



**Town of Aurora
Council Report**

No. FS19-005

Subject: 2019 Water, Wastewater, Stormwater Budgets and Rates
Prepared by: Laura Sheardown, Financial Analyst – Cash Flow & Investments
Department: Financial Services
Date: March 26, 2019

Recommendation

- 1. That Report No. FS19-005 be received; and**
- 2. That the 2019 combined Water, Wastewater and Stormwater budget of \$27,013,565 be approved; and**
- 3. That the 2019 retail water rate of \$2.18 per cubic metre and the retail wastewater rate of \$2.65 per cubic metre be approved; and**
- 4. That the 2019 flat rate stormwater charges of \$5.44 per unit per month for residential and condominium properties and \$69.08 per unit per month for metered non-residential commercial/industrial and multi-residential properties be approved; and**
- 5. That the new approved retail water, retail wastewater and stormwater charge rate become effective for all billings issued by the Town on or after May 1, 2019, and be retroactive for all consumption newly billed on such billings; and**
- 6. That the 2019 bulk water purchase rate of \$4.83 per cubic metre dispensed effective May 1, 2019 be approved; and**
- 7. That the necessary by-law be enacted to implement the 2019 retail water rate, retail wastewater rate, stormwater charge and bulk water purchase rate.**

Executive Summary

The purpose of this report is to present the budget for rate supported utility programs and to set the 2019 rates for the water, wastewater and stormwater services for billings issued on or after May 1, 2019.

- Budgets for water operations, wastewater operations and stormwater operations should be viewed as separate cost recovery budgets
- 2018 Water and Wastewater flows upon which retail revenue and wholesale cost budgets were built were underestimated
- The corporate overhead charge was increased and continues to be spread across all three service lines of the utility budget
- Region wholesale rate increases add pressure to underlying costs
- Demand per household continues to decline
- Community growth continues, but rate increases are required
- Impact of the weather on water consumption
- Stormwater rate structure review results are expected in 2019
- 2019 budget summaries are attached
- Overall 2019 Water, Wastewater and Stormwater rate increases are moderate
- Upward retail rate pressure is expected to continue into the future

Background

Annually the water, wastewater and stormwater utility budgets must be prepared on a balanced, cost recovery basis. In setting the water, wastewater and stormwater utility budgets, the following steps are required:

- Through the Town's ten year capital plan, the Town derives the necessary contributions to water, wastewater and stormwater reserves in order to ensure the continued safe operation of all associated infrastructure
- Determine overhead charges for costs incurred within the tax budget, to be recovered from the utility budgets
- Determine the operating costs required in order to ensure the ongoing safe operation of the Town's growing water, wastewater and stormwater systems
- Estimate total water volume to be purchased from the Region of York, and the related wholesale costs for water and wastewater services
- Taking all of the available information into consideration, set retail rates, to be applied to the wholesale volumes, which results in balanced budgets

This year, the water budgets have been developed collaboratively with input from Operations, Billing Administration and Financial Planning staff. Operating costs have been reviewed in detail and adjusted where considered appropriate. During the development of the tax funded operating budget, the allocation of corporate overhead to

utility budgets was reviewed and adjusted to reflect actual costs and time allocations of staff directly and indirectly supporting rate funded operations.

The greatest challenge in developing utility budgets is the estimation of the anticipated water volumes that will be purchased from the Region of York. These estimated water volumes are utilized to estimate both wholesale water purchase and wastewater treatment costs. In addition, these volume estimates also drive the Town's estimated retail revenue budgets. The Town predominantly relies upon York Region flow estimates which are in some instances adjusted based upon other analysis undertaken by the Town. Consequently, if actual water volumes differ materially from estimates, the impact on financial results can be material as well.

Analysis

Water, Wastewater and Stormwater Utility Budgets should be viewed as separate budgets for cost recovery

Provincial regulation requires that each service line (water, wastewater and stormwater) of a municipality's utility program be fully cost recovered on an individual basis. Consequently, each of these component budgets should be viewed as distinct operating budgets, each balanced by revenues for a full cost recovery.

2018 Water and Wastewater flows upon which retail revenue and wholesale cost budgets were built were underestimated

The 2018 retail revenue and wholesale cost budgets were under-forecasted and over-forecasted, respectively as a result of the underestimation of water and wastewater flows based upon year end flow projections. The larger than anticipated water and wastewater flows are one of the primary contributing factors related to the forecasted surpluses for water and wastewater for the fiscal year ending December 31, 2018. The larger than anticipated flows can be attributed to an increase in water consumption as a result of a drier than usual summer in 2018. This noted surplus has been partially offset by the write off of some uncollectable receivable balances at fiscal yearend.

2019 budgets have been developed taking into consideration the growth in our community, and building upon analysis work completed previously, as well as, York Region's projected water volumes for the Town.

The corporate overhead charge was increased and continues to be spread across all three service lines of the utility budget

During the preparation of the Town's tax funded operating budget, a comprehensive review of the cost recovery methodology, as well as its allocation rationale to all three service lines was undertaken. This review resulted in the greater alignment of the corporate overhead allocation methodology to that utilized for Building Services resulting in an increased allocation of corporate overhead to utility budgets.

In addition to a corporate charge for overhead to utility budgets, they are also charged for the direct costs incurred for the billing and administration functions that are performed by Financial Services staff.

The division of the corporate overhead and administration costs to all three budgets that began in 2018 continues in 2019.

Region wholesale rate increases add pressure to underlying costs

As part of their long range financial plan, the Region of York has previously announced that they intend to continue their progressive increase of wholesale water rates; the Town has estimated an increase of 9% for 2019. Similar increases are expected to continue for the next several years as the Region increases its contributions to reserves for infrastructure sustainability for the related water assets.

Demand per household continues to decline

There are three key contributors to households using less water each year on average:

- New construction and renovation has seen reductions in total family water use through the implementation of more and improved water efficient devices and fixtures in the home. Businesses seek to reduce their water consumption in their operations as well.
- With water rates increasing and the resultant increases in the household water billings, families are becoming more sensitive and wise in how they use and improve conservation within their homes. Water demand is seemingly fairly elastic to price increases.
- The restriction on outdoor pesticide and herbicide use resulted in significant infestation of dandelions and other common weeds. With the increasingly difficult fight against these invaders, together with price sensitivity to increasing

rates, many families have simply stopped watering or significantly reduced watering their lawns, further reducing demand per household.

Community growth continues, but rate increases are required

The increasing demand for water from new residents is quite often being offset by the falling average demand as noted above. Overall, water demand is expected to increase moderately.

Impact of the weather on water consumption

The weather during the summer months has an unpredictable impact on forecasted water consumption. A review of historical consumption data reveals a clear correlation between the weather experienced in the summer months and water consumption. Water projections attempt to address volatility in water consumption due to seasonal impacts through the consideration of a historical average water consumption. This input along with growth and water efficiency projections are all considered when arriving at water flow projections.

Stormwater rate structure review results are expected in 2019

Staff had previously reported that our engineering group will be proposing alternative approaches to Council for the allocation of stormwater charges across the Town's various properties. This review has not been completed at this time, but a report in this regard is expected in the first half of 2019.

2019 budget summaries are attached

Attachments #1 through #4 outline the budget details for each of water operations, wastewater operations and stormwater operations, together with a similar format showing all three combined into one schedule.

Overall 2019 Water, Wastewater and Stormwater rate increases are moderate

The following rates have been calculated to recover the estimated required revenues based on the estimated volumes of water flow.

Rate	2018 Rate Per cu.m	2019 Proposed Per cu.m.	Change (%)
Retail Water Rate	\$2.01	\$2.18	8.5%

Retail Wastewater Rate	\$2.72	\$2.65	(2.6%)
Combined Water & Wastewater Rate/Bulk Water	\$4.73	\$4.83	2.1%
Stormwater Flat Rate			
Residential/year	\$63.36	\$65.28	3.0%
Residential/month	\$5.28	\$5.44	
Non-Residential/year	\$804.84	\$828.96	3.0%
Non-Residential/month	\$67.07	\$69.08	

The average residential household uses approximately 62 cubic metres of water per quarter. The impact of these rate changes on their quarterly bill are summarized below:

	Current rates billing	Proposed rates billing*	Dollar Increase (Decrease)	% Increase (Decrease)
Water services	\$124.62	\$135.16	\$10.54	8.5%
Wastewater	168.64	164.30	(\$4.34)	(2.6%)
Stormwater	15.84	16.32	0.48	3.0%
Total Billing	\$309.10	\$315.78	\$6.68	2.2%

*Effective for billings issued after May 1, including all newly billed consumption thereon.

Based on the above, the impact of the proposed rate increase for a residential property is approximately \$26.72 per year (\$6.68 time four billings).

Upward retail rate pressure is expected to continue into the future

The Region of York is forecasting continuing significant annual wholesale rate increases as they continue to ramp up their reserve fund contributions for infrastructure sustainability thus placing on upward pressure on the Town's wholesale water and wastewater costs. In addition, in an effort to ensure the ongoing sustainability of its water, wastewater and stormwater system infrastructure, the Town requires that further contributions be made to wastewater and stormwater reserves in 2019.

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Advisory Committee Review

Not applicable

Legal Considerations

The budgets and rates for water, wastewater and stormwater utilities operations must be approved by Council. The proposed budgets provide sufficient resources for the Town staff to meet all statutory responsibilities under the sustainable water & Sewage Systems Act, 2002 as the owner and operator of the Town's systems for water distribution, wastewater collection and stormwater collection and management.

Financial Implications

The water, wastewater and stormwater budgets are all full cost recovery driven. In developing the budgets, water flow estimates are made, wholesale costs then determined, operating and administrative costs developed, internal charges confirmed, and contribution requirements for reserves established. Ultimately, the full costs of these services are then recovered by establishing rates required to do so for the forecast volumes.

This year's budget sees the internal charge for corporate overhead allocation increased as determined by the overhead allocation formulas.

Communications Considerations

Staff will work with Communications in preparing a press release regarding the adoption of the utilities budgets and the impacts to be expected.

Link to Strategic Plan

Strategic Plan Goal of Supporting an Exceptional Quality of Life for All Objective 2: Invest in Sustainable Infrastructure

Both legislation and fiscal management lead to creating sustainable water, wastewater and stormwater infrastructure. Providing the appropriate rates ensures that sufficient revenues are generated to create financial sustainability and maintain the assets accordingly.

Alternative(s) to the Recommendation

The rates for the various services are established each year based on coming into effect May 1st of the current year and are applied to all consumption, regardless of reading interval, on all billings prepared and issued on or after May 1. Approval of the recommendations in advance of May 1st will allow the revised rates to be charged at the appropriate time to meet budget projections.

Conclusions

The water, wastewater and stormwater programs are all funded through a rate structure based on consumption and full cost recovery. Overall, the proposed rate changes result in an increase of \$26.72 annually for the average residential household. On a combined basis, the rates outlined in the recommendations are in line with previous year's increases and represent a prudent approach to achieving full cost recovery for future years. All new rates are to become effective for all billings issued by the Town on or after May 1, 2019 and be retroactive for all consumption newly billed on such billings. This approach is consistent with past years, thus ensuring that all properties receive four quarterly bills that factor in the appropriate old and new utility rates.

Attachments

- Attachment #1: Summary Water Operations Budget
- Attachment #2: Summary Wastewater Operations Budget
- Attachment #3: Summary Stormwater Operations Budget
- Attachment #4: Summary Combined Utility Operations Budgets
- Attachment #5: 2019 Water, Wastewater and Stormwater Rates

Previous Reports

None.

Pre-submission Review

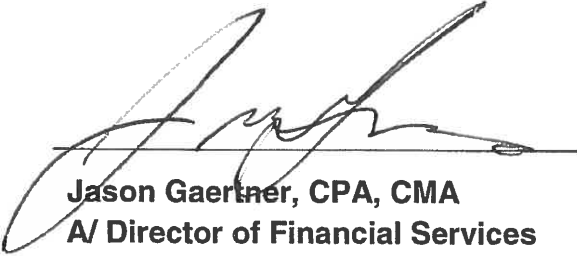
Agenda Management Team review on January 24, 2019

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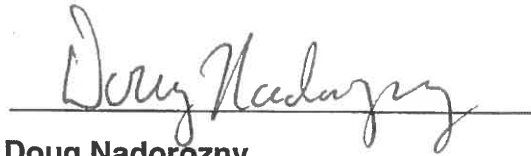
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Departmental Approval



**Jason Gaertner, CPA, CMA
A/ Director of Financial Services
- Treasurer**

Approved for Agenda



**Doug Nadorozny
Chief Administrative Officer**

Attachment #1

Water

	2018 Forecast to Year End	2018 Budget	2018 Budget/Actual variance fav(unfav)	2019 Budget	% Change Budget
Required rate revenues	(10,225,695)	(9,764,000)	461,695	(11,105,365)	13.7%
Less: Region Wholesale Charges	6,455,000	5,865,500	(589,500)	7,151,000	21.9%
Gross Contribution to Fixed Costs	(3,770,695)	(3,898,500)	(127,805)	(3,954,365)	1.4%
<u>Town Operational, Administrative and Fiscal Costs</u>					
Town Operations and Maintenance	1,136,574	1,571,435	434,861	1,029,581	-34.5%
Administration and Billing	713,016	845,445	132,429	1,266,284	49.8%
Corporate Overhead Allocation	633,420	633,420	-	710,400	12.2%
Infrastructure Sustainability Reserve Contributions	1,700,000	1,700,000	-	1,700,000	0.0%
Less: Misc Revenue and direct cost recoveries	(722,978)	(851,800)	(128,822)	(751,900)	-11.7%
Total Fixed Town Costs	3,460,032	3,898,500	438,468	3,954,365	1.4%
Net Budget - (surplus)deficit	(310,663)	-	310,663	-	-
Total Expenditures: Region Wholesale Charges plus Town Costs					
	9,915,032	9,764,000	(151,032)	11,105,365	13.7%

Attachment #2

Wastewater

	2018 Forecast to Year End	2018 Budget	2018 Budget/Actual variance fav(unfav)	2019 Budget	% Change Budget
Required rate revenues	(12,719,875)	(12,121,200)	598,675	(13,839,100)	14.2%
Less: Region Wholesale Charges	10,064,000	9,039,000	(1,025,000)	10,944,000	21.1%
Gross Contribution to Fixed Costs	(2,655,875)	(3,082,200)	(426,325)	(2,895,100)	-6.1%
<u>Town Operational, Administrative and Fiscal Costs</u>					
Town Operations and Maintenance	345,356	1,157,100	811,744	868,800	-24.9%
Administration and Billing	261,400	261,400	-	261,400	
Corporate Overhead Allocation	503,700	503,700	-	554,900	
Infrastructure Sustainability Reserve Contributions	1,250,000	1,250,000	-	1,300,000	4.0%
Less: Misc Revenue and direct cost recoveries	(117,472)	(90,000)	27,472	(90,000)	
Total Fixed Town Costs	2,242,984	3,082,200	839,216	2,895,100	-6.1%
Net Budget - (surplus)deficit	(412,891)	-	412,891	-	
Total Expenditures: Region Wholesale Charges plus Town Costs					
	12,306,984	12,121,200	(185,784)	13,839,100	14.2%

Attachment #3

Stormwater

	2018 Forecast to Year End	2018 Budget	2018 Budget/Actual variance fav(unfav)	2019 Budget	% Change Budget
Required rate revenues	(1,675,000)	(1,752,400)	(77,400)	(2,069,100)	18.1%
Less: Region Wholesale Charges			-		
Gross Contribution to Fixed Costs	(1,675,000)	(1,752,400)	(77,400)	(2,069,100)	18.1%
<u>Town Operational, Administrative and Fiscal Costs</u>					
Town Operations and Maintenance	364,927	465,700	100,773	529,200	13.6%
Administration and Billing	105,400	105,400	-	105,400	
Corporate Overhead Allocation	31,300	31,300	-	34,500	
Infrastructure Sustainability Reserve Contributions	1,150,000	1,150,000	-	1,400,000	21.7%
Less: Misc Revenue and direct cost recoveries	-	-	-	-	
Total Fixed Town Costs	1,651,627	1,752,400	100,773	2,069,100	18.1%
Net Budget - (surplus)deficit	(23,373)	-	23,373	-	
Total Expenditures: Region Wholesale Charges plus Town Costs					
	1,651,627	1,752,400	100,773	2,069,100	18.1%

Attachment #4

Total

	2018 Forecast to Year End	2018 Budget	2018 Budget/Actual variance fav(unfav)	2019 Budget	% Change Budget
Required rate revenues	(24,620,570)	(23,637,600)	982,970	(27,013,565)	14.3%
Less: Region Wholesale Charges	16,519,000	14,904,500	(1,614,500)	18,095,000	21.4%
Gross Contribution to Fixed Costs	(8,101,570)	(8,733,100)	(631,530)	(8,918,565)	2.1%
<u>Town Operational, Administrative and Fiscal Costs</u>					
Town Operations and Maintenance	1,846,857	3,194,235	1,347,378	2,427,581	-24.0%
Administration and Billing	1,079,816	1,212,245	132,429	1,633,084	34.7%
Corporate Overhead Allocation	1,168,420	1,168,420	-	1,299,800	11.2%
Infrastructure Sustainability Reserve Contributions	4,100,000	4,100,000	-	4,400,000	7.3%
Less: Misc Revenue and direct cost recoveries	(840,450)	(941,800)	(101,350)	(841,900)	
Total Fixed Town Costs	7,354,643	8,733,100	1,378,457	8,918,565	2.1%
Net Budget - (surplus)deficit	(746,927)	-	746,927	-	
	-	-	-	-	
Total Expenditures: Region Wholesale Charges plus Town Costs	23,873,643	23,637,600	(236,043)	27,013,565	14.3%

Schedule "A"

Attachment #5

Water, Wastewater, and Storm Sewer Rates

1.		Water	Wastewater	Combined
(a)	Metered Service	\$2.18 per m ³	\$2.65 per m ³ of water consumed	\$4.83 per m ³
(b)	Non-metered Service <i>(Refusal by homeowner to install meter)</i>	Flat Rate \$144.00 per unit per month	Flat Rate \$174.00 per unit per month	Flat Rate \$318.00 per unit per month
(c)	Non-metered Service <i>(Installation not physically possible)</i>	Flat Rate \$72.00 per unit per month	Flat Rate \$87.00 per unit per month	Flat Rate \$159.00 per unit per month

2. Storm Sewer Flat Rates

- (a) All Residential and Residential Condominium Properties - \$5.44 per unit, per month.
- (b) All Non-Residential, Commercial, Industrial and Multi-residential Apartment Properties - \$69.08 per meter per month.

3. Penalty for Late Payment

All billings are due and payable as stated thereon and shall, if not paid on or before the due date stated, be subject to a one time late payment penalty of five percent (5%) of the total billed.

4. Bulk Purchase of Water

\$4.83 per m³