

**Water Utility Rate Information (Tabled from the September 23, 2020
Priorities and Planning Committee meeting)**

Date	January 20, 2021
To	Executive Committee
From	Financial Strategy & Sustainability
Service Area	Office of the City Clerk
Item No.	EX21-4

RECOMMENDATION

That Priorities and Planning Committee receive and file this report.

ISSUE

At the December 9, 2019 City Council meeting, Council requested information on utility bill rates; specifically, an explanation of how the model and rates work, and the implications of lowering the daily base (fixed) rates and shifting the costs to the consumption (variable) rates to assist residents who are struggling with affordability. This report is in response to that request.

IMPACTS

The utility system is comprised of many different components and is complex. Within our current rate structure, the base rate revenue is not sufficient to pay the fixed utility costs. Lowering the base rates in favor of more revenue dependence on the variable rate may result in increased risk to the utility’s sustainability due to the unpredictability of water usage (i.e., dry vs. wet summers).

When consumption drops, the fixed costs do not. While the City does want to encourage conservation, we need to ensure that the utility remains financially sustainable. Increased pressure on the variable consumption rate may result in further decreases in per capita consumption, eroding the revenue required to maintain and operate the infrastructure.

Consumption changes may be intentional or unintentional. For example, years with increased rainfall are typically lower water consumption years. This weather-related variability may also be further impacted by climate change, with extreme and/or more frequent rainfall and times of very dry or drought conditions. These changes may negatively impact revenue stability and financial projections in the Utility Model.

As well, significant changes in overall consumption may result in operational challenges related to system stagnation. For example, decreased water demand may result in longer periods of stagnant, odorous water, thereby affecting the quality of the water. To address, this may require more frequent monitoring and flushing of the system, which would increase operational costs.

In addition to potential funding shortfalls caused by revenue fluctuations, the utility's service delivery is challenged by deteriorating infrastructure, unforeseen weather events and regulatory changes. In order to ensure we continue on a financially sustainable path for our utility, we need to generally ensure the same amount of revenue is collected over the long term.

OTHER OPTIONS

Option 1: Establish Utility subsidy programs to assist customers in financial need.

At the May 27, 2020 meeting of Council, motion 20-6 requested that Administration prepare a report for Public Works and Infrastructure for Q3 of 2021 that:

1. Outlines options to help offset the cost of water and sewer for low income residents by way of means-tested grants, billing options, and fee waivers;
2. Establishes a political advocacy strategy aimed at the federal and provincial governments with the aim of alleviating the financial burden for low-income residents with regards to water and sewer billing and costs.

Option 2: Redevelop the Utility rate structure

With the implementation of the Advanced Metering Infrastructure (AMI) program, which will begin in 2021 and is estimated to be completed by 2024 the City will have more information and better tools to develop a more complex and integrated rate structure to potentially address affordability issues as well as sustainability. For example, an analysis of the data collected from AMI could be used to explore complex rate structures such as:

- Increased Block Rates: encourages conservation as the per unit charge increases as the amount of water used increases.
- Time of Day Pricing: charging a higher rate for water used during peak demand periods, encouraging the change of behavior to lessen the impact on our infrastructure.
- Summer Surcharges: charging a higher rate for households with large lawns and pools.

COMMUNICATIONS

None with respect to this report.

DISCUSSION

Regina's residents expect safe, consistent, high-quality water services, delivered in a manner that is fiscally, environmentally and socially responsible. Delivering these services in a sustainable way requires a long-term view that secures sufficient revenue to recover the system costs, buffer against unexpected circumstances, service debts and save for future capital needs.

While many Canadian municipalities still do not have full cost-recovery utility models, Regina has had a full cost-recovery utility for the past 50 years. Some costs are variable but 80 per cent of all costs associated with the utility are fixed costs. There is a water meter installed to measure consumption in every home and business in Regina. The City uses a 25-year financial model along with master plans to help prioritize and meet environmental and system challenges as well as to ensure a sustainable utility for many years to come.

When determining the utility rate required from year to year, the City aims to strike the right balance between sustainability, equity and affordability.

Sustainability

As mentioned previously, the City of Regina currently has a sustainable system, utilizing tools such as our 25-year utility financial model along with master plans to ensure that our systems are sustainable now and into the future. We still have vulnerabilities and will need to continue to adapt.

Equity

General guiding principles are outlined in *Design Regina, The Official Community Plan* (OCP) such that those who use a service are required to pay for it. Using a blend of rates, debt and reserves helps us ensure equity between user groups as well as intergenerational equity.

Affordability

Affordability refers to different types of customers being able to pay for water and wastewater services. It is measured by its cost relative to the amount residents are able to pay.

City of Regina Rates:

Our rates (attached as Appendix A) are structured to support a sustainable utility and to encourage conservation. The current structure uses a blend of approximately 35 per cent fixed fees and 65 per cent variable fees for water and wastewater. Services are charged through a daily base rate and through a volume (usage) charge, which provides an incentive to conserve valuable resources. These rates do not directly correlate to the utility's cost structure.

The fixed operating costs for water and wastewater are about 80 per cent, with variable costs accounting for the other 20 per cent. Fixed costs are relatively unimpacted by the amount of water consumed; however, infrastructure replacement and/or upgrades may be needed due to increased demand, population growth, economic growth, etc. The utility is responsible for infrastructure including water mains, storage reservoirs, pumping stations, building service connections, a wastewater treatment plant, wastewater and storm drainage sewers, and lift stations, as well as drainage channels and creeks. Additionally, the City of Regina is a joint owner of the Buffalo Pound Water Treatment Plant with the City of Moose Jaw.

Variable costs are those that fluctuate with the volume of water that goes through the system. This includes water purchase from Buffalo Pound Water Treatment Plant Corporation and electricity costs to manage water demand.

Under the City's current water rate structure, Regina's water sales have remained steady over the last 10 to 15 years, despite population growth. This is a result of increased conservation by residents and businesses.

The graphic below depicts a comparison of single-family water rates to utility costs for 31 water and wastewater utilities across Canada.

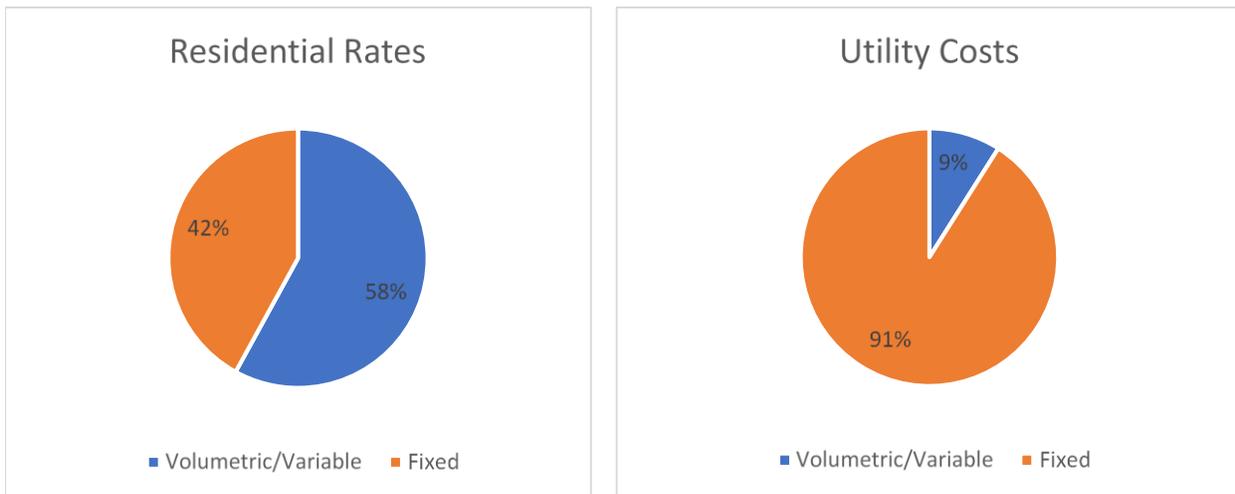


Figure 1 Comparison of single-family household rates to utility costs for 31 utilities in 2013 (Data Source: National Water and Wastewater Benchmarking Initiative (NWWBI))

The City's fixed water rate percentage (approximately 35 per cent) is lower than the average fixed water rate (42 per cent) across 31 utilities in Canada.

Changing the Rate Structure:

Lowering the Fixed Rates; No Adjustment to Variable Rates

The City of Regina’s utility rate structure is similar to other utility systems across Canada in that our rates are not in direct alignment with the cost structure. To align, rates would need to shift greatly towards the fixed and away from the variable, rather than the opposite.

The implications of lowering the fixed rate and making no change to the variable rate would result in lack of funding required to maintain a sustainable model. There would need to be consideration as to what other funding sources would make up the difference. (e.g. property taxes), as the utility would no longer be self-sustaining.

Lowering the Fixed Rates; Adjustment to Variable Rates

Chart 1 below outlines the potential impact of decreasing the daily base (fixed) rates by 3, 5, 10, 25, and 50 per cent respectively with the associated increases needed to the consumption (variable) charge to offset the impact.

Chart 1 – Percentage Decreases to the Fixed Rates and the Associated Increases Necessary to the Variable Rates to Offset the Impact

Percent Decrease to Fixed Rate	Percent Increase to Variable Rate
Decrease ↓ 3%	Increase ↑ 8.5%
Decrease ↓ 5%	Increase ↑ 10%
Decrease ↓ 10%	Increase ↑ 14%
Decrease ↓ 25%	Increase ↑ 25%
Decrease ↓ 50%	Increase ↑ 45%

A standard utility bill consists of water, sewer, drainage, and recycling charges. Water and sewer charges consist of both fixed and variable components. Drainage and recycling consist only of a fixed component. Appendix A has the complete breakdown of the 2020 Utility Rates.

Chart 2 below outlines seven types of customers and how they would each be impacted by the potential adjustments to the fixed rates for water, sewer, and drainage along with

variable rates for water and sewer. The figures below are simply meant to provide estimates for different customer types.

Chart 2 – Potential Impacts to Different Customers

*Assuming a typical level of consumption among each customer type

Customer Types	Current Sample Monthly Utility Bill	Same Utility Bill with Changes to Fixed/Variable Utility Rates	Monthly Increase / Decrease in Utility Bill
Customer 1 Single resident living in a condo	\$77.95	Fixed ↓ 3% \$76.76	Decrease ↓ \$1.19
		Fixed ↓ 5% \$75.63	Decrease ↓ \$2.32
		Fixed ↓ 10% \$72.84	Decrease ↓ \$5.11
		Fixed ↓ 25% \$64.36	Decrease ↓ \$13.59
		Fixed ↓ 50% \$50.37	Decrease ↓ \$27.58
Customer 2 Family of 2 living in a single-family dwelling	\$100.64	Fixed ↓ 3% \$101.38	Increase ↑ \$0.74
		Fixed ↓ 5% \$100.60	Decrease ↓ \$0.04
		Fixed ↓ 10% \$98.71	Decrease ↓ \$1.93
		Fixed ↓ 25% \$92.73	Decrease ↓ \$7.91
Customer 3 Family of 5 living in a single-family dwelling	\$154.86	Fixed ↓ 3% \$160.21	Increase ↑ \$5.35
		Fixed ↓ 5% \$160.24	Increase ↑ \$5.38
		Fixed ↓ 10% \$160.52	Increase ↑ \$5.66
		Fixed ↓ 25% \$160.51	Increase ↑ \$5.65
Customer 4 Family of 7 living in a single-family dwelling	\$170.93	Fixed ↓ 3% \$177.64	Increase ↑ \$6.71
		Fixed ↓ 5% \$177.91	Increase ↑ \$6.98
		Fixed ↓ 10% \$178.83	Increase ↑ \$7.90
		Fixed ↓ 25% \$180.59	Increase ↑ \$9.66
		Fixed ↓ 50% \$185.19	Increase ↑ \$14.26
		Fixed ↓ 3% \$1,307.76	Increase ↑ \$84.90

Customer 5 Multi-Residential complex with 2-inch water meter	\$1,222.86	Fixed ↓ 5% \$1,320.31	Increase ↑ \$97.45
		Fixed ↓ 10% \$1,354.32	Increase ↑ \$131.46
		Fixed ↓ 25% \$1,445.78	Increase ↑ \$222.92
		Fixed ↓ 50% \$1,615.83	Increase ↑ \$392.97
Customer 6 Commercial property with 3-inch water meter	\$1,362.68	Fixed ↓ 3% \$1,358.27	Decrease ↓ \$4.41
		Fixed ↓ 5% \$1,342.12	Decrease ↓ \$20.56
		Fixed ↓ 10% \$1,302.53	Decrease ↓ \$60.15
		Fixed ↓ 25% \$1,180.60	Decrease ↓ \$182.08
Customer 7 Large Industrial Water User in Regina	\$211,328.58	Fixed ↓ 3% \$228,839.94	Increase ↑ \$17,511.36
		Fixed ↓ 5% \$231,917.70	Increase ↑ \$20,589.12
		Fixed ↓ 10% \$241,158.82	Increase ↑ \$29,830.24
		Fixed ↓ 25% \$263,723.51	Increase ↑ \$52,394.93
		Fixed ↓ 50% \$305,802.09	Increase ↑ \$94,473.51

Adjusting the rates to have more revenue coming from the variable consumption rates would benefit some residents and disadvantage others. The benefit would not necessarily be connected to a customer's ability to pay but rather to their water use profile.

For example, a low-income renter with a five-person household (similar to Customer 3), with outdated plumbing and no low-flow devices would see an increased utility bill if the rate were shifted towards the variable component, whereas a high-income condo-owner (similar to Customer 1) with new plumbing and no yard would see a decrease. Alternatively, a portion of the Customer 1 group may be single seniors on fixed income and a portion of the Customer 3 group may be a family with two incomes having no issues with affordability.

As no customer group above will consist of everyone in the same economic situation, establishing a program to address affordability within a specific demographic or income bracket may be best done through mechanisms other than adjusting the fixed and variable utility rates.

The impacts on Commercial properties will vary based on meter size and water usage. Many Commercial properties with a small meter and low water usage may only see a slight increase or decrease in their utility bills. Commercial properties with very large meters and high-water usage (e.g., Industrial properties) are likely to see significant increases to their utility bills as the variable rate increases.

While some customers may benefit to changes in our current rate structure, when we reduce the base rates and rely more heavily on the variable rates we increase the risk the sustainability of the utility model as a whole.

DECISION HISTORY

On December 9, 2019, City Council approved the 2020 Utility Budget with Report CM19-15 2020 General and Utility Operating Budget and 2020 - 2024 General and Utility Capital Plan.

Respectfully submitted,

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ATTACHMENTS

Appendix A - 2020 Utility Rates