Options for Discussion

- Through this consultation, the City is exploring options for changes to fees and charges to support economic competitiveness of I&C customers and the objectives of the City's Resilience Strategy
- Options include:
 - Establishment of an **administrative water charge**
 - The **possible decoupling of industrial and commercial (I&C) customers' water rate from the costs associated with stormwater management services through the establishment of an I&C Stormwater Charge (SW Charge) and Credits**
 - **Stormwater Charge for commercial parking lots**

Option: Administrative Water Charge

Option Background

- Toronto Water's water and wastewater (including stormwater) services are funded on a "pay-as-you-go" system through a combined water and wastewater consumption rate ("water rate")
- Revenue for water and wastewater services comes primarily (92%) 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 costs of certain water and wastewater services provided for a user fee

Option Description

- Contemplates a charge for the administration of water and sewer services and programs provided
- Revenue neutral – revenues from administrative water charge would be removed from water rate
- Would appear as a separate charge on the tri-annual (residential) or monthly utility bill (other customers)

Round 1 Consultation Feedback

- Would make the utility bill more transparent with respect to water and sewer costs and would share costs more fairly for all water customers
- Need to protect small volume water customers from increases in costs

Option: Administrative Water Charge (cont'd)

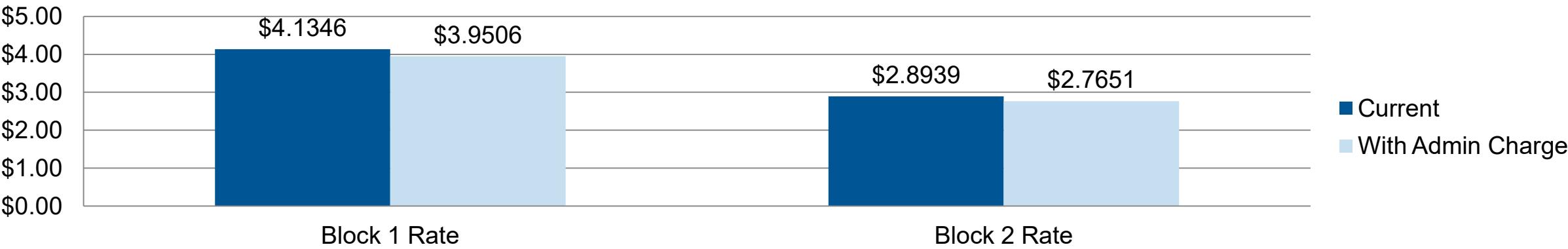
Suggested Framework for Discussion

- An administrative water charge:
 - Would comprise costs (approx. \$57.6 M in 2021) for the administration of the water and sewer services portion of the utility bill, interdivisional charges, rent, insurance costs that includes administrative costs, and costs for water meter replacements
 - Average flat charge would be **\$114.83 for all water customers**
 - Tiered flat charge would be based on size of the customer's water meter

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

Option: Administrative Water Charge (cont'd) – Assessment

Water Rate for Industrial and Commercial Customers (2021)



Customers	Consumption (m3/year)	Current 2021 Water Bill (Annual Average)	Estimated 2021 Water Bill with Administrative Water Charge Tiered Structure (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	\$21,973 (-3.4%)
Large volume water customers (Block 1)	10,000	\$41,346	\$41,076 (+0.9%)
	100,000	\$413,460	\$397,261 (-3.9%)
Large Industrial water customers (Block 2)	100,000	\$295,594	\$284,640 (-3.7%)

Option: Administrative Water Charge (cont'd)

Option Assessment (cont'd)

- Would provide for more transparency in water billing and aligns with user pay principle
- Would support economic competitiveness of most medium and large volume I&C water users by reducing water consumption costs
- Would increase costs to small volume customers (mostly residential) and some medium and large volume I&C customers to varying degrees
- Would require consultation with all customer classes (residential, multi-residential, institutional) and further analysis to finalize rate structure

Option: Decoupling Stormwater Costs for I&C Customers – I&C Stormwater Charge and Credits

Option Description

- Would be dedicated to paying for stormwater management servicing capital and operating costs
- Would apply only to industrial or commercial class properties; mixed-use properties would be excluded
- Would be based on the impact of property to stormwater system (represented by impervious area size – roofs, driveways, parking lots, etc.)
- Revenue neutral – revenues raised from new I&C stormwater charge would be removed from water rate (Block 1 and 2 rates)
- Would require creation of a stormwater management reserve using a portion of existing reserves
- Would require restructuring of current two block rate structure
- Would offer SW Charge credits for I&C properties that meet eligibility requirements and performance criteria



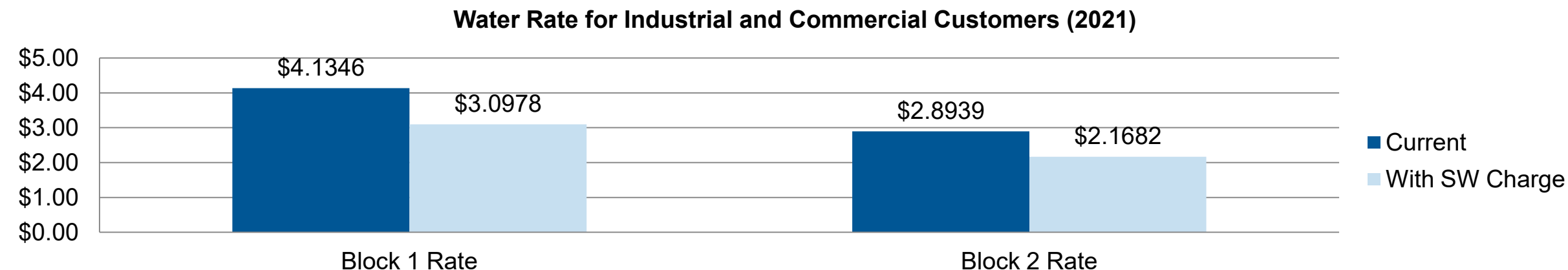
Round 1 Consultation Feedback

- Support expressed for I&C SW Charge option. Comments received:
 - Would provide for a sustainable and fair financing strategy for rising stormwater costs and needs
 - Stormwater charge has been implemented in many jurisdictions across North America
 - Makes sense to implement for I&C properties first since IC&I represent 78% of 1 hectare properties but should be expanded to all property classes
 - I&C SW Charge should be implemented at the same time as SW Charge credits to support City's Resilience Strategy objectives and adoption of green infrastructure solutions

Option: I&C Stormwater Charge (cont'd)

Option Assessment

- I&C properties represent an estimated **7,609 hectares or 36% of total impervious area** across the City (21,025 hectares)
 - total funding allocation for I&C properties for the stormwater management program (\$324.9 M) based on the 36% percentage contribution would amount to **\$116.96 million in 2021**
 - a stormwater charge for I&C properties would be **\$1.55 per m² of impervious area in 2021**
 - I&C stormwater charge would increase over the next 10 years to fund increasing costs for the stormwater management program
 - 5 year average is \$2.04/m² of impervious area
 - 10 year average is \$2.25/m² of impervious area
- **After removing the stormwater management costs from the 2021 water rate, Block 1 and 2 Rates would be estimated to decrease by 25% in 2021**



Option: I&C Stormwater Charge (cont'd)

Suggested Framework for Discussion

- SW Charge would be applied based on size (area) and impervious area of industrial and commercial properties
- **Properties less than 1 ha in size** – tiered flat rate structure based on average impervious area per tier
- **Analysis below from 2017** - # of tiers, tier parameters and SW Charge for each tier would need to be determined for I&C properties

Industrial, Commercial & Institutional					
	Gross Area Range (ha)	Gross Area Range (sq ft)*	Number of Properties	Average hard surface area	SWC per year
Tier 1	0.016 or less	Less than 1,800	4,131	77%	Would need to be determined
Tier 2	0.017 to 0.026	1,800 to 2,899	5,189	82%	
Tier 3	0.027 to 0.089	2,900 to 9,699	6,583	78%	
Tier 4	0.090 to 0.299	9,700 to 32,299	5,617	78%	
Tier 5	0.300 to 0.999	32,300 to 107,600	4,901	75%	
*Conversions to square feet from hectares are approximations. Actual SWCs will be calculated in hectares.					

- **Properties 1 ha or greater in size** (1% of properties accounting for 42% of hard surface area in the City; 78% are IC&I) – would be assessed individually based on actual impervious area

Option: I&C Stormwater Charge (cont'd) – Small Property Impact Examples



- **Commercial property:** Small bank branch (washroom only)
- Consumption: 150 m³ in 2020 (estimate)
- Impervious area = 554 m² (at \$1.55 /m²)

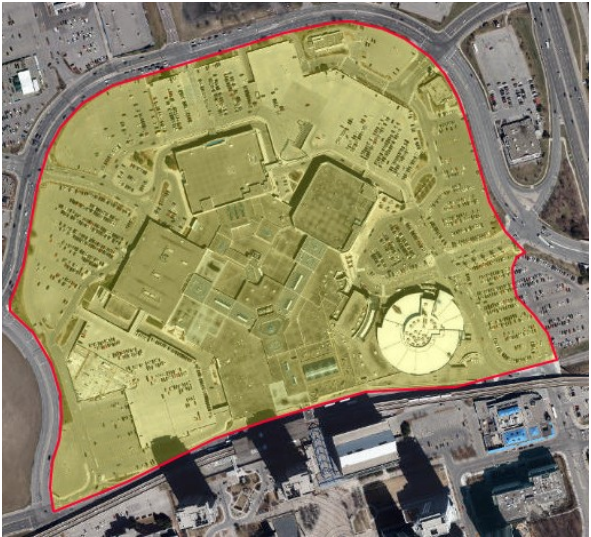
	Consumption cost*	SW Charge	Total
Current 2021 cost	\$ 620	n/a	\$ 620
2021 cost with separate SW Charge	\$ 465	\$ 859	\$1,324
Cost Impact	-	-	\$ 704 (+113%)



- **Commercial property:** Convenience store, restaurants, bank branch
- Consumption: 4,387.61 m³ in 2020 (impacted by Covid)
- Impervious area = 8197.66 m² (at \$1.55 /m²)

	Consumption cost*	SW Charge	Total
Current 2021 cost	\$ 18,141	n/a	\$ 18,141
2021 cost with separate SW Charge	\$ 13,592	\$ 12,706	\$ 26,298
Cost Impact (spread across multiple tenants)	-	-	\$8,157 (+45%)

Option: I&C Stormwater Charge (cont'd) – Large Property Impact Examples



- **Commercial property:** Shopping Centre
- Consumption: 147,211 m³/year
- Impervious area (98%) = 22.850 ha

	Consumption cost*	SW Charge	Total
Current 2021 cost	\$ 608,659	n/a	\$ 608,659
2021 cost with separate SW Charge	\$ 456,031	\$ 354,175	\$ 810,206
Cost Impact	-	-	\$ 201,548 (+33%)



- **Industrial property on Block 2 Rate:** Food processing company
- Consumption: 1,315,072 m³/year
- Impervious area (94%) = 7.18 ha

	Consumption cost*	SW Charge	Total
Current 2021 cost	\$ 3,811,890	n/a	\$ 3,811,890
2021 cost with separate SW Charge	\$ 2,856,021	\$ 111,315	\$ 2,967,336
Cost Impact	-	-	- \$ 844,555 (-22%)

Option: I&C Stormwater Charge Credits

Option Description

- Would provide a credit or reduction of SW Charge for I&C customers that implement stormwater management measures that reduce stormwater contributions to the City's sewer systems

Round 1 Consultation Feedback

- Support expressed for SW Charge credits option
 - Implement I&C SW Charge credit at same time as I&C SW Charge
 - Important tool to address upfront costs for green infrastructure/ improved SWM
 - Prioritize credits for green infrastructure and stormwater retention and treatment on-site to support resilience objectives with environmental co-benefits (e.g., improve stormwater quality, beautification, green space, public health, etc.)
 - Ensure SW Charge credit value is high enough for a reasonable return on investment
 - Apply to SW Charge credit retroactively for SWM measures implemented (new and redevelopment)

Option: I&C Stormwater Charge Credits (cont'd)

Suggested Principles for I&C SW Charge Credits Option

- Target credits to properties that **generate and contribute the greatest volumes of stormwater to City's sewer system**
- Align credit requirements with **Wet Weather Flow Management Guidelines requirements** for new and redevelopment
 - Incentivize improved stormwater management for **existing industrial and commercial properties retrofits** (i.e., objective is to support existing I&C properties in meeting WWFMG SWM objectives, some of which are incorporated in Tier 1 Toronto Green Standards)
 - Reduce stormwater costs **for new and re-developed I&C properties** that have implemented SWM measures to meet WWFMG requirements
- **Revenue neutrality** – revenue loss from SW Charge credits would be recovered by the stormwater charge (as per other municipalities)

Option: I&C Stormwater Charge Credits (cont'd)

Suggested Framework for Discussion

- Developed based on practices in other municipalities but tailored to City of Toronto stormwater management objectives
 - **Credit eligibility:**
 - Industrial and commercial properties only
 - Large properties (>1 ha in area) which represent approx. 42 per cent of hard surface area in the city; 78% of these are IC&I
 - Available to both existing I&C properties and new and redeveloped I&C properties
 - **Credit type:** annual credit on the I&C SWM Charge

Option: I&C Stormwater Charge Credits – Suggested Framework (cont'd)

- **How credits would be earned:**
 - **Performance based** - property would have to demonstrate the achievement of stormwater management performance objectives aligned with Wet Weather Flow Management Guidelines (WWFMG) requirements
 - Applicant would decide which SWM measures to implement to achieve performance objectives
- **Credit categories and value:**
 - Performance categories would include water balance, water quality and water quantity
 - Maximum credit value (e.g. 50 per cent is typical in other Ontario municipalities with a SW Charge - percentage values for each credit category would need to be determined)
- **Credit application:**
 - Would require application and submission of an engineer certified stormwater management report which demonstrates meeting WWFMG requirements
 - Would require renewal application with updated stormwater management report every 5 years
- **Verification and Monitoring:** City would establish a verification process (e.g. desk top audits and targeted property inspections) to confirm proper installation and ongoing maintenance of stormwater management infrastructure
- **Stormwater Credits Guidance:** City would develop an application Guide and forms, and could emphasize green infrastructure solutions to meet credit requirements

Option: I&C Stormwater Charge and Credits (cont'd)

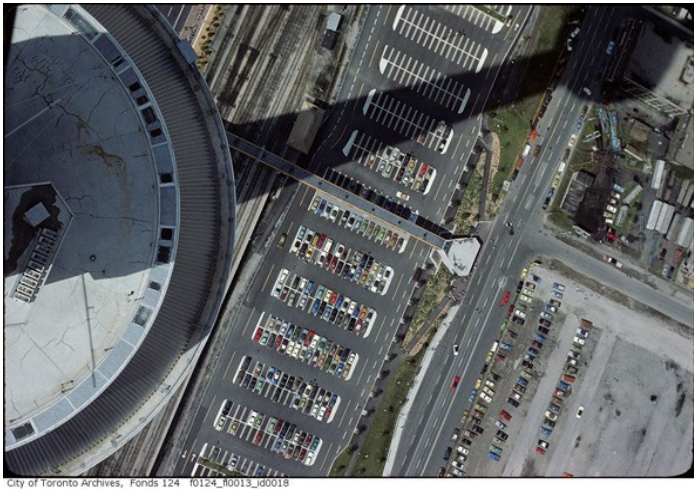
Option Assessment

- **I&C SW Charge** would provide more transparency for stormwater services billing and aligns with user pay principle (“fairness”), i.e. customer pays based on stormwater contribution of their property
- Would support economic competitiveness for large industrial properties based on estimated annual cost savings but expected to increase costs for smaller and medium sized industrial and commercial properties (with large impervious areas)
- **I&C SW Charge credits** that incentivize improved stormwater management would:
 - Help to support resilience objectives with environmental co-benefits (e.g., improve stormwater quality, beautification, green space, public health, etc.)
 - Help to reduce I&C SW Charge option costs (estimated annual reductions of \$386,000 to \$966,000 in 2021 based on a 2% to 5% uptake)
- Would require new program be implemented with operating costs and staff resource implications for Toronto Water, Revenue Services and other divisions
- **Key challenges:**
 - No other municipality (based on a scan of approx. 20 jurisdictions) has implemented a SW charge only for I&C properties
 - Would result in charging customers on a different basis for the same service
 - Would require a restructuring of the water rate to a class-based structure which would result in a more complex water rate structure
 - Would result in very complex billing for mixed-use properties (i.e., these properties would need to be excluded)
 - Would result in a more complex management of reserve funds for stormwater management expenditures

Option: Stormwater Charge (SW Charge) for Commercial Parking Lots

Option Description and Suggested Framework

- Stormwater charge for owners of commercial parking lots to recover the serviceable costs of stormwater services for these properties
- Would apply to **300+ commercial parking lots*** that do not have a water account and contribute stormwater runoff to the City's sewer systems:
 - Includes: ground surface parking lots and multi-level parking garages with roof
 - Excludes: underground parking garages
- SW Charge for commercial parking lots would be based on the size of property (tiered flat rate for <1 ha; individual assessment >1 ha)
- Properties would receive a new Stormwater Charge only bill from Revenue Services
- Revenue neutral – new revenue would be removed from block rates



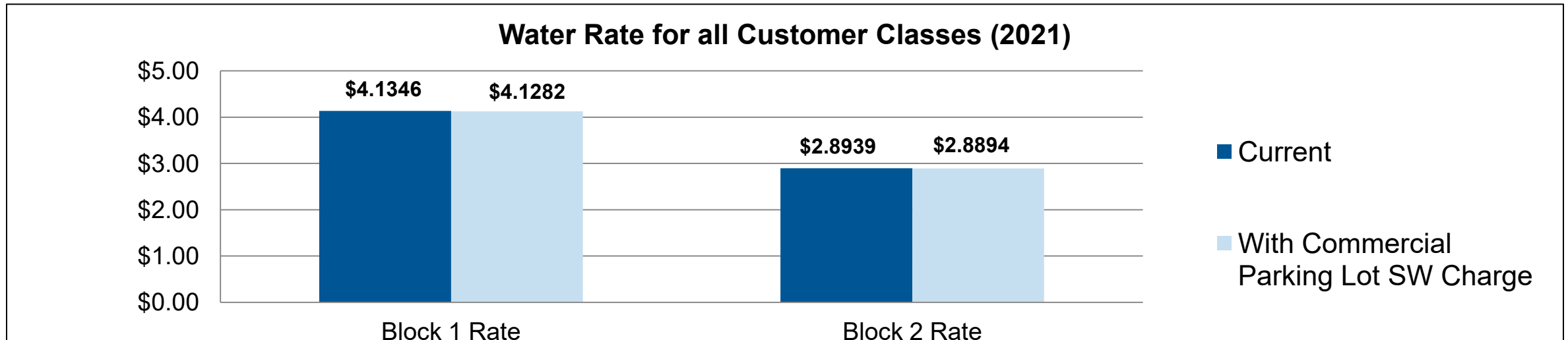
Type of Parking Lot	Number of Properties	Number of Properties w/o water accounts**	Total Impervious/ Parking Area**	Total % of City Impervious Area (21,025 ha)**
Surface lots	651	309	1,296,596.44 m ² 129.6 ha	0.6167 %
Multi-level garage with own roof	23	9	5826.22 m ² 0.58 ha	0.0028%
Totals	674	318	1,302,422.66 m ² 130.24 ha	0.6195%

** Based on a preliminary assessment of these parking lots; 63 parking lots remain to be assessed for water accounts and total impervious/parking area

Option: Stormwater Charge for Commercial Parking Lots (cont'd)

Preliminary Assessment of Option**

- Represent an estimated **130 hectares or 0.62% of total impervious area** across the city (21,025 hectares)
 - total funding allocation for I&C customers for the stormwater management program (\$324.9 M) based on the 0.62% percentage contribution would amount to **\$2.012 million in 2021**
 - a stormwater charge for I&C properties would be **\$1.55 per m² of impervious area in 2021**
 - Stormwater charge for commercial parking lots would increase over the next 10 years to fund increasing costs for the stormwater management program
 - 5 year average is \$2.04/m² of impervious area
 - 10 year average is \$2.25/m² of impervious area



Option: SW Charge for Commercial Parking Lots (cont'd)

Round 1 Consultation Feedback

- Provides for fairness and cost recovery from properties that are contributing stormwater to the sewer system but not currently paying for stormwater management services through the water rate
- Should be paired with SW charge incentives which would encourage installation of green infrastructure (e.g. permeable pavers, bioswales, etc.) to reduce stormwater volumes and improve stormwater quality (e.g. particulate settlement from automobile contaminants)
- Concerns about significant financial impact on parking lot property owners and operators and timing in light of Covid-19
- Seems to be administratively burdensome to implement compared to revenues that would be generated

Option Assessment

- Would align with user pay principle as the SW Charge would generate an estimated \$2 M in revenue in 2021 from commercial parking lot properties that generate stormwater but do not currently pay for stormwater services
- Would result in a small reduction in the water rate for all other customers
- Implementation would require further investigation to address challenges related to determining impervious area for parking lot properties:
 - With irregular addresses
 - Covering more than one property/parcel, i.e. more than one property owner

Discussion Questions: Water Fees and Charges

- Do you have any questions or comments about the options, suggested principles and frameworks, and the assessment (e.g. other considerations)?
 - Administrative water charge option
 - I&C stormwater charge and credits option
 - Commercial parking lot stormwater charge



Stormwater Management Incentives for I&C Customers

Stormwater Management Incentives for I&C Customers

- **Stormwater management incentive options** being explored to help industrial and commercial (I&C) customers undertake sustainable storm water and flood management solutions on their properties:
 - Stormwater Green Infrastructure Grants
 - Award and Recognition Program

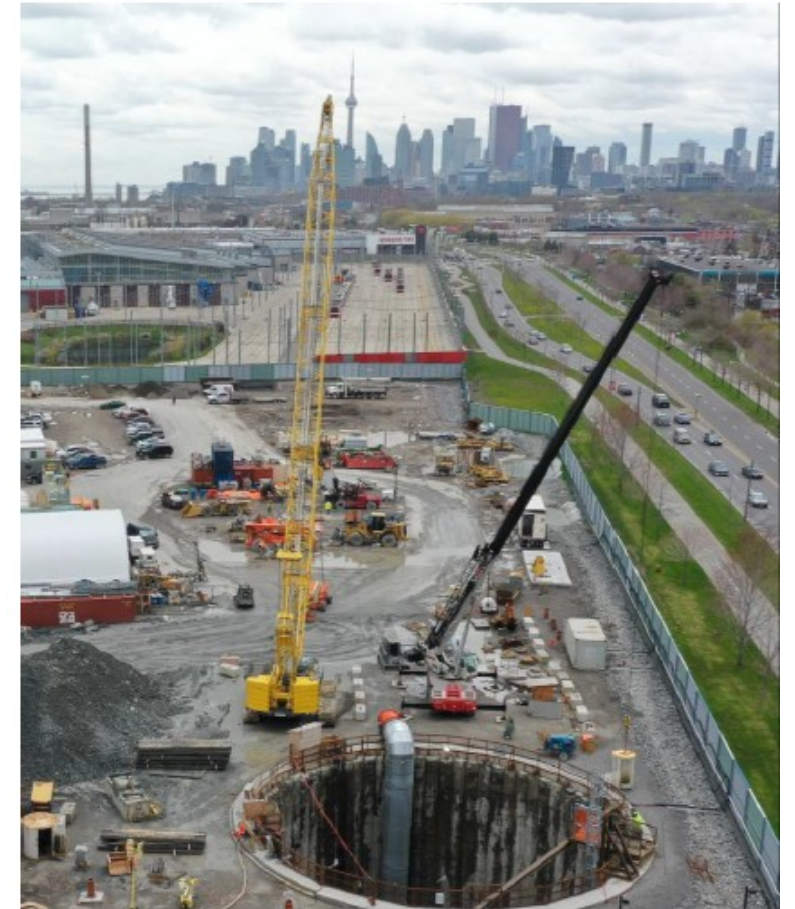


City Stormwater Management Related Policies and Programs

- **Mandatory Downspout Disconnection** – downspout disconnection is mandatory 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). The bylaw is applicable to all buildings, including residential, industrial, institutional and commercial locations
- **Wet Weather Flow Management Policy and Guidelines (WWFMG)** – sets out objectives and requirements for stormwater management for new and redevelopment including water balance, water quality, water quantity among others
- **Toronto Green Standard (TGS)** - Toronto's sustainable design requirements for new private and city-owned developments. The Standard consists of tiers (Tiers 1 to 4) of performance measures with supporting guidelines that promote sustainable site and building design. 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 Bylaw**
- **EcoRoofs Incentive Program** - Grants are available to support the installation of green roofs and cool roofs on Toronto homes and buildings
 - Green Roof Incentives - \$100 / m² installed; up to \$1,000.00 for a structural assessment
 - Cool Roof Incentives - \$5 / m² for a cool roof with a new membrane; \$2 / m² for a cool roof coating over an existing roof

Stormwater Management Infrastructure Investments

- The **Wet Weather Flow Master Plan (WWFMP)** is a 25-year plan to reduce stormwater and protect the environment for healthy streams, rivers and Lake Ontario – approx. \$4.3 billion from 2021-2030 Capital Plan
 - **Basement Flooding Protection Program** – studies and construction of infrastructure improvements to the City's sewer system and overland drainage routes to provide an enhanced level of flooding protection – approx. \$2.2 billion
 - **Don River and Central Waterfront Project, other stormwater infrastructure and watercourse management projects** – stormwater ponds, tanks and tunnels to improve water quality and protect vulnerable sewer infrastructure from erosion impacts – approx. \$2.1 billion



Don River and Central Waterfront Project

Stormwater Management Incentives for I&C Customers

Round 1 Consultation Feedback:

- Implementation of stormwater management controls is a consideration for industrial and commercial property owners (71%)
- In addition to stormwater management benefits, other benefits of green infrastructure should be considered (e.g. supporting resilience objectives, reducing pollution, beautification, green space, public health, etc.) by the City
- I&C properties face significant upfront capital costs to implement stormwater management solutions, e.g. retrofits for older buildings and ongoing maintenance costs
- The value of incentives for retrofitting of SWM controls does not often correlate to an acceptable return on investment period
- Green infrastructure incentives require a City-wide approach and collaboration with other divisions to fully assess and realize benefits
- Suggestions:
 - Consider prioritizing area for stormwater grants that are within combined sewer area or within or upstream of areas that are at high risk of flooding
 - Provide free or subsidized stormwater assessments or audits to ensure the most effective solutions are being implemented
 - Incorporate urban food production in I&C stormwater management incentives



Option: I&C Stormwater Green Infrastructure Grants

Option Description

- Would provide grants for industrial and commercial property owners to implement green infrastructure SWM solutions

Suggested Framework for Discussion

- Supplement existing City of Toronto programs (e.g. Eco-Roof Incentives) with **a focus at-grade green infrastructure/low impact development (LID)** on I&C properties to **promote** runoff volume reduction, quality treatment and peak flow control
 - One-time grants would be provided for implementation of best practice LIDs (e.g. bioswales, permeable pavement, etc.) with minimum sizing requirements, etc.
 - **Existing property retrofits** – grants would be made available for all stormwater management projects that meet program objectives and criteria (would need to be developed)
 - **New development or redevelopment** – grants would be made available only for projects that exceed WWFMG requirements (as per TGS Tier 1)
- Would 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 (would need to be developed)
 - Grant amount would have a limit and would not cover all the project costs incurred by the property owner
 - Agreement would be required with the City for the property owner to maintain green infrastructure in good condition; and one-time inspection by City

Option: I&C Stormwater Green Infrastructure Grants (cont'd)

Option Assessment

- **Potential stormwater runoff reductions based on Northeast Ohio Regional Sewer District (NEORSD) Green Infrastructure Grants Program:**

Years	NEORSD Grant Awards (\$US)	Estimated Stormwater Runoff Reduction (m ³) in NEORSD	Equivalent Toronto Water stormwater O&M (Pumping and Conveyance) Cost Savings **
2015-2021	\$9,231,600	114,704 m ³	Approx \$184,000

*** Estimate based on stormwater conveyance and pumping cost of \$10.8 M in 2021 for 6.67 million m³ of stormwater in 2020*

- Two US municipalities identified which provide stormwater grants to I&C properties:
 - Programs established to meet US EPA consent for CSO control over 25 years
 - Other municipalities in the US are implementing stormwater management infrastructure projects similar to the City's Don River and Central Waterfront Project
- Would not reduce stormwater infrastructure capital costs for Toronto Water but could reduce SWM pumping and conveyance operating costs depending on grant uptake
- Would require further work to develop grant criteria and develop a new program - capital and operating cost and staff resource implications
- Stormwater grant funding would have to come from the water rate which would increase the rate

Option: I&C Stormwater Management Awards and Recognition Program

Option Description

- Develop a program that showcases exemplary stormwater management projects for industrial and commercial customers have implemented sustainable practices on their properties (similar to Washington DC Sustainability Awards)

Round 1 Consultation Feedback

- Limited support expressed - considered to be less effective in incentivizing SWM improvements than other options

Option Assessment

- Would help promote recognition of businesses for environmental stewardship and help increase industry awareness
- Would not address costs I&C businesses face in implementing improved SWM practices
- Municipal Awards Programs have been discontinued in the past decade, e.g. City of Portland BEST Program was discontinued in 2020
- Would require development of criteria for awards, submission and review/approvals with operating costs and staff resources required



Source: [District of Columbia Department of Energy & Environment website](#)

Discussion Questions:

Stormwater Management Incentives for I&C Customers

- Do you have any questions or comments about the options, suggested frameworks, and the assessment (e.g. other considerations)?
 - Stormwater Grants
 - Awards and Recognition Program



Thank you for Participating!

- Next Steps:
 - Provide additional feedback by **Wednesday, May 19** to waterconsultation@toronto.ca
 - July 5, 2021 (anticipated) - Staff Report to be considered by Infrastructure and Environment Committee

