

2022

Approved Water and Wastewater Budgets



Town of Pelham

2022 Water and Wastewater Budgets



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Water and Wastewater Overview

Background

Water is provided in the Town of Pelham (Town) on a two-tiered system. The Niagara Region (Region) is responsible for the treatment and supply of water while the Town is responsible for distribution, billing and collection. Water is wholesaled to the Town, which then subsequently distributes it to the users. The Town has two main service areas, those being Fenwick and Fonthill. The Town also owns a water hauling station.

Wastewater collection is provided in a similar two-tiered system. The Town provides collection and transmission of wastewater while the Region provides treatment. Similar to water, there are two main service areas: Fenwick and Fonthill. Not all water users in these areas have municipal wastewater service.

Most customers on the system are metered and pay on a water volume consumed basis plus a base charge and are billed six times a year.

A Water & Wastewater Long-Range Financial Plan was completed in 2018 by BMA Management Consulting Inc. This study not only looked at the required Water Financial Plan but also the Wastewater Financial Plan for the six-year period of 2019 to 2024. The 2022 budget is in the fourth year of these financial plans. The Town is following the recommendations in this report relating to the rate increases. This will meet the future capital needs of the water and wastewater assets. This is a requirement by the Town of Pelham's Sustainable Financial Plan in compliance with Ontario Water Regulation 453/07. The Town has reviewed the study and compared it to the actuals from 2019-2021. The Town is in line with the study with the only difference due to some capital projects being deferred to future years from the original plan. This has also resulted in deferring the issuance of debt for some of these capital projects.

The rate increases from the Region have an impact on the rate increases for the Town. In 2022, the projected rate increase from the Region for water and wastewater is 5.15%. For water, the Region's expense is 37% of the budget. For wastewater, the Region's expense is 57% of the budget. Therefore, the Region's increases have a significant impact on the Town's rate increases for both water and wastewater.

The rate increases have also contributed to an increase in the water and wastewater reserves. The annual reserves allocation has increased from a budget of \$355,117 in 2018 to \$1,370,290 in 2022. This increase to the reserves is critical to meet the future capital needs of the Town and it supports the Reserve and Reserve Fund Policy.

The Water and Wastewater Long-Range Financial Plan recommends a rate increase for Water 7.5% and for Wastewater 9.5%. This is required to meet the infrastructure and operating requirements of the Water and Wastewater services in Pelham. Pelham has the highest household income in the Niagara Region with one of the lowest water and wastewater rates in the Niagara Region. This is partially a result of a four-year no rate increase from 2014-2017. Appendix 3 shows that Pelham is still one of the lowest in water and wastewater rates in the region.

Recommendations:

The draft budget proposed a 7.5% increase in the Water and 9.5% increase in the Wastewater rates be effective for 2022. This is equivalent to \$80.26 increase per average household for the most common consumption of 33 M³ per billing.

However, on February 7, 2022 Council approved a water rate increase of 7.5% and a wastewater rate increase of 7.5%. This report is updated based on the 2% rate reduction in wastewater from 9.5% to 7.5% from the original draft budget. This is equivalent to \$71.23 increase per average household for the most common consumption of 33 M³ per billing. The water budget was also amended for more up-to-date information on volumetric flows.



Water and Wastewater Overview

Water

Water rates have been set by the Town based on a fixed charge component and a rate for consumption usage. This methodology benefits those who conserve water usage and ensures that the infrastructure is factored into the rate setting structure. Sustainability costs include the costs to maintain the water distribution system with infrastructure repairs, replacements or renewals. These costs together with administrative costs are considered in determining the budget requirements.

The Region also provides water flows to the Town based on actual usage. For 2022, the Region will bill the Town a 25% flat rate based on previous year’s consumption levels combined with a usage rate based on 100% of actual consumption for 2021. The volume of water consumed has increased due to the growth in the Town.

Currently, the Town recovers its water consumption with a 29.87% flat rate, a 64.05% volumetric rate and 6.08% from other revenues. As the Town is proactive in energy conservation efforts and the promotion of these environmental initiatives, the Town feels it prudent to reward those that follow these practices. This is done by setting the fixed rate at a minimum level and ensuring users pay more when they consume more.

Base Fixed Rate Calculation

Total Water Budget	\$3,598,480	
27.33% Fixed Revenues	(\$1,074,930)	(1)
Subtotal	\$2,523,550	
Less: Other Revenues	(\$218,650)	
Revenue Required for Consumption	\$2,304,900	(2)



(1) Rate Setting for fixed given amount of \$962,691

# of Metres	Rate (per billing)	Revenue
5,239	\$ 30.65	\$963,394
40	\$ 61.28	\$14,708
30	\$ 85.80	\$15,444
34	\$ 122.54	\$24,998
3	\$ 306.39	\$5,515
1	\$ 510.81	\$3,065
3	\$ 1,021.34	\$18,384
3	\$ 1,634.57	\$29,422
Total Revenue		\$1,074,930

(2) Consumption Rate Calculation

The consumption rate charge is 100% attributed to the billing from the Niagara Region. The Region allocates its water costs to municipalities based on their actual consumption per month. For 2022, it is estimated that this rate will be 4.09% higher than 2021 resulting in a rate of \$0.636 per cubic metre. Although the Region uses 1,374,000 cubic metres for billing purposes in 2022, this is an estimate and the final number will be adjusted at year end. The Town’s rate is budgeted to increase by 7.5% in 2022; and the forecasted water flows are based on the projected usage in 2021 so that it can recover its costs of operating the distribution system.

Total Town of Pelham estimated consumption costs related to water	\$2,304,900
Divided by forecasted water flows (M ³) for 2022	1,300,000
2022 Proposed Annual Consumption Rate Charge	\$1.773/M³

Water and Wastewater Overview



Wastewater

The Town is using the 2018 Water and Waste Water Rate Study as prepared by BMA Management Consulting Inc. to set its annual rates in wastewater as well. The methodology proposed in the study for wastewater is to establish a fixed rate and a volumetric rate for user fees. Using this methodology, the Town is proposing the following rate structure for wastewater in 2022:

Total Wastewater Budget	\$2,732,861	
44.95% Fixed Cost	(\$1,228,950)	(1)
Subtotal	1,503,911	
Less: Other Revenues	(\$20,000)	
Revenue Required for Consumption	\$1,483,911	(2)

(1) Fixed Rate Calculation

# of Metres	Rate (per billing)	Revenue
4,818	\$38.29	\$1,106,921
31	\$76.57	\$14,242
23	\$107.22	\$14,796
27	\$153.14	\$24,809
2	\$382.90	\$4,607
1	\$638.39	\$3,830
3	\$1,276.41	\$22,975
3	\$2,042.80	\$36,770
Total Revenue		\$1,228,950



(2) Consumption Rate Calculation

The consumption rate charge is 100% attributed to the billing from the Niagara Region. The Region allocates its wastewater costs to municipalities based on their proportionate share of the Region's total three-year average historical wastewater flows.

Total Town of Pelham estimated consumption costs related to wastewater	\$1,483,911
Divided by forecasted water flows (M ³) for 2022	1,153,000
2022 Proposed Annual Consumption Rate Charge	\$1.287 M³

It is noted that consumption levels for wastewater are forecasted to be less than water consumption since there are fewer sewer accounts, as well as higher water flow generated from water hauler usage. It should also be noted that although the rates are based on usage within the Town, the Region's requisition to the Town for wastewater is fixed.

The Region has reported that water conservation efforts are leveling off as members of the community have been diligent in their efforts to conserve water. Originally, excess use of water led to a methodology of charging 100% of the water and wastewater cost based on consumption. However, as the water consumption levels decrease, the revenues being generated are no longer able to cover the fixed costs resulting in large deficits in this area. The need to cover the fixed costs has become paramount to sustain the wastewater infrastructure.

SUMMARY

Attached to this report is a summary of sample water billings for a two-month billing period which include the proposed 7.5% increase in the water and 7.5% increase in the wastewater rates effective for 2022. For the average household, this is a \$ 71.23 increase to the annual water and wastewater bill.

Finally, the 2022 Water and Wastewater Budgets are provided for Council's information and reference.

Water Distribution System



The Water division is responsible for the distribution of the Town's water supply supplied by Niagara Region.

	2019	2020	2021	2022	Budget Change		
	Actual	Actual	Approved Budget	Approved Budget	Dollar	Percent	Notes
Revenues							
Consumption Charges	\$ 1,572,142	\$ 1,943,040	\$ 2,143,700	\$ 2,304,900	\$ 161,200	7.52%	
Flat Rate Charge	812,254	894,976	962,691	1,074,930	112,239	11.66%	
Consumption Charges Water Haulers	118,131	154,582	123,000	150,000	27,000	21.95%	
Meter Installations	30,265	41,363	40,000	40,000	-	-%	
Other Revenues	44,049	31,028	21,250	28,650	7,400	34.82%	
Grant Revenue - Provincial	-	101,313	-	-	-	-%	
Total Revenues	2,576,841	3,166,302	3,290,641	3,598,480	307,839	9.35%	
Expenditures							
Salaries and Benefits	976,106	996,137	1,069,859	1,230,722	160,863	15.04%	
Materials and Supplies	333,555	283,810	354,620	309,073	(45,547)	(12.84)%	(1)
Insurance	17,551	20,150	22,165	25,582	3,417	15.42%	
Contract Services	104,235	147,545	92,200	180,100	87,900	95.34%	(1)
Transfer to Reserve	237,151	594,979	641,297	533,495	(107,802)	(16.81)%	
Total Expenditures before Region Costs	1,668,598	2,042,621	2,180,141	2,278,972	98,831	4.53%	
Niagara Region Volumetric Costs	908,243	1,123,681	1,110,500	1,319,508	209,008	18.82%	
Total Expenditures	2,576,841	3,166,302	3,290,641	3,598,480	307,839	9.35%	
Net Surplus (Deficit)	\$ -	\$ -	\$ -	\$ -	\$ -	-%	

Notes:

(1) Interdepartmental transfers have been reclassified for 2022 according to the nature of the expenditure, resulting in increased contract services and decreased materials and supplies. Minimal change to total interdepartmental transfers.

Wastewater Distribution System



The wastewater division is responsible for the collection of wastewater and distribution to the Region's wastewater collection and treatment system.

	2019	2020	2021	2022	Budget Change		
	Actual	Actual	Approved Budget	Approved Budget	Dollar	Percent	Notes
Revenues							
Consumption Charges	\$ 1,001,504	\$ 1,262,012	\$ 1,381,294	\$ 1,483,911	\$ 102,617	7.43%	
Flat Rate Charge	888,035	999,776	1,096,843	1,228,950	132,107	12.04%	
Other Revenues	24,410	19,876	9,030	20,000	10,970	121.48%	
Grant Revenue - Provincial	-	28,415	-	-	-	-%	
Total Revenues	1,913,949	2,310,079	2,487,167	2,732,861	245,694	9.88%	
Expenditures							
Salaries and Benefits	229,881	238,593	251,281	297,445	46,164	18.37%	
Materials and Supplies	5,968	2,459	11,000	11,000	-	-%	
Insurance	1,905	2,227	2,450	2,842	392	16.00%	
Contract Services	18,990	5,972	18,000	18,000	-	-%	
Transfer to Reserve	346,670	583,332	741,007	836,795	95,788	12.93%	
Total Expenditures before Region Costs	603,414	832,583	1,023,738	1,166,082	142,344	13.90%	
Niagara Region Volumetric Costs	1,310,535	1,477,496	1,463,429	1,566,779	103,350	7.06%	(1)
Total Expenditures	1,913,949	2,310,079	2,487,167	2,732,861	245,694	9.88%	
Net Surplus (Deficit)	\$ -	\$ -	\$ -	\$ -	\$ -	-%	

Notes:

(1) Consumption projected to remain the same based on analysis of prior years. Rate increase of 5.15% provided by Region factored in for 2022.

Appendix 1
2022 Approved Water and Wastewater Rates
as per 2 Month Billing

	2021		2022		\$		%
	Rates		Rates		INCREASE		INCREASE
WATER							
Bi-Monthly Base Charge (up to 19 mm Meter)	\$ 28.51	\$	30.65	\$	2.14		7.50%
Bi-Monthly Base Charge (25mm Meter)	57.00		61.28		4.28		7.50%
Bi-Monthly Base Charge (37mm Meter)	79.81		85.80		5.99		7.50%
Bi-Monthly Base Charge (50mm Meter)	113.99		122.54		8.55		7.50%
Bi-Monthly Base Charge (75mm Meter)	285.01		306.39		21.38		7.50%
Bi-Monthly Base Charge (100mm Meter)	475.17		510.81		35.64		7.50%
Bi-Monthly Base Charge (150mm Meter)	950.08		1,021.34		71.26		7.50%
Bi-Monthly Base Charge (200mm Meter)	1,520.53		1,634.57		114.04		7.50%
Usage Charge, Per Cubic Meter	1.649		1.773		0.124		7.50%
WATER HAULERS							
Usage Charge, Per Cubic Meter	\$1.9015		\$2.0441	\$	0.1426		7.50%
WASTEWATER							
Bi-Monthly Base Charge	\$ 35.62	\$	38.29	\$	2.67		7.50%
Bi-Monthly Base Charge (25mm Meter)	71.23	\$	76.57		5.34		7.50%
Bi-Monthly Base Charge (37mm Meter)	99.74	\$	107.22		7.48		7.50%
Bi-Monthly Base Charge (50mm Meter)	142.46	\$	153.14		10.68		7.50%
Bi-Monthly Base Charge (75mm Meter)	356.19	\$	382.90		26.71		7.50%
Bi-Monthly Base Charge (100mm Meter)	593.85	\$	638.39		44.54		7.50%
Bi-Monthly Base Charge (150mm Meter)	1,187.36	\$	1,276.41		89.05		7.50%
Bi-Monthly Base Charge (200mm Meter)	1,900.28	\$	2,042.80		142.52		7.50%
Usage Charge, Based on Cubic Meters for Sewer	1.198	\$	1.288		0.090		7.50%
SEWERS ONLY, NO WATER							
Base Charge Per Billing Period (2 Months)	\$ 35.62	\$	38.29	\$	2.67		7.50%

Appendix 2
2022 Approved Water and Wastewater Rates
as per 2 Month Consumption

	25 M ³		33 M ³		50 M ³		75 M ³	
	2021	2022	2021	2022	2021	2022	2021	2022
WATER								
Base Charge	\$ 28.51	\$ 30.65	\$ 28.51	\$ 30.65	\$ 28.51	\$ 30.65	\$ 28.51	\$ 30.65
Usage Charge	41.23	44.33	54.42	58.51	82.45	88.65	123.68	132.98
	\$ 69.74	\$ 74.97	\$ 82.93	\$ 89.16	\$ 110.96	\$ 119.30	\$ 152.19	\$ 163.62
Year-to-Year Increase	\$ 4.86	\$ 5.24	\$ 5.78	\$ 6.23	\$ 7.73	\$ 8.34	\$ 10.61	\$ 11.44

	25 M ³		33 M ³		50 M ³		75 M ³	
	2021	2022	2021	2022	2021	2022	2021	2022
WASTEWATER								
Base Charge	\$ 35.62	\$ 38.29	\$ 35.62	\$ 38.29	\$ 35.62	\$ 38.29	\$ 35.62	\$ 38.29
Usage Charge	\$ 29.95	\$ 32.20	\$ 39.53	\$ 42.50	\$ 59.90	\$ 64.40	\$ 89.85	\$ 96.60
	\$ 65.57	\$ 70.49	\$ 75.15	\$ 80.80	\$ 95.52	\$ 102.69	\$ 125.47	\$ 134.89
Year-to-Year Increase	\$ 5.69	\$ 4.92	\$ 6.52	\$ 5.64	\$ 8.29	\$ 7.17	\$ 10.89	\$ 9.42

	25 M ³		33 M ³		50 M ³		75 M ³	
	2021	2022	2021	2022	2021	2022	2021	2022
TOTAL WATER AND WASTEWATER CHARGES								
	\$ 135.31	\$ 145.46	\$ 158.08	\$ 169.95	\$ 206.48	\$ 221.99	\$ 277.66	\$ 298.51

\$ INCREASE OVER 2021 RATES (per billing)	\$ 10.16		\$ 11.87		\$ 15.51		\$ 20.86
% INCREASE OVER 2021 RATES	7.51%		7.51%		7.51%		7.51%
\$ INCREASE OVER 2021 RATES (per year)	\$ 60.96		\$ 71.23		\$ 93.06		\$ 125.16

