

2016 Water & Wastewater Budget

December 9, 2015

Water & Wastewater Budget

1. Budget timetable recap
2. Service Delivery Objectives (including legislative)
3. Budgeted Expenses and Rate Setting
4. Risks and Opportunities

2016 Budget Timetable

Budget	Date
Water and Wastewater Budget & User Fee Report <ul style="list-style-type: none"><i>Water and Wastewater Budget & User Fee By-Law</i>	December 9, 2015 <i>January 18, 2016</i>
Library & EDTC Budget Presentations	January 13, 2016
General Levy Budget & Assessment Analysis Report <ul style="list-style-type: none"><i>General Levy & Capital Budget (General)By-law</i>	January 27, 2016 <i>February 22,2016</i>

Water & Wastewater Services



Overall Service Objectives

- ✓ A Reliable System of Service Delivery
- ✓ Safe Drinking Water
- ✓ Full Cost Recovery
 - Avoid deferring burden to future generations
- ✓ Quality of Life
 - Protection of natural environment
 - Eliminate basement flooding/sewer backups

The Town of Fort Erie has implemented a Drinking Water Quality Management System (QMS) and is committed to:

- The delivery of safe drinking water to our customers.
- Maintaining compliance to all applicable drinking water legislation and regulations.
- Ensuring regular maintenance and continual improvement of the QMS.



The Town of Fort Erie
Our Focus: Your Future



Legislative Responsibilities Municipal Officials

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



- “Standard of Care”
 - Spring of 2016

Water & Wastewater Service Delivery

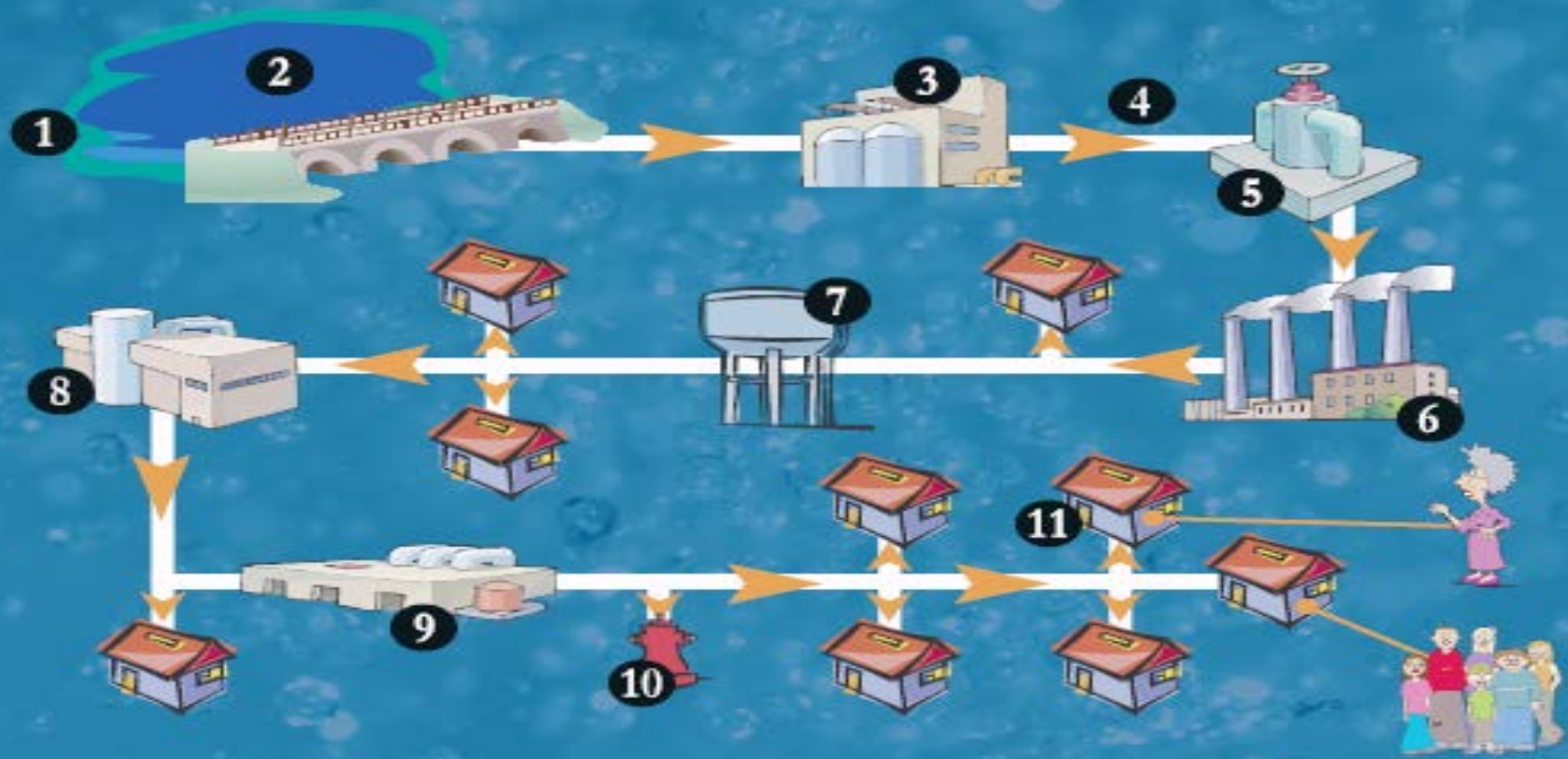
Finance Team
CSU, Billing & Collections, IT Support

Engineering Team
Capital Program, Operations Support

Water/Wastewater Services
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.

Water Loss – Main Breaks

Leak Loss Calculation for Main Breaks - Circle Breaks

Width	Pressure (PSI)	Pipe Size
0.125	80	6

Circumference	Area
18.85	2.36

Widths

1/32" = 0.03
1/16" = 0.0625
1/8" = 0.125
1/4" = 0.25

Flows

480 GPM
691795 Gallons Per Day
4842563 Gallons Per Week
20753843 Gallons Per Month (30 Days)
252505088 Gallons Per Year
2.2 M ³ per minute
3145 M ³ Per Day
22014 M ³ Per Week
94347 M ³ Per Month (30 Days)
1147888 M ³ Per Year



Location: Feb 20, 2013 - 3757 Graeber Av - Circle Break - 6" C.I. Water Main

Operational Commitments

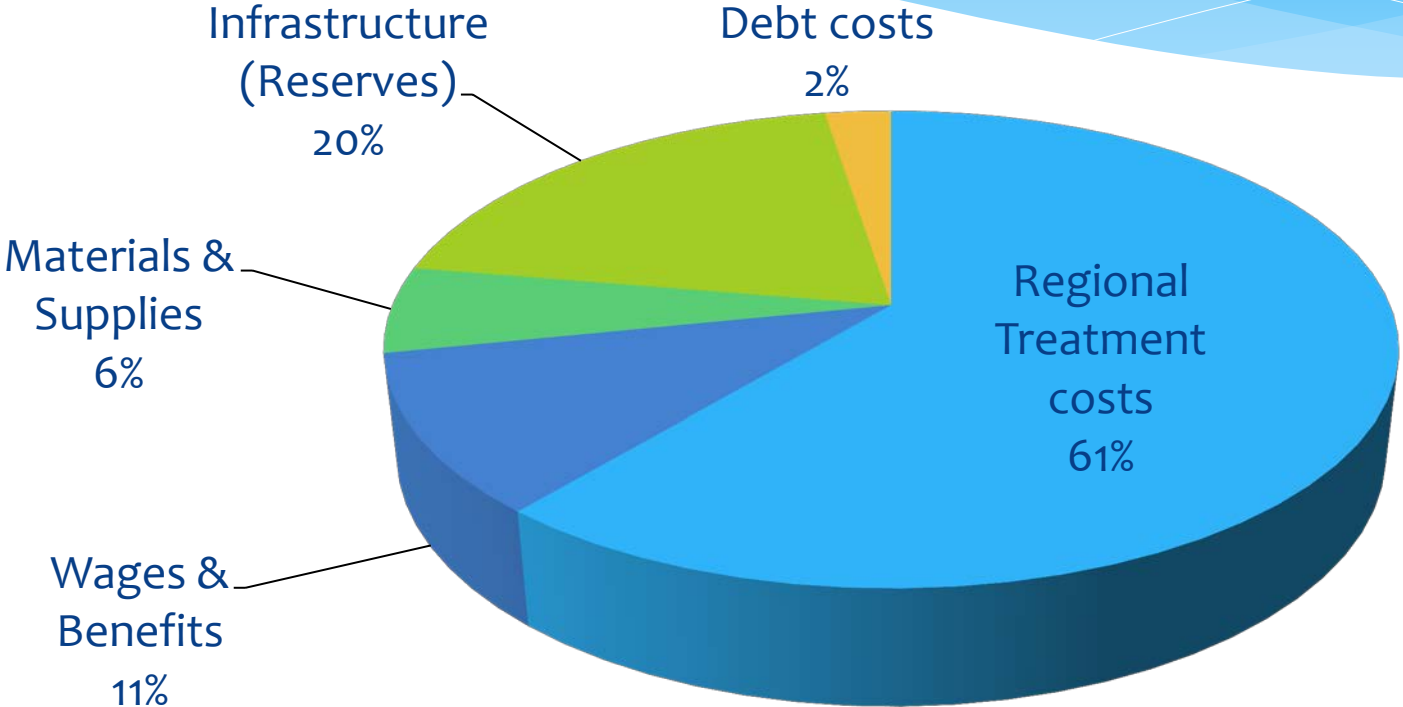
- **Legislative Compliance**
 - Conformance and Maintenance of Accreditation
- **Reduce Unbilled Water Volumes**
 - Capital Investment – Cast Iron Watermain Replacement
 - Completion Of The Water Meter Exchange Program
 - Ongoing Focus On Leak Detection & Repair Programs
- **Reduce Infiltration to the Sanitary Sewer System**
 - Capital Investment – Replacement
 - Exflow Program – Annual Target Areas
- **Leverage Funding Opportunities**
 - Pursue all available grants for both operating (e.g., Regional CSO, WaterSmart) and capital programs (e.g., BCF-SCF, Region CSO)

Water & Wastewater Budget

Cost to Customer is a function of:

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

2016 Total Budgeted Expenses



Total: \$17,505,797

1 a) Regional Treatment Costs

Increase in budget of \$1,609,241 or 9.74%

61% of Town's budget:

- Region's budget approved November 12:
 - Combined net budget decrease of 0.03% (Water budget increase of 0.3% and Wastewater decrease of 0.2%)
- Town's share of water volume up 1.98%.
- Town's share of wastewater volume up 3.87%.
- 2017 to 2021 forecasts include a 2% increase.

1 a) 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.
 - 2016 reconciliation adjustment for 2014 actual flows is a charge of **\$935,127**, as volumes were higher than estimated.
 - 2017 estimate is a charge of **\$550,000** based on 2015 actual flows.

1 b) Town Expenses & Other Revenues

Increase in budget of \$152,611 or 0.93%

- Decreased revenue from Regional grants & expired local improvement charges.
- Increased wages & benefits in line with collective agreement.
- Increased overhead costs (e.g., insurance).
- Reduction in debt charges. Town policy repurposes maturing debt as capital contributions, shown as a supplemental budget item.

1 b) Town Expenses & Other Revenues

- 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.

1 c) Supplementary Budget

Decrease in budget of \$1,085,321 or 6.57%

- Increase annual Water Rate Stabilization Reserve contribution by \$35,500 and Wastewater Rate Stabilization Reserve contribution by \$2,900.
- Decrease costs by \$1,188,617 through Wastewater Rate Stabilization Reserve allocation, due primarily to the large shift to a wastewater reconciliation charge.
- Increase capital contributions from repurposed debt by \$64,896.

1 c) Supplementary Budget

Enhance Infrastructure Reserve Funding:

- \$64,896 from repurposed debt (note: the additional \$254,448 included as base budget item from new capital amortization)

	Allocation To Reserves 2015	Allocation to Reserves 2016	Target contribution
Water			
• Infrastructure	\$1,223,490	\$1,348,054	\$2,030,133
• Meters	500,000	500,000	480,000
Wastewater			
• Infrastructure	1,250,151	1,444,931	2,204,315
TOTAL	\$2,973,641	\$3,292,985	\$4,714,448
% of Target	67%	70%	

1 c) Supplementary Budget Capital Infrastructure

- Capital Budget was presented to Council November 4, 2015.
- Master Servicing Plans identify priority replacement
 - Water Distribution System Master Plan Update
 - Underway, to be completed in 2016
 - Wastewater Master Plan
 - To be commenced in 2016

1 c) Supplementary Budget

- 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., 2017 adjustment expected to continue as a \$550,000 charge).

1) Expenses & Other Revenue 15/16 Change Summary

	\$ Increase/ (Decrease)	% Increase/ (Decrease)
2015 Rate Revenue	16,515,303	
Net Revenue decreases	20,603	0.13
Net Expense increases	132,008	0.80
Regional Treatment Costs	1,609,241	9.74
Supplemental – reserve allocations	(1,085,321)	(6.57)
2016 Budget increase	\$676,531	4.10%
2016 Rate Revenue	\$17,191,834	

2) Rate Setting

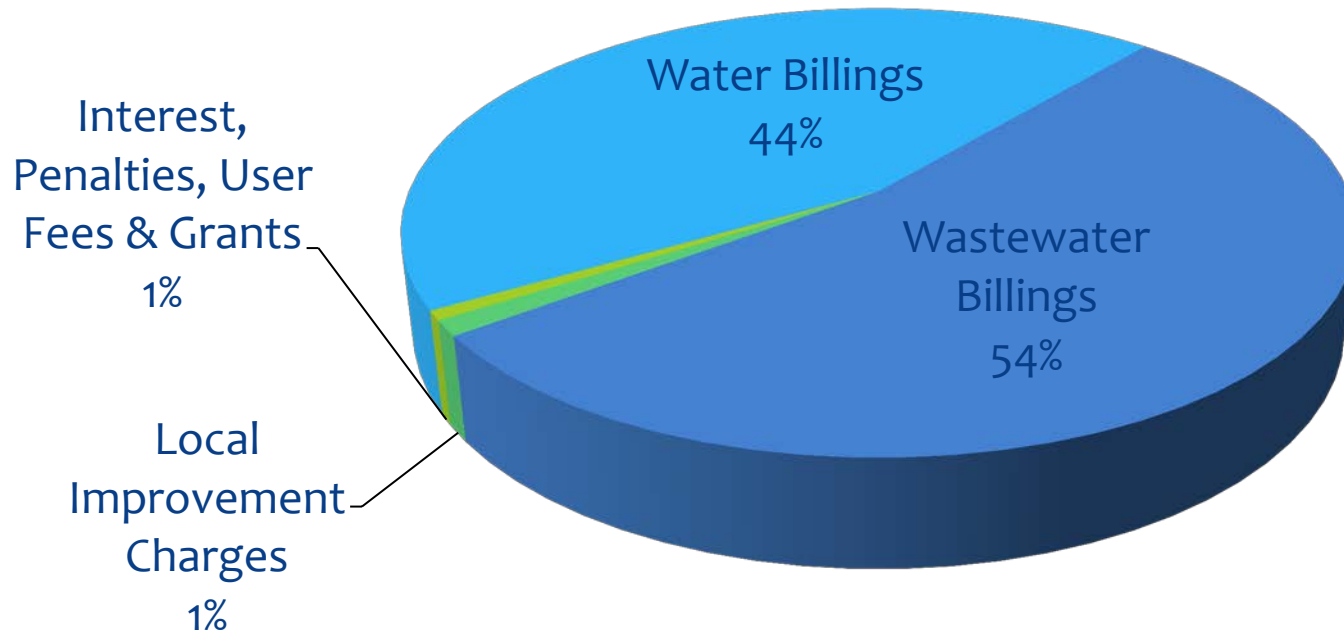
a) Customer Consumption volumes

- Opportunity to address given slight increase of overall costs.
- Significant adjustments to water & wastewater volumes from 2015 projections.

b) Town's billing methodology

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

2016 Total Budgeted Revenues



2 a) Consumption Volumes - Water

- Volume of 3.0 million m³ in 2015 rate calculation:
 - Had decreased 140,835 m³ or 4.5% in 2015 over 2014 volumes.
 - Still higher than projected 2015 actual by 8.0%.
- Narrow gap by accelerating 2016 volume reduction:
 - Decrease 106,103 m³ or 3.55% to 2.89 m³. Previously forecasted an annual 2% decrease since 2011.
 - Below 5-yr average by 0.3%.

2 a) Treated Volumes - Wastewater

- Volume of 2.64 million m³ in 2015 rate calculation:
 - Had decreased 110,053 m³ or 4.0% in 2015 over 2014 volumes.
 - Still higher than projected 2015 actual by 6.0%.
- Narrow gap by accelerating 2016 volume reduction:
 - Decrease 73,955 m³ or 2.8% to 2.57 m³. Implemented annual decreases of 2% from 2011 to 2014.
 - Higher than 5-yr average by 0.7%.

2 b) Town's Billing Methodology

- Balancing act
- 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.

2 b) Base charge

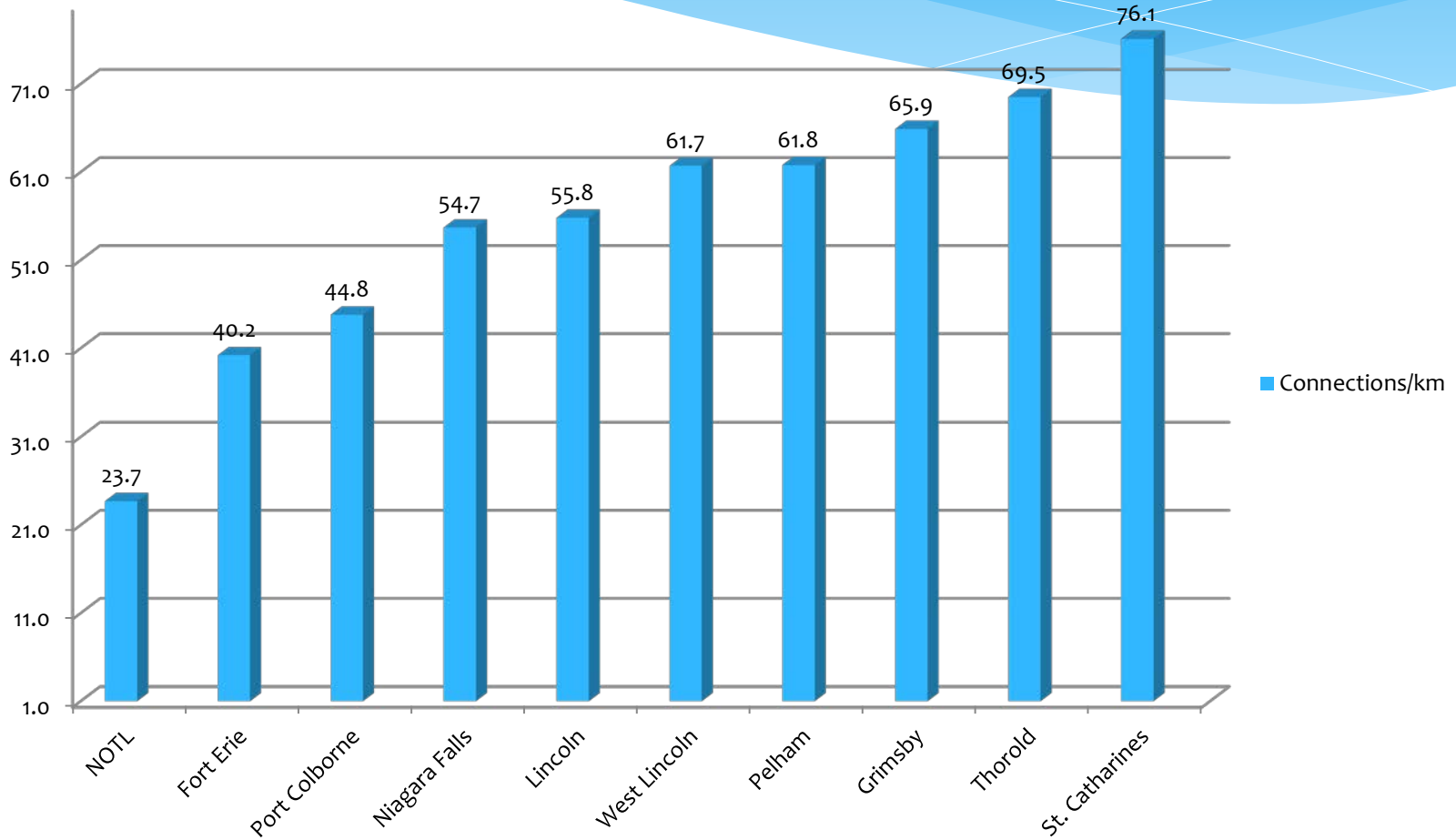
Base charge for **stability and sufficiency**:

- 2016 combined monthly base from \$64.77 to \$65.42.
- A **1.0% increase**.

Niagara base average is 43% of monthly bill

- 2015 was **62%**; 2016 is **60%**.
- Fort Erie is the highest in Niagara.
- 5-yr forecasted decrease to **57%**.

2 b) Base charge - challenge



2b) Volumetric rate

Volumetric Rates for **control & conservation**:

- 2015 Fort Erie combined rate is **\$2.453/m³**.
- 2016 proposed combined rate is **\$2.721/m³**.
- A **10.9% increase**.

Niagara combined volumetric rate for 2015:

- Average of **\$2.816/m³**, min of **\$2.206/m³**, max of **\$4.467/m³**.
- TOFE 2016 of **\$2.721/m³** \leq 2015 avg.

2) Rate Comparison – Based on avg household (16m³)

	2015	2016	% increase	\$ increase
Water/month	\$43.59	\$45.92	5.35%	\$2.33
Wastewater/month	\$60.43	\$63.03	4.30%	\$2.60
Monthly total	\$104.02	\$108.95	4.74%	\$4.93
Annual total	\$1,248.00	\$1,307.00	4.74%	\$59.00

Average household cost of \$3.58 per day.

2) Rate Comparison – other household consumption

	\$ per litre	Cost multiplier
Pepsi	\$0.98	362 x
Gasoline	\$0.95	351 x
Bottled water (24 x 500ml case)	\$0.25	92 x
Town water (incl. wastewater)	\$0.0027	n/a

2) Rate History & Forecast – Based on avg household (16m³)

2016	2015	2014	2013	2012	2011
4.74	2.06	0.00	3.28	4.41	3.98
%	%	%	%	%	%

Forecast for 2017-2021 is 1.17% / year

Risks and 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 to be extended to wastewater.
- **Provincial comparisons:** relatively high Residential rate & low Commercial and Industrial rates.
- **Reserves:** < provincial average. Targeting improvements.

Risks and Opportunities

Opportunities

- **Infrastructure funding:** 1% rate increase provides \$174,000 in additional capital reserve contributions.
- **Grant funding:** applying for government programs where possible (e.g., BCF-SCF, Regional CSO).
- **Meter change out program:** reduced meter reading costs, improved customer service, greater accuracy.
- **Financial sustainability:** w/ww indicators better than BMA averages
 - Asset consumption ratio 28% and 27%; > Avg 32% and 33%
 - Debt charge % of revenue 0.8% and 2.3% > Avg 3.0% and 4.9%

QUESTIONS