

Town of Pelham 2023 Approved Water and Wastewater Budgets



Town of Pelham

2023 Water and Wastewater Budgets



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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 Fonhill. 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 Fonhill. 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 2023 budget is in the fifth year of these financial plans. The town has been following the recommendations of this report and a reserve funding analysis during 2023 budget was completed to ensure that reserve fund contributions are in line with the targets of the report. As a result, the Town can lower the combined rate increase for 2023 as compared to the BMA study while making sure that future capital needs of water and wastewater assets are met. 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 2019-2022. 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 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 \$1,058,256 in 2023. 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. The town will be updating its Water rate study in 2023 which will provide better outlook on the anticipated rates over the next 5 years.



Niagara Region Rate Increases

The rate increases from the Region have a major impact on the rate increases for the Town. The Region bills the Town for water based on a combination of fixed and variable charge. The fixed charge accounts for 25% of the Region’s water bill for the Town and the remaining 75% of the bill is a variable charge dependent on the actual cubic meters of water purchased by the Town from the Region. For 2023, the Region has approved a water rate increase of 5.20%, however the rate increase for each lower-tier municipality differs based on historical volume and growth within the municipality. As a result of these factors, the Town will be paying 13.56% more for the fixed component and 5.14% more for the variable component to purchase the water from the Region in 2023. It is also important to mention that purchase of water from the Region is the largest component of the Town’s water budget accounting for over 37% of the total water budget. Table 1 below summarizes the rate increase from the Region.

Table 1: Region Water Rate Increase	2022 Budget	2023 Budget	\$ Change	% Change	Notes
Fixed Rate - 25%	\$ 301,908	\$ 342,834	\$ 40,926	13.56%	
Variable Rate - 75%	\$1,017,600	\$1,003,500	\$ (14,100)	-1.39%	(1)
Total Cost to Town	\$1,319,508	\$1,346,334	\$ 26,826	2.03%	

Notes:
 (1) The 5.14% rate increase from the region is offset by reduction in volume of water needed to be purchased from the Region. 2022 budget is based on purchase of 1,600,000 cubic meters of water and 2023 budget is based on purchase of 1,500,000 cubic meters of water. The town takes a 3 year average to budget the anticipated volume of water needed by the Town.

The Region also provides wastewater treatment for the Town. The Region bills the town for wastewater treatment on a 100% fixed charge which is based on actual treatment volume from the previous 3 years. This amount is re-calculated by the region on a rolling basis and any difference between actual/budgeted treatment volume is charged back to the Town. For 2023, the Region has approved a wastewater rate increase of 10.57%, however the rate increase for each lower-tier municipality differs based on historical volume and growth within the municipality. As a result of these factors the Town will be paying \$256,000 or 16.33% more for water treatment in 2023. Furthermore, the reconciliation of actual consumption from prior years adds another \$140,000 to the Town’s 2023 water treatment bill from the Region. As a result of these changes the Town will be paying \$1,962,319 for water treatment in 2023, which is \$395,540 or 25% higher than the 2022 budgeted amount. Similar to the Town’s water budget, the purchase of water treatment from the Region is the largest component of the Town’s wastewater budget, accounting for over 65%. Table 2 below summarizes the Wastewater rate increases from the Region.



Table 2: Region Wastewater Rate Increase	2022 Budget	2023 Budget	\$ Change	% Change	Notes
Fixed Rate - 100%	\$ 1,566,779	\$ 1,822,618	\$255,839	16.33%	
Reconciliation Adjustment	\$ -	\$ 139,701	\$139,701	-	(1)
Total Cost to Town	\$ 1,566,779	\$ 1,962,319	\$395,540	25.2%	

Notes:

(1) Reconciliation adjustment refers to the update in 3 year average volume of wastewater treatment purchased by the Town and this amount is payable by the town in 2023.

Recommendations:

The draft budget proposes a 6.5% increase in the Water and 9.5% increase in the Wastewater rates be effective for 2023. This is equivalent to a combined annual rate increase of 7.93% or \$80.90 per average household for the most common consumption of 33 M³ per billing.

The Town has been following the BMA study recommendation for reserve fund contributions to both water and wastewater reserves. However, due to change in capital needs over this period, more funds were required in wastewater reserve fund. Furthermore, a reallocation of staff time resulted in approximately \$200,000 of salary dollars shift from water budget to the wastewater budget. Lastly, significant increases in wastewater treatment rate from the Region have put additional pressure on the Town’s wastewater budget. Keeping these challenges in mind, the draft budget is proposing to not deviate from the BMA Study’s recommended rate increase of 9.5 % for wastewater.

Although the Town will be paying more for the purchase of water from the Region, consumption trends have indicated that the Town will need to purchase approximately 100,000 cubic meters less water in 2023. This has reduced the impact of Region’s rate increase on the Town’s budget. Further savings in the water budget were realized as a result of re-allocating staff time to wastewater as indicated above. Due to these savings, the Town was able to increase the reserve contribution to Water while maintaining the rate increase at 6.5 %.



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.

Currently, the Town recovers its water consumption with a 31.83% flat rate, a 62.36% volumetric rate and 5.81% 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	\$3,763,086	
31.83% Fixed Revenues	(\$1,197,725)	(1)
Subtotal	\$2,565,361	
Less: Other Revenues	\$(218,650)	
Revenue Required for Consumption	\$2,346,711	(2)



(1) Fixed rates are paid based on the meter size. Most customers with a 5/8" meter will pay \$32.64 per billing.

Meter Size	# Of Meters	Rate (per billing)	Revenue
5/8"	5271	\$32.64	\$1,032,285
1"	43	\$65.26	\$16,837
1.4"	32	\$91.37	\$17,544
2"	39	\$130.50	\$30,538
3"	3	\$326.30	\$5,873
4"	3	\$544.01	\$9,792
6"	5	\$1,087.72	\$32,632
8"	5	\$1,740.82	\$52,225
Total Revenue			\$1,197,725

(2) Consumption Rate is calculation

The consumption rate is calculated by taking the Town’s proposed water budget net of fixed and other revenues above and dividing it by the forecasted consumption of water (i.e., water to be billed). For 2023, the Town is anticipating billing 1,242,800 cubic meters of water, and the total budget needs (excluding fixed and other revenue) is \$2,225,519. Therefore, the consumption rate of \$1.888 per cubic meter of water is required.

Total Town of Pelham estimated consumption costs related to water	\$2,346,711
Divided by forecasted water flows (M ³) for 2023	1,242,800
2023 Proposed Water Consumption Rate Charge	\$1.888/M³



Wastewater

The Town is using the 2018 Water and Wastewater 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 2023:

Total Wastewater Budget	\$2,996,458	
46.23% Fixed Cost	(\$1,385,149)	(1)
Subtotal	1,611,309	
Less: Other Revenues	(\$20,000)	
Revenue Required for Consumption	\$1,591,309	(2)

(1) Fixed Rate Calculation

Meter Size	# Of Meters	Rate (per billing)	Revenue
5/8"	4848	\$41.93	\$1,219,636
1"	33	\$83.85	\$16,602
1.4"	24	\$117.41	\$16,907
2"	32	\$167.69	\$32,197
3"	2	\$419.28	\$5,031
4"	3	\$699.04	\$12,583
6"	5	\$1,397.67	\$41,930
8"	3	\$2,236.87	\$40,264
Total Revenue			\$1,385,149



(2) Consumption Rate Calculation

The consumption rate is calculated by taking the Town’s proposed wastewater budget net of fixed and other revenues above and dividing it by the forecasted treatment of water (i.e., wastewater to be billed). For 2023, the Town is anticipating billing 1,128,300 cubic meters of wastewater, and the total budget needs (excluding fixed and other revenue) is \$1,591,309. Therefore, the consumption rate of \$1.410 per cubic meter of wastewater is required.

Total Town of Pelham estimated consumption costs related to wastewater	\$1,591,309
Divided by forecasted water flows (M ³) for 2023	1,128,300
2023 Proposed Wastewater Consumption Rate Charge	\$1.410 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 6.5% increase in the water and 9.5% increase in the wastewater rates effective for 2023. For the average household, this is a \$ 80.90 increase to the annual water and wastewater bill.

Finally, the 2023 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.

	2020	2021	2022	2023	Budget Change		
	Actual	Actual	Approved Budget	Proposed Budget	Dollar	Percent	Notes
Revenues							
Consumption Charges	\$ 1,943,040	\$ 2,086,013	\$ 2,304,900	\$ 2,346,711	\$ 41,811	1.81%	
Flat Rate Charge	894,976	993,212	1,074,930	1,197,725	122,795	11.42%	
Consumption Charges Water Haulers	154,582	177,416	150,000	150,000	-	-%	
Meter Installations	41,363	64,360	40,000	40,000	-	-%	
Other Revenues	31,028	35,465	28,650	28,650	-	-%	
Grants-Provincial	101,313	-	-	-	-	-%	
Total Revenues	3,166,302	3,356,466	3,598,480	3,763,086	164,606	4.57%	
Expenditures							
Salaries and Benefits	996,137	1,084,389	1,230,722	1,000,484	(230,238)	(18.71)%	
Materials and Supplies	283,810	307,683	309,073	309,373	300	0.10%	(1)
Insurance	20,150	24,362	25,582	28,621	3,039	11.88%	
Contract Services	147,545	194,422	180,100	180,100	-	-%	
Transfer to Reserve	594,979	515,529	533,495	898,174	364,679	68.36%	
Total Expenditures before Region Costs	2,042,621	2,126,385	2,278,972	2,416,752	137,780	6.05%	
Niagara Region Volumetric Costs	1,123,681	1,230,081	1,319,508	1,346,334	26,826	2.03%	(1)
Total Expenditures	3,166,302	3,356,466	3,598,480	3,763,086	164,606	4.57%	(1)
Net Surplus (Deficit)	\$ -	\$ -	\$ -	\$ -	\$ -	-%	

Notes:

(1) Average consumption is lower by 100,00 cubic meter for 2023 based on analysis of volume from previous years. Regional approved rate increase of water of 5.14% for variable and 13.56% is factored in for 2023.

Wastewater Distribution System



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

	2020	2021	2022	2023	Budget Change		
	Actual	Actual	Approved Budget	Proposed Budget	Dollar	Percent	Notes
Revenues							
Consumption Charges	\$ 1,001,504	\$ 1,379,409	\$ 1,483,911	\$ 1,591,309	\$ 107,398	7.24%	
Flat Rate Charge	888,035	1,134,779	1,228,950	1,385,149	156,199	12.71%	
Other Revenues	392,125	25,092	20,000	20,000	-	-%	
Grants-Provincial	28,415	-	-	-	-	-%	
Total Revenues	2,310,079	2,539,280	2,732,861	2,996,458	263,597	9.65%	
Expenditures							
Salaries and Benefits	238,593	266,130	297,446	658,642	361,196	121.43%	
Materials and Supplies	2,459	6,660	11,000	11,200	(200)	(1.82)%	
Insurance	2,227	2,707	2,842	3,169	327	11.51%	
Contract Services	5,972	2,496	18,000	18,000	-	-%	
Transfer to Reserve	583,332	860,699	836,794	343,128	(493,666)	(58.99)%	
Total Expenditures before Region Costs	832,583	1,138,692	1,166,082	1,034,139	(131,943)	(11.32)%	
Niagara Region Volumetric Costs	1,477,496	1,400,588	1,566,779	1,962,319	395,540	25.25%	(1)
Total Expenditures	2,310,079	2,539,280	2,732,861	2,996,458	263,597	9.65%	
Net Surplus (Deficit)	\$ -	-%					

Notes:

(1) Consumption projected to remain the same based on analysis of prior years. Rate increase of 16.33% approved by Region is factored in for 2023.

**Appendix 1
TOWN OF PELHAM
2023 Draft Water and Wastewater Rates
as per 2 Month Billing**

	2022 Rates	2023 Rates	\$ INCREASE	% INCREASE
WATER				
Bi-Monthly Base Charge (up to 19 mm Meter)	\$ 30.65	\$ 32.64	\$ 1.99	6.50%
Bi-Monthly Base Charge (25mm Meter)	61.28	\$ 65.26	3.98	6.50%
Bi-Monthly Base Charge (37mm Meter)	85.80	\$ 91.37	5.58	6.50%
Bi-Monthly Base Charge (50mm Meter)	122.54	\$ 130.50	7.97	6.50%
Bi-Monthly Base Charge (75mm Meter)	306.39	\$ 326.30	19.92	6.50%
Bi-Monthly Base Charge (100mm Meter)	510.81	\$ 544.01	33.20	6.50%
Bi-Monthly Base Charge (150mm Meter)	1,021.34	\$ 1,087.72	66.39	6.50%
Bi-Monthly Base Charge (200mm Meter)	1,634.57	\$ 1,740.82	106.25	6.50%
Usage Charge, Per Cubic Meter	1.773	1.888	0.116	6.50%

WATER HAULERS

Usage Charge, Per Cubic Meter	\$2.0441	\$2.1770	\$ 0.1329	6.50%
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WASTEWATER

Bi-Monthly Base Charge	\$ 38.29	\$ 41.93	\$ 3.64	9.50%
Bi-Monthly Base Charge (25mm Meter)	76.57	\$ 83.85	7.28	9.50%
Bi-Monthly Base Charge (37mm Meter)	107.22	\$ 117.41	10.19	9.50%
Bi-Monthly Base Charge (50mm Meter)	153.14	\$ 167.69	14.55	9.50%
Bi-Monthly Base Charge (75mm Meter)	382.90	\$ 419.28	36.38	9.50%
Bi-Monthly Base Charge (100mm Meter)	638.39	\$ 699.04	60.65	9.50%
Bi-Monthly Base Charge (150mm Meter)	1,276.41	\$ 1,397.67	121.26	9.50%
Bi-Monthly Base Charge (200mm Meter)	2,042.80	\$ 2,236.87	194.07	9.50%
Usage Charge, Based on Cubic Meters for Sew	1.288	1.410	0.122	9.50%

SEWERS ONLY, NO WATER

Base Charge Per Billing Period (2 Months)	\$ 35.62	\$ 39.00	\$ 3.38	9.50%
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**Appendix 2
TOWN OF PELHAM
2023 Water and Wastewater Rates
as per 2 Month Consumption**

	Usage in Cubic Meters (M ³)					
	33		50		75	
	2022	2023	2022	2023	2022	2023
WATER						
Base Charge	\$ 30.65	\$ 32.64	\$ 30.65	\$ 32.64	\$ 30.65	\$ 32.64
Usage Charge	58.50	62.31	88.63	94.41	132.95	141.62
	\$ 89.15	\$ 94.95	\$ 119.28	\$ 127.05	\$ 163.60	\$ 174.26
Year-to-Year Increase	\$ 6.23	\$ 5.81	\$ 8.34	\$ 7.77	\$ 11.44	\$ 10.66

	Usage in Cubic Meters (M ³)					
	33		50		75	
	2022	2023	2022	2023	2022	2023
WASTEWATER						
Base Charge	\$ 38.29	\$ 41.93	\$ 38.29	\$ 41.93	\$ 38.29	\$ 41.93
Usage Charge	42.50	46.54	64.40	70.52	96.60	105.78
	\$ 80.79	\$ 88.47	\$ 102.69	\$ 112.45	\$ 134.89	\$ 147.71
Year-to-Year Increase	\$ 5.64	\$ 7.68	\$ 7.17	\$ 9.76	\$ 9.42	\$ 12.82

	33 M ³		50 M ³		75 M ³	
	2022	2023	2022	2023	2022	2023
	TOTAL WATER AND WASTEWATER CHARGES	\$ 169.94	\$ 183.42	\$ 221.97	\$ 239.50	\$ 298.49

\$ INCREASE OVER 2022 RATES (per billing)	\$ 13.48		\$ 17.53		\$ 23.48
\$ INCREASE OVER 2022 RATES (per month)	\$ 6.74		\$ 8.76		\$ 11.74
% INCREASE OVER 2022 RATES	7.93%		7.90%		7.86%
\$ INCREASE OVER 2022 RATES (per year)	\$ 80.90		\$ 105.17		\$ 140.86

