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**REPORT TITLE: Water Bill Adjustment Pilot Program**

**FROM: Kealy Dedman, Commissioner of Public Works**

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## **RECOMMENDATION**

**That the residential water bill adjustment pilot program as described in the report of the Commissioner of Public Works, listed on the May 12, 2022 Regional Council agenda titled “Water Bill Adjustment Pilot Program”, be approved;**

**And further, that the estimated \$700,000 cost of the two-year pilot program plus a contract staff position of \$100,000 per year, for a total cost of \$800,000 funded from the Utility Rate Stabilization reserve, be approved;**

**And further, that a one-time retroactive adjustment for residents who filed a high-water bill complaint, met the consumption criteria, and were placed on a payment plan between January 2021 to May 2022, be approved;**

**And further, that the estimated \$80,000 cost of the retroactive adjustment funded from the Utility Rate Stabilization reserve be approved.**

## **REPORT HIGHLIGHTS**

- Each year, the Region receives approximately 2,300 complaints about unexpected high-water bills, which represents less than one per cent of all residential accounts.
- When there is an undetected leak or unintentional water use inside the home or within the property line, residential customers can often be faced with high-water bills that are significantly above their normal consumption.
- Currently, residents with an unexpected high-water bill are provided with an option for a flexible payment plan, however, the Region does not have a program to provide financial relief.
- Based on industry best practice, a water bill adjustment pilot program is recommended for residents with an unexpected high-water bill resulting from an undetected leak. The program will be evaluated after two years of implementation.
- In parallel, a feasibility study for leak insurance and metering technologies will be conducted to determine the best long-term solution.

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## **DISCUSSION**

### **1. Background**

Currently, residential customers are billed every three months based on 100 per cent of their water consumption and using an 85 per cent proxy for wastewater. Homeowners are responsible for maintaining the water and sanitary sewer pipes from inside their home to the

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property line, while the Region owns and maintains the pipes on the public side of the property line.

Where there is an undetected leak or unintentional water use inside the home or within the property line to the home, residential customers can often be faced with a high-water bill that is significantly above their normal bill. Each year, the Region receives approximately 2,300 complaints about unexpected high-water bills from residents. This represents less than one per cent of all residential accounts. The number of complaints is relatively low, but since most customers are billed quarterly, they are often not aware of unusually high-water use for several months. This delayed notification impacts a customer's ability to remedy the situation, which can lead to a significantly high bill and an unexpected financial burden.

Residents with an unexpected high-water bill are currently provided with an option for a flexible payment plan. However, the Region does not have a program to provide relief to customers and as such, does not systematically document the potential causes of unusually high-water consumption. Based on an industry scan, best practice is to either have a system in place that can detect high-water use and potential leaks in a timely manner, or to have a water bill adjustment program to provide financial relief for unexpected high-water bills.

Staff are also currently evaluating potential long-term solutions based on new insurance options and advanced metering technologies. In the meantime, Staff are recommending an interim solution which can be implemented as a pilot program.

### **2. Water Bill Adjustment Pilot Program**

Raftelis Financial Consultants Inc., (Raftelis) is the largest water industry financial management and consulting firm in North America. Raftelis has conducted an environmental scan across Canada and the U.S to inform the development of the Region's water bill adjustment program. Staff have engaged the Long-Term Utility Financial Council Working Group, comprised of representative Councillors from Brampton, Mississauga, and Caledon, who have provided their input and endorsement.

Based on common best practice, Staff recommend the implementation of a water bill adjustment pilot program to provide residential customers with a mechanism to apply for financial assistance when faced with unexpected high-water bills for leaks only. Typically bill adjustment policies do not apply to commercial customers because they implement best management practices to ensure the proper functioning of their water systems. The two-year pilot period will allow staff to collect more information, better understand the nature of the complaints, and evaluate the financial impact of the program.

#### **a) Criteria**

The goal of the pilot program is to offer financial assistance to residential customers who have high-water bills due to leaks, while ensuring that the impact on all residents remains minimal. This stays true to the 'pay for what you use' principle of customer equity. The criteria for the pilot program are based on the common best practices found across 12 comparable Canadian utilities and 4 from the U.S.

## Water Bill Adjustment Pilot Program

A summary of the key program elements of the Region’s recommended pilot program is outlined in the table below. The full water bill adjustment pilot program is detailed in Appendix I.

Program Element	Comparable Utilities	Region of Peel (Proposed)
Eligible Customers	Single-Unit Residential Accounts	
Eligible Reasons	Water leaks on the customer side of the meter	
Ineligible Reasons	Water use due to theft, unintentional high-water use (e.g., leaving the faucet on etc.), or intentional high-water use (e.g., watering the lawn, filling of pools etc.).	
Evidence	Proof of repair	
Frequency	Once every 13 years	Once every 10 years
Minimum Bill Qualification	2.5x above historical consumption	
Eligible for adjustment	55% of overage	50% of overage
Amount Adjusted	\$1,000 – \$5,000	\$2,500

Based on Council direction, Staff also recommend a one-time retroactive adjustment for residents who filed an unexpected high-water bill complaint between January 2021 to May 2022. Since this is a retroactive adjustment, the Region is not able to confirm how many of the high-water bills were caused by a leak. Therefore, all residential customers who qualify based on the consumption criteria and were placed on a payment plan, will be provided with an adjustment on their water bill. The Region used the best available information to identify customers with affordability issues, on a retroactive basis.

### b) Participation

While the Region has an average of 2,300 customer complaints each year, only a subset will likely to be eligible for the pilot program. Based on industry norms, the estimated participation for the bill adjustment pilot is approximately 40 per cent of total complaints. This equates to approximately 1,000 residential customers in Peel who will be eligible each year. The actual number of complaints due to leaks is difficult to validate since the cause of high-water use is not currently tracked. The number could also increase with customers who are only likely to file a complaint after a water bill adjustment program is made available.

### c) Implementation

The pilot program will be implemented after Council approval. Staff will evaluate the pilot program over a two-year period and will report back to Council in 2024. This will include metrics on how well the objective was achieved, how many complaints were received and resolved, customer feedback on the process, and the financial cost.

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### **3. Long-Term Options**

In parallel with the water bill adjustment pilot program, Staff will conduct a feasibility study to determine the best long-term solution for addressing unexpected high-water bills due to leaks. Options under consideration include evaluating Automated Meter Reading (AMR), Advanced Metering Infrastructure (AMI) and third-party leak insurance policies.

#### **a) Automated Meter Reading**

Currently, most residential water meters are read on a quarterly basis with a manual process where Staff walk designated routes. As the meters age and need to be replaced, the Region upgrades the outdated meters with AMR meters. The signal from the AMR meters can be read using a drive-by vehicle which allow Staff to obtain meter readings more cost-effectively and frequently.

Currently, 50 per cent of all residential customers have AMR meters. The Region is accelerating its implementation plan to upgrade all residential water meters with AMR technology from a previous eight years to four years. This decision was made based on the increased capacity of the Region's vendor to install more meters per year. Once the meter upgrades are complete, monthly billing for customers could become more feasible. This is due to the shift from a manual water meter reading process that requires Staff to walk up to each meter, to an improved automated system using drive-by vehicles. AMR meters are a prerequisite for more advanced metering technologies as described in the next section.

#### **b) Advanced Metering Infrastructure**

The next advancement in metering technology is known as Advanced Metering Infrastructure (AMI), which leverages wireless cell networks and AMI-compatible meters to fully automate the water meter reading process. AMI is considered industry best practice due to the potential for significant improvements in customer experience, water loss reduction, and the quality and timeliness of the data it generates. This is becoming more commonplace with utilities such as the City of Toronto, City of Ottawa, and Halton Region all leveraging AMI technology.

With AMI, customers will be able to monitor their water usage in real-time and set alerts for high-water use and proactive leak detection, and the need for monthly billing would no longer be necessary. This would provide the Region with comprehensive data and analytics around water conservation, customer behavior, system demands, and system performance.

The Region is currently upgrading residential water meters with AMR meters that are AMI-compatible. AMI, coupled with additional technology, will provide the Region with a long-term solution to unexpected high-water bills by providing customers with more frequent, real-time metered water consumption data. However, the capital costs of installing cell towers as well as the operational impacts on billing frequency, technology transitions, and customer service changes will need to be carefully considered.

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Staff will conduct an AMI feasibility study that will evaluate infrastructure costs, meter signal propagation, reduction in system water loss, technology upgrades, operating and environmental impacts, changes in billing frequency, and improved service level benefits. A preliminary estimate comparing the relative capital and operating costs for AMR and AMI, with monthly and quarterly billing impacts, are outlined in the table below.

Metering Technology	Billing	Capital Cost*	Annual Operating Cost*
Status Quo – AMR (8 year roll-out)	Quarterly	\$ 49M	\$ 3M
a) AMR (4 year accelerated plan)	Quarterly	- \$ 2M	
AMR	Monthly	- \$ 2M	+ \$ 2M
b) AMI (installed after AMR is complete)	Quarterly	+ \$ 18M	- \$ 1M
AMI	Monthly	+ \$ 18M	+ \$ 2M

\*Planning level estimates that require further study.

With the implementation of AMI, or acceleration of AMR with monthly billing, the water bill adjustment program may not be necessary as residential customers would have access to timely notification of high-water use and potential leaks.

### c) Leak Insurance

Leak insurance, serviced by a third-party insurance company, provides residential customers with protection against leaks. HomeServe has been offering a ServLine Leak Protection Program since 2019 to mostly rural communities within the U.S. The program is still in its infancy stage with unproven sustainability. Within Canada, the City of Hamilton is the first to adopt the ServLine leak insurance policy, with implementation beginning in 2022. The insurance policy program being implemented in Hamilton is a mandatory opt-in program for all residential customers, with insurance premiums covered within the water rate. Features include a maximum benefit of \$2,500 per residential customer every two years for undetected leaks and with a proof of repair. Staff will continue to engage HomeServe on the cost of a leak insurance policy for the Region and gather feedback from the City of Hamilton as they evaluate their program.

## RISK CONSIDERATIONS

The potential uptake for the water bill adjustment pilot program is based on current available information, with an average of 2,300 high-water bill complaints per year. However, the introduction of a water bill adjustment program could significantly increase the number of requests. To mitigate this risk, Staff can adjust the eligibility criteria after the two-year period to lower the number of people who are approved or the program itself could be replaced by one of the longer-term options.

## FINANCIAL IMPLICATIONS

The financial impact of pilot program over the two-year period is estimated to be \$700,000 per year, plus a contract staff position of \$100,000 per year, for a total cost of \$800,000. The pilot program is scheduled to begin in mid-2022 and will require a half year of funding for 2022. The pilot program will be funded from the Utility Rate Stabilization reserve.

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The one-time retroactive bill adjustment will apply to approximately 122 customers with an estimated cost of \$80,000. This will also be funded through the Utility Rate Stabilization reserve.

The acceleration of AMR from eight years to four years will be reflected in the 2023 budget.

### **CONCLUSION**

The water bill adjustment pilot program is a mechanism to help residents address the financial burden resulting from an unexpected high-water bill due to a leak. The program will be evaluated after two years of implementation. In parallel, a feasibility study for leak insurance and metering technologies will be conducted to determine the best long-term solution. Staff will return to Council with recommendations in 2024.

### **APPENDICES**

Appendix I – Water Bill Adjustment Pilot Program

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