

Report from: Financial Management Services, Director

Report Date: February 1, 2023

Meeting Date: February 8, 2023

Report Number: FMS-B001-2022

File: 10.57.28

Subject: 2023 Water and Wastewater Budget and Associated Rates

Recommendation

That the Budget Standing Committee refer the 2023 Water and Wastewater Budget and Associated Rates, as outlined in Appendix 1, to Council for consideration after the public meeting scheduled for February 27, 2023, for which notice will be duly given; and

That, if approved, the 2023 water and wastewater rates be effective for billing periods ending on or after March 1, 2023.

Summary

This report seeks approval for the 2023 Water and Wastewater Budget and associated rates. The report is organized with the following sections:

1. Proposed Rates
2. Fixed Costs
3. Sustainable Funding of Infrastructure
 - a. Watermain replacement
 - b. Sanitary sewer replacement
4. Regional costs: (a) Regional water (b) Regional Wastewater
5. Forecasting Water Volumes
6. Financial Stability of the Wastewater system
7. Operational Challenges and Required Change
8. Bill 23 More Homes Built Faster Act – Update
9. New Requirements for Municipal Sewer Systems

Background

The Water and Wastewater budget is fully funded by user rates with no reliance on property taxes. The water and wastewater rates fund both operating and capital expenditures.

Report

1. 2023 Water and Wastewater Proposed Rates

General Rate Structure

The City's current water and wastewater structure is a combination of fixed and volumetric charges. Each customer account is charged a fixed rate for water and wastewater. In addition, the customer is billed volumetric rates for water and wastewater based on the amount of water used.

Recommended Water and Wastewater Rates

For 2023, staff are proposing an increase to both the water and wastewater volumetric rates as well as the water and wastewater fixed rates.

Staff recommend that effective March 1, 2023, the rate structure for recovering water and wastewater costs be the following:

	2023	2022
Water		
Fixed (annual)	\$189	\$183
Volumetric (per cm)	\$1.467	\$1.424
Wastewater		
Fixed (annual)	\$186	\$153
Volumetric (per cm)	\$2.372	\$2.147

The proposed rates will result in an annual increase to the average ratepayer (at annual consumption levels of 170 cubic metres) of \$84.58 – a 8.97% increase. This is equal to \$1.63 per week or \$0.23 per day. See Appendix 2 for further details on the calculations.

Description	2022-2023 Increase Amount
Water Rates	\$13.26
Wastewater Rates	\$71.32
Total Increase - \$	\$84.58
Total Increase - %	8.97%

2. The Fixed Charge – Water and Wastewater

In the City's current water and wastewater rate structure, the fixed charge is defined to be the cost of the City's annual replacement programs and fixed regional charges. For each of the systems these costs are calculated to be:

	Water Budget		Wastewater Budget	
	2023	2022	2023	2022
Improvement program	\$7,370,731	\$5,332,608	\$4,201,388	\$1,849,854
Debt Charges	378,215	439,655	703,316	767,081
Total City Fixed Charges	\$7,748,946	\$5,772,263	\$4,904,704	\$2,616,935
Regional Fixed Charges	3,270,808	3,151,522	26,576,034	24,454,734
Total Fixed Costs	\$11,019,754	\$8,923,785	\$31,480,738	\$27,071,669
Change From 2022	\$2,095,969		\$4,409,069	
Calculation of Recovery Rates:				
Based on 42,517 customers	\$259	\$210	\$740	\$637
2023 Proposed/2022 Actual	\$189	\$183	\$186	\$153

As the chart indicates, to fully fund the calculated fixed component of the City's rate structure should be \$259 for Water and \$740 for Wastewater. While staff does not propose that the 2023 rates be increased in one year to fully recover these costs, additional future increases over time is required to maintain the fiscal health and sustainability of the City's water and wastewater operations. The increase in the fixed water and wastewater rates in 2023 will result in the recovery of a larger portion of the fixed costs to operate the water and wastewater systems. With the increasing cost of construction, especially related to underground services, there will be the need to increase fixed costs just to complete the same level of infrastructure work.

During the Region's 2021 budget process, the Region deferred the budget request for a 5.15% increase that supports the Regional Council approved Safe Drinking Water Act (SDWA) Financial Plan. The Region resumed in 2022 the budget request of a 5.15% increase as per their SDWA Financial Plan. The Region's deviation from the SDWA Financial Plan in 2021 required the 2023 budget request to increase by 8.59%, this is a 3.44% deviation over the SDWA Financial Plan of 5.15%.

3. Sustainable Funding of Infrastructure

As part of the 2023 Capital budget approval by Council on December 12, 2022, the 2023 Water and Wastewater funding for watermain and sanitary sewer infrastructure replacement were included. Therefore, the capital project portion of the 2023 water and wastewater rates has received Council approval. This report and budget are to obtain Council approval of the rates to fund both the capital projects and operational functions for 2023.

a. Watermain Replacement Program

Approved with the 2023 Capital budget was \$4,746,731¹ for the replacement of watermains and \$2,624,000² for water capital investment (capital out of revenue). This

¹ Details can be found in 2023 Capital Budget under Tabs G

² Details can be found in 2023 Capital Budget under Tab G

infrastructure cost is funded by the water rates. Details of the watermain replacements in summary can be found in the 2023 Capital Budget under Tab W.

b. Sanitary Sewer Replacement Program

Approved with the 2023 Capital budget was \$3,477,388³ for sanitary sewer infrastructure replacements and \$724,000⁴ for sanitary sewer capital investment (capital out of revenue). This infrastructure is funded by the wastewater rates. Details of the sewer replacements in summary can be found in the 2023 Capital Budget under Tab W.

The table below summarizes the total contribution to capital projects including water and wastewater infrastructure replacements and capital investments.

	2023	2022	\$ Change	% Change
Water	\$7,370,731	\$5,332,608	\$2,038,123	38.22%
Wastewater	\$4,201,388	1,849,854	\$2,351,534	127.12%
Total	\$11,572,119	\$7,182,462	\$4,389,657	61.12%

In 2019, St. Catharines Council approved a 10-Year Financial Plan for Water and Wastewater (The Water / Wastewater Plan). The Plan includes year-over-year increases for investment in capital infrastructure, which will reduce the funding gap for these asset classes.

As a result of the financial and operational challenges facing the City caused by the COVID-19 pandemic, in 2021 and 2022 budget a reduction of capital investment has been incorporated in comparison with the 10-Year Financial Plan. Therefore, the 2023 budget and 2024-2027 forecast reflects a reallocation of the investment in water and wastewater systems (water distribution system, sanitary sewer collection systems and pollution control). Increases in spending in the years of 2023 through 2026 result in the same net investment in infrastructure, over six years from 2021 to 2026.

In accordance with the COVID-19 Financial Recovery Plan, the main reasons of the substantial increases in both 2023 water and wastewater capital infrastructure investment as shown in the table above are as follows:

1. Increased gross capital project costs including City and Regional projects (water capital projects from \$8.3 million in 2022 to \$11.9 million in 2023; wastewater and pollution control capital projects from \$0.2 million in 2022 to \$2.9 million in 2023);
2. Updated funding model with increased capital-out-of-revenue ratios (water capital projects from 35% in 2022 to 45% in 2023; wastewater and pollution control capital projects from 40% in 2022 to 45% in 2023).

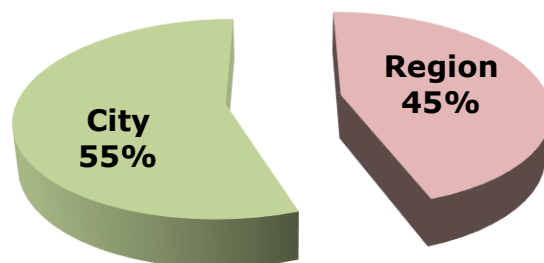
³ Details can be found in 2023 Capital Budget under Tabs E, K, and F

⁴ Details can be found in 2023 Capital Budget under Tab E and K

4. Regional Costs

The City and Region are responsible for various aspects of water distribution. The Region is responsible for supply and treatment including all reservoirs and water towers. In general, watermain sixteen inches (400 mm) in diameter or larger are a regional responsibility and the City is responsible for the smaller distribution watermain. There is also a shared responsibility for collection and treatment of wastewater between the City and the Region. The Region is responsible for treatment facilities, pumping stations, sludge disposal and sewers with flows of six cubic feet per second or greater or sewers spanning a municipal boundary. The City is responsible for the remaining wastewater pipelines.

Figure 1 – 2023 Region vs. City Water Expenditure



Determination of St. Catharines' Share of the Regional Costs

In effect, the Region is the service provider to the City, supplying potable water and treatment of wastewater. The cost to provide the service to lower-tier municipalities is part of the Region's budget and each municipality is charged for its respective portion. Based on the Region's Safe Drinking Water Act (SDWA) Financial Plan, the Region has committed to increasing its water and wastewater rates annually for the next several years to ensure program sustainability.

The calculation of each lower municipality's share is dependent upon the municipality's usage of each system (i.e., cubic metres of water purchased, or cubic metres of wastewater treated). This means St. Catharines' share of the total budget may change over time to align with the City's water purchases and wastewater flows.

a. Regional Water Rates

The Region charges the lower tier municipalities for the supply of potable water using both a fixed monthly charge and a variable rate per cubic metre. The rates for 2023 (with comparable 2022 rates) are as follows:

Water	2023	2022	% increase (decrease)
Variable rate per cm	\$0.6687	\$0.6360	5.14%
Fixed Monthly Charge	\$272,567	\$262,627	3.79%

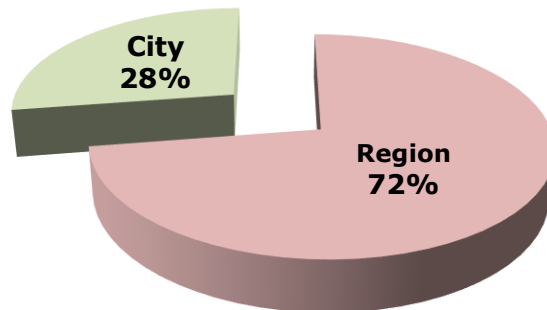
The above rates result in the City's 2023 draft Water budget including Regional costs of \$12,966,958, an increase of \$593,436 (4.80%) from 2022. As \$9,696,150 of these costs are related to the variable rate, this provides some protection to the City should the water consumption decline in 2023. The fixed annual charge of \$3,270,808 will be payable to the Region regardless of City water consumption.

b. Regional Wastewater Rates

The Regional wastewater charges contain no variable rates. The rates for 2023 (with comparable 2022 rates) are as follows:

Wastewater	2023	2022	% Increase
Fixed Monthly Charge	\$2,214,670	\$2,037,895	8.67%

Figure 2 – 2023 Region vs. City Wastewater Costs

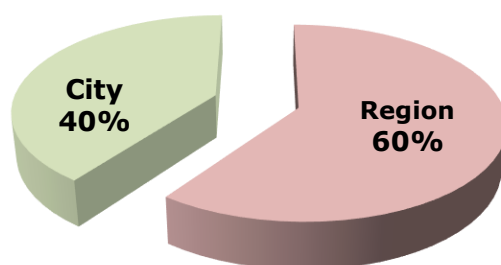


The Region has increased the overall wastewater charges to the lower-tier municipalities by 10.57% for 2023 (8.67% increase for City of St. Catharines).

2023 Water and Wastewater Summary of Expenditures

Expenditure	Water		Wastewater	
City Operating Costs	8,084,246	28.07%	5,254,269	14.30%
Water/Sewer Improvement Program	4,746,731	16.48%	3,477,388	9.47%
City Debentures	378,215	1.31%	703,316	1.91%
Capital Out of Revenue	2,624,000	9.11%	724,000	1.97%
Region	12,966,958	45.02%	26,576,034	72.35%
Total	28,800,150	100.00%	36,735,007	100.00%
Region Controlled Costs	12,966,958	45.02%	26,576,034	72.35%
City Controlled Costs	15,833,192	54.98%	10,158,973	27.65%
Total	28,800,150	100.00%	36,735,007	100.00%

Figure 3 – Total Region vs. Total City Water and Wastewater Costs



The details of the water and wastewater expenditures are available in Appendix 1.

Staff recommends that the 2023 water and wastewater budget increases by 8.97% to the average ratepayer to both meet the Region's annual prescribed increase and to support the City's water and wastewater operations as well as continuing to focus on reducing the City's infrastructure deficit.

5. Forecasting Water Volumes

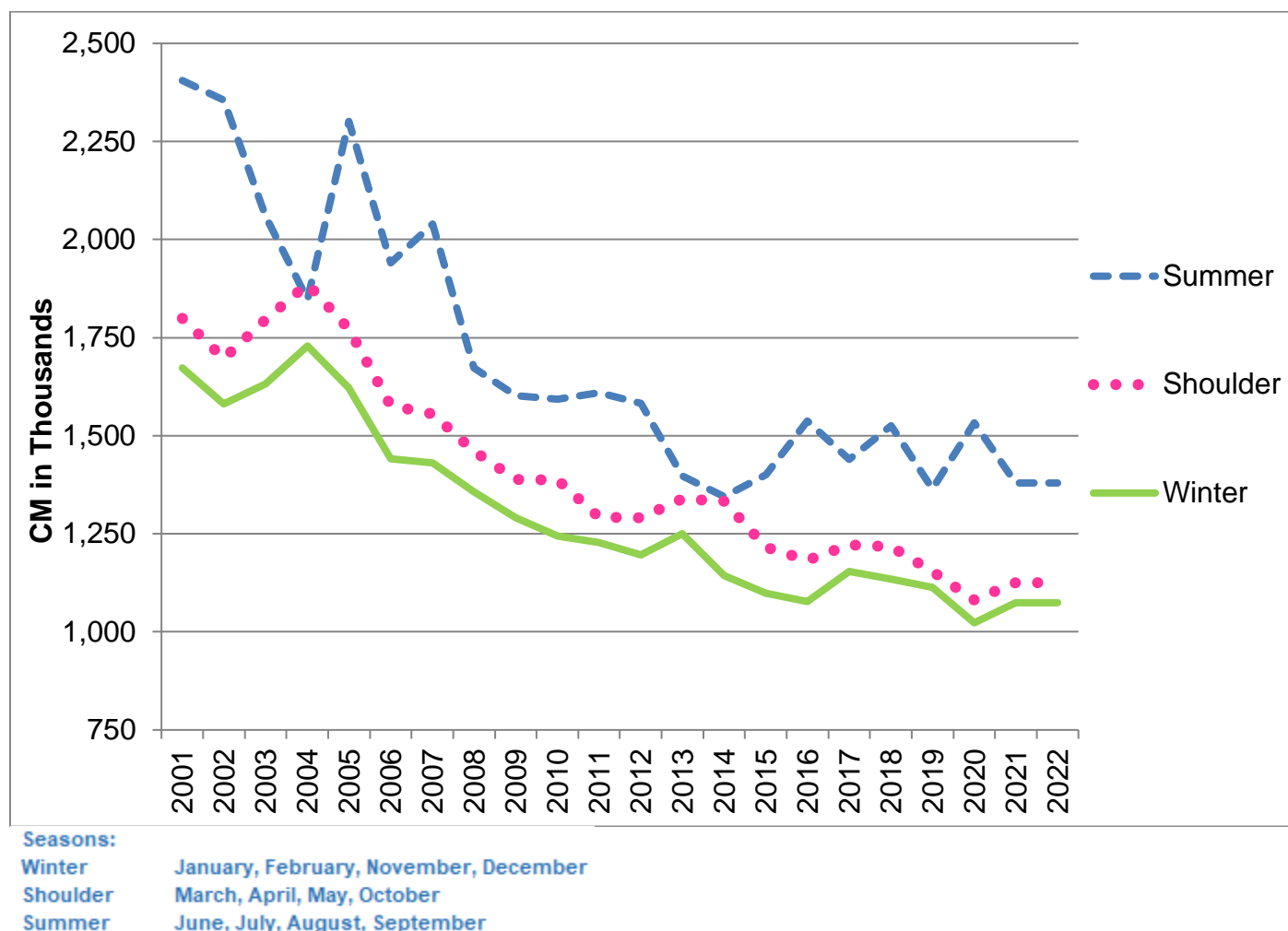
An analysis of water purchases has shown conservation efforts by St. Catharine's water customers have resulted in a significant reduction in the cubic metres of water purchased from the Region. Since 2001, annual water purchases have decreased approximately 39% from 23,510,3830 cubic metres to 14,321,439 cubic metres in 2022. Each year staff review the history of water purchase volume and utilize the information to forecast what future volumes will be.

Recently, there has been concern as to the determination of how much further the volumes will decline. In effect, are we nearing the end of volume decreases, or is there another significant decline still to come? In the process of this estimation, staff analyzed the water purchase based on three separate "seasons" of the year: **summer** – June to September; **winter** – November to February; **shoulder months** – March to May and October.

Based on the data in figure 4, it is evident the average monthly summer consumption (blue line) is the most volatile (fluctuates the most). While the volume rebounded in 2018, in 2019 it declined and in 2020 rebounded again. The 2021 year saw another year of decline.

Based on reviewing 2022 water purchases, there is gathering evidence water consumption may be levelling off. This can be observed by comparing the rates of decline for the time periods of 2001 to 2014 and 2015 to 2022. From 2001 to 2014 water purchases declined 8,225,130 cubic metres over 14 years. This represents an annual average decline of 587,509 cubic metres per year. In contrast from 2015 to 2022 water purchases declined 537,022 cubic metres over eight years for an annual average decline of 67,128 cubic metres.

Figure 4 – Water Purchases by Season



Water demand over the last several years has been unusually difficult to analyze as some of the local weather stations have significant data gaps (likely related to the pandemic) and the pandemic has also likely resulted in significant changes to water and wastewater usage (e.g. restaurant capacity restrictions, people working from home, educational institutions moving on-line etc.).

Local Climate Events

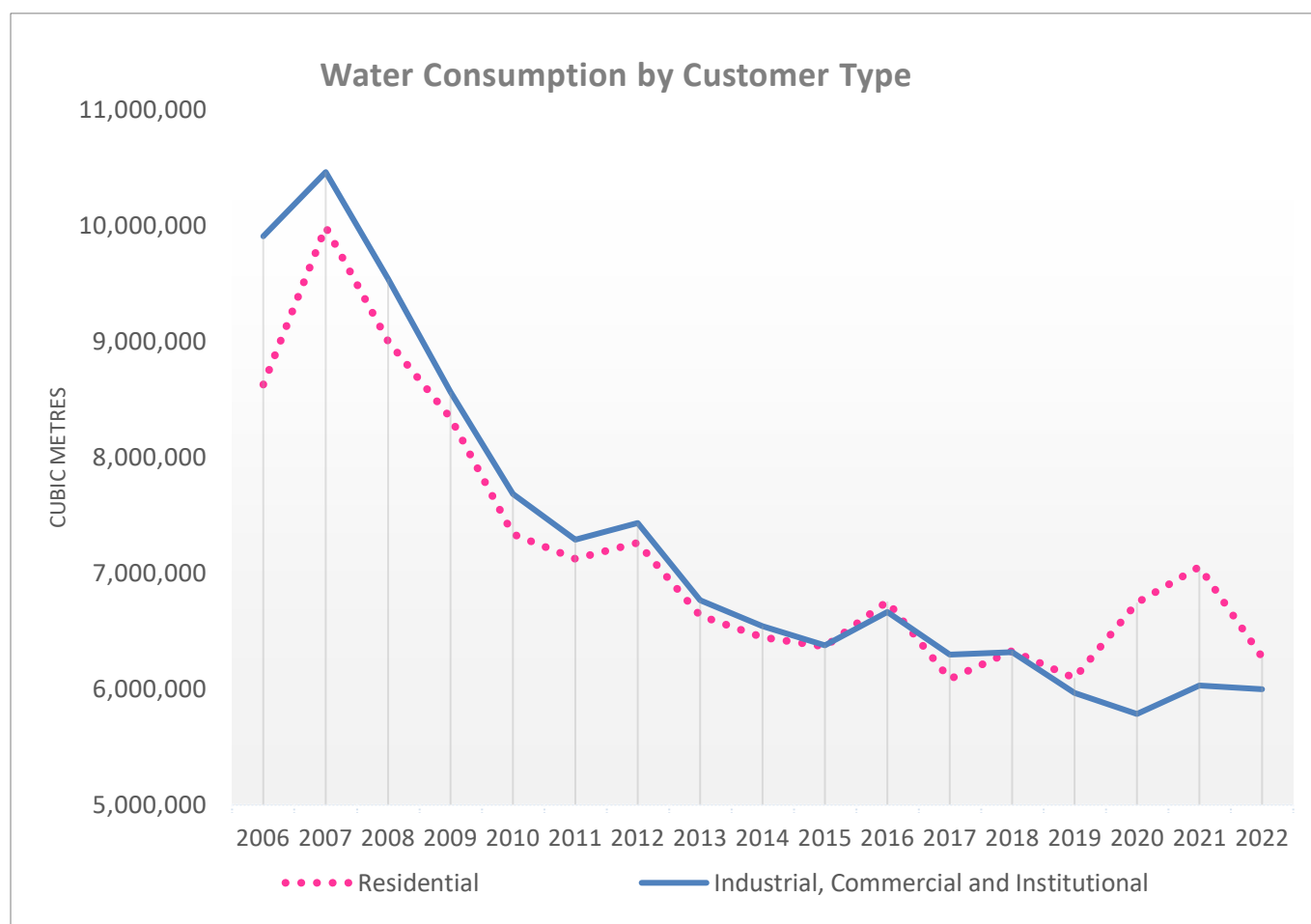
St. Catharines continues to experience climate related events. The most severe events issued for St. Catharines as warnings by Environment Canada has been severe thunderstorm warning, heat warning, wind warning, rainfall warning and freezing rain warning.

2022 saw less precipitation than typically expected based off Environment Canada's long-term "climate normal" (1981-2010) with the total precipitation in 2022 being 708.6 millimetres (mm) vs the climate normal of 888.1 mm (21.5% less). While there is a general correlation between rainfall and the number of extraneous flows getting into the

sewer system (through inflow and infiltration) there are a number of factors that influence this including the type of precipitation, the amount and location of rainfall, wind direction, soil moisture, etc.

Climate projections are long term changes in average conditions, but there will be significant variation from year-to-year. In addition, the Great Lakes area is especially uncertain with respect to future rainfall / precipitation patterns. The impact on the City's water consumption and potential changes required for annual forecasts will continue to be monitored by staff, as there will be financial impacts on the water and wastewater rates. By continuing to focus on the water and wastewater infrastructure replacements as identified in the 10-Year Financial Plan for Water / Wastewater (2019-2029) approved by Council in 2019 assists in making the City's infrastructure more resilient and better able to handle these severe and unpredictable events.

Figure 5 – Water Consumption by Customer Type



As shown in Figure 5, since 2007 the City has seen a relatively steady decline in consumption (in cubic metres) of both the Residential and Industrial, Commercial and Institutional (ICI) customers. In 2011, ICI sector consumption began to move closer to the Residential sector until 2015 and 2016 where the ICI transitioned to below the

Residential sector. The 2018 year saw Residential and ICI sectors equal. The 2020 year saw a significant increase in residential consumptions over ICI, this can be attributed to a significant portion of the population working from home as guided by the provincial government in late March 2020. The global pandemic through 2021 and 2022 has continued to be the main driver of the increase of residential consumption over ICI.

6. Financial Stability of the Wastewater System

A significant portion of the costs of the wastewater system are fixed. While the wastewater rates include a fixed portion, the majority of the revenue is collected through a variable rate based on water purchased by the customer.

When most of a rate structure consists of a variable rate, periods of declining consumption result in the reduction of the overall revenue. Consequently, the revenue generated does not cover the cost of the system. Details are shown in Table 2 below.

Wastewater Annual Recovery / (Loss)

In millions of \$	2022 (est.)**	2021	2020	2019	2018	2017	2016	2015
Revenue	\$30.62	\$30.75	\$28.68	\$26.56	\$26.45	\$26.64	\$27.38	\$25.71
Expenditures	\$31.58	\$30.30	\$29.33	\$27.46	\$25.58	\$25.66	\$26.02	\$25.18
Recovery / (Loss)	<u>(\$0.96)</u>	<u>\$0.45</u>	<u>(\$0.65)</u>	<u>(\$0.90)</u>	<u>\$0.87</u>	<u>\$0.98</u>	<u>\$1.36</u>	<u>\$0.53</u>
Transfer from Capital Projects	\$0.60							
Accumulated Surplus / (Deficit)	<u>(\$0.13)</u>	<u>\$0.23</u>	<u>(\$0.21)</u>	<u>\$0.44</u>	<u>\$1.34</u>	<u>\$0.47</u>	<u>(\$0.51)</u>	<u>(\$1.87)</u>

** At the end of 2022 it is estimated that wastewater system will have a deficit of \$0.13 million. This trend is partially driving the need for the increase in the wastewater rates in 2023. As a significant portion of wastewater costs are fixed, in future years increases in the fixed wastewater fees will be important to reduce the wastewater system deficits and to have the fully funded wastewater budgets.

In effect, the water rates had been subsidizing the operations of the wastewater system. While many of the City's customers have both water and wastewater charges on their bills, there are customers who do not. As per guidelines from the Province, rates should be structured so that both systems maintain their own financial stability through separate rates.

7. Operational Challenges and Required Change

Currently our existing water and wastewater infrastructure systems are experiencing two very distinct challenges, that all systems experience to some degree. With regards to the wastewater collection system, it is subject to “infiltration” or entry of water that does not require treatment. This needs to be kept out of the system to reduce sewer backups, treatment costs and limit the size of capital infrastructure replacements and associated costs. “Infiltration” is the result of a number of things including past practices (i.e. connection of foundation drains, etc.) and leakage of groundwater into the system (i.e. at joints, cracks, etc.) as well as, rainwater entering through the leveling rings just below the metal surface lids.

With regards to the water distribution system, all systems experienced unaccounted for water, or water that is produced / treated and cannot be billed. This is a result of meter accuracy limits (which have been improved with the implementation of the AMR project and the upgraded residential meters installed), bypassing of meters, unbilled water from hydrants (i.e., construction, pool filling, etc.) and illegal connections. In addition, “water loss” occurs from leakage in older watermain (joints, small hole in main pipes); leaking service connections and valves.

Understanding the specific sources and extent of infiltration and water loss, as they apply to a system, and shifting maintenance activities to focus on reducing these, has a number of environmental benefits, and can significantly reduce the long-term costs associated with treatment charges that the City pays to the Region. It also reduces the cost of future capital improvements and can extend the useful life of specific water and wastewater infrastructure.

To date, the city has undertaken some concerted projects / programs to reduce both infiltration and water loss, however an ongoing proactive maintenance program is required. Presently, water and wastewater operations have remained largely reactive; with primary focus on responding to emergencies (i.e., break repairs, blocked basement drains, etc.) and installation of services for new buildings. While these are all needed services, it does not allow resources to be dedicated to any proactive maintenance approach.

More recently in 2022, staff have completed a project aimed to integrate climate change into the asset plan, with the primary focus on the water and wastewater assets. Staff are working on further integrating the framework and climate data into other assets classes to help make the systems more resilient to possible climate impacts.

8. Impacts from Bill 23 More Homes Built Faster Act

Bill 23, the *More Homes Built Faster Act, 2022*, received royal assent on November 28, 2022. The stated intent of Bill 23 is to support Ontario’s Housing Supply Action Plan, increasing housing supply, affordability, and improvements to process to facilitate timely approvals. Bill 23 amended a number of Acts including the Planning Act, Conservation Authorities Act, and Development Charges Act. Bill 23 includes a target of 11,000 residential units to be constructed in St. Catharines by 2031. Based on recently

completed Land Needs Assessment (LNA) the City's existing planning framework can support 11,000 new units. However, it's important to note that the growth forecasted through the LNA projected 15,000 units by 2051. It is unclear how the target of 11,000 units will integrate with existing growth projections and whether the accelerated timeframe will have other impacts such as servicing upgrades, facility improvements, and capacity of staffing resources and workplans.

The City's current service provider for utility locates has notified the City regarding substantial increase for their services starting in 2023 due to inflation, increased wages, regulatory compliance requirement, etc. As the City experiences more growth and development in constructions in the community, it will also be faced with added financial pressures to support the utility locates services. Staff are currently researching best practices in neighbouring municipalities and exploring other options in order to mitigate the long-term fiscal challenges.

9. New Requirements for Municipal Sewer Systems

The Ontario Ministry of Environment, Conservation and Parks (MECP) is implementing new requirements for municipalities regarding stormwater management systems and wastewater collection systems. The intent of these changes is to modernize the approval framework for these systems. These changes significantly increase the regulatory burden especially to communities with older infrastructure such as St. Catharines.

There are approximately 70 new regulatory requirements for wastewater and stormwater systems, including enhanced operations and maintenance requirements, new reporting requirements (to the Ministry and the public), sampling and monitoring requirements, new mapping and record keeping specifications, annual Ministry inspections (similar to Safe Drinking Water Act), etc. Over the long term these new requirements will help ensure our systems are managed in a sustainable fashion, but they will have significant workload implications.

In order to ensure there are adequate staff resources to complete the additional workload, a few new staff positions have been approved through the 2023 Operating Budget, which are funded by tax levy and water / wastewater budgets, and one new staff position included in the Proposed 2023 Water and Wastewater Budget:

- One GIS Technologist – funded by tax levy and water / wastewater budget
- One Wastewater / Stormwater Compliance Coordinator– funded by tax levy and water / wastewater budget
- One Wastewater Technologist – funded by wastewater budget

Also approved with the 2023 Operating Budget, the following new staff positions have been approved by Council:

- One Climate Change Technician – funded by tax levy and water / wastewater budget

- One Asset Management Analyst– funded by tax levy and water / wastewater budget
- One Operations Technician – funded by tax levy and water / wastewater budget

These new staff positions are required to meet legislative requirements and service level modification/enhancement.

With the approval of the 2023 Operating Budget, the new full-time employees and tax levy funding for the five positions listed above that are funded by a combination of the tax levy and water / wastewater budget have been approved by Council. As these positions are funded by both the tax levy and the water / wastewater budget, approval of the 2023 water / wastewater budget will complete the funding required for the five positions.

Going forward, these positions will continue to be funded from the tax levy and water / wastewater budget as the positions will perform work related to both tax-funded programs and water / wastewater programs in 2023 and beyond.

Financial Implications

The proposed 2023 water and wastewater rates result in an increase for both water and wastewater rates. For the average ratepayer (at annual consumption levels of 170 cubic metres) they will pay \$1,027.65. This is an annual increase of 8.97% or \$84.58 over the amount they paid in 2022 of \$943.07. This increase is approximately \$1.63 per week or \$0.23 day.

In addition, based on the 2019-2029 Water and Wastewater Financial Plan, the 2023 estimated rates totaled an annual bill of \$1,043.93 or an increase of \$58.80 or 6.0%.

The 2023 rates proposed are below the forecasted financial plan 2023 amount, although they are moving rates closer to the plan. In future years the City will need to continue to adjust the rate increases as a result of the lower rate increases for the 2021 and 2022 water and wastewater budget as a COVID-19 pandemic mitigation.

Conclusion

Staff recommends that Budget Standing Committee refer the 2023 water and wastewater rates increase as presented, which represents an annual increase of 8.97% or \$84.58 for the average customer annual consumption of 170 cubic metres, to Council for consideration following a public meeting on February 27, 2023.

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Appendices

Appendix 1 – 2023 Water and Wastewater Budget

Appendix 2 – 2023 Water and Wastewater Annual Bill Change

City of St Catharines
Water/Wastewater Budget Summary

	Budget			Forecast	Actual	
	2023	2022	Budget \$ Change		2021	2020
Reserve at Beginning of Year	8,959,287	8,987,572	(28,285)	8,987,572	6,133,084	5,237,749
Revenues	61,073,695	56,674,292	4,399,403	56,111,591	56,536,549	53,691,259
Less: Region expenditures	39,542,992	36,828,256	2,714,736	36,628,256	34,246,615	33,599,776
Safe Restart Funding	-	-	-	-	-	854,282
Net Revenue	21,530,703	19,846,036	1,684,667	19,483,335	22,289,935	20,945,765
City Expenditures						
Water Operating costs	8,084,246	7,692,288	391,958	7,708,705	6,694,765	6,774,039
Water Debenture debt	378,215	439,655	(61,440)	439,655	397,712	426,247
Water Infrastructure costs	7,370,731	5,332,608	2,038,123	5,332,608	4,523,225	5,952,806
Sewer Operating costs	5,254,269	4,738,879	515,390	4,709,505	4,259,577	3,691,226
Sewer Debenture debt	703,316	767,081	(63,765)	767,081	767,390	775,933
Sewer Infrastructure costs	4,201,388	1,849,854	2,351,534	1,849,854	2,430,290	3,063,343
	25,992,165	20,820,365	5,171,800	20,807,408	19,072,958	20,683,594
Annual Surplus/(Deficit)	-4,461,462	-974,329	-3,487,133	-1,324,073	3,216,977	262,171
Transfer from/(to) Capital Projects	-	-	-	1,295,788	(362,489)	633,164
Reserve at End of Year	4,497,825	8,013,242	-3,515,418	8,959,287	8,987,572	6,133,084
City total	25,992,165	20,820,365	5,171,800	20,807,408	19,072,958	20,683,594
Region total	39,542,992	36,828,256	2,714,736	36,628,256	34,246,615	33,599,776
	65,535,157	57,648,621	7,886,536	57,435,664	53,319,573	54,283,370
cm - purchased	14,500,000	14,500,000	0	14,321,439	13,600,140	14,547,750

Appendix 1
2023 Water Wastewater Budget

2023 Water Budget Summary

	Budget			Forecast	Actual	
	2023	2022	Budget \$ Change		2021	2020
Surplus (Deficit) at Beginning of Year	9,088,631	8,757,987	330,643	8,757,987	6,353,151	4,804,089
<u>Revenues:</u>						
Sales of Water	25,983,598	25,169,883	813,715	24,978,275	25,256,523	24,792,722
Fixed Costs	3,270,808	3,151,522	119,286	3,151,522	3,097,272	3,042,931
Purchase of Water	9,696,150	9,222,000	474,150	9,222,000	8,309,686	8,757,751
	13,016,640	12,796,361	220,279	12,604,753	13,849,565	12,992,040
Other Revenues	515,000	515,070	(70)	515,070	533,462	518,290
Safe Restart Funding	-	-	-	-	-	558,660
Net Revenue	13,531,640	13,311,431	220,209	13,119,823	14,383,027	14,068,990
<u>Expenditures:</u>						
General Administration	1,542,918	1,472,931	69,987	1,499,911	1,071,844	1,078,214
Engineering Overhead	2,171,804	1,974,474	197,330	1,956,118	1,874,210	1,848,411
Mains, Valves, Hydrants	2,463,594	2,358,750	104,844	2,366,543	2,361,845	2,045,707
Water Service Lines	610,072	595,982	14,090	595,982	404,959	535,502
Water Meters	661,743	657,047	4,696	657,047	420,423	710,303
New Mains/Valves/Hydrants	155,115	154,104	1,011	154,104	97,167	93,178
Water Services Rendered	-	-	-	0	-27,682	-34,988
Water Capital out of Revenue	2,624,000	1,073,230	1,550,770	1,073,230	325,000	425,250
Water Debenture Costs	378,215	439,655	(61,440)	439,655	397,712	426,247
Water Improvements Program	4,746,731	4,259,378	487,353	4,259,378	4,198,225	5,527,556
Cost Allocations	479,000	479,000	-	479,000	492,000	497,713
Total Expenditures	15,833,192	13,464,551	2,368,641	13,480,968	11,615,702	13,153,092
Net Surplus (Deficit)	-2,301,552	-153,120	-2,148,432	-361,145	2,767,325	915,898
Transfer from/(to) Capital Projects	-	-	-	691,788	(362,489)	633,164
Surplus (Deficit) at End of Year	6,787,079	8,604,868	-1,817,789	9,088,631	8,757,987	6,353,151

**CITY OF ST. CATHARINES - WATER/WASTEWATER BUDGET
ESTIMATE 2023**

EXPENDITURE ACCOUNT		2023 BUDGET
<hr/>		
310.112	<u>WATER/WASTEWATER EQUIPMENT RESERVE:</u>	
	OPENING BALANCE	\$937,408
	ANNUAL RESERVE PROVISION	150,000
	EST. PROCEEDS FROM AUCTION SALES	5,000
	EXPENDITURES, 2023	-479,000
	CLOSING BALANCE	<u>\$613,408</u>
<u>2023 EXPENDITURE DETAILS</u>		
	ONE (1) FORD TRANSIT CONNECT VAN	75,000
	ONE (1) INTERNATIONAL 7400 SINGLE AXLE DUMP TRUCK	360,000
	ONE (1) 30" ROAD SAW	30,000
	ONE (1) ELECTRIC VALVE TURNER	14,000
		<u>\$479,000</u>
		<u>\$479,000</u>

* There are no outstanding prior year commitments from this reserve.

Water & Wastewater Vehicle & Equipment Reserve (310.112.000)

Year	Reserve Open Balance	Add: Annual Provision	Add: Proceeds from Auction Sales	Less: Planned Purchase (Full Cost)	Add: Debt Funding Support	Reserve Ending Balance	Purchase Detail
2022	989,263	100,000	7,851	(159,707)		937,408	Chevrolet Express Cargo 2500 Van; GMC Savana 3500 Cube Van; Leak Detection Equipment; Electric Valve Turner; 2 x Replacement Sewer Cameras
2023	937,408	150,000	5,000	(479,000)	-	613,408	Ford Transit Connect Van; International 7400 Single Axle Dump Truck; Husqvarna FS4800D 30" Road Saw
2024	613,408	150,000	5,000	(94,000)		674,408	Toyota Camry Hybrid; GMC Savana Cargo Van; GMC Terrain
2025	674,408	200,000	5,000	(455,000)		424,408	GMC STV Cube Van (4); Cae 580SN W/T Backhoe
2026	424,408	200,000	5,000	(650,000)	300,000	279,408	Freightliner Single Axle Dump Truck (debt funded); John Deere 310SL Backhoe (2);
2027	279,408	225,000	5,000	-		509,408	
2028	509,408	250,000	5,000	(276,000)		488,408	Ford E350 Cube Van; GMC STV Cube Van (2); GMC Sierra 1/2 Ton Pickup (2)
2029	488,408	250,000	5,000	(382,000)	345,000	706,408	Freightliner Tandem Dump Truck (debt funded); Sullair 185 Compressor
2030	706,408	275,000	5,000	(619,000)		367,408	John Deere 310SL Backhoe; Wachs LX Valve Maintenance Trailer; Ford F250 Crew Cab Pickup (2); GMC STV Cube Van (3)
2031	367,408	300,000	5,000	(545,000)		127,408	Freightliner 114SD Tri-Axle Dump Truck; Freightliner 114SD Tandem Axle Dump Truck

2023 Wastewater Budget Summary

	Estimated Budget			Forecast	Actual	
	2023	2022	Budget \$ Change		2021	2020
Reserve at Beginning of Year	-129,383	229,544	-358,928	229,544	-220,107	433,620
<u>Revenues:</u>						
Wastewater Revenue	34,575,097	30,989,338	3,585,758	30,618,246	30,746,565	28,380,248
Regional Sewage Levy						
Supplemental Taxes						
Tax Appeals and Write-offs						
Vacancy Rebates						
Regional Wastewater (Net)	-26,576,034	-24,454,734	-2,121,300	-24,254,734	-22,839,657	-21,799,094
Safe Restart Funding				-	-	295,622
Net Revenue	7,999,063	6,534,604	1,464,458	6,363,512	7,906,908	6,876,775
<u>Expenditures:</u>						
Sewers General	856,176	742,548	113,628	749,521	756,076	681,362
Sewer Insurance	75,000	75,000	0	75,000	64,405	88,258
FLAP program	346,960	340,611	6,349	302,868	250,074	338,486
Sewer Improvement Projects	3,477,388	1,821,954	1,655,434	1,821,954	2,037,290	2,520,343
Lateral Replacements	718,530	710,573	7,957	709,095	552,257	461,147
New Laterals	-	-	0	0	72,761	2,453
Drain Cleaning	350,154	341,352	8,802	363,247	185,933	165,078
Sanitary Sewers Overhead	961,728	908,500	53,228	901,537	878,244	738,905
Debt Service	703,316	767,081	-63,765	767,081	767,390	775,933
Pollution Control	1,295,026	984,428	310,598	973,689	871,876	641,090
Pollution Control Overhead	283,695	268,867	14,828	267,549	247,952	241,880
Pollution Capital/Revenue	724,000	27,900	696,100	27,900	393,000	543,000
Cost Allocations	367,000	367,000	0	367,000	380,000	332,566
Total Expenditures	10,158,973	7,355,814	2,803,159	7,326,440	7,457,256	7,530,503
Net Surplus (Deficit)	-2,159,911	-821,210	-1,338,701	-962,928	449,652	-653,728
Transfer from/(to) Capital Projects	-	-		604,000	-	-
Surplus (Deficit) at End of Year	-2,289,294	-591,665	-1,697,629	-129,383	229,544	-220,107

WATER, WASTEWATER AND RELATED SERVICE RATES

1. The following rates shall be paid to The Corporation of the City of St. Catharines for the use of water supplied by The Corporation of the City of St. Catharines:

	<u>Current</u> <u>(For 2mo</u> <u>Billing)</u>	<u>Proposed</u> <u>(For 2mo</u> <u>Billing)</u>
(a) <u>Consumption - Cubic Metres (for each two month billing period)</u>		
Customer Charge	\$30.50	\$31.50
Consumption Charge - per cubic metre	1.424	1.467
*Note: Large Industrial Users are billed monthly		
Water meter size of 1" or greater will be subject to a water meter equivalency charge when calculating the Customer Charge. Exemption: Single Family Residential classification. See (b) below.		
(b) <u>Meter Equivalency</u>		
Water meter size of 1" or greater will be subject to a water meter equivalency charge when calculating the Customer Charge. Exemption: Single Family Residential classification.		
1" meter = 1.4 meter equivalency units		
1 1/2" meter = 1.8 meter equivalency units		
2" meter = 2.9 meter equivalency units		
3" meter = 11 meter equivalency units		
4" meter = 14 meter equivalency units		
* 6" meter = 21 meter equivalency units		
* >6" meter = 21 meter equivalency units		
* Note: Where a single 6" meter or greater is installed for the purpose of additional fire protection, the multiplier equivalency shall be discounted to 50%.		
(c) <u>Flat Rates</u> (For each two month billing period)		
Per Dwelling unit	\$87.50	\$96.75
Note: Where more than 20 units are being constructed, the maximum number of units charged is 20.		
(d) <u>Estimated Billing</u>		
Where consumption and/or Flat Rate does not apply, estimates are based on previous actual readings. In the absence of previous actual readings, amount to be determined at the discretion of the Treasurer.		
(e) <u>Rates for Services Outside City</u> (For each two month billing period)		
Multiple of Regular Rate	2X	2X
Customer Charge	\$61.00	\$63.00
Consumption Charge - per cubic metre	2.848	2.93344
(f) <u>Bulk Water</u> (Key Pad Operated)		
Multiple of Regular Rate	2X	2X
Per cubic metre	\$2.848	\$2.933
(g) <u>Water Under Construction</u>		
First two month period Per sq. ft. Water Increase 2017 1.22 %, 2018 1.64%, 2019 4.50%, 2020 7.51% increase, 2021 1.85% increase, 2022 5.98% increase, 2023 8.97% increase	\$0.032	\$0.035
Per sq. m.	0.345	\$0.376

APPENDIX 1
2023 Water/Wastewater Budget

	<u>Current</u> <u>(For 2mo</u> <u>Billing)</u>	<u>Proposed</u> <u>(For 2mo</u> <u>Billing)</u>
Next Flat Rate per dwelling unit for each two month billing period until meter is installed	\$87.50	\$96.75
If there are extenuating circumstances or if large Industrial/Commercial building, "Next Flat Rate" to be determined at the discretion of the Treasurer.		
2. The following rates shall be paid to The Corporation of the City of St. Catharines for the use of water related services supplied by The Corporation of the City of St. Catharines:		
(a) <u>METER RENTALS (Annually)</u>		
<u>Meter Size</u>		
*16mm (5/8") Displacement	\$19.00	\$28.00
*16mm (5/8")SR II Displacement with ECR	\$35.00	\$48.00
*16mm (5/8") Accustream/Transmitter	\$40.00	\$60.00
*16mm (5/8") IPERL/Transmitter	\$45.00	\$64.00
19mm (3/4") Displacement	\$25.00	\$36.00
19mm (3/4")SR II Displacement with ECR	\$41.00	\$59.00
19mm (3/4") Accustream/Transmitter	\$46.00	\$62.00
19mm (3/4") IPERL/Transmitter	\$50.00	\$66.00
25mm (1") Displacement	\$29.00	\$44.00
25mm (1") SR II Displacement with ECR	\$46.00	\$64.00
25mm (1") Accustream Transmitter	\$51.00	\$66.00
25mm (1") IPERL/Transmitter	\$55.00	\$72.00
38mm (1-1/2") Displacement	\$82.00	\$94.00
38mm (1-1/2") Displacement with ECR	\$115.00	\$115.00
38mm (1-1/2") Displacement /ECR/ Transmitter	\$120.00	\$120.00
38mm(1-1/2") Turbine	\$111.00	\$144.00
38mm(1-1/2") Turbine/Transmitter	\$116.00	\$149.00
38mm (1 1/2") OMNI C2 Compound	\$140.00	\$188.00
38mm (1 1/2") OMNI R2 Residential	\$100.00	\$114.00
38mm (1-1/2") OMNI T2 Turbine	\$96.00	\$146.00
50mm(2") Displacement	\$92.00	\$109.00
50mm(2") Displacement with ECR	\$128.00	\$128.00
50mm(2") Displacement-ECR/Transmitter	\$133.00	\$133.00

APPENDIX 1
2023 Water/Wastewater Budget

	<u>Current</u> <u>(For 2mo</u> <u>Billing)</u>	<u>Proposed</u> <u>(For 2mo</u> <u>Billing)</u>
50mm (2") Compound	\$96.00	\$123.00
50mm (2") Compound/Transmitter	\$101.00	\$128.00
50mm (2") Turbine	\$114.00	\$146.00
50mm (2") Turbine/Transmitter	\$119.00	\$151.00
50mm (2") OMNI C2 Compound	\$150.00	\$221.00
50mm (2") OMNI C2 Compound/Trans	\$180.00	\$240.00
50mm (2") OMNI R2 Residential	\$80.00	\$150.00
50mm (2") OMNI T2 Turbine	\$115.00	\$176.00
75mm (3") Compound	\$418.00	\$419.00
75mm (3") Compound/Transmitter	\$423.00	\$424.00
75mm (3") Turbine	\$375.00	\$384.00
75mm (3") Turbine/Transmitter	\$380.00	\$389.00
75mm (3") OMNI C2 Compound	\$402.00	\$420.00
75mm (3") OMNI T2 Turbine	\$375.00	\$401.00
100mm (4") Compound	\$498.00	\$524.00
100mm (4") Compound/Transmitter	\$503.00	\$529.00
100mm (4") Turbine	\$475.00	\$475.00
100mm (4") Turbine/Transmitter	\$480.00	\$480.00
100mm (4") OMNI C2 Compound	\$488.00	\$602.00
100mm (4") OMNI C2 Compound/Transmitter		\$622.00
100mm (4") OMNI F2 Fire Assembly	\$798.00	\$798.00
100mm (4") OMNI T2 Turbine	\$475.00	\$527.00
100mm (4") OMNI T2 Turbine/		\$547.00
150mm (6") Compound	\$671.00	\$825.00
150mm (6") Compound/Transmitter	\$676.00	\$830.00
150mm (6") Turbine	\$587.00	\$715.00
150mm (6") Turbine/Transmitter	\$592.00	\$720.00
150mm (6") Fire Assembly	\$900.00	\$900.00
150mm (6") Fire Assembly /Transmitter	\$905.00	\$905.00
150mm (6") OMNI C2 Compound	\$671.00	\$919.00
150mm (6") OMNI F2 Fire Assembly	\$980.00	\$1,330.00
150mm (6") OMNI F2 Fire Assembly/Trans	\$1,000.00	\$1,352.00

APPENDIX 1
2023 Water/Wastewater Budget

	<u>Current</u> <u>(For 2mo</u> <u>Billing)</u>	<u>Proposed</u> <u>(For 2mo</u> <u>Billing)</u>
150mm (6") OMNI T2 Turbine	\$587.00	\$808.00
200mm (8") Fire Assembly	\$1,340.00	\$1,340.00
200mm (8") Fire Assembly /Transmitter	\$1,345.00	\$1,345.00
200mm (8") Turbine	\$665.00	\$816.00
200mm (8") Turbine/Transmitter	\$670.00	\$821.00
200mm (8") OMNI C2 Compound	\$930.00	\$1,261.00
200mm (8") OMNI F2 Fire Assembly	\$1,400.00	\$1,910.00
200mm (8") OMNI T2 Turbine	\$830.00	\$1,134.00
250mm (10") Fire Assembly	\$1,750.00	\$2,458.00
250mm (10") Fire Assembly/Transmitter	\$1,515.00	\$2,463.00
250mm (10")Turbine	\$900.00	\$1,375.00
250mm (10")Turbine/Transmitter	\$905.00	\$1,398.00
250mm (10") OMNI C2 Compound	\$1,125.00	\$1,546.00
250mm (10")OMNI F2 Fire Assembly	\$1,950.00	\$2,458.00
250mm (10") T2 OMNI Turbine	\$1,000.00	\$1,375.00

* NOTE: No charge for 16mm (5/8") meter unless installed outside the City.

Where meter type consists of two meters combined, one rental rate is applicable, based on the predominant use of the meter.

(a)(i) METER PITS (CHAMBER) RENTALS (Annually)

<u>Meter Size</u>		
16mm (5/8")	\$90.00	\$93.00
19mm (3/4")	\$77.00	\$80.00
25mm (1")	\$106.00	\$110.00
38mm (1-1/2")	\$224.00	\$234.00
50mm (2")	\$252.00	\$263.00
75mm (3")	Actual Cost	
100mm (4")	Actual Cost	
150mm (6")	Actual Cost	
200mm (8")	Actual Cost	
250mm (10")	Actual Cost	

APPENDIX 1
2023 Water/Wastewater Budget

	<u>Current</u> <u>(For 2mo</u> <u>Billing)</u>	<u>Proposed</u> <u>(For 2mo</u> <u>Billing)</u>
3. The following rates shall be paid to the Corporation of the City of St. Catharines for the wastewater system and services as outlined herein:		
(a) <u>Wastewater Fees (for each two month period)</u>		
Sewer Replacement Program	\$25.50	\$31.00
Wastewater charges – per cubic metre	2.147	2.372
Water meter size of 1" or greater will be subject to a water meter equivalency charge when calculating the Customer Charge. Exemption: Single Family Residential classification. See (b) below.		
(b) <u>Meter Equivalency</u>		
Water meter size of 1" or greater will be subject to a water meter equivalency charge when calculating the Customer Charge. Exemption: Single Family Residential classification.		
1" meter = 1.4 meter equivalency units		
1 1/2" meter = 1.8 meter equivalency units		
2" meter = 2.9 meter equivalency units		
3" meter = 11 meter equivalency units		
4" meter = 14 meter equivalency units		
6" meter = 21 meter equivalency units		
>6" meter = 21 meter equivalency units		
Note: Where a single 6" meter or greater is installed for the purpose of additional fire protection, the multiplier equivalency shall be discounted to 50%.		
(c) <u>Flat Rates (for each two month billing period)</u>		
Per Dwelling unit	\$112.50	\$128.25
(d) <u>Wastewater Under Construction</u>		
First two month period	0.00	
Next Flat Rate per dwelling unit for each two month period until meter is installed	\$112.50	\$128.25
Note: Where more than 20 units are under construction, the maximum number of units charged is 20.		
If there are extenuating circumstances or if large Industrial/Commercial building, "Next Flat Rate" to be determined at the discretion of the Treasurer.		
4. <u>Unauthorized Use of Water</u>		
(a) Rate when bypass valve is opened without Authorization or any other unauthorized use of water or determination that water provided has not passed through the meter:		
Two (2) times the average of last three representative bills.	2X	
If not applicable, estimate to be determined at the discretion of the Treasurer. (for each two month billing period)		
(b) Where property has operated a grow-op, amount is three (3) times the total Flat Rate per dwelling unit as outlined in Sections 1 and 3 (for each two month billing period)	\$600.00	\$ 675.00

APPENDIX 1
2023 Water / Wastewater Budget

	<u>Current</u> <u>(For 2mo</u> <u>Billing)</u>	<u>Proposed</u> <u>(For 2mo</u> <u>Billing)</u>
5. <u>Miscellaneous</u>		
(a) <u>Meter Relocation</u> to a more appropriate position to facilitate reading and/or maintenance:		
When requested by homeowner, equivalent to applicable Water Service Call as defined in Rates and Fees.		
When determined by City Engineer, amount charged at the discretion of the Treasurer		
(b) Installation of Automated Meter Reading (AMR) apparatus when performed not in accordance with scheduled deployment :		
When requested by homeowner		\$450.00
When determined by City Engineer, amount charged at the discretion of the Treasurer		
Customer non compliance with AMR installation		\$500.00
(c) <u>Late Payment Penalty</u>		
A penalty for late payment of 1.5% per month is added the day following the due date and the first day of each month thereafter.		
(d) The rates set out above shall be deemed to have become effective on all accounts with Billing periods ending on or after March 1, 2023 .		

* NOTE: METRIC CONVERSION: 1 cubic metre (CM) equals 220 gallons or 1,000 litres

***bolded script = proposed changes for 2023**

APPENDIX 2
2023 Water / Wastewater Budget

City St. Catharines
Water / Wastewater Budget
Annual Bill Change Comparison (2 month basis)

	<u>2023 New Rates</u>	<u>2022 Old Rates</u>	<u>Change</u>	
			<u>\$</u>	<u>%</u>
<u>Consumption</u>				
Normal Consumption	170	170		
	<u>170</u>	<u>170</u>	<u>0</u>	<u>0.00%</u>
<u>Water - Retail Rate</u>				
Rate per billing period (2 months)	\$31.50	\$30.50		
Fixed Fee - Annual	\$189.00	\$183.00	6.00	3.28%
Consumption Rate per CM	\$1.467	\$1.424		
Consumption Fee	\$249.34	\$242.08	7.26	3.00%
Total Water	<u>\$438.34</u>	<u>\$425.08</u>	<u>\$13.26</u>	<u>3.12%</u>
<u>Wastewater - Retail Rate</u>				
Rate per billing period (2 months)	\$31.00	\$25.50		
Fixed Fee - Annual	\$186.00	\$153.00	33.00	21.57%
Consumption Rate per CM	\$2.372	\$2.147		
Consumption Fee	\$403.31	\$364.99	38.32	10.50%
Total Wastewater	<u>\$589.31</u>	<u>\$517.99</u>	<u>\$71.32</u>	<u>13.77%</u>
<u>Total Water and Wastewater Bill</u>	<u><u>\$1,027.65</u></u>	<u><u>\$943.07</u></u>	<u><u>\$84.58</u></u>	<u><u>8.97%</u></u>
Fixed Component	\$375.00	\$336.00		
Variable Component	<u>\$652.65</u>	<u>\$607.07</u>		
	<u>\$1,027.65</u>	<u>\$943.07</u>		
Fixed Percentage	36.49%	35.63%		
Variable Percentage	<u>63.51%</u>	<u>64.37%</u>		
	<u>100.00%</u>	<u>100.00%</u>		