

2017 Proposed Water and Wastewater Rates March 6, 2017

Concept: How Might We set the 2017 Water and Wastewater Rates?

Background:

The Water and Wastewater System continues to be very lean over the last 7 (seven) years resulting from meter replacements, infrastructure upgrades and continued audits within the system. Additionally, for 2017 the following items have been considered in setting the water and wastewater rates:

- 1. The Niagara Region set their 2017 budget and used a 3 year rolling average for consumption when billing area municipalities. For the Town of Pelham the consumption for billing will be 1,400,000 cubic meters.
- 2. Maintaining the Town's commitment to water and wastewater sustainability and lifecycle contributions requiring the transfer of user fees to capital reserve to address infrastructure needs.
- 3. The impact that conservation has on the level of consumption. The Town strongly encourages conservation efforts but also has to consider that most of the items budgeted are fixed costs that do not fluctuate with the level of consumption. The Town recovers approximately 73% of its user fees through consumption thus increasing the risk of not meeting the fixed costs requirements.

In addition to these impacts, the largest impact on the 2017 budget continues to be due to results of a study conducted by CN Watson on Water and Wastewater rate setting. This study was previously done in 2006 when the Town had not yet established reserves and had no mechanism for rate stabilization. Since this time as Council is aware the Town has reserves that far surpass the requirements of maintaining the system in the long-term. As a result with work done by the consultants together with the Town staff, the amount of transfer into reserves has been reduced significantly. The study shows that the Town has been able to maintain the sustainability of both the water infrastructure and also the cost to maintain the distribution system.

This is further quantified by the amount of additional revenues the Town realized upon completion of the meter replacement program. An additional study performed by a consultant on the potential for significant leaks or losses in the Towns distribution system revealed that the Town works very well at minimizing any loss in the system. The efforts of the staffs work to create a lean system is now being realized. This is why the recommendation to Committee of the Whole this evening is to maintain the water and wastewater rates at 2017 rates representing a three-year 0% increase in water and wastewater rates for ratepayers excluding waterhaulers.

Each of the Budgets will be discussed in detail taking into consideration the factors above:





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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 allows to ensure 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 waterflows 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 2017 the Region will bill the Town a 25% flat rate based on last years consumption levels and usage rate at 100% of actual consumption for 2016.

Currently, the Town recovers its water consumption with a 27.56% flat rate and a 72.44% 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	\$2,515,483
27.56% Fixed Cost	(1) \$693,331
Subtotal	\$1,822,152
Less: Other Revenues	(\$185,500)
Revenue Required for Consumption	(2) \$1,636,652





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(1) Rate Setting for fixed given amount of \$657,272

# of Meters	Rate	Revenue
4753	\$22.29	\$635,686
38	\$44.57	\$10,162
23	\$62.41	\$8,612
31	\$89.14	\$16,581
3	\$222.87	\$4,012
1	\$371.57	\$2,229
2	\$742.93	\$8,915
1	\$1,189.00	\$7,134
Total Revenue	. ,	\$693,331

(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 at a rate of \$0.554. Although the Region uses 1,400,000 cubic meters 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	\$1,636,652
Divided by forecasted water flows (M3) for 2017	1,232,882
2017 Proposed Annual Consumption Rate Charge	\$1.3275





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WASTEWATER

The Town of Pelham has previously used the 2006 Water and Wastewater study prepared by C.N. Watson 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 2017.

The rates proposed for 2017 have been calculated as follows:

Total Wastewater Budget	\$1,860,570
39.77% Fixed Cost	(1) \$739,955
Subtotal	\$1,120,615
Less: Other Revenues	(\$5,000)
Revenue Required for Consumption	(2) \$1,115,615

(1) Fixed Rate Calculation

# of Meters	Rate	Revenue	
4323	\$26.34	\$683,207	
30	\$52.68	\$9,482	
18	\$73.76	\$7,966	
23	\$105.37	\$14,541	
2	\$263.43	\$3,161	
1	\$439.09	\$2,635	
2	\$877.91	\$10,535	
1	\$1,404.71	\$8,428	
Total Revenue		\$739,955	





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(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	\$1,115,615
Divided by forecasted water flows (M3) for 2017	1,223,396
2017 Proposed Annual Consumption Rate Charge	\$0.9119

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 let 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 sustaining the wastewater infrastructure.

WATER HAULERS

The Bulk Water station has had a slight reduction in expenses related to rental of property and thus it is recommended to leave the rate at the same level as last year.

SUMMARY

Attached is a summary of sample water billings for a two month billing period which has not changed from last years water billings.

Finally, the 2016 Water and Wastewater Budgets are provided for Council's information and reference.

The Challenge:

1. HMW ensure that the operating costs of water distribution are recovered through user fees and fixed charges?





 $\textit{Vibrant} \cdot \textit{Creative} \cdot \textit{Caring}$

2017 Proposed Water and Wastewater Rates March 6, 2017

2. HMW ensure that water rates within the community are affordable for Pelham residents and businesses.

Our Recommended Solution:

THAT the Issue Sheet regarding the 2017 Water and Wastewater Budget be received; AND THAT Committee recommend to Council that the 2017 Water and Wastewater Budgets be approved.

Rationale:

• Increases in the number of properties contributing to the water and wastewater distribution system has helped offset an increase for 2017.

Measure of Success:

Council approves the water and wastewater budget.

Milestones:

• Staff communicate the fact that the Town has maintained a 0% increase in water rates over the last 4 years.



TOWN OF PELHAM 2017 Operating Budget Water

	2015 Actual	2016 Budget	Actual To Dec 31,2016	2017 Budget			
REVENUES			31,2010				
Water Consumption Charge	1,481,941	1,572,435	1,705,450	1,636,652			
Flat Rate Charge	651,753	657,272	663,943	693,331			
Meter Installations	25,900	25,000	60,343	50,000			
Fees - Administration Charges	3,960	4,000	5,660	5,000			
Fees - Disconnect/Reconnect	1,956	2,000	2,445	2,500			
Water Haulers	107,955	100,000	118,568	115,000			
Penalties - Water & Sewer	7,154	6,000	7,913	7,500			
Interest Revenue	5,000	2,500	2,500	2,500			
Other Revenues	7,035	5,000	2,849	3,000			
Rain Barrel Program Revenues	7,786	-	35				
Transfer from Deferred Revenues	42,629						
Total Revenues	2,343,069	2,374,207	2,569,707	2,515,483			
EXPENSES							
Total Salaries & Benefits	193,903	241,362	228,766	256,388			
WSIB	15,022	20,687	-	25,000			
Professional Development	15,144	15,500	10,190	14,500			
Associations/Memberships	846	645	1,272	650			
Mileage	-	-	-	-			
Other Travel Expenses	1,020	1,000	205	-			
Hydro	2,031	5,000	1,606	5,000			
Water	34,075	25,000	36,297	-			
Telephone	6,670	750	-	750			
Hand Held Devices	4,746	4,200	3,941	4,200			
Office Supplies and Services	1,718	500	605	1,050			
Materials and Supplies	98,026	1,000	-	1,000			
Printing Fees/Copy Costs	3,480	3,500	5,557	-			
Postage	18,691	18,790	16,352	-			
Protective Clothing	1,712	5,222	2,612	6,172			
Advertising	-	200	-	-			
Insurance	14,435	14,630	14,861	-			
Licences	6,976	-	145	-			
Taxes on Own Property	2,700	3,000	-	-			
Legal Fees	-	-	-	-			
Software Support	19,950	10,000	8,853	2,500			
Contract Services - Engineering	5,876	29,600	5,050	51,200			
Contract Services - Other	34,818	6,400	20,352	2,700			
Contract Services - Region	990,593	1,000,000	1,038,191	1,063,000			
Building Rental	12,211	12,500	12,211	-			
Transfer to Water Capital Reserve	355,000	350,000	585,274	500,000			
Total Administration	1,839,643	1,769,486	1,992,341	1,934,110			

TOWN OF PELHAM 2017 Operating Budget Water

	2015 Actual	2016 Budget	Actual To Dec 31,2016	2017 Budget	
WATER SYSTEM EXPENSES					
Salaries and Wages - Regular	162,147	201,833	191,300	207,674	
Materials & Supplies	11,566	40,000	22,230	1,000	
Contracted Services - Other	2,762	5,000	4,947	11,540	
Equipment Rental - Other	-	1,000	-	1,000	
Total Administration - Water System	176,475	247,833	218,477	221,214	
WATER METER MAINTENANCE EXPENSES					
Salaries and Wages - Regular	85,784	106,780	101,207	104,579	
Materials & Supplies	55,647	20,000	50,589	32,000	
Contracted Services - Other	-	2,000	-	2,000	
Total Administration - Water Meter	141,431	128,780	151,797	138,579	
WATER TESTING EXPENSE					
Salaries and Wages - Regular	13,912	17,317	16,413	16,960	
Materials & Supplies	-	1,680	1,551	1,500	
Contract Services - Water Testing	17,508	23,680	13,373	21,500	
Total Administration - Water Testing	31,420	42,677	31,338	39,960	
WATER CONSERVATION PROGRAM EXPEN	ISES				
Salaries and Wages - Regular	148,970	185,431	175,754	181,620	
Rainbarrel Program	5,130		-	-	
Total Expenses	154,100	185,431	175,754	181,620	
Grand Total Expenses	2,343,069	2,374,207	2,569,707	2,515,483	
Net Surplus(Deficit)					

TOWN OF PELHAM

2017 Operating Budget Wastewater

REVENUES	2015 Actual	2016 Budget	Actual to Dec 31,2016	2017 Budget
Sewer Consumption Charges	899,466	992,145	1,025,358	1,115,615
Fixed Rate User Charge	691,370	697,369	705,589	739,955
Penalties on overdue accounts	5,755	5,000	6,304	5,000
Other Revenues	252		159	
Transfer from Reserve	3,148			
Total Revenues	1,599,991	1,694,514	1,737,410	1,860,570
EXPENSES	1 1			
Salaries and Benefits	224,126	269,664	98,969	348,787
WSIB	1,977	2,824	3,000	10,268
Hydro			293	1,500
Materials & Supplies	132 -	4,500	2,765	10,180
Insurance	1,518	1,525	1,563	1,525
Contract Services - Other	778			-
Contract Services - Inspections	1,451	2,400	1,449	2,400
Transfer - Capital Reserve Fund	200,000	200,000	336,278	200,000
Total Expenses	429,718	480,913	444,317	574,660
L				
Niagara Region Volumetric Sewage Cost	1,170,274	1,213,601	1,293,093	1,285,910
Total Wastewater Expenditures	1,599,992	1,694,514	1,737,410	1,860,570
Net Surplus(deficit)	-	-	-	-

APPENDIX 1

TOWN OF PELHAM 2017 Proposed Water and Wastewater Rates As per 2 Month Billing

		2016 Rates		2017 Rates	ΙN	\$ CREASE	% INCREASE
WATER							
Bi-Monthly Base Charge (up to 19mm Meter)	\$	22.29	\$	22.29	\$	-	0.00%
Bi-Monthly Base Charge (25mm Meter)	\$ \$	44.57 62.41	\$ \$	44.57 62.41	\$ \$	-	0.00% 0.00%
Bi-Monthly Base Charge (37mm Meter) Bi-Monthly Base Charge (50mm Meter)	\$	89.14	\$	89.14	э \$	-	0.00%
Bi-Monthly Base Charge (75mm Meter)	\$	222.87	\$	222.87	\$	-	0.00%
Bi-Monthly Base Charge (100mm Meter)	\$	371.57	\$	371.57	\$	_	0.00%
Bi-Monthly Base Charge (150mm Meter)	\$	742.93	\$	742.93	\$	_	0.00%
Bi-Monthly Base Charge (200mm Meter)	\$	1,189.00	\$	1,189.00	\$	_	0.00%
Usage Charge, Per Cubic Metre	\$	1.3275	\$	1.3275	\$	_	0.00%
WATER HAULERS Usage Charge, Per Cubic Metre							
Usage Charge, Per Cubic Metre	\$	1.4670	\$	1.4860	\$	0.02	1.30%
WASTEWATER							
Bi-Monthly Base Charge	\$	26.34	\$	26.34	\$	_	0.00%
Bi-Monthly Base Charge (25mm Meter)	\$	52.68	\$	52.68	\$	_	0.00%
Bi-Monthly Base Charge (37mm Meter)	\$	73.76	\$	73.76	\$	_	0.00%
Bi-Monthly Base Charge (50mm Meter)	\$	105.37	\$	105.37	\$	-	0.00%
Bi-Monthly Base Charge (75mm Meter)	\$	263.43	\$	263.43	\$	-	0.00%
Bi-Monthly Base Charge (100mm Meter)	\$	439.09	\$	439.09	\$	-	0.00%
Bi-Monthly Base Charge (150mm Meter)	\$	877.91	\$	877.91	\$	-	0.00%
Bi-Monthly Base Charge (200mm Meter)	\$	1,404.71	\$	1,404.71	\$	-	0.00%
Usage Charge based on Cubic Metres for Sewer	\$	0.9119	\$	0.9119	\$	-	0.00%
SEWERS ONLY, NO WATER							
Base Charge Per Billing Period (2 Months)	\$	26.34	\$	26.34	\$	_	0.00%
Usage Charge based on Cubic Meters for Sewer	\$	92.83	\$	92.83	\$	-	0.00%

TOWN OF PELHAM 2017 Proposed Water and Wastewater Rates

Consumption per 2 month period	29 2016	5 M ³	2017		50 2016	M ³	2017		75 2016	M ³	2017	2	10 016	0 M	3 2017	20	15 16	0 M ³	017	20	200 16) M ³ 2017	,
WATER	2010		2017		2010	•	2017		2010		2017		010		2017		110		.017		110	2017	
Base Charge Usage Charge	\$ 22.29 \$ 33.19			\$ \$	22.29 66.37	\$ \$	22.29 66.37	\$ \$	22.29 99.56	\$ \$	22.29 99.56		22.29 32.75	\$ \$	22.29 132.75		2.29 9.12		22.29 99.12		2.29 5.50	\$ 22.5 \$ 265.5	-
	\$ 55.48	\$	55.48	\$	88.66	\$	88.66	\$	121.85	\$	121.85	\$ 1	55.04	\$	155.04	\$ 22	21.41	\$ 2	21.41	\$ 28	7.79	\$ 287.	79
Year to Year Increase	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	
WASTEWATER																							
Base Charge Usage Charge	\$ 26.34 \$ 22.80			\$ \$	26.34 45.60	\$ \$	26.34 45.60	\$ \$	26.34 68.39	\$ \$	26.34 68.39		26.34 91.19	\$ \$	26.34 91.19		.6.34 .6.79		26.34 36.79		26.34 32.38	\$ 26.3 \$ 182.3	
	\$ 49.14	\$	49.14	\$	71.94	\$	71.94	\$	94.73	\$	94.73	\$ 1	17.53	\$	117.53	\$ 16	3.13	\$ 1	63.13	\$ 20	8.72	\$ 208.	72
Year to Year Increase	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	
TOTAL WATER AND WASTEWATER CHARGES	\$ 104.62	\$	104.62	\$	160.60	\$	160.60	\$:	216.58	\$	216.58	\$ 2	72.57	\$	272.57	\$ 38	34.54	\$ 3	84.54	\$ 49	6.51	\$ 496.	<u>51</u>
\$ INCREASE OVER 2016 RATI	≣S	\$	-			\$	-			\$	-			\$	-			\$	-			\$ -	
% INCREASE OVER 2016 RAT	ES		0.0%				0.0%				0.0%				0.0%				0.0%			0.	0%