

# 2019

## Water & Wastewater Budget

**Council Chambers  
January 23, 2019**



# Presentation Agenda

- 1) Service Delivery Overview
- 2) Budget: Inputs
- 3) Budget: Rate Setting
- 4) Risks & Opportunities
- 5) Conclusion
- 6) Presentation Questions

# 1) Service Delivery Overview

- Customers: 13,300 (95% residential; 5% ICI)
- System: 268 km watermains; 193 km sanitary sewers; 1541 fire hydrants
- Safe Drinking Water Act
- Legislated Full Cost Recovery
  - Avoid deferring burden to future generations
- Reliable System (i.e., Availability, flow & pressure)
- Quality of Life
  - Eliminate basement flooding/sewer backups
  - Protection of natural environment
  - Cost control

# 1) Service Delivery Overview

## – Council Responsibilities

Municipal Officials legislative responsibilities:

- “Taking Care of Your Drinking Water – A Guide For Members Of Municipal Councils”



- “Standard of Care”
  - Last presented September 2016
  - New presentation for all municipal Councils to be coordinated by the Region in 2019

# 1) Service Delivery Overview

## - Departmental Responsibilities

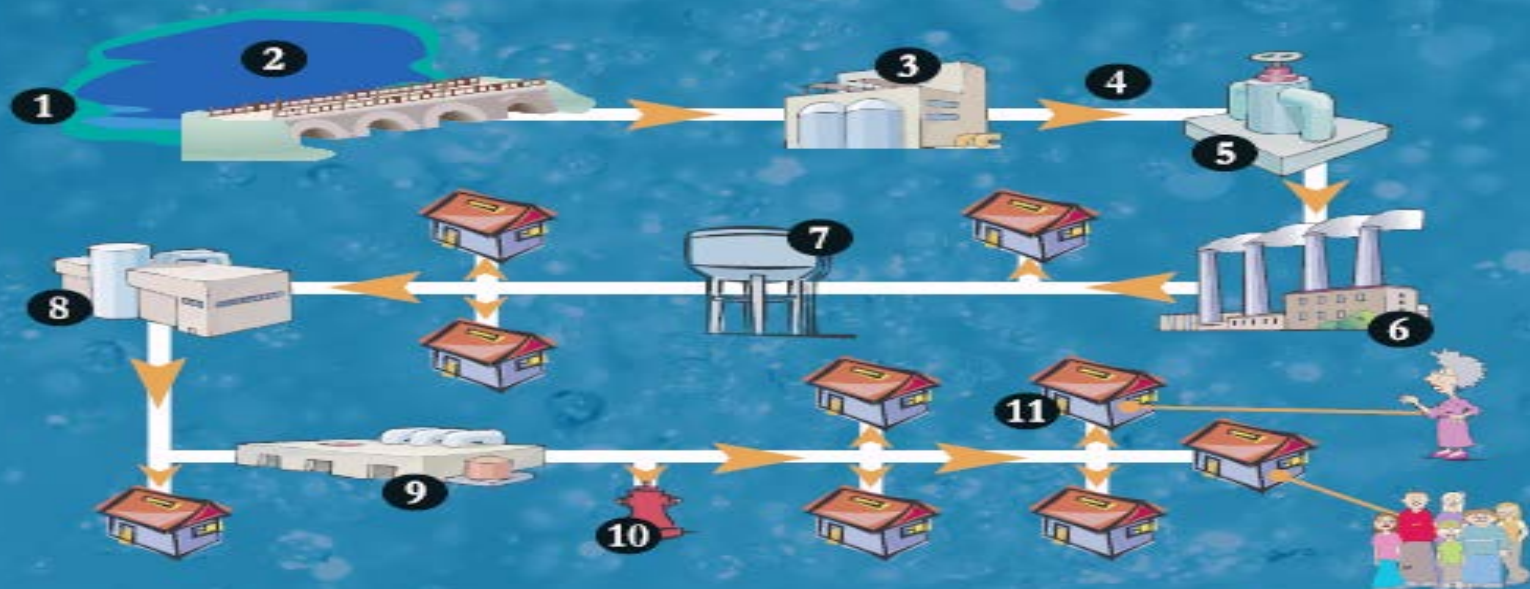
### Corporate & Community Services

Billing & Collections, Customer service, Digital services

### Infrastructure Services

Engineering, Capital, Operations & Maintenance,  
Compliance, Customer Service

# TOWN OF FORT ERIE Cost to Deliver



- |                                      |                             |                            |
|--------------------------------------|-----------------------------|----------------------------|
| 1. Watershed Management              | 5. Pressure Reducing Valves | 9. Re-Chlorination Station |
| 2. Raw Water Quality Monitoring      | 6. Industrial Park          | 10. Fire Hydrants          |
| 3. Rosehill Water Treatment Facility | 7. Reservoirs               | 11. Your Home              |
| 4. Treated Water Quality Monitoring  | 8. Pump Stations            |                            |

The costs to deliver water and sewers services and maintain the piping networks to both Grandma and the Smith family of six are equal. Fixed cost recovery is spread equally among all customers.

# 1) Service Delivery Overview

## - Operational Commitments

- ✓ **Legislative Compliance**
  - Conformance and Maintenance of Accreditation
- ✓ **Reduce 'Non-Revenue' Water Volumes (\$1M problem)**
  - Capital Investment - Watermain Replacement
  - Completion of Water Meter Exchange program
  - Ongoing focus on Leak Detection, tracking & repair programs
- ✓ **Reduce Infiltration to Sanitary Sewer System (\$4M problem)**
  - Capital investment – Investigation, repair, replacement, monitoring
  - Programs: Annual Target of Exflow Areas (e.g., Lateral replacement, disconnections)
  - Capture new development issues before they start
- ✓ **Leverage Funding Opportunities**
  - Pursue operating (e.g., CSO) & capital (e.g., OCIF) programs
  - Grants Oversight Team

# 1) Service Delivery Overview

## - Operational Challenges

- Recruitments & aging workforce (expected retirements)
- 40 Watermain breaks in 2018: down compared to historical average of 50
- Legislative requirements for new water projects
- Anticipated legislation for the sewer system similar to the water system (QMS-based)
- Commercial and industrial meter replacement program



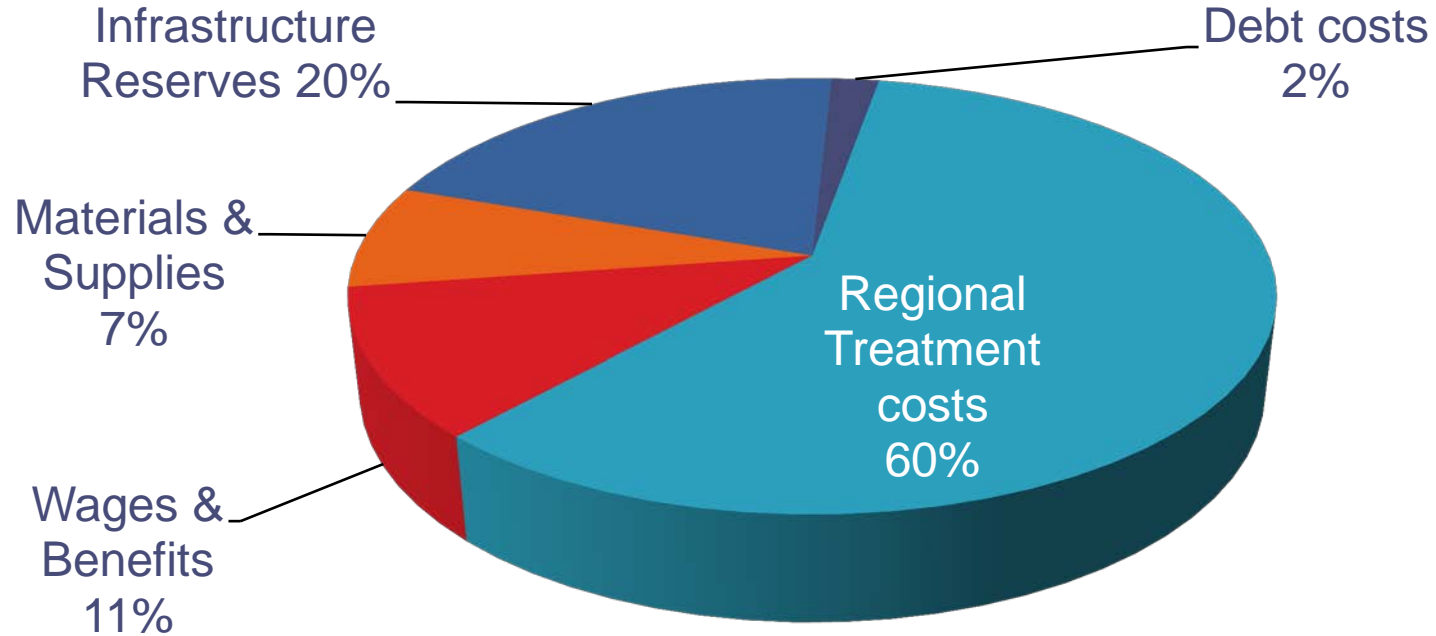
# 2) Budget: Inputs

## - Budget Overview

**Customer Rates** are a function of:

1. Expenses & Other Revenues
  - a) Regional treatment costs and volume estimates
  - b) Town expenses (i.e., operations, billing) and other revenues
  - c) Financing & Transfers
  - d) Supplementary budget requirements
2. Rate Setting
  - a) Customer volumes
  - b) Town's billing methodology

## 2) Budget: Inputs - Total Expenses



Total: \$19,165,300

## 2) Budget: Inputs

### - Regional Treatment Costs

Increase in budget of \$561,498 or 3.09%

60% of Town's budget:

- Status of Region rates: Budget Review Committee Jan 24/19 and Council By-law Feb 7/19.
  - Proposed net budget increase of **5.15%** (Water budget increase of **3.8%** and Wastewater increase of **6.0%**).
- FE water volume share: down **1.4%**.
- FE wastewater volume share: up **0.1%**.
- 2020 to 2024 forecasts include **5.15%** increase annually.

## 2) Budget: Inputs

### - Regional Treatment Costs

No change in Regional billing formulas:

- **Water** charge
  - 75% variable & 25% fixed
- **Wastewater** charge
  - 100% fixed apportioned on prior 3 year average volumes.
  - 2019 reconciliation adjustment for 2017 actual flows is a charge of **\$327,701** as volumes were higher than estimated.
  - 2020 estimate is credit of **\$190,000** based on 2018 actual flows.

## 2) Budget: Inputs

### - Expenses & Other Revenue

Increase in budget of \$163,164 or 0.91%

- Decreased revenue from fees (e.g., service laterals) and decrease in local improvement charges as some expire.
- Increased wages & benefits.
- Increased overhead costs (e.g., fleet, legal, customer service).
- Reduction in debt charges (no matured debt available to be repurposed as capital contributions).
- Increased materials & services, including a focus on non-revenue water & extraneous wastewater flows.

## 2) Budget: Inputs

### - Program Expenses

- Maintain the Water Emergency Relief Fund (WERF) at **\$15,000** for low income families.
- Maintain the Seniors Utility Relief Fund (SURF) at **\$21,000** for low income seniors.
- Other programs noted in the Operations section such as the Extraneous Flow lateral replacement program.

## 2) Budget: Inputs

### - Financing & Transfers: Reserves

- Rate Stabilization Reserves are key to mitigating annual increases due to:
  - Unknown Regional budget increases.
  - Unknown proportionate share changes.
  - Unknown future treated volumes (e.g., 2020 adjustment expected to revert to a \$190,000 credit).

## 2) Budget: Inputs

### - Financing & Transfers

Increase in budget of \$380,003 or 2.08%

- Reduced contribution to Water & Sewer Rate Stabilization Reserves of \$40,000 to mitigate current year pressures.
- Decreased costs by using Sewer Rate Stabilization Reserve to fund reconciliation charge of \$327,701; Overall charge decrease from 2018 of \$370,003.
- Increase in capital contributions of \$50,000 from recommendations of 2017 Water Master Plan.
- No change to annual Sewer Rate Stabilization Reserve contributions, pending 2019 Sewer Master Plan.



# 2) Budget: Inputs

## - Capital

- Capital Budget to be presented to Council February 6, 2019.
- No new Water or Wastewater capital assets forecast for 2019.
- Master Servicing Plans identify priority replacement
  - Water Distribution System Master Plan: Update completed June/17 (IS-17-2017).
  - Wastewater Master Plan: To be completed in 2019 and will estimate annual Life Cycle Costs and propose a funding strategy. Budget implications will be brought forward to 2020 budget.
  - Both rely on funding from Development Charges. Alternatively, reduced DCs place considerable pressure on utility rates.

## 2) Budget: Inputs - Capital

**Infrastructure Reserve Funding:** proposed 2019 changes

- No repurposed debt [2018: \$328,157 ]

	2018 Reserve Actual	2019 Reserve Proposed	Target contribution
Water Capital Reserves	\$1,993,642	\$2,043,642	\$2,193,054
Wastewater Capital Reserves	1,627,500	1,627,500	2,204,315
TOTAL	\$3,621,142	\$3,671,142	\$4,397,369
<b>% of Target</b>	<b>82%</b>	<b>83%</b>	

## 2) Budget: Inputs

### - Revenue & Expense Summary

	\$ Increase/ (Decrease)	% Increase/ (Decrease)
2018 Rate Revenue	\$18,196,737	
Net Revenue decrease	68,237	0.38%
Net Expense increase	94,927	0.53%
Regional Treatment Costs	561,498	3.09%
Financing & Transfers (net of funded reconciliations)	10,000	0.05%
2019 Budget increase	\$734,662	4.04%
2019 Rate Revenue	\$18,931,399	

## 2) Budget: Inputs

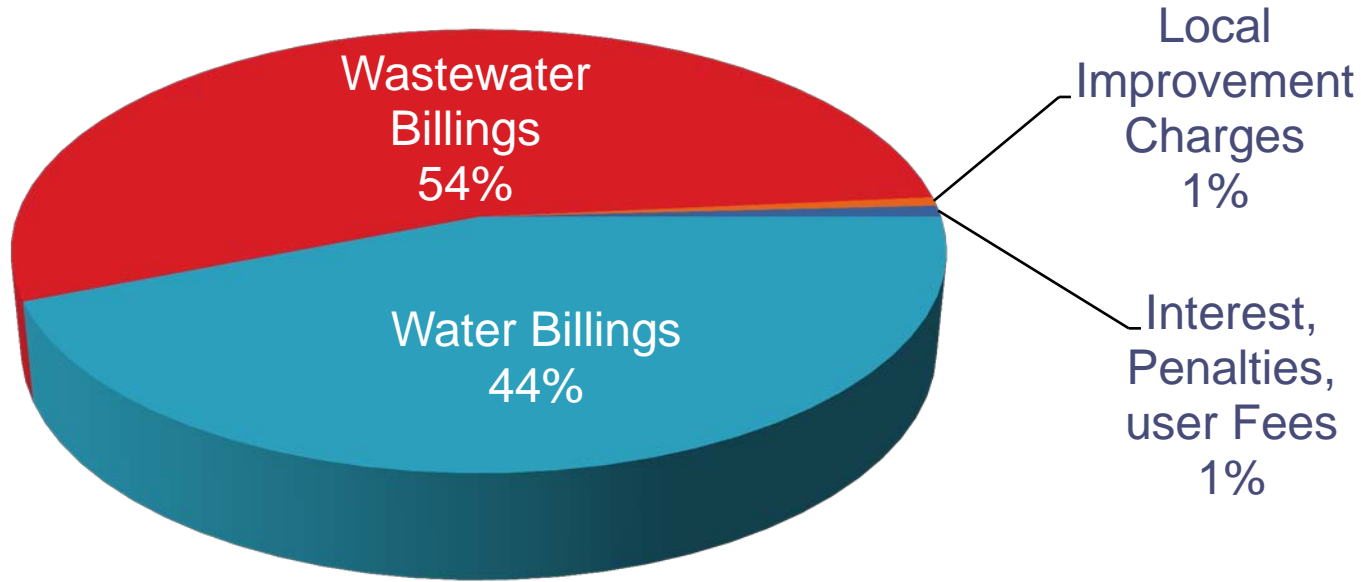
### - Revenue & Expense Comparison

	\$ 2018 Budget	\$ 2019 Budget	\$ Increase/ (decrease)	% Increase/ (decrease) of Total	% Increase/ (decrease) over Prior
Prior Rate Revenue			\$18,196,737		
Town net cost	7,545,550	7,718,714	173,164	0.95%	<b>2.24%</b>
Region net cost (excl. reconciliation)	10,711,187	11,272,685	561,498	3.09%	<b>4.98%</b>
Budget increase			\$734,662	4.04%	
Final Rate Revenue	\$18,196,737	\$18,931,399	\$18,931,399		

# 3) Budget: Rate Setting

1. Customer Consumption volumes
  - Opportunity to address given slight increase of overall costs.
  - Adjustments to water & wastewater volumes based on 2018 budget & projections.
2. Town's billing methodology
  - Base charge vs. volumetric charge.
  - Municipal trends.

### 3) Budget: Rate Setting - Total Revenue



Total: \$19,165,300

# 3) Budget: Rate Setting

## - Consumption Volumes: Water

- 2018: Volume of 2.77 million m<sup>3</sup> in rate calc:
  - Decreased 56,501 m<sup>3</sup> or 2.0% in 2018 over 2017 volumes.
  - Est. 2018 actual volumes 0.9% lower than budget.
- 2019: Volume of 2.74 million m<sup>3</sup> in rate calc:
  - Decreased 27,686 m<sup>3</sup> or 1.0% over 2018 volumes.
  - Narrow gap with additional 2019 volume reduction.
  - Below 5-yr average by 1.3%.

# 3) Budget: Rate Setting

## - Treated Volumes: Wastewater

- 2018: Volume of 2.47 million m<sup>3</sup> in rate calc:
  - Decreased 50,319 m<sup>3</sup> or 2.0% in 2018 over 2017 volumes.
  - Projected 2018 actual volumes 5.1% lower.
- 2019: Volume of 2.44 million m<sup>3</sup> in rate calc:
  - Decrease 24,656 m<sup>3</sup> or 1.0% over 2018 volumes.
  - Narrow gap with additional 2019 volume reduction.
  - Over 5-yr average by 0.9%.



# 3) Budget: Rate Setting

## - Billing Methodology

- Balancing act between base & volumetric
- Priority has been on mitigating revenue shortfalls due to decline in volumes
- Making progress toward objective of:
  - Charging proportionately less to base. Volumetric weighting gives homeowner more control over cost.
  - Decreasing risk of revenue shortfalls through better consumption estimates.

# 3) Budget: Rate Setting

## - Base charge

Base charge for stability and sufficiency:

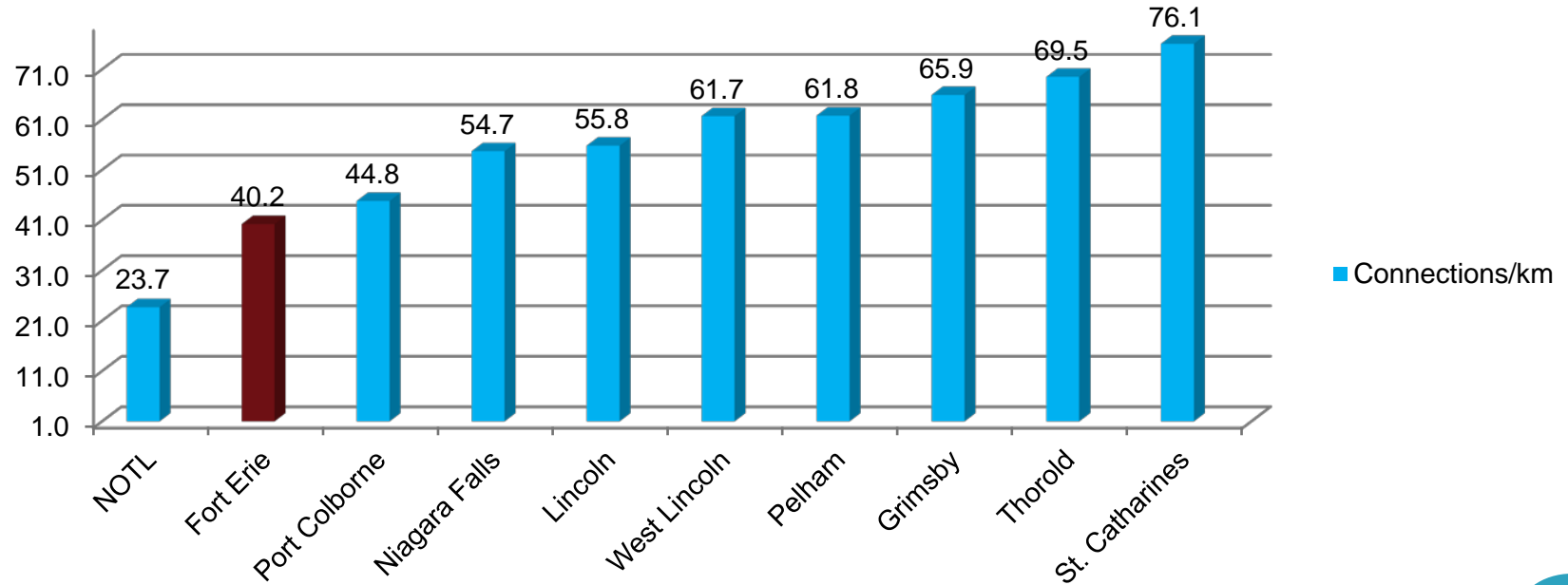
- 2019 combined monthly base of \$66.33.
- No increase.

Niagara base average is 43% of monthly bill

- 2018 was 58%; 2019 is 55%.
- Fort Erie is 2<sup>nd</sup> highest in Niagara.
- 5-yr forecasted decrease to 49%.

# 3) Budget: Rate Setting

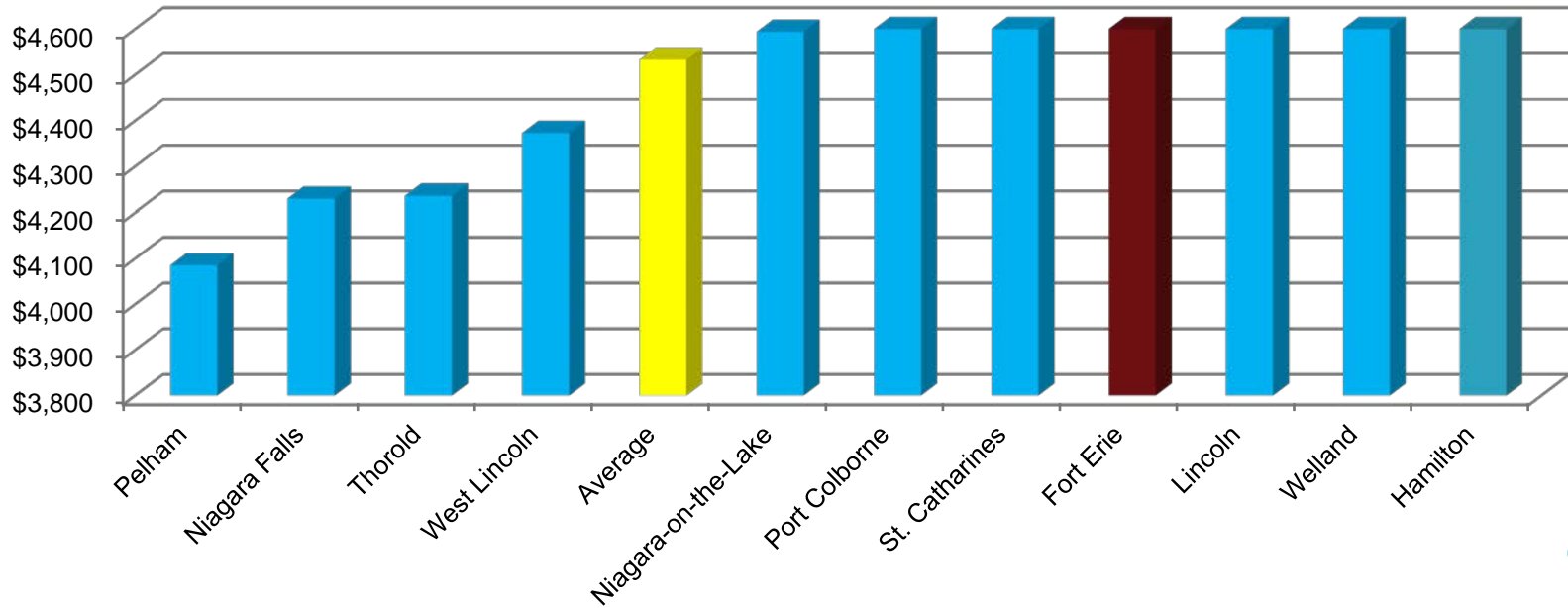
## - Base charge challenge



# 3) Budget: Rate Setting

## - Municipal Burden Comparison

### 2017 FIR



# 3) Budget: Rate Setting

## - Volumetric rate

### Volumetric Rates for control & conservation:

- $\$3.060/\text{m}^3$  2018 current combined rate
- $\$3.347/\text{m}^3$  2019 proposed combined rate

### Niagara combined volumetric rate for 2018:

- Average 2018 of  $\$3.055/\text{m}^3$ , min of  $\$2.216/\text{m}^3$ , max of  $\$4.592/\text{m}^3$ .
- TOFE 2019 of  $\$3.347/\text{m}^3$  above 2018 avg.

# 3) Budget: Rate Setting

## - Water (residential 3/4" meter)

- Water Base Charge

- = ((Region costs + net Town costs) x 51%) / #accts / 12 months
- = ((\$3,722,894 + \$4,608,382) x 51%) / 14k / 12
- = \$25.27/mos

- Water Unit Charge:

- = (Total costs - Base charge revenue) / volume
- = (\$8,331,276 - \$4,211,724) / 2.74M m<sup>3</sup>
- = \$1.503/m<sup>3</sup>

# 3) Budget: Rate Setting

## - Wastewater

### ○ Wastewater Base Charge

- = ((Region costs + net Town costs) x 58%) / #accts / 12 months
- = ((\$7,817,492 + \$2,782,631) x 60%) / 12k / 12
- = \$41.06/mos

### ○ Wastewater Unit Charge:

- = (Total costs - Base charge revenue) / volume
- = (\$10,600,123 - \$6,098,948) / 2.44M m<sup>3</sup>
- = \$1.844/m<sup>3</sup>

### 3) Budget: Rate Setting

	2018	2019	% increase	\$ increase
Water/month	\$48.63	\$49.32	1.42%	\$0.69
Wastewater/month	\$66.66	\$70.56	5.85%	\$3.90
Monthly total	\$115.29	\$119.88	3.98%	\$4.59
Annual total	\$1,384	\$1,439	3.98%	\$55

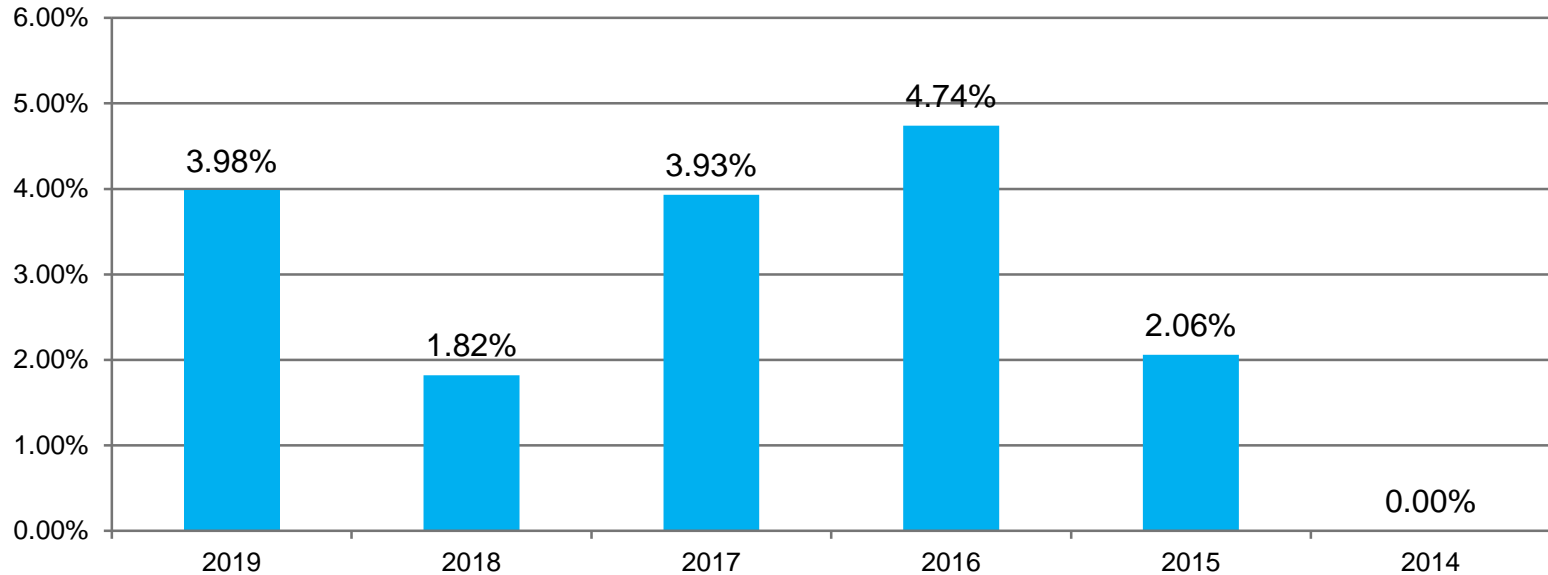
Household cost of \$3.94 per day  
Based on average consumption of 16m<sup>3</sup>/month



# 3) Budget: Rate Setting

## - Rate History & Forecast

Water & Wastewater bill increase by year



Forecast for 2020-2024 is approx. 3.89% / year

# 4) Risks & Opportunities

## - Risks

- **Weather:** impacts consumption trends & maintenance costs.
- **Volumetric vs. base rate:** revenue risk from volume variances.
- **Wastewater treatment adjustment:** impact on rate reserve.
- **Consumer shifts:** impacts from changes to large consumers.
- **Legislative compliance:** DWQMS extended to wastewater.
- **Provincial comparisons:** relatively high Residential rate & low Commercial and Industrial rates.
- **Reserves:** < provincial average. Targeting improvements.

# 4) Risks & Opportunities

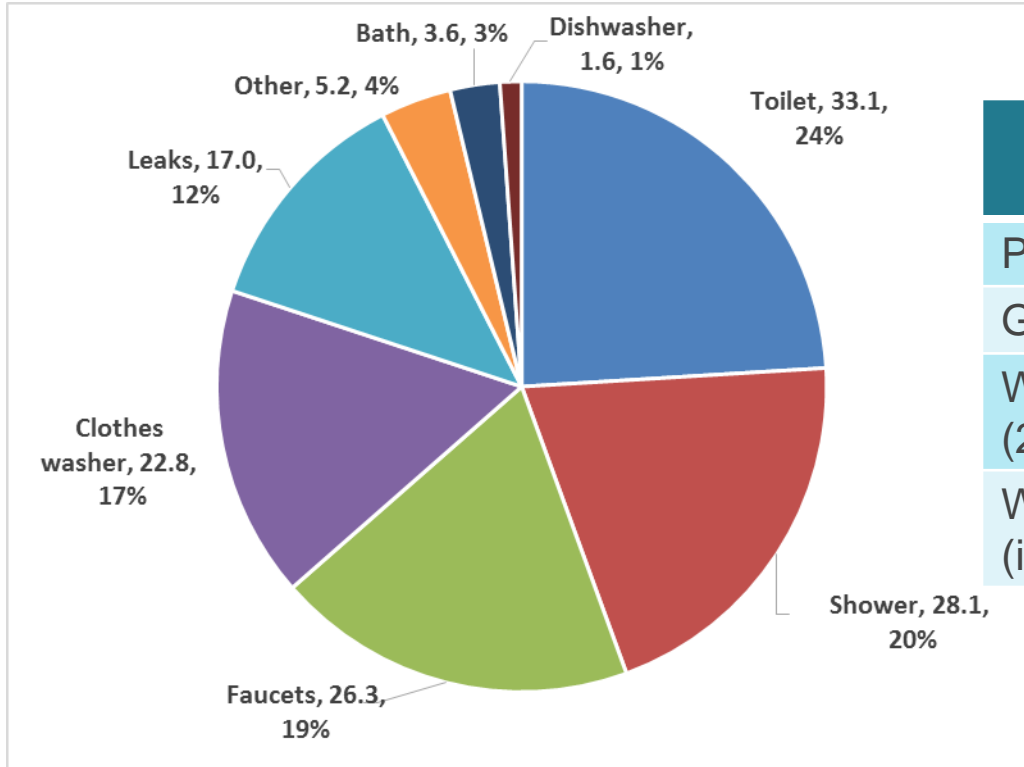
## - Opportunities

- **Infrastructure funding:** 1% rate increase provides \$197,000 in additional capital reserve contributions.
- **Grant funding:** applying for government programs where possible (e.g., Regional CSO, OCIF).
- **Meter change out program:** reduced meter reading costs, improved customer service, greater accuracy.
- **Financial sustainability:** indicators better than BMA averages

	<u>W</u>	<u>WW</u>		<u>W</u>	<u>WW</u>
• Asset consumption ratio:	31%	31%	< Avg	34%	35%
• Debt charge % of revenue:	0.4%	1.1%	< Avg	2.0%	3.7%

# 4) Risks & Opportunities

## - Typical Use & Comparisons



	\$ per litre	Cost multiplier
Pepsi	\$0.9800	300 x
Gasoline	\$0.9500	285 x
Water - bottled (24x500ml case)	\$0.2500	75 x
Water - Town (incl wastewater)	<b>\$0.0033</b>	n/a

# 5) Conclusion

## - Summary

- **Costs:** Town increase of 2.24% + Region increase of 4.98% for a combined budget increase of 4.04%.
- **Rates:** When costs distributed over estimated volumes for 2019, the net increase for a household with 16m<sup>3</sup>/month is **3.98%**.
- **Alternatives:** Approval of final rate structure by upcoming Regional Council will determine impact and any opportunities.
- **Recommendation:** THAT Council revises the 2019 Water and Wastewater Base and Consumption rates, subject to Regional Council approval of forecasted treatment rates, effective with billing for January 2019 consumption [as noted in CBC-01-2019]

# 5) Conclusion

## - Next Steps

### **Water & Wastewater Budget & User Fees:**

- Feb 11 By-laws: W&WW and Fees

### **Capital Budget & Forecast**

- Feb 6 Budget-in-Committee: reports & presentation - Town
- Mar 25 By-laws: Levy & General Capital

### **General Levy Budget:**

- Feb 20 Budget-in-Committee: reports & presentation - Library & EDTC
- Mar 5 Budget-in-Committee: reports & presentation – Town #1
- Mar 20 Budget-in-Committee: follow-up – Town #2 (if necessary)
- Mar 25 By-laws: Levy & General Capital (timing depends on above)

## 6) Presentation Questions



Please refer to Council Report No. CBC-01-2019 for further information