

2021

Approved Water and Wastewater Budgets



Town of Pelham

2021 Water and Wastewater Budgets



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2021 Approved Water and Wastewater Overview

Background

Water is provided in Pelham on a two-tiered system. The Niagara Region is responsible for the treatment and supply of water while the Town of Pelham 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 Rate Study was completed in 2018 by BMA Management Consulting Inc. 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 Water and Wastewater Long-range Financial Plan recommends a rate increase for Water 7.46% and for Wastewater 9.51%. 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.

Recommendations

It is recommended that the approved 7.46% increase in the Water and 9.51% increase in the Wastewater rates be effective for 2021. This is equivalent to \$73.81 increase per average household for the most common consumption of 33 M³ per billing.



2021 Approved Water and Wastewater Overview

Water

Water rates have been set by the Town of Pelham based on a fixed charge component and a rate for consumption usage. This methodology benefits those who conserve water usage and also 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.

Also, the Niagara Region provides water flows to the Town of Pelham based on actual usage. The water usage in the past three (3) years has decreased significantly prompting the Region to institute a fixed component for cost recovery. That said, for 2020 the Region will bill the Town a 25% flat rate based on last year's consumption levels combined with a usage rate based on 100% of actual consumption for 2020.

Currently, the Town recovers its water consumption with a 29.26% flat rate and a 70.74% volumetric rate. 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	\$3,290,641	
29.26% Fixed Revenues	(\$962,691)	(1)
Subtotal	\$2,327,950	
Less: Other Revenues	(\$184,250)	
Revenue Required for Consumption	\$2,143,700	(2)



2021 Approved Water and Wastewater Overview

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

# of Metres	Rate (per billing)	Revenue
5,089	\$ 28.51	\$870,524
39	\$ 57.00	\$13,338
27	\$ 79.81	\$12,929
33	\$ 113.99	\$22,570
3	\$ 285.01	\$5,130
1	\$ 475.17	\$2,851
3	\$ 950.08	\$17,101
2	\$ 1,520.53	\$18,246
Total Revenue		\$962,691

(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 2021 it is estimated that this rate will be 2.0% higher than 2020 resulting in a rate of \$0.61404 per cubic metre. Although the Region uses 1,248,050 cubic metres for billing purposes, this is an estimate and conservation or excess rain causes this usage to be significantly lower at year end. Thus, the Town uses a rate that better reflects the actual usage so that it can recover its costs of operating the distribution system.

Total Town of Pelham estimated consumption costs related to water	\$2,143,700
Divided by forecasted water flows (M ³) for 2021	1,300,000
2021 Approved Annual Consumption Rate Charge	\$1.649/M³



2021 Approved Water and Wastewater Overview

Wastewater

The Town of Pelham 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 2021:

Total Wastewater Budget	\$2,487,167	
44.10% Fixed Cost	(\$1,096,843)	(1)
Subtotal	\$1,390,324	
Less: Other Revenues	(\$9,030)	
Revenue Required for Consumption	\$1,381,294	(2)

(1) Fixed Rate Calculation

# of Metres	Rate (per billing)	Revenue
4,664	\$35.62	\$996,790
31	\$71.23	\$13,249
21	\$99.74	\$12,567
26	\$142.46	\$22,224
2	\$356.19	\$4,274
1	\$593.85	\$3,563
3	\$1,187.36	\$21,372
2	\$1,900.28	\$22,803
Total Revenue		\$1,096,843



2021 Approved Water and Wastewater Overview

(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	\$1,381,294
Divided by forecasted water flows (M ³) for 2021	1,153,000
2021 Approved Annual Consumption Rate Charge	\$1.198/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 Niagara 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 approved 7.46% increase in the water and 9.51% increase in the wastewater rates effective for 2021. For the average household, this is a \$ 73.81 increase to the annual water and wastewater bill.

Finally, the 2021 Water and Wastewater Budgets are provided for Council's information and reference.

2021 Approved Water and Wastewater Schedules



Water

	2018	2019	2020	2021	Budget Change		Notes
	Actual	Actual	Approved Budget	Approved Budget	Dollar	Percent	
Revenues							
Water Consumption Charge	\$ 1,606,322	\$ 1,572,142	\$ 1,876,857	\$ 2,143,700	\$ 266,843	14.22%	
Flat Rate Charge	746,931	812,254	886,475	962,691	76,216	8.60%	
Meter Installations	22,768	30,265	40,000	40,000	-	0.00%	
Other Revenues	19,068	44,049	22,650	21,250	- 1,400	-6.18%	
Water Haulers	117,136	118,131	123,000	123,000	-	0.00%	
Total Revenues	2,512,225	2,576,841	2,948,982	3,290,641	341,659	11.59%	
Expenses							
Salaries and Benefits	903,718	976,106	1,039,030	1,069,859	30,829	2.97%	
Materials and Supplies	341,864	333,555	348,800	354,620	5,820	1.67%	
Insurance	14,952	17,551	20,150	22,165	2,015	10.00%	
Contract Services	112,876	104,235	92,200	92,200	-	0.00%	
Transfer to Reserve	185,941	237,151	436,556	641,297	204,741	46.90%	
Total Expenses	1,559,351	1,668,598	1,936,736	2,180,141	243,405	12.57%	
Niagara Region Volumetric Water Cost	952,874	908,243	1,012,246	1,110,500	98,254	9.71%	
Total Water Expenses	2,512,225	2,576,841	2,948,982	3,290,641	341,659	11.59%	
Net Surplus(Deficit)	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%	

2021 Approved Water and Wastewater Schedules



Wastewater

	2018	2019	2020	2021	Budget Change		Notes
	Actual	Actual	Approved Budget	Approved Budget	Dollar	Percent	
Revenues							
Sewer Consumption Charges	\$ 987,218	\$ 1,001,504	\$ 1,166,404	\$ 1,381,294	\$ 214,890	18.42%	
Fixed Rate User Charge	802,350	888,035	990,559	1,096,843	106,284	10.73%	
Penalties on Overdue Accounts	7,350	7,508	4,330	4,330	-	0.00%	
Interest Revenue	-	16,901	-	4,700	4,700		
Total Revenues	1,796,918	1,913,948	2,161,293	2,487,167	325,874	15.08%	
Expenses							
Salaries and Benefits	229,443	229,882	244,370	251,281	6,911	2.83%	
Materials and Supplies	12,304	5,967	11,000	11,000	-	0.00%	
Insurance	1,582	1,905	2,227	2,450	223	10.01%	
Contract Services	8,803	18,990	18,000	18,000	-	0.00%	
Transfer to Reserve	169,176	346,670	450,962	741,007	290,045	64.32%	
Total Expenses	421,308	603,414	726,559	1,023,738	297,179	40.90%	
Niagara Region Volumetric Wastewater Cost	1,375,610	1,310,534	1,434,734	1,463,429	28,695	2.00%	(1)
Total Wastewater Expenses	1,796,918	1,913,948	2,161,293	2,487,167	325,874	15.08%	
Net Surplus(Deficit)	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%	

Notes:

(1) - Consumption projected to remain the same based on analysis of prior years. Rate increase of 2% provided by the Region factored in for 2021

2021 Approved Water and Wastewater Schedules



TOWN OF PELHAM
2021 Approved Water and Wastewater Rates
as per 2 Month Billing

	2020 Rates	2021 Rates	\$ INCREASE	% INCREASE
WATER				
Bi-Monthly Base Charge (up to 19 mm Meter)	\$ 26.53	\$ 28.51	\$ 1.98	7.46%
Bi-Monthly Base Charge (25mm Meter)	53.04	\$ 57.00	3.96	7.47%
Bi-Monthly Base Charge (37mm Meter)	74.27	\$ 79.81	5.54	7.46%
Bi-Monthly Base Charge (50mm Meter)	106.08	\$ 113.99	7.91	7.46%
Bi-Monthly Base Charge (75mm Meter)	265.22	\$ 285.01	19.79	7.46%
Bi-Monthly Base Charge (100mm Meter)	442.18	\$ 475.17	32.99	7.46%
Bi-Monthly Base Charge (150mm Meter)	884.12	\$ 950.08	65.96	7.46%
Bi-Monthly Base Charge (200mm Meter)	1,414.96	\$ 1,520.53	105.57	7.46%
Usage Charge, Per Cubic Meter	1.534	1.649	0.115	7.50%
WATER HAULERS				
Usage Charge, Per Cubic Meter	\$1.7688	\$1.9015	\$ 0.1327	7.50%
WASTEWATER				
Bi-Monthly Base Charge	\$ 32.53	\$ 35.62	\$ 3.09	9.50%
Bi-Monthly Base Charge (25mm Meter)	65.05	71.23	6.18	9.50%
Bi-Monthly Base Charge (37mm Meter)	91.08	99.74	8.66	9.51%
Bi-Monthly Base Charge (50mm Meter)	130.09	142.46	12.37	9.51%
Bi-Monthly Base Charge (75mm Meter)	325.25	356.19	30.94	9.51%
Bi-Monthly Base Charge (100mm Meter)	542.27	593.85	51.58	9.51%
Bi-Monthly Base Charge (150mm Meter)	1,084.23	1,187.36	103.13	9.51%
Bi-Monthly Base Charge (200mm Meter)	1,735.22	1,900.28	165.06	9.51%
Usage Charge, Based on Cubic Meters for Sewer	1.094	1.198	0.104	9.51%
SEWERS ONLY, NO WATER				
Base Charge Per Billing Period (2 Months)	\$ 32.53	\$ 35.62	\$ 3.09	9.50%



2021 Approved Water and Wastewater Schedules

TOWN OF PELHAM 2021 Approved Water and Wastewater Rates as per 2 Month Consumption

	25 M ³		33 M ³		50 M ³		75 M ³		100 M ³		150 M ³	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
WATER												
Base Charge	\$ 26.53	\$ 28.51	\$ 26.53	\$ 28.51	\$ 26.53	\$ 28.51	\$ 26.53	\$ 28.51	\$ 26.53	\$ 28.51	\$ 26.53	\$ 28.51
Usage Charge	38.35	41.23	50.62	54.42	76.70	82.45	115.05	123.68	153.40	164.90	230.10	247.35
	\$ 64.88	\$ 69.74	\$ 77.15	\$ 82.93	\$ 103.23	\$ 110.96	\$ 141.58	\$ 152.19	\$ 179.93	\$ 193.41	\$ 256.63	\$ 275.86
Year-to-Year Increase	\$ 4.21	\$ 4.86	\$ 5.01	\$ 5.78	\$ 6.70	\$ 7.73	\$ 9.19	\$ 10.61	\$ 11.68	\$ 13.48	\$ 16.65	\$ 19.23

	25 M ³		33 M ³		50 M ³		75 M ³		100 M ³		150 M ³	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
WASTEWATER												
Base Charge	\$ 32.53	\$ 35.62	\$ 32.53	\$ 35.62	\$ 32.53	\$ 35.62	\$ 32.53	\$ 35.62	\$ 32.53	\$ 35.62	\$ 32.53	\$ 35.62
Usage Charge	\$ 27.35	\$ 29.95	36.10	39.53	54.70	59.90	82.05	89.85	109.40	119.80	164.10	179.70
	\$ 59.88	\$ 65.57	\$ 68.63	\$ 75.15	\$ 87.23	\$ 95.52	\$ 114.58	\$ 125.47	\$ 141.93	\$ 155.42	\$ 196.63	\$ 215.32
Year-to-Year Increase	\$ 4.76	\$ 5.69	\$ 5.45	\$ 6.52	\$ 6.93	\$ 8.29	\$ 9.11	\$ 10.89	\$ 11.29	\$ 13.49	\$ 15.64	\$ 18.69

	25 M ³		33 M ³		50 M ³		75 M ³		100 M ³		150 M ³	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
TOTAL WATER AND WASTEWATER CHARGES												
	\$ 124.76	\$ 135.31	\$ 145.78	\$ 158.08	\$ 190.46	\$ 206.48	\$ 256.16	\$ 277.66	\$ 321.86	\$ 348.83	\$ 453.26	\$ 491.18

\$ INCREASE OVER 2020 RATES (per billing)	\$ 10.55		\$ 12.30		\$ 16.02		\$ 21.50		\$ 26.97		\$ 37.92
% INCREASE OVER 2020 RATES	8.45%		8.44%		8.41%		8.39%		8.38%		8.37%
\$ INCREASE OVER 2020 RATES (per year)	\$ 63.27		\$ 73.81		\$ 96.12		\$ 128.97		\$ 161.82		\$ 227.52