

Water Utility Cost of Service Study

RECOMMENDATION(S):

That the Executive Committee recommend that Council:

1. Receive this report for the Corporate Record;
2. Direct Administration to develop water, wastewater, and stormwater rates and associated bylaws for 2023-2026 for each inside city customer class, and for outside city customers following the strategy articulated in Attachment 3 of this report to be presented as part of One Calgary Service Plans and Budgets; and
3. Direct Administration to report back with an update on the Wastewater Loading Management Program once appropriate customer engagement has been completed.
4. Direct this report to be forwarded to the 2022 July 26 Combined Meeting of Council.

RECOMMENDATIONS OF THE EXECUTIVE COMMITTEE, 2022 JULY 20:

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3. Direct Administration to report back with an update on the Wastewater Loading Management Program once appropriate customer engagement has been completed.

HIGHLIGHTS

- The Water Treatment and Supply, Wastewater Collection and Treatment, and Stormwater Management lines of service (the Water Utility) have undertaken a Cost of Service Study (COSS) in preparation of the 2023-2026 Service Plans and Budgets.
- **What does this mean to Calgarians?** Protecting public health by providing clean and safe drinking water at a reasonable and affordable cost continues to be the Water Utility's most important priority.
- **Why does this matter?** The Water Utility is working to provide affordable, sustainable, and resilient high quality services, while enduring the cost pressures to meet regulatory requirements, support the needs of a growing population, and maintain critical infrastructure.
- A COSS determines the revenue required to deliver utility services and allocates costs to customer classes in proportion to the water, wastewater, and stormwater services used by that customer class in a fair and equitable manner.
- In conjunction with the approved rate changes (C2022-0798, 2022 July 5), the COSS process recommends rates by customer class that balance the principles of fairness and equity among customers, natural resource management, and financial sustainability.
- Rate design ensures the appropriate fixed and variable charges have been considered to mitigate financial risk, while offering customers the ability to manage and influence their monthly bill.

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- Maintaining these outcomes supports the service characteristics that customers value – reliability, responsiveness, safety, environment, and affordability.
- Strategic Alignment to Council’s Citizen Priorities: **A healthy and green city and a well-run city.**
- Background and Previous Council Direction is included as Attachment 1.

DISCUSSION

The customer, consumption, and cost analysis performed, identified that changes to cost recovery are required to improve fairness and equity among customer classes. If the current rates are kept unchanged, the cost recovery from different customer classes would not be representative of the cost of service per customer class. Detailed information for each line of service is included as Attachment 2, Cost of Service Study Executive Summary.

To aid decision making and determine the appropriate rate design, the Water Utility prioritized rate-making objectives and identified key criteria for each line of service. In addition, input from stakeholders and general customer sentiment were considered. Prior to the development of the recommended strategy and based on these outcomes the Water Utility carefully evaluated the fixed and variable components of the utility rates, balancing objectives to achieve the appropriate rate design. To allow more control over the monthly bill for the customer while continuing to balance sufficient predictability of revenues for the Water Utility, the recommendation was made to shift some costs from fixed to variable.

Not all the water consumed is returned to the Wastewater system (e.g. irrigation). As wastewater is not metered, the application of a wastewater return factor to determine wastewater charges is considered best practice in the wastewater utility industry. Determined through customer class analysis the average, annual, wastewater return factors are: 88 per cent for Residential Metered customers, 90 per cent for General Service customers, and 95 per cent for Multi-Family customers. Each of these return factors represents a 2 per cent reduction compared to the return factors used for the 2019-2022 rates. Bylaw amendments to reflect this will be brought to Council later this year.

Customer Impact

Calgarians have access to clean and reliable water every day, and the Water Utility continues to work hard to keep rates affordable, ensuring a fair cost allocation. Administration is recommending a customized approach to increase fairness across customer classes, while minimizing the impact on General Service customers. By 2026 the cost recovery for Water and Wastewater services will be 100 per cent for Residential Metered customers, 100 per cent for Multi-family customers, and 95 per cent for General Service, illustrated in Attachment 3, along with other customer classes.

The impact for each customer class is a combination of the overall rate adjustments, the changes in cost recovery to improve customer fairness, and the shift in the fixed and variable component of the rate. The cost recovery approach for different customer classes, as well as the shift of some costs from fixed to variable means customer classes will have different impacts and not all customers will see the same monthly bill increase or decrease. Customers who use less than the typical water consumption could see a reduction in the monthly bill, while customers using more than typical consumption could see an increase.

Table 1: Approximate impact on typical monthly total utility bill

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Customer Class	Incremental change	2023 monthly bill	2024 monthly bill	2025 monthly bill	2026 monthly bill
Residential Metered \$111.86 monthly in 2022	-\$0.44-+\$0.16	\$111.42	\$111.58	\$111.74	\$111.91
Multi-Family \$2,168.36 monthly in 2022	\$31.31-\$59.53	\$2,199.68	\$2,259.21	\$2,318.74	\$2,378.26
General Service Regular \$1,366.64 monthly in 2022	\$38.26-\$54.16	\$1,404.90	\$1,459.05	\$1,513.21	\$1,567.36
General Service Large \$33,403.04 monthly in 2022	\$1,003.26- \$1,415.27	\$34,406.31	\$35,821.58	\$37,236.85	\$38,652.13

What the Water Utility calls a typical bill is the monthly charge for these services with residential metered consuming around 19 m³ of water per month, multi-family customers consuming around 600 m³ or water per month, general service regular customers consuming around 400 m³ of water per month, and general service large customers consuming around 10,500 m³ of water per month.

Stormwater Rate Structure

As directed by Council, the Water Utility undertook a Stormwater Rate Structure Study, Attachment 4, to assess the feasibility and impacts of a variable stormwater fee. The study analyzed impervious area, parcel, and billing data to understand data gaps and necessary steps to implement a variable rate. Potential variable rate structures were developed, evaluating customer impacts, stormwater revenue, and implementation considerations.

Based on the objectives of the Stormwater line of service and the current economic conditions, the Water Utility has determined that a variable rate based on impervious surface does not align with Stormwater's fundamental principles and goals at this time. Administration is recommending to keep the flat stormwater service charge for the 2023-2026 business cycle.

Regional Cost of Service Study

A separate COSS is completed for the Regional customers as they do not use all the infrastructure or services provided to customers within Calgary. As per the Master Servicing Agreements, Regional customers provide current and future water and wastewater requirements to complete the COSS, ensuring Regional customers cover 100 per cent of the cost of service based on their revenue requirement.

Wastewater Extra Strength Customers and Parameters

The Wastewater Loadings Management Program (WLMP) takes a holistic approach to the treatment of extra strength wastewater from our industrial, commercial, and institutional (ICI) customers. The WLMP focuses on customers whose wastewater discharge exceeds concentration limits for parameters indicated in the Wastewater Bylaw and are billed under the wastewater surcharge program, currently targeting three parameters.

Following the 2020 report to Council (PFC2020-1140), a study was completed in 2021 to understand impacts, identify alternatives to treat extra strength wastewater, and explore changes to the surcharge formula. The study highlights the importance of the Water Utility and customer's shared responsibility to protect infrastructure and the rivers, while ensuring that

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customers are paying for the services they use. Continuing from the study, the Fats, Oils, and Grease (FOG) component will be reconsidered, and other parameters may be added based on analysis.

These changes will be implemented in a phased approach, allowing time for impacted customers to understand and adapt business processes. The Water Utility will begin reaching out to these customers in Q3 2022, including opportunities to discuss business impacts, potential future bill changes, opportunities for further treatment, and discussion around how The City can help remove barriers and provide support. During this time the Water Utility will maintain 2022 rates while working towards implementation of the updated billing surcharges.

STAKEHOLDER ENGAGEMENT AND COMMUNICATION (EXTERNAL)

- Public Engagement was undertaken
- Public Communication or Engagement was not required
- Public/Stakeholders were informed
- Stakeholder dialogue/relations were undertaken

The Water Utility continues to hear that the highest priorities for our customers are safe, reliable, and affordable drinking water and that we take care of wastewater and protect the health of the rivers and watershed, while protecting properties from flooding. As an essential service, the resilience and continuity of drinking water is an expectation of Calgarians. In the 2022 Spring Pulse Survey the Water Utility lines of service received some of the highest satisfaction ratings.

The Water Utility is committed to delivering on these customer commitments, as well as ensuring the monthly utility bill is predictable and fair. In preparing the cost recovery strategy that will inform the 2023-2026 rates, the current economic climate was considered, emphasizing the need to minimize impact on customers' monthly bills.

Each year, customers' rate changes are communicated through various platforms including updates to Calgary.ca, providing information on the bill, and responding to customers questions when they contact The City or the contracted customer care and billing provider.

IMPLICATIONS

Social, Environmental and Economic Implications

With the proposed cost recovery strategy that will inform the 2023-2026 rates, the Water Utility continues to ensure The City's social, environmental, and economic goals are delivered under sound and sustainable financial policies. Ensuring reliable, available, and safe drinking water is key to Calgary's economic prosperity, and social and climate future.

Service and Financial Implications

The cost recovery recommendation presented incorporates the rate changes in Water, Wastewater, and Stormwater which were approved by Council on 2022 July 5 in C2022-0798. The revenue requirements calculated through the COSS have considered the financial policies and targets, capital investment plan, operating increases due to service resilience, growth, climate change and inflation, and any reductions identified in the lines of services for the 2023-2026 Service Plans and Budgets.

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RISK

With the recommended cost recovery strategy, the Water Utility will increase fairness and equity among customers and achieve closer to 100 per cent cost of service by customer class, while minimizing significant monthly bill impacts to larger customers. This strategy is recommended to help mitigate any adverse reaction to a rate increase by a customer or set of customers, especially under current economic situations. Through water conservation efforts customers have been able to reduce their monthly water bill and with further conservation measures customers can continue to see reductions in their monthly bills. Additionally, the shift in costs from fixed to variable will assist in customer's ability to influence their bill through these conservation measures.

Risk that through growth and consumption pattern changes, a lack of alignment between those that use the system and those that pay for the system could occur over the next business cycle. To mitigate such inequity, a future COSS will be conducted in the next business cycle (2023-2026) to prepare for 2027-2030.

ATTACHMENT(S)

1. Previous Council Direction, Background
2. Cost of Service Study Executive Summary
3. Cost Recovery Strategy
4. Stormwater Rate Structure Study
5. Presentation

Department Circulation

General Manager/Director	Department	Approve/Consult/Inform
Doug Morgan	Transportation	Approve
Michael Thompson	Utilities and Environmental Protection	Inform
Carla Male	Chief Financial Office	Inform
Stuart Dalglish	Planning and Development	Inform