St. Catharines | Corporate Report
Budget Standing Committee

Report from Financial Management Services, Accounting

Date of Report: December 30, 2019 **Date of Meeting:** January 22, 2020

Report Number: FMS-B002-2020 **File:** 18.45.258

Subject: 2020 Water and Wastewater Budget and Associated Rates

Recommendation

That the Budget Standing Committee approve the 2020 Water and Wastewater Budget and Associated Rates as outlined in Appendix 1; and

That the report be forwarded to Council for consideration after the public meeting scheduled for February 10, 2020 for which notice will be duly given.

Report

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. This report seeks approval for the 2020 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. Automated Meter Reading (AMR) project
6. Forecasting Water Volumes
7. Financial Stability of the Wastewater system

1. 2020 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 2020, staff are proposing an increase to both the water and wastewater fixed and volumetric rates. Staff recommend that effective April 1, 2020, the rate structure for recovering water and wastewater costs be the following:

	2020	2019
Water		
Fixed (annual)	$177	$162
Volumetric (per cm)	$1.352	$1.285
Wastewater		
Fixed (annual)	$126	$108
Volumetric (per cm)	$2.005	$1.966

The proposed rates will result in an annual increase to the average ratepayer (at annual consumption levels of 170 cubic metres) of $51.02 – a 6.20% increase. See Appendix 2 for further details on the calculations.

Description	Amount
Water Rates	$26.39
Wastewater Rates	$24.63
Total Increase - $	$51.02
Total Increase - %	6.20%

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
Improvement program	$6,024,250	$3,243,000
Debt Charges	427,545	779,408
Total City Fixed Charges	$6,451,795	$4,022,408
Regional Fixed Charges	3,042,931	21,916,001
Total Fixed Costs	$9,494,726	$25,938,409

Calculation of Recovery Rates:		
Based on 42,450 customers	$224	$611
2020 Proposed Rates	**$177**	**$126**
2019 Rates	$162	$108

As the chart indicates, the calculated fixed component of the City's rate structure should be $224 for Water and $611 for Wastewater. While staff does not propose that the 2020 rates be increased in one year to fully recover these costs, increases over time need to be considered. The increase in the fixed water and wastewater rates in 2020 will result in the recovery of a larger portion of the fixed costs to operate the water and wastewater systems. Due to 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. Additionally, with the Region's commitment to increase its fees to the municipalities annually, there will be a corresponding increase to the City's fixed portion going forward.

3. Sustainable Funding of Infrastructure

The 2020 budget year is the first year that the capital budget was approved by Council before the year began. As part of this approval, the 2020 Water and Wastewater funding for watermain and sanitary sewer infrastructure replacement were included. This change improves transparency and understandability of the capital component of the water and wastewater rates.

a. Watermain Replacement Program

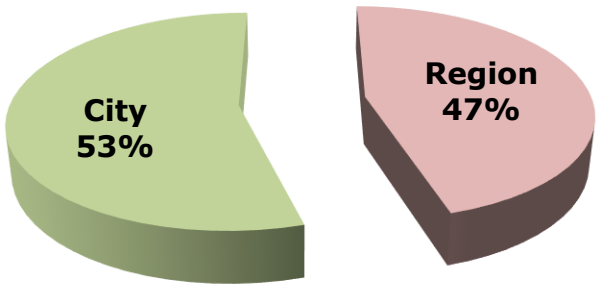
Approved with the 2020 Capital budget was $5,599,000 for the replacement of watermains and $425,250 for water capital investment (capital out of revenue). This infrastructure cost is funded by the water rates. Details of the watermain replacements for 2020 can be found in the 2020 Capital Budget under Tabs G and K and in summary Tab W. The 2020 Capital Budget for watermains is consistent with the 10-Year Financial Plan for Water/Wastewater (2019-2029) approved by Council in 2019.

b. Sanitary Sewer Replacement Program

Approved with the 2020 Capital budget was $2,700,000 for sanitary sewer infrastructure replacements and $543,000 for sanitary sewer capital investment (capital out of revenue. This infrastructure is funded by the wastewater rates. Details of the sewer replacements for 2020 can be found in the 2020 Capital Budget under Tabs E and K and in summary Tab W. The 2020 Capital Budget for sewers is consistent with the 10-Year Financial Plan for Water/Wastewater (2019-2029) approved by Council in 2019.

4. Regional Costs

Figure 1 – Region vs. City Water Expenditures



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, watermains sixteen inches (400 mm) in diameter or larger are a Regional responsibility and the City is responsible for the smaller distribution watermains. 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.

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 its respective portion. The Region has committed to increasing its water and wastewater rates annually for the next nine years to ensure program sustainability. These increases will result in annual increases to City water and wastewater rates.

Determination of St Catharines' share of the Regional Costs
The calculation of each 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 will change over time with our water 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 2020 (with comparable 2019 rates) are as follows:

Water	2020	2019	% increase (decrease)
Variable rate per cm	$0.602	$0.580	3.79%
Fixed Monthly Charge	$243,369	$232,163	4.83%

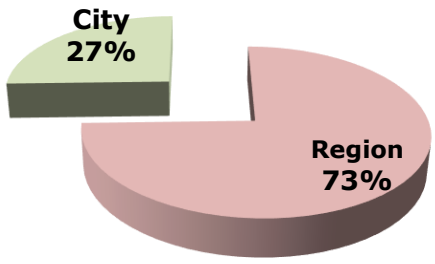
The above rates result in the City's 2020 draft Water budget including Regional costs of $12,072,931, an increase of $452,508 (3.89%) from 2019. As $9,030,000 of these costs are related to the variable rate, this provides some protection to the City should the water consumption decline in 2020. The fixed annual charge of $3,042,931 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 2020 (with comparable 2019 rates) are as follows:

Wastewater	2020	2019	%increase
Fixed Monthly Charge	$1,863,697	$1,728,412	5.67%

Figure 3 – Region vs. City Wastewater Costs



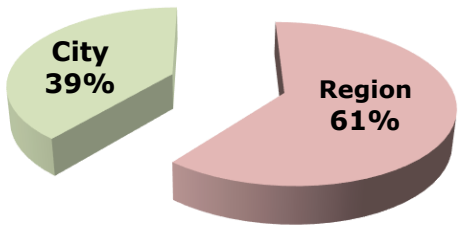
The Region has increased the wastewater bill to the Municipalities by 6% for 2020, with similar increases expected for the next nine years to approach program sustainability.

2020 Water and Waste Water Summary of Expenditures

Expenditure	Water		Wastewater	
City Operating Costs	$7,103,122	27.72%	$3,902,378	13.08%
Water/Sewer Improvement Program	5,599,000	21.85%	2,700,000	9.05%
City Debentures	427,545	1.66%	779,408	2.61%
Capital Out of Revenue	425,250	1.66%	543,000	1.82%
Region	12,072,931	47.11%	21,916,001	73.44%
Total	**$25,627,848**	**100%**	**$29,840,787**	**100%**
Region Controlled Costs	$12,072,931	47.11%	$21,916,001	73.44%
City Controlled Costs	13,554,917	52.89%	7,924,786	26.56%
Total	**$25,627,848**	**100%**	**$29,840,787**	**100%**

The 2020 water and wastewater budget recommends an increase above the rate of inflation to both meet the Region's annual prescribed increase and to address the City's infrastructure deficit. The City is committed to increasing its own portion of the water/wastewater program as presented in the 10-year plan, to start to minimize the funding gap.

Figure 4 – Total Region vs. Total City Water and Wastewater Costs



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

5. Automated Meter Reading (AMR) Project

The City has been installing new automated water meters in residential properties since August 2014. The City's AMR program uses wireless technology to automatically collect water consumptions, diagnostic and status date from the City's water meters and automatically transfers that data to a database for billing, troubleshooting and analyzing.

The battery operated AMR transmitter is wired directly to the water meter inside the home and wirelessly communicates with mobile reading equipment installed in City owned meter reading vehicles. The AMR transmitter sends wireless signals to the mobile reading equipment three times per year currently and operates on Industry Canada licensed 900 MHz spectrum. These transmissions last for less than 1/8th of a second at power levels less than 2 watts.

The benefits associated with automated meter reading technology is the ability to monitor consumption levels on a property-by-property basis, and to use this consumption data to potentially assist property owners with leak detection.

AMR data has the ability to focus on inactive accounts to ensure there is no unauthorized usage. AMR has the ability to store 35 days of data which provides hourly data and assists staff in determining when the consumption occurred. AMR can reduce estimated reads and costs associated with re-billing accounts. Since AMR systems have very high accuracy and read percentages, the system reduces re-bill costs. An automated system will prove to be a more efficient method for obtaining these reads.

Currently, water is billed following a four-month billing cycle, which means residents will receive a water bill three times a year. Once the AMR project is complete, staff will be reviewing the options to increase the frequency of billing water accounts.

A monthly or bi-monthly billing will provide customers with more frequent and timely information about their water usage. This benefits customers in a number of ways: It allows customers to adjust their water usage habits if they feel they are using too much water. It allows customers to detect any leaks in their household plumbing sooner. It provides consistency to assist monthly home budgets for our customers and residents will see less fluctuation in billing amounts especially after heavy usage periods.

An adjustment in billing frequency could result in a possible change in the collection process and collection rates. Costs associated with manual meter reading could be eventually eliminated with automation which may include vehicle costs, cellular phone expenses, labour, maintenance and some general overhead expenses. Technology may need to be upgraded which will provide additional efficiencies in billing processes. Staff will report back prior to any changes in billing frequency.

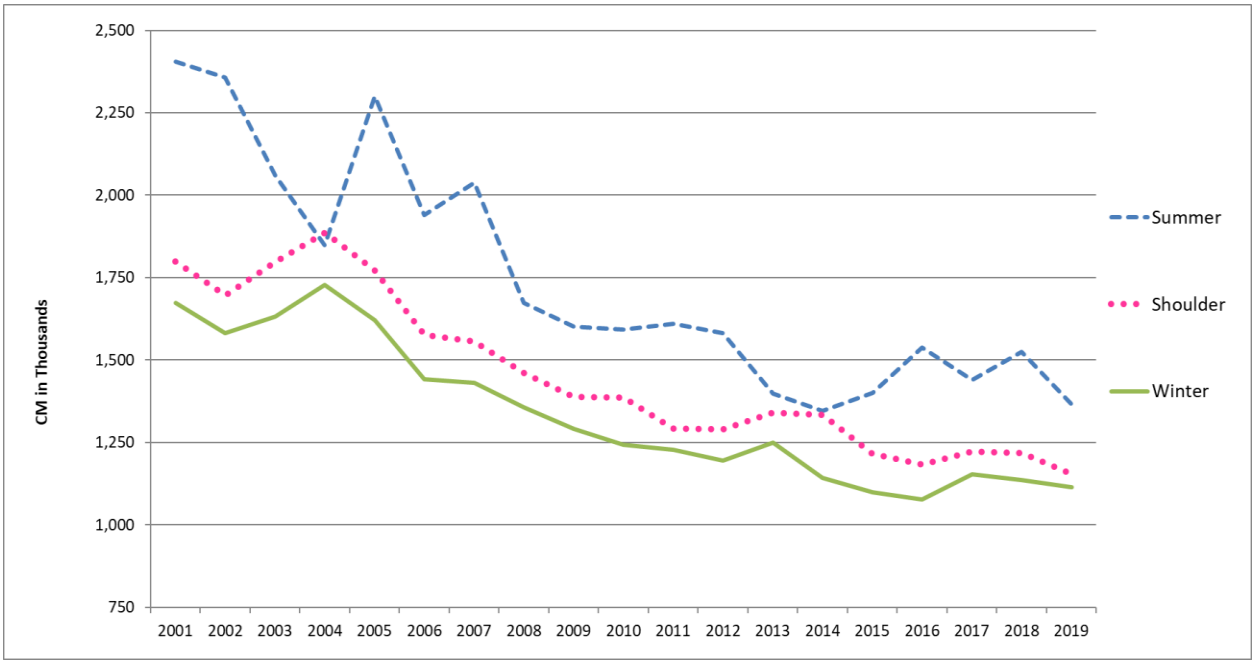
To date, 39,483 residential water meters have been upgraded to the AMR technology. We have about 850 meters left to exchange. The upgrade project is expected to be completed by Q2 of 2020.

6. Forecasting Water Volumes

An analysis of water purchases has shown conservation efforts by St Catharines water customers have resulted in significant reduction in cubic metres of water purchased from the Region. Since 1999 annual water purchases have decreased 47% from 27,310,000 cubic metres annually to 14,530,000 cubic metres in 2019. From 2007 to 2019 alone the decrease was 5.57 million cubic metres (27.7%). Each year staff review the history of water purchase volume and utilize that information to forecast what future volumes will be.

Over the past years there has been concern as to the determination of how much further the volumes can decline. In effect, are we nearing the end of volume decreases, or is there a 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.

Figure 4 – Water Purchases by Season

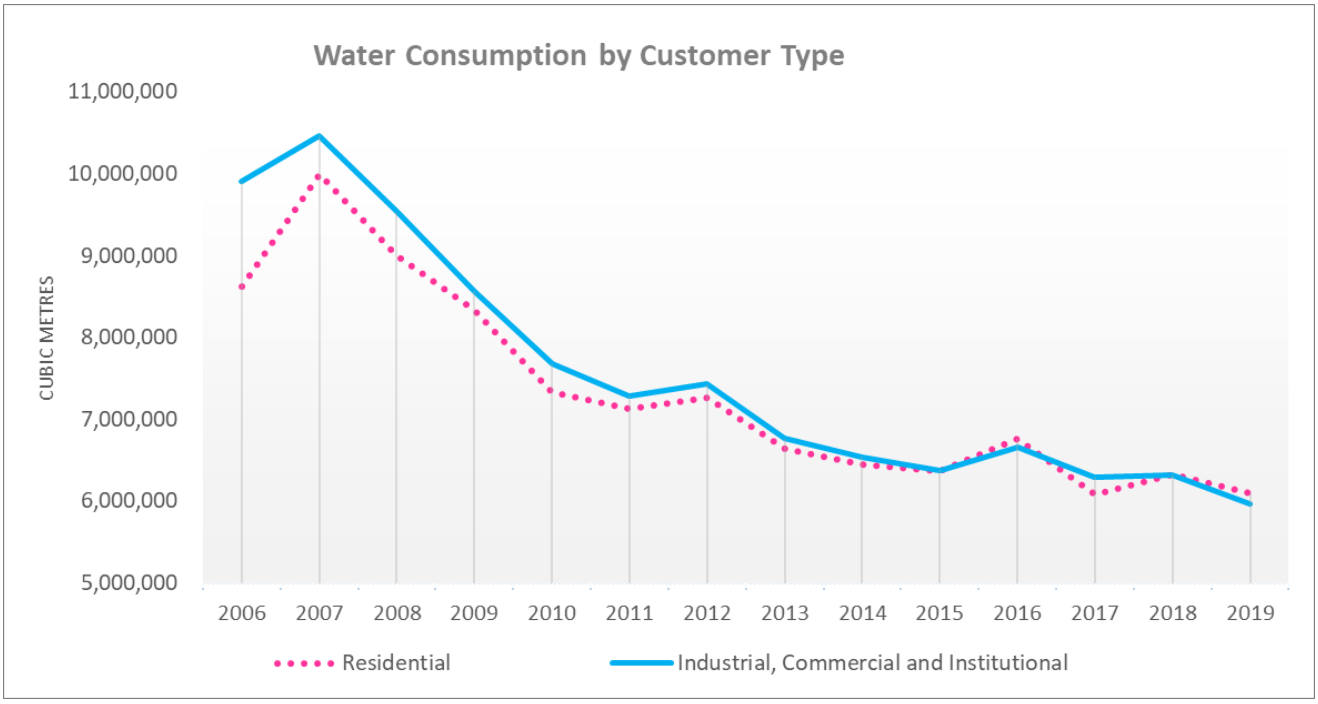


The chart clearly depicts the average monthly summer consumption (the blue or top line) as the most volatile line. It fluctuates significantly each year. While the volume rebounded in 2016, in 2017 it declined and in 2018 rebounded again. The 2019 year saw another year of decline due to the extremely wet spring. The summer monthly consumption is still higher than either of the other "seasons" which are less volatile.

Reviewing 2019 water purchases, it appears that water consumption may be levelling off. The 2019 purchases from the Region totaled 14.53 million cubic metres of water. In 2018, the City purchased 15.5 million cubic metres, in 2017 purchased 15.25 million cubic meters and in 2016 purchased 15.18 million cubic meters. Staff estimate water purchases for 2020 to be more in line with the three and five year average and slightly higher than the 2019 level of 14.53 million and 2015 levels of 14.8 million cubic metres of water. Staff estimate the 2020 purchases of 15.0 million cubic metres of water from the Region. With the changes to our climate, adaptation planning will be needed to manage the risks.

Climate related impacts continue to be experienced by the City of St. Catharines. These events include; extreme winds/fallen trees (2011), severe rainstorms/basement flooding (2014, 2017, 2018 and 2019), extreme cold/frozen water services (2015 and 2019) and extreme dry periods/fire ban (2016). Additionally, record high water levels in Lake Ontario in the spring and summer of 2017 and again in 2019 resulted in the closure of Lakeside Park. The severity and unpredictability of these events will be a challenge in the future. The impact on the City's water consumption and potential changes required to annual forecasts will be closely 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 ensuring the City's infrastructure can handle these severe and unpredictable events.

Figure 5 – Water Consumption by Customer Type



As shown in the graph above, 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. In 2019 are declines in both Residential and ICI consumptions from 2018 due to heavy rainfalls in spring/summer 2019, with Residential sector above the ICI sector similar to 2015 and 2016.

7. 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 the majority 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. In the past number of years, this trend is changing. Details are shown in Table 2 below.

Table 2 – Wastewater Annual Recovery/(Loss)

In millions of $	2019 (Est.)	2018	2017	2016	2015	2014	2013	2012	2011	2010
Revenue	$27.25	$26.45	$26.64	$27.38	$25.71	$25.80	$24.86	$25.32	$23.46	$22.50
Expenditures	$26.96	$25.58	$25.66	$26.02	$25.18	$25.53	$25.07	$25.25	$24.00	$23.35
Recovery/ (Loss)	$0.29	$0.87	$0.98	$1.36	$0.53	$0.27	($0.21)	$0.07	($0.54)	($0.85)

The positive results the last number of years have assisted in eliminating the accumulated deficit of $1.87 million at the end of 2015. At the end of 2019 it is estimated that wastewater system will have a surplus of $1.5 million. 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.

Financial Implications

The proposed 2020 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 $873.69. This is an increase of $51.02 or 6.20% over the amount they paid in 2019 of $822.67. This increase is less than $1.00 per week.

In addition, based on the 2019-2029 Water and Wastewater Financial Plan, the 2020 estimated rates were an annual bill of $874.67 or an increase of $52.00 or 6.3%. The 2020 rates proposed are slightly less than this forecasted amount.

Relationship to Strategic Plan

Economic Prosperity will be enhanced through:

- Optimizing capital infrastructure through effective asset management and sustainable investment.

Environmental Stewardship will be enhanced through:

- Review and update all municipal operations to minimize the impacts and ensure preparation for climate change. All sanitary sewer and storm sewer designs are undertaken using updated design criteria.

Conclusion

Staff recommends that Council approve the 2020 water and wastewater rate increase, which for the average customer annual consumption of 170 cubic metres is 6.20% or $51.02.

Prepared by: L Chen, Manager, Budgets and Procurement

Submitted/Approved by:

A Martuccio, Director EFES, City Engineer
K Douglas, Director FMS, City Treasurer

Attachments:

Appendix 1 – 2020 Water and Wastewater Budgets
Appendix 2 – 2020 Water and Wastewater Annual Bill Change

APPENDIX 1
2020 Water/Wastewater Budget

City of St Catharines
Water/Wastewater Budget Summary

	Estimate		Actuals		
	2020	2019	2018	2017	2016
Reserve at Beginning of Year	2,696,607	5,449,486	3,824,317	3,844,722	3,319,840
Revenues	54,942,018	52,244,811	49,419,991	49,275,913	50,881,713
Less: Region expenditures	33,988,932	32,361,372	30,893,197	30,660,277	30,655,488
Net Revenue	20,953,086	19,883,439	18,526,793	18,615,637	20,226,224
City Expenditures					
Water Operating costs	7,103,122	6,980,947	6,049,674	6,500,390	6,687,392
Water Debenture debt	427,545	526,248	587,026	878,619	957,099
Water Infrastructure costs	6,024,250	5,786,000	4,014,732	5,038,678	5,430,659
Sewer Operating costs	3,902,378	3,711,799	3,274,065	3,518,601	3,472,586
Sewer Debenture debt	779,408	624,257	640,958	870,027	923,547
Sewer Infrastructure costs	3,243,000	2,620,000	2,335,169	1,829,727	2,230,059
	21,479,703	20,249,251	16,901,624	18,636,042	19,701,342
Annual Surplus/(Deficit)	-526,617	-365,813	1,625,170	-20,406	524,882
Reserve at End of Year	2,169,990	5,083,674	5,449,486	3,824,317	3,844,722
City total	21,479,703	20,249,251	16,901,624	18,636,042	19,701,342
Region total	33,988,932	32,361,372	30,893,197	30,660,277	30,655,488
	55,468,635	52,610,623	47,794,821	49,296,319	50,356,831
cm - purchased	15,000,000	15,000,000	15,507,748	15,258,218	15,189,384

WATER SYSTEM (515.XXX)

2020 Water Budget Summary

		Dept.	Acct.	Estimate 2020	Estimate 2019	Actual 2018	Actual 2017	Actual 2016
Operating Expenditures:								
General Administration		FMS	105	1,282,153	1,363,886	1,044,900	1,156,934	1,206,063
Engineering Overhead		EFES	110	1,882,604	1,766,162	1,578,150	1,948,351	1,756,771
Mains, Valves, Hydrants		EFES	115	2,289,062	2,217,207	1,899,743	2,014,559	2,221,978
Water service lines		EFES	120	580,087	551,981	549,494	489,406	511,026
Meters		EFES	125	909,146	912,208	801,809	785,795	815,943
New Mains, Valves, Hydrants		EFES	135	160,070	169,503	138,263	113,235	134,413
Services Rendered		EFES	145	0	0	37,315	-7,890	41,198
Cost Allocations				-				
Total Operating Expenditures:				7,103,122	6,980,947	6,049,674	6,500,390	6,687,392
Capital Expenditures:								
Water Capital/Revenue		FMS	190	425,250	86,000	0	124,000	
Debenture Debt		FMS	195	427,545	526,248	587,026	878,619	957,099
Water Improvement Program	*	EFES	520	5,599,000	5,700,000	4,014,732	4,914,678	5,430,659
Total Capital Expenditures:				6,451,795	6,312,248	4,601,758	5,917,297	6,387,758
Total Water Expenditures				13,554,917	13,293,195	10,651,432	12,417,687	13,075,149

Note: FMS - Financial Management Services
EFES - Engineering, Facilities and Environmental Services

* - Details of the water improvement program for 2020 are provided in the 2020 Capital budget which was approved by Council on October 7, 2019. For details see under tab G and K in the 2020 Capital Budget.

CITY OF ST. CATHARINES - WATER/WASTEWATER BUDGET
ESTIMATE 2020

	EXPENDITURE ACCOUNT	2020 BUDGET
310.112	**WATER/WASTEWATER EQUIPMENT RESERVE:**	
	OPENING BALANCE	$1,256,537
	ANNUAL RESERVE PROVISION	330,000
	EXPENDITURES, 2020	-585,000
	EXPENDITURES, PRIOR YEAR COMMITMENTS	-355,000
	CLOSING BALANCE	$646,537
	EXPENDITURE DETAILS	
	ONE (1) TRIAXLE DUMP TRUCK (REPLACE UNIT#84)	$300,000
	ONE (1) TANDEM DUMP TRUCK SPECIFIC FOR UTILITIES OPERATIONS (NEW)	285,000
		$585,000
	PRIOR YEAR COMMITMENTS	
	THREE (3) CUBE VANS EQUIPPPED FOR UTILITY OPERATIONS (REPLACE UNIT#55,63,64)	240,000
	ONE (1) VALVE TURNING MACHINE (REPLACE UNIT#296)	100,000
	ONE (1) GPS DATA COLLECTION UNIT	15,000
		355,000

WASTEWATER SYSTEM

2020 Wastewater Budget Summary

		Dept.	Acct.	Estimate 2020	Estimate 2019	Actual 2018	Actual 2017	Actual 2016
Operating Expenditures:								
Sewers - General		EFES	730.100	699,057	697,188	619,953	636,856	658,138
Sewers - Insurance		FMS	730.105	0	0	28,485	54,743	95,043
FLAP Program		EFES	732.115	315,389	311,555	258,087	267,211	267,992
Lateral Replacement		EFES	732.100	706,647	705,535	665,805	588,634	576,765
New Laterals		EFES	732.105	0	0	32,917	25,636	-4,053
Drain Clearing		EFES	732.110	321,099	321,546	179,176	140,281	195,018
Overhead		EFES	732.190	764,414	669,068	635,658	810,478	760,206
Pollution Control		EFES	735.300	844,743	782,204	526,949	676,317	625,274
Overhead		EFES	735.305	251,029	224,703	327,035	318,446	298,204
Cost Allocations		EFES	731.920/925	0				
Total Operating Expenditures:				3,902,378	3,711,799	3,274,065	3,518,601	3,472,586
Debenture Debt		EFES	731.195	779,408	624,257	640,958	870,027	923,547
Sewer Improvement Program	*	EFES	731.100	2,700,000	2,500,000	2,185,169	1,769,727	2,173,059
Capital Out of Revenue	*	FMS	735.304	543,000	120,000	150,000	60,000	57,000
Total Capital Expenditures:				4,022,408	3,244,257	2,976,127	2,699,754	3,153,607
Total City Wastewater Expenditures				7,924,786	6,956,056	6,250,192	6,218,355	6,626,193

Note: FMS - Financial Management Services
EFES - Engineering, Facilities and Environmental Services

* - Details of the sewer improvement program for 2020 are provided in the 2020 Capital budget which was approved by Council on October 7, 2019. For details see under tab E and K in the 2020 Capital Budget.

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:

(a) Consumption - Cubic Metres (For each four month billing period)

	Current	**Proposed**
Customer Charge	$54.00	**$59.00**
Consumption Charge - per cubic metre	1.285	**1.352**

*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 classificiation. See (b) below.

(b) Meter Equivalency

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 classificiation.

	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) Flat Rates (For each four month billing period)

Per Dwelling unit	$175.00

Note: Where more than 20 units are being constructed, the maximum number of units charged is 20.

(d) Estimated Billing

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) Rates for Services Outside City (For each four month billing period)

Multiple of Regular Rate	2X	**2X**
Customer Charge	$108.00	**$118.00**
Consumption Charge - per cubic metre	2.57	**2.704**

(f) Bulk Water (Key Pad Operated)

Multiple of Regular Rate	2X	**2X**
Per cubic metre	$2.570	**$2.704**

(g) Water Under Construction

First four month period Per sq. ft. Water Increase 2017 1.22 %, 2018 1.64%, + 2019 4.50% increase	$0.028	**$0.030**
Per sq. m.	0.303	**0.326**

	Current	**Proposed**
Next Flat Rate per dwelling unit for each four month period until meter is installed	$175.00	

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) METER RENTALS (Annually)

Meter Size	
*16mm (5/8") Displacement	$19.00
*16mm (5/8")SR II Displacement with ECR	$35.00
*16mm (5/8") Accustream/Transmitter	$40.00
*16mm (5/8") IPERL/Transmitter	$45.00
19mm (3/4") Displacement	$25.00
19mm (3/4")SR II Displacement with ECR	$41.00
19mm (3/4") Accustream/Transmitter	$46.00
19mm (3/4") IPERL/Transmitter	$50.00
25mm (1") Displacement	$29.00
25mm (1") SR II Displacement with ECR	$46.00
25mm (1") Accustream Transmitter	$51.00
25mm (1") IPERL/Transmitter	$55.00
38mm (1-1/2") Displacement	$82.00
38mm (1-1/2") Displacement with ECR	$115.00
38mm (1-1/2") Displacement /ECR/ Transmitter	$120.00
38mm(1-1/2") Turbine	$111.00
38mm(1-1/2") Turbine/Transmitter	$116.00
38mm (1 1/2") OMNI C2 Compound	$122.00
38mm (1 1/2") OMNI R2 Residential	$75.00
38mm (1-1/2") OMNI T2 Turbine	$96.00
50mm(2") Displacement	$92.00
50mm(2") Displacement with ECR	$128.00
50mm(2") Displacement-ECR/Transmitter	$133.00

	Current	Proposed
50mm (2") Compound	$96.00	
50mm (2") Compound/Transmitter	$101.00	
50mm (2") Turbine	$114.00	
50mm (2") Turbine/Transmitter	$119.00	
50mm (2") OMNI C2 Compound	$150.00	
50mm (2") OMNI R2 Residential	$80.00	
50mm (2") OMNI T2 Turbine	$115.00	
75mm (3") Compound	$418.00	
75mm (3") Compound/Transmitter	$423.00	
75mm (3") Turbine	$375.00	
75mm (3") Turbine/Transmitter	$380.00	
75mm (3") OMNI C2 Compound	$402.00	
75mm (3") OMNI T2 Turbine	$375.00	
100mm (4") Compound	$498.00	
100mm (4") Compound/Transmitter	$503.00	
100mm (4") Turbine	$475.00	
100mm (4") Turbine/Transmitter	$480.00	
100mm (4") OMNI C2 Compound	$488.00	
100mm (4") OMNI F2 Fire Assembly	$798.00	
100mm (4") OMNI T2 Turbine	$475.00	
150mm (6") Compound	$671.00	
150mm (6") Compound/Transmitter	$676.00	
150mm (6") Turbine	$587.00	
150mm (6") Turbine/Transmitter	$592.00	
150mm (6") Fire Assembly	$900.00	
150mm (6") Fire Assembly /Transmitter	$905.00	
150mm (6") OMNI C2 Compound	$671.00	
150mm (6") OMNI F2 Fire Assembly	$980.00	

	Current	Proposed
150mm (6") OMNI T2 Turbine	$587.00	
200mm (8") Fire Assembly	$1,340.00	
200mm (8") Fire Assembly /Transmitter	$1,345.00	
200mm (8") Turbine	$665.00	
200mm (8") Turbine/Transmitter	$670.00	
200mm (8") OMNI C2 Compound	$930.00	
200mm (8") OMNI F2 Fire Assembly	$1,350.00	
200mm (8") OMNI T2 Turbine	$830.00	
250mm (10") Fire Assembly	$1,510.00	
250mm (10") Fire Assembly/Transmitter	$1,515.00	
250mm (10")Turbine	$900.00	
250mm (10")Turbine/Transmitter	$905.00	
250mm (10") OMNI C2 Compound	$1,125.00	
250mm (10")OMNI F2 Fire Assembly	$1,810.00	
250mm (10") T2 OMNI Turbine	$1,000.00	

* 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)

Meter Size		
16mm (5/8")	$69.00	**$72.00**
19mm (3/4")	$71.00	**$74.00**
25mm (1")	$78.00	**$81.00**
38mm (1-1/2")	$199.00	**$208.00**
50mm (2")	$213.00	**$223.00**
75mm (3")	Actual Cost	
100mm (4")	Actual Cost	
150mm (6")	Actual Cost	
200mm (8")	Actual Cost	
250mm (10")	Actual Cost	

		Current	**Proposed**
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)	Wastewater Fees (for each four month period)		
	Sewer Replacement Program	$36.00	**$42.00**
	Wastewater charges – per cubic metre	1.966	**2.005**
	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 classificiation. See (b) below.		
(b)	Meter Equivalency		
	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 classificiation.		
	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)	Flat Rates (For each four month billing period)		
	Per Dwelling unit	$225.00	
(d)	Wastewater Under Construction		
	First four month period	0.00	
	Next Flat Rate per dwelling unit for each four month period until meter is installed	$225.00	
	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.	**Unauthorized Use of Water**		
(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. If not applicable, estimate to be determined at the discretion of the Treasurer. (For each four month billing period)	2X	
(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 four month billing period)	**$1,200.00**	

		Current	**Proposed**
5.	**Miscellaneous**		
(a)	Meter Relocation 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	$375.00	
	When determined by City Engineer, amount charged at the discretion of the Treasurer		
	Customer non compliance with AMR installation	$500.00	
(c)	Late Payment Penalty		
	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 **April 1, 2019.**		

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

***bolded script = proposed changes for 2020**

APPENDIX 2
2020 Water/Wastewater Budget

City St. Catharines
Water/Wastewater Budget
Annual Bill Change Comparison

	2020 New Rates	2019 Old Rates	Change $	Change %
Consumption				
Normal Consumption	170	170		
	170	170	0	0.00%
Water - Retail Rate				
Rate per billing period (4 months)	$59.00	$54.00		
Fixed Fee	$177.00	$162.00	15.00	9.26%
Consumption Rate per CM	$1.352	$1.285		
Consumption Fee	$229.84	$218.45	11.39	5.21%
Total Water	$406.84	$380.45	$26.39	6.94%
Wastewater - Retail Rate				
Rate per billing period (4 months)	$42.00	$36.00		
Fixed Fee	$126.00	$108.00	18.00	16.67%
Consumption Rate per CM	$2.005	$1.966		
Consumption Fee	$340.85	$334.22	6.63	1.98%
Total Wastewater	$466.85	$442.22	$24.63	5.57%
Total Water and Wastewater Bill	$873.69	$822.67	$51.02	6.20%
Fixed Component	$303.00	$270.00		
Variable Component	$570.69	$552.67		
	$873.69	$822.67		
Fixed Percentage	34.68%	32.82%		
Variable Percentage	65.32%	67.18%		
	100.00%	100.00%		

History of "Analysis of Average Increase" - per annual budget presentations

	City	Region	Cons	Remove Tax Sup	Total	Stated % Increase
July 1, 2009	(10.70)	26.75	69.55	21.40	107.00	16%
April 1, 2010	4.00	24.01	26.44		54.45	7%
April 1, 2011	2.71	6.13	28.96		37.80	5.32%
April 1, 2012	4.44	16.53	19.23		40.20	5.38%
April 1, 2013					20.40	2.59%
April 1,2014					20.00	2.47%
April 1,2015					12.22	1.63%
April 1,2016					0.00	0.00%
April 1,2017					15.09	1.98%
April 1,2018					15.18	1.98%
April 1,2019					41.29	5.28%
April 1,2020					51.02	6.20%