

2018

Water & Wastewater Budget

Council-in-Budget Committee
December 6, 2017

Presentation Agenda

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

1) Service Delivery Overview

- Safe Drinking Water
- Reliable System of Service Delivery
 - Availability, flow and pressure
- Legislated Full Cost Recovery
 - Avoid deferring burden to future generations
- Quality of Life
 - Eliminate basement flooding/sewer backups
 - Cost control
 - Protection of natural environment

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”
 - Presented September 2016

1) Service Delivery Overview

- Departmental Responsibilities

Corporate & Community Services

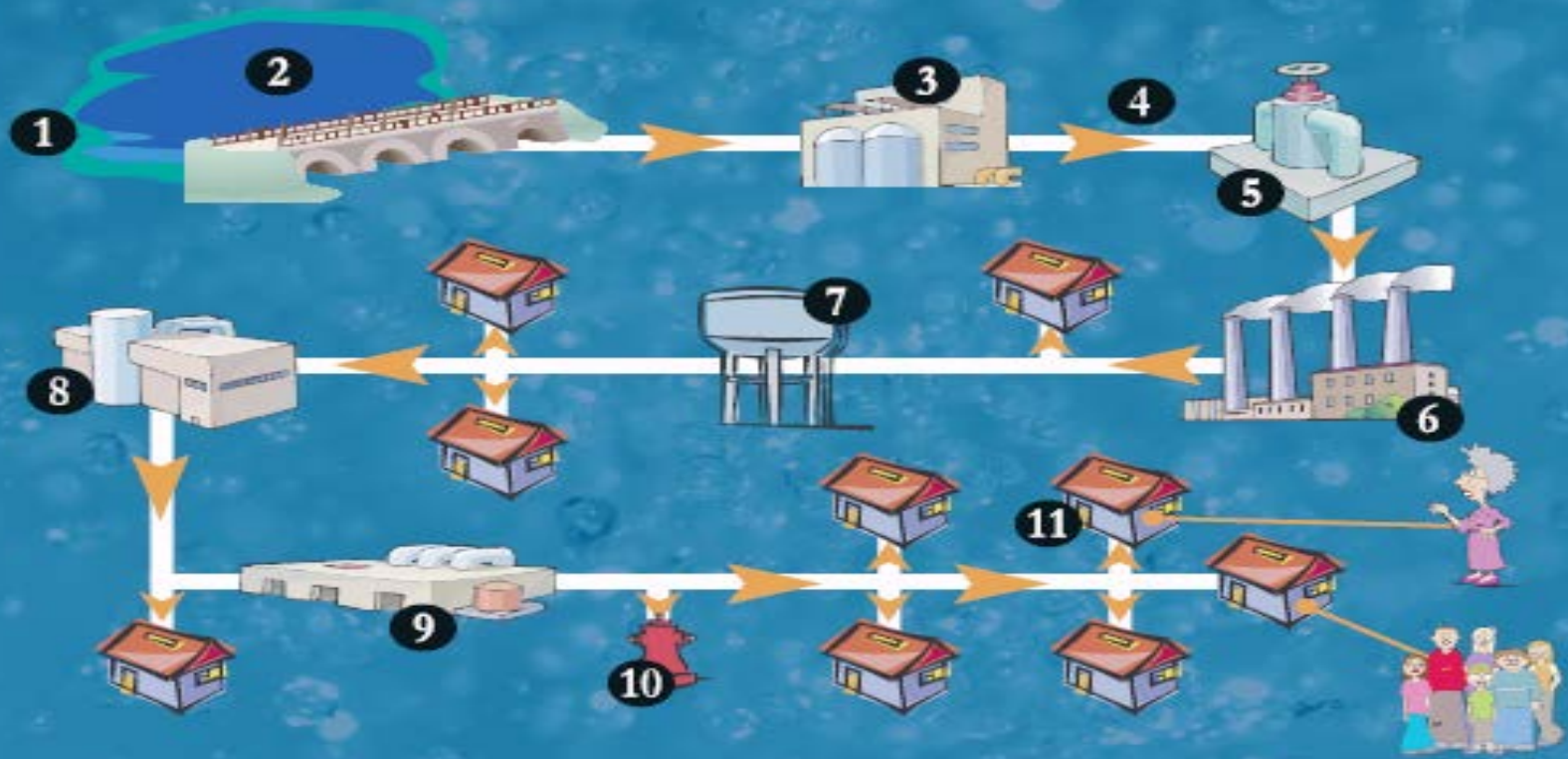
Billing & Collections, Customer service,
Digital services

Infrastructure Services

Engineering, Capital, Operations &
Maintenance, Compliance



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 (\$1.2M 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
 - Exflow Program – Annual Target Areas
 - Capture new development issues before they start
- **Leverage Funding Opportunities**
 - Pursue operating (e.g., CSO) & capital (e.g., CWWF, OCIF) programs.

1) Service Delivery Overview - Operational Challenges

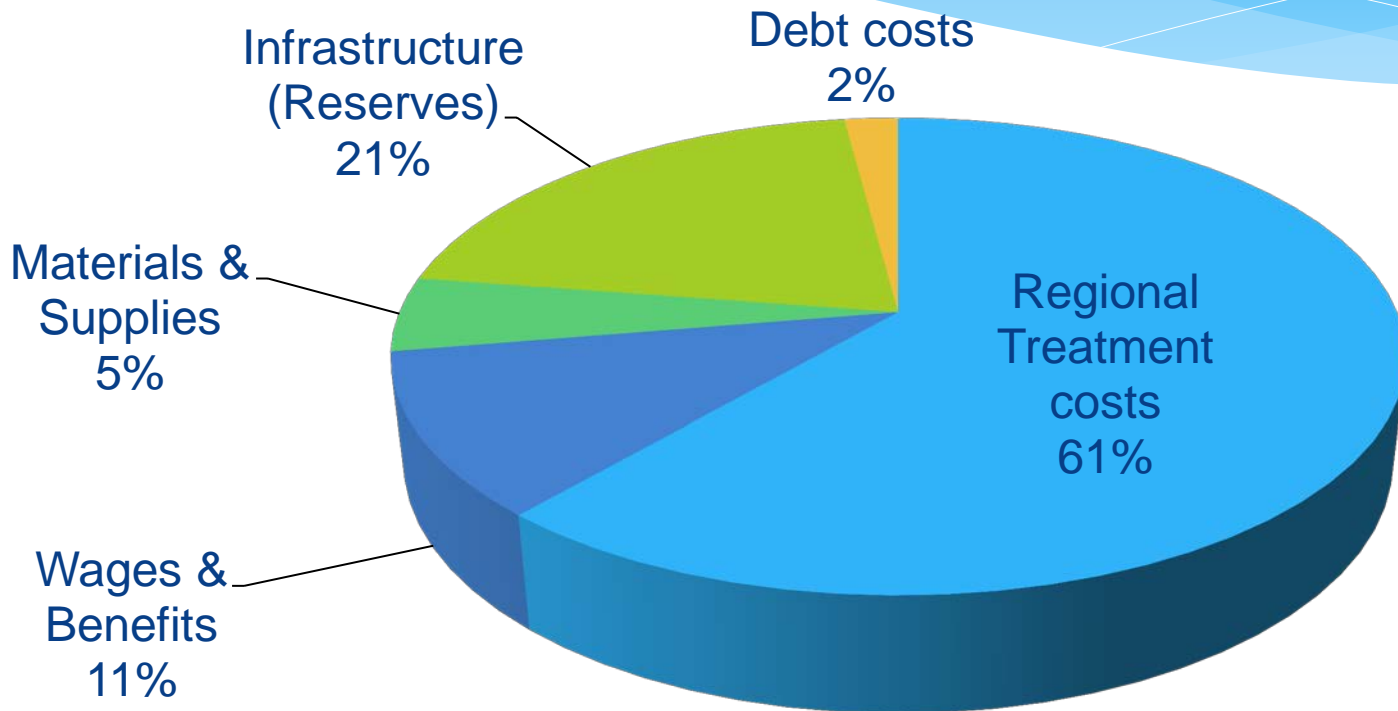
- Recruitments & aging workforce (expected retirements)
- 28 YTD Watermain breaks: down compared to historical average (50) due primarily to weather
- Legislative requirements for new water projects
- Anticipated legislation for the sewer system similar to the water system (QMS-based)
- New valve exercise program to expose significant repair requirements
- 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) Supplementary budget
2. Rate Setting
 - a) Customer volumes
 - b) Town's billing methodology

2) Budget: Inputs - Total Expenses



Total: \$18,498,875

2) Budget: Inputs - Regional Treatment Costs

Increase in budget of \$400,302 or 2.25%

61% of Town's budget:

- Region's budget approved November 16:
 - Combined net budget increase of 2.0% (Water budget increase of 2.2% and Wastewater increase of 1.9%)
- Town's share of water volume down 1.03%.
- Town's share of wastewater volume up 2.04%.
- 2019 to 2023 forecasts include a 2% increase.

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.
 - 2018 reconciliation adjustment for 2016 actual flows is a charge of **\$697,704** as volumes were higher than estimated.
 - 2019 estimate is a charge of **\$250,000** based on 2017 actual flows.

2) Budget: Inputs

- Expenses & Other Revenue

Decrease in budget of \$203,961 or 1.16%

- Increased revenue from fees (e.g., service laterals) and decrease in local improvement charges as some expire.
- Increased wages & benefits.
- Increased overhead costs (e.g., insurance).
- Reduction in debt charges, including matured debt (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.

2) Budget: Inputs - Supplementary

Increase in budget of \$201,013 or 1.14%

- Decreased costs by \$77,144 through reduced Sewer Rate Stabilization Reserve allocation from reconciliation charge increase.
- Asset Management Plan update funding of \$50,000.
- Increase in capital contributions of \$328,157 from repurposed debt.
- No change to annual Water Rate Stabilization Reserve & Sewer Rate Stabilization Reserve contributions.

2) Budget: Inputs - Supplementary Capital

- Capital Budget was presented to Council November 8, 2017.
- 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 2018 and will estimate annual Life Cycle Costs and propose a funding strategy
 - AMP will reflect above...

2) Budget: Inputs - Supplementary Capital

Infrastructure Reserve Funding: proposed 2018 changes

- \$328,157 repurposed debt

	2017 Reserve Actual	2018 Reserve Proposed	Target contribution
Water Capital Reserves	\$1,848,054	\$1,993,642	\$2,193,054
Wastewater Capital Reserves	1,444,931	1,627,500	2,204,315
TOTAL	\$3,292,985	\$3,621,142	\$4,397,369
% of Target	70%	82%	

2) Budget: Inputs

- Supplementary 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., 2019 adjustment expected to continue as a \$250,000 charge).

2) Budget: Inputs

Revenues & Expenses Summary

	\$ Increase/ (Decrease)	% Increase/ (Decrease)
2017 Rate Revenue	17,799,383	
Net Revenue increases	(8,175)	(0.05)%
Net Expense decreases	(195,786)	(1.11)%
Regional Treatment Costs	400,302	2.25%
Supplementary – reserve allocations	201,013	1.14%
2018 Budget increase	\$397,354	2.23%
2018 Rate Revenue	\$18,196,737	

3) Budget: Rate Setting

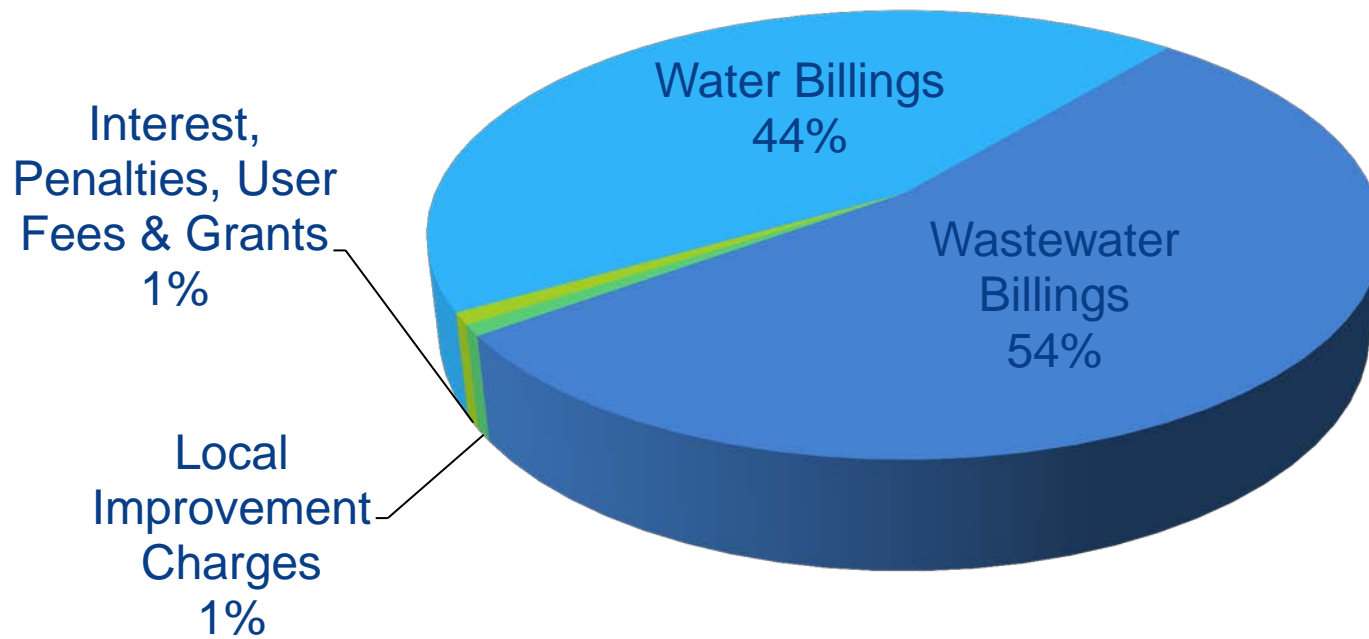
a) Customer Consumption volumes

- Opportunity to address given slight increase of overall costs.
- Adjustments to water & wastewater volumes based on 2017 budget & projections.

b) Town's billing methodology

- Base charge vs. volumetric charge.
- Municipal trends.

3) Budget: Rate Setting - Total Revenues



3) Budget: Rate Setting Consumption Volumes - Water

- 2017: Volume of 2.82 million m³ in rate calc:
 - Decreased 57,655 m³ or 2.00% in 2017 over 2016 volumes.
 - Projected 2017 actual volumes 5.3% lower than budget due to summer weather.
- 2018: Volume of 2.77 million m³ in rate calc:
 - Decreased 56,501 m³ or 2.0% over 2017 volumes.
 - Narrow gap with additional 2018 volume reduction.
 - Below 5-yr average by 1.2%.

3) Budget: Rate Setting

Treated Volumes - Wastewater

- 2017: Volume of 2.52 million m³ in rate calc:
 - Decreased 51,346 m³ or 2.0% in 2017 over 2016 volumes.
 - Projected 2017 actual volumes 9.3% lower.
- 2018: Volume of 2.47 million m³ in rate calc:
 - Decrease 50,319 m³ or 2.0% over 2017 volumes.
 - Narrow gap with additional 2018 volume reduction.
 - Over 5-yr average by 0.6%.

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

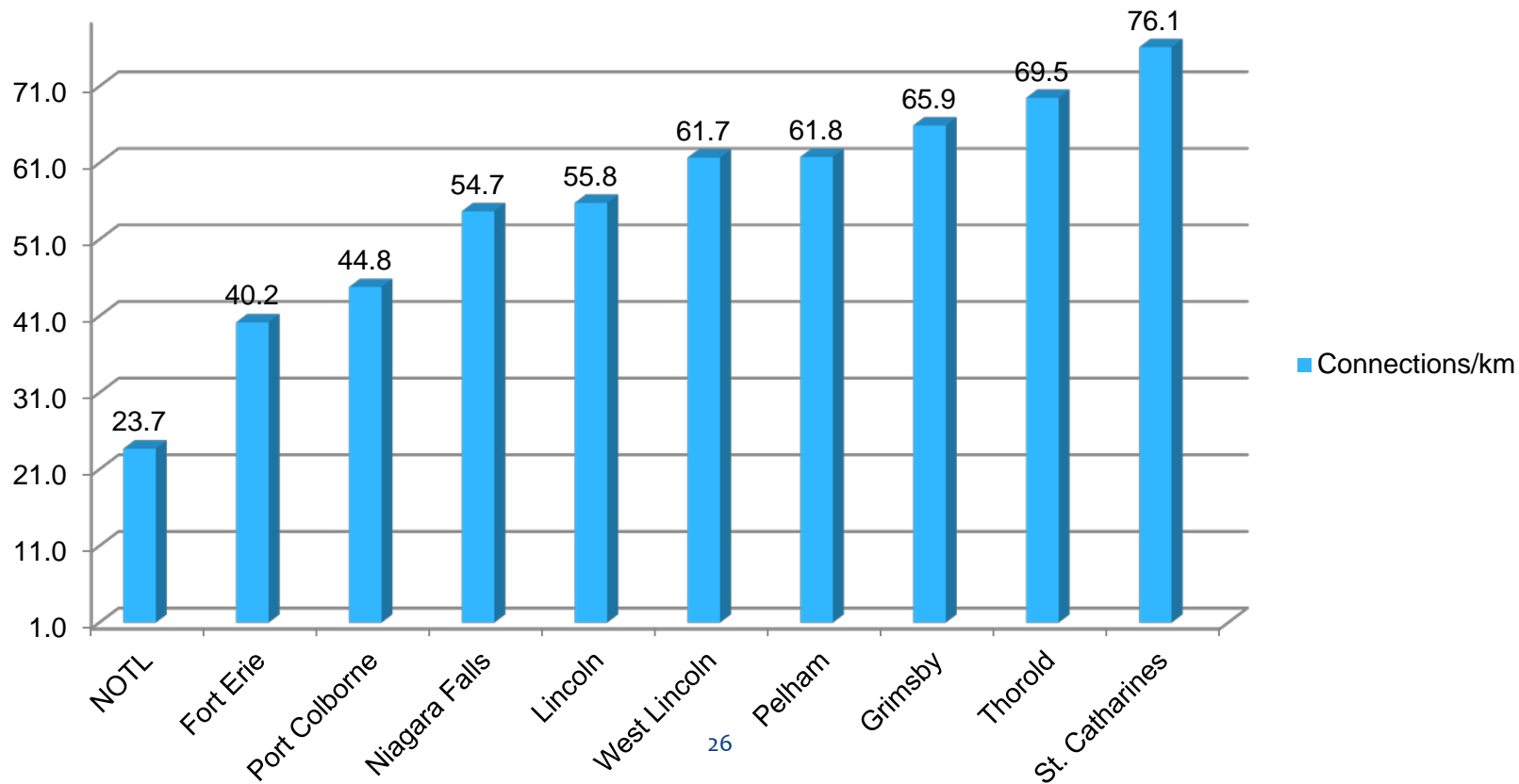
Base charge for **stability and sufficiency**:

- 2018 combined monthly base from \$66.08 to \$66.33.
- A **0.4% increase**.

Niagara base average is 42% of monthly bill

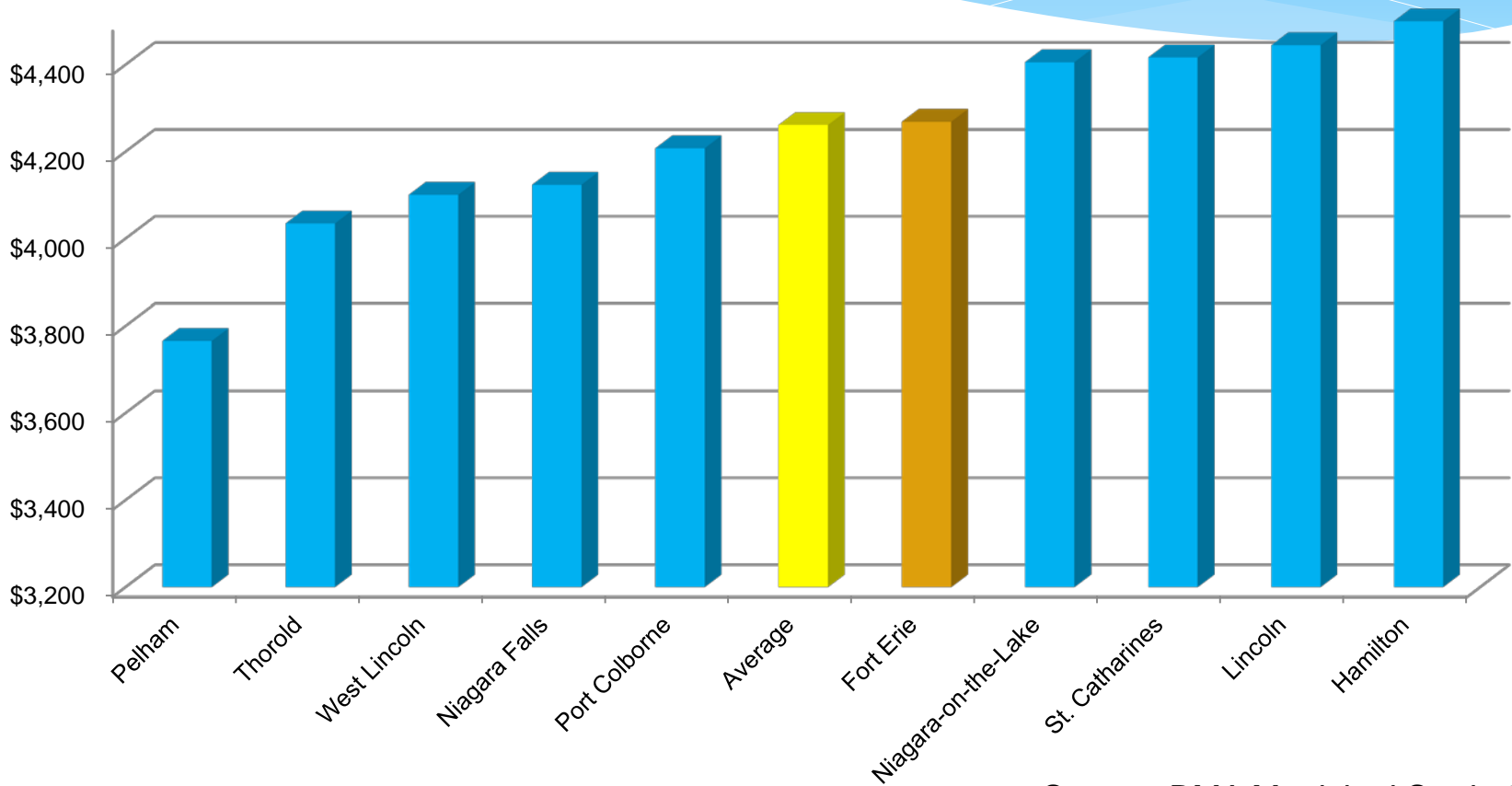
- 2017 was **58%**; 2018 is **57%**.
- Fort Erie is the highest in Niagara.
- 5-yr forecasted decrease to **51%**.

3) Budget: Rate Setting - Base charge challenge



3) Budget: Rate Setting - Municipal Burden Comparison

2016



3) Budget: Rate Setting - Volumetric rate

Volumetric Rates for **control & conservation**:

- **\$2.947/m³** 2017 current combined rate
- **\$3.060/m³** 2018 proposed combined rate

Niagara combined volumetric rate for 2017:

- Average of **\$2.979/m³**, min of **\$2.188/m³**, max of **\$4.592/m³**.
- TOFE 2018 of **\$3.060/m³** **near** 2017 avg.

3) Budget: Rate Setting - Water

- Water Base Charge

- = $((\text{Region costs} + \text{net Town costs}) \times 51\%) / \# \text{accts} / 12 \text{ months}$
- = $((\$3,596,723 + \$4,620,486) \times 51\%) / 14\text{k} / 12$
- = \$25.27/mos

- Water Unit Charge:

- = $(\text{Total costs} - \text{Base charge revenue}) / \text{volume}$
- = $(\$8,217,209 - \$4,175,094) / 2.77\text{M m}^3$
- = \$1.460/m³

3) Budget: Rate Setting - Wastewater

- Wastewater Base Charge

- = $((\text{Region costs} + \text{net Town costs}) \times 60\%) / \# \text{accts} / 12 \text{ months}$
- = $((\$7,752,168 + \$2,227,360) \times 60\%) / 12\text{k} / 12$
- = \$41.06/mos

- Wastewater Unit Charge:

- = $(\text{Total costs} - \text{Base charge revenue}) / \text{volume}$
- = $(\$9,979,528 - \$6,034,503) / 2.47\text{M m}^3$
- = \$1.600/m³

3) Budget: Rate Setting - Increase Summary

	2017	2018	% increase	\$ increase
Water/month	\$46.62	\$48.63	4.31%	\$2.01
Wastewater/month	\$66.61	\$66.66	0.01%	\$0.05
Monthly total	\$113.23	\$115.29	1.82%	\$2.06
Annual total	\$1,359	\$1,383	1.82%	\$24

Household cost of \$3.79 per day
Based on average consumption of 16m³ 3/month

3) Budget: Rate Setting - Rate Comparison

	\$ per litre	Cost multiplier
Pepsi	\$0.98	320 x
Gasoline	\$1.15	375 x
Bottled water (24 x 500ml case)	\$0.25	82 x
Town water (incl. wastewater)	\$0.0031	n/a

3) Budget: Rate Setting - Rate History & Forecast

2018	2017	2016	2015	2014	2013
1.82%	3.93%	4.74%	2.06%	0.00%	3.28%

Forecast for 2019-2023 is approx. 2.32% / year

4) Risks & Opportunities

- Risks

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

Opportunities

- **Infrastructure funding:** 1% rate increase provides \$198,000 in additional capital reserve contributions.
- **Grant funding:** applying for government programs where possible (e.g., Regional CSO, CWWF, OCIF).
- **Meter change out program:** reduced meter reading costs, improved customer service, greater accuracy.
- **Financial sustainability:** indicators better than BMA averages
 - Asset consumption ratio: 29% & 29% < Avg 34% & 34%
 - Debt charge % of revenue: 0.4% & 1.4% < Avg 2.1% & 4.1%

5) Next Steps

Water & Wastewater Budget & User Fees:

- Dec 6 Budget-in-Committee: reports & presentation
- Jan 22 By-laws

General Levy Budget:

- Jan 10 Budget-in-Committee: reports & presentation - Library & EDTC
- Jan 24 Budget-in-Committee: reports & presentation - Town
- Feb 26 By-laws (Levy & General Capital - Appendix “2”)

6) Presentation Questions



Please refer to Council Report No. CBC-03-2018 for further information