

**Utilities & Environmental Protection Report to
SPC on Utilities and Corporate Services
2018 February 14**

**ISC: UNRESTRICTED
UCS2018-0091
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Water Utility Billing Adjustment Process and Wastewater Rate Report

EXECUTIVE SUMMARY

This report is in response to Notice of Motion 2017-31 which directed Administration to report back through Standing Policy Committee (SPC) on Utilities and Corporate Services no later than Q1 2018 with recommendations and options in response to residential customer concerns regarding their water bills. It presents a summary of changes that have been made to effectively respond to customers with abnormally high, unintentional water consumption, and provides insight into the implications of these policy changes and potential considerations for further action. This includes a new billing adjustment process developed and implemented on 2017 October 01 along with an independent review of water meter practices. ENMAX, the contracted service provider for utility billing and customer care, also completed a third party review of its billing system.

ADMINISTRATION RECOMMENDATION:

That the SPC on Utilities and Corporate Services recommends that Council direct Administration to:

1. Further investigate options for appeal mechanisms, and report back to Council through the SPC on Utilities and Corporate Services with a recommendation by Q4 2018.
2. Incorporate the financial impacts of the billing adjustment process into utility rate setting for 2019-2022.
3. Identify the requirements for an assistance program for low income customers and bring to Council for consideration in 2018 as part of the Utility's 2019-2022 business planning.

RECOMMENDATION OF THE SPC ON UTILITIES AND CORPORATE SERVICES, DATED 2018 FEBRUARY 14:

That Council direct Administration to:

1. Further investigate options for appeal mechanisms, and report back to Council through the SPC on Utilities and Corporate Services with a recommendation by Q4 2018; and
2. Incorporate the financial impacts of the billing adjustment process into utility rate setting for 2019-2022.

Excerpts from the Minutes of the Regular Meeting of the SPC on Utilities and Corporate Services, Held 2018 February 14:

“Moved by Councillor Colley-Urquhart

That the SPC on Utilities and Corporate Services recommends that Council direct Administration to:

3. Identify the requirements for an assistance program for low income customers and bring to Council for consideration in 2018 as part of the Utility's 2019-2022 business planning.

ROLL CALL VOTE

For (3): Councillor Colley-Urquhart, Councillor Farrell, Councillor Gondek

Against (3): Councillor Sutherland, Councillor Demong, Councillor Magliocca

MOTION DEFEATED”

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PREVIOUS COUNCIL DIRECTION / POLICY

On 2017 September 09, Council adopted Councillor Colley-Urquhart's Notice of Motion (NM2017-31) on "*Water and Wastewater Consumer Billing Irregularities*" and directed Administration to report back through SPC on Utilities and Corporate Services no later than Q1 2018 with recommendations and options.

Administration was directed to immediately forgive high bills, analyze the scale and scope of the issue, research potential consumer appeal mechanisms, and provide cost estimates for free inspection services. It also included a request to review the cost of wastewater and drainage to reflect that all water used is not returned to the wastewater system. The Notice of Motion is included as Attachment 1.

BACKGROUND

Administration is authorized by the Water Utility Bylaw (40M2006) to adjust bills for customers that experience abnormal water consumption. In April 2016, the Water Utility implemented a water billing adjustment process for customers experiencing leaks and undetermined high consumption. This process was developed in response to customer feedback and replaced the Water Forgiveness Program, which often took months for customer resolution to be reached, required customers to provide proof of a leak and receipts for repair prior to receiving a credit of 100% of the above average consumption. The April 2016 revised process expanded eligibility to customers with high consumption from an undetermined cause and offered partial bill adjustments.

A significant improvement to accompany this process was the addition of proactive notifications to customers from ENMAX, following an extremely high meter reading. This notification takes place before the bill is sent out and supports the customer in potentially identifying and resolving the issue more promptly. The City and ENMAX work with each customer who shares concerns about higher than normal bills, including completion of a High Water Consumption Investigation Checklist. If the cause cannot be found, ENMAX and The City move into a more extensive investigation, which includes checking billing processes and having City technicians conduct an on-site inspection.

In August 2017, customers expressed dissatisfaction with the process citing concerns with partial adjustments, and accuracy of utility billing and water meters. In response, a new billing adjustment process was implemented on 2017 October 01. The Water Utility and ENMAX are confident in the accuracy of the billing system and water meters. To provide assurance and strengthen customer trust and confidence, consultants were contracted to conduct independent reviews of the reliability and accuracy of these systems.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Of the Water Utility's 345,000 residential metered customers, 99.5% receive monthly bills that reflect regular water consumption levels within their average range. Of the customers who experience abnormal consumption, typically about 30% of those are unable to determine the cause of the water use.

The most common cause for increased consumption is an undetected water leak, typically a toilet or fixtures leaking in the home. Other causes include leaks in hot-tubs, irrigation systems,

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burst pipes, humidifiers or water heaters. Attachment 2 provides examples of recent customers who have received a high bill due to water consumption.

Another reason for a high bill is a billing delay, which results in more than one month of consumption appearing on a bill. Meter exchanges are part of the Water Utility's preventative asset maintenance program and may result in a billing delay. The Water Utility recognizes that this can create challenges for customers and is making improvements to reduce billing delays.

New Bill Adjustment Process for Residential Customers

A new bill adjustment process for residential customers was implemented on 2017 October 01. If a customer receives a bill equal to or greater than three times their average seasonal monthly use, and the consumption was unintentional and has returned to normal, they are eligible to have that bill adjusted to the amount of their average bill (monthly basic service charges and average water consumption) for a maximum of three billing cycles. Three billing cycles provide sufficient time for leaks to be identified and repaired. In addition, customers must complete the High Water Consumption Investigation Checklist to be eligible. The City engaged a consultant to support development of the new billing adjustment process. This included a survey of leak adjustment policies of 15 large North American water utilities, which confirmed The City's new process is aligned with best practices.

Attachment 3 provides a visual representation of the ENMAX and City processes for identifying and responding to customers with abnormally high consumption.

Since putting the new protocol in place on 2017 October 1:

- 757 customers who received partial adjustments between April 2016 and July 2017 were provided a top up to a 100% adjustment resulting in a total of about \$407,000 in adjustments.
- 924 customer accounts were reviewed from 2017 October 1 to 2017 December 31 under the new criteria and adjustments totalling \$540,000 were provided.
 - About 70% of reviewed accounts met the eligibility criteria. 90% of ineligible customers escalated to The City for review by the Director. The Director reviewed each escalated case to determine if there were unique or extenuating circumstances.

General Service Customer Bill Adjustment

A program does not exist for General Service (industrial, commercial and institutional) customers because the demand for a program has not been as high as for residential customers. General Service customers typically have greater oversight of their systems and they have other avenues for compensation. A small number of General Service customers have inquired and have been reviewed on a case by case basis. Further work will occur in 2018 to determine appropriate approaches for these customers.

Inspection Services

In cases where the cause of high consumption remains unknown following completion of The City's High Consumption Investigation Checklist and consumption does not return to normal, City technicians check the customer's water meter and inspect fixtures and appliances throughout the home. In many cases, a leak is either discovered or evidence of a previous leak is found and advice is provided to the customer. Each inspection is provided at no cost to the

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customer and the cost (approximately \$600 per visit) is incorporated into the rates paid by all residential customers. The City conducted approximately 160 high consumption inspections in Q4 2017. In rare cases where the technician cannot determine the cause through visual inspection, a customer may require the assistance of a plumber.

Customer Assistance Programs

The bill adjustment process and the inspection services provided are considered a type of customer assistance program, with costs borne by the entire customer class. Although The City does not have a formal customer assistance program for low income customers challenged with paying for essential services, a recent Citizens Perspective survey found that 77% of those surveyed support the idea. The Utility will be bringing forward an assistance program for low-income customers for Council consideration as part of 2019–2022 business planning.

Meter Accuracy

It is not unusual for customers to question the accuracy of the meter following receipt of a high bill. To provide assurance and strengthen customer trust, the Water Utility commissioned an independent review of the City's residential water metering controls, practices, and technology. The consultant reviewed industry benchmarks, surveyed other municipalities, and provided a number of recommendations for improvement. The full report is available in Attachment 4.

The City of Calgary uses positive displacement meters for residential customers, as do the majority (98%) of Canadian municipalities, as they are a proven technology, are extremely reliable, and relatively inexpensive. These are mechanical devices with mechanical registers that measure a discreet volume of water that passes through the meter. The design of the meter inherently mitigates any potential for over registration when installed correctly. Meter failure or malfunction has not been the cause of any high consumption cases for the City of Calgary.

The report indicates that the Water Utility follows American Water Works Association's standards and demonstrates industry leading practices associated with the application, testing and replacement of its metering infrastructure. All municipalities surveyed have customers experiencing high bills, none of which experienced a meter failing by over reading consumption.

Meter Technologies

Approximately 88% of Calgary's residential customers have Automated Meter Reading (AMR) Technology which allows for remote meter reading, which is a form of smart metering. Further technological advancement to Automated Metering Infrastructure (AMI) offers a number of benefits, including reduced meter reading costs, improved data analytics to support conservation, and early detection of leaks through the ability to see real time information. Attachment 4 includes further details for these technologies. The Water Utility plans to investigate the potential for implementing AMI in development of the long-term metering infrastructure strategy in the next business cycle.

Billing System Accuracy Review

ENMAX engaged an independent third party to conduct a review of ENMAX meter reading, high consumption detection, data and invoicing practices. The investigation focused on the accuracy of the flow of data from meter reading to ENMAX's billing system, and validation that the correct consumption volume and correct rates were used through to the correct invoicing to customers. ENMAX has reviewed the findings and has confidence that its meter reading, high consumption

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detection, data and invoicing practices are operating effectively and reliably. Additional information on ENMAX's review is available as Attachment 5.

Wastewater Rates

The Water Utility recognizes that the presentation on the bill is not clear for customers. The rates do account for the fact that not all water being used by a customer enters the wastewater collection system. As determined by consumption analysis through the Cost of Service Study conducted in 2014, the proportion of water used by the residential customer class that is returned to the collection system is 0.9 (90%), on average over the course of a year. This is termed the wastewater return factor. This is reflected on a customers' bill as a reduced wastewater rate (90% of the rate), as opposed to what most customers expect to see on their bill as a lower volume (i.e. 90% of the water volume). Because wastewater is not metered, the application of a wastewater return factor to determine wastewater charges is considered best practice for wastewater utilities. This has been confirmed through an independent consultant undertaking The City's Cost of Service Study. Further detail on the wastewater return factor is provided in Attachment 6.

Customer Appeal Mechanisms

Development of the new bill adjustment process included more clearly defining the escalation process to the Water Utility. Customers not satisfied with the eligibility criteria are escalated by ENMAX to the Water Utility. As set out in Section 32 (4) of the Water Utility Bylaw 40M2006, the Director, Water Resources has the discretion to adjust the customer's abnormally high bill, taking into consideration various factors including any circumstances of the case which the Director considers relevant.

Law and Legislative Services conducted a preliminary review of potential options for customer appeal mechanisms and governance oversight approaches possible within The City's existing governance structure and authority. Options include 1) Monitoring the effectiveness of the new (October 2017) customer escalation process, implemented as part of the new bill adjustment process; 2) using an existing board such as the Licence and Community Standards Appeal Board; or 3) establishing a new Council committee or appeal body. Further work is required to evaluate and recommend a utility billing appeal mechanism. Additional background and initial options analysis are available in Attachment 7.

Stakeholder Engagement, Research and Communication

The City of Calgary and ENMAX have been collaboratively working towards improving the customer experience. An example of this is the ENMAX Municipal Centre of Excellence, a dedicated team of customer service representatives trained to handle more complex municipal water customer calls. Customer feedback will continue to be monitored to determine if revisions to the billing adjustment process are required.

Strategic Alignment

The processes to support customers with abnormally high water consumption contribute to a number of Strategic Action areas in Council's Priorities for 2015-2018:

- A healthy and green city (H6- Continue to build public awareness and understanding of our shared responsibility to conserve and protect the environment).

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- A well-run city (W5 - Regularly collaborate and engage citizens to encourage participation in City decision-making, and better communicate the reasons for the decisions).

Social, Environmental, Economic (External)

The new bill adjustment process is meant to balance the customer's experience knowing that having an abnormally high bill can be difficult, the importance of homeowners monitoring their water use, and The City's accountability to all rate payers to use their financial resources responsibly. From an environmental perspective, The City's ongoing commitment to metered water billing will continue to play a large role in achieving the City's water conservation goals, as customers are able to monitor and adjust their water consumption.

While the billing adjustment process is one type of customer assistance program, the Water Utility also recognizes the need to support low income customers who are financially challenged to pay their bills.

Financial Capacity

Current and Future Operating Budget:

The Water Utility will absorb the revenue loss associated with the new billing adjustment process in 2017 and 2018. Revenue loss for 2017 totaled approximately \$947,000, which includes adjustments on 2016 bills. The estimated impact is expected to be approximately \$1.5 million annually going forward.

Further work is required to determine the operating budget impact of providing an assistance program for low income customers.

Future billing adjustment process costs will be accounted for in the water and wastewater rates proposed by Administration for 2019-2022.

Current and Future Capital Budget:

There are no capital budget implications of this report.

Risk Assessment

The new billing adjustment process presents some risk to water conservation, as some customers may be less motivated to monitor and remedy water leaks when receiving full adjustments. This is mitigated by limiting the adjustment period to three billing cycles.

Customers who do not experience abnormal, unintended water use may not support recovery of the cost of the billing adjustment process through future rates. Other customers may make use of the process on multiple instances and their participation will be monitored to determine if a restriction on frequency (i.e., one adjustment per year) is required in the future.

Despite efforts to improve the process and communication, some customers will continue to believe that the meter is over-registering their water consumption.

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REASON FOR RECOMMENDATION(S): The recommendations aim to meet the needs of our customers, while continuing to protect water as a precious resource and ensure The City uses all rate payer money responsibly.

ATTACHMENTS

1. Notice of Motion 2017-31
2. Residential Customer Experiences - High Water Bills
3. Bill Adjustment Process Diagram
4. Water Metering Technology Review Report
5. ENMAX Billing System Review
6. Wastewater Return Factor
7. Consumer Appeals Options