



Municipality of South Huron Water and Wastewater Rate Study & Financial Plan Update

Council Presentation
January 9, 2019

Introduction



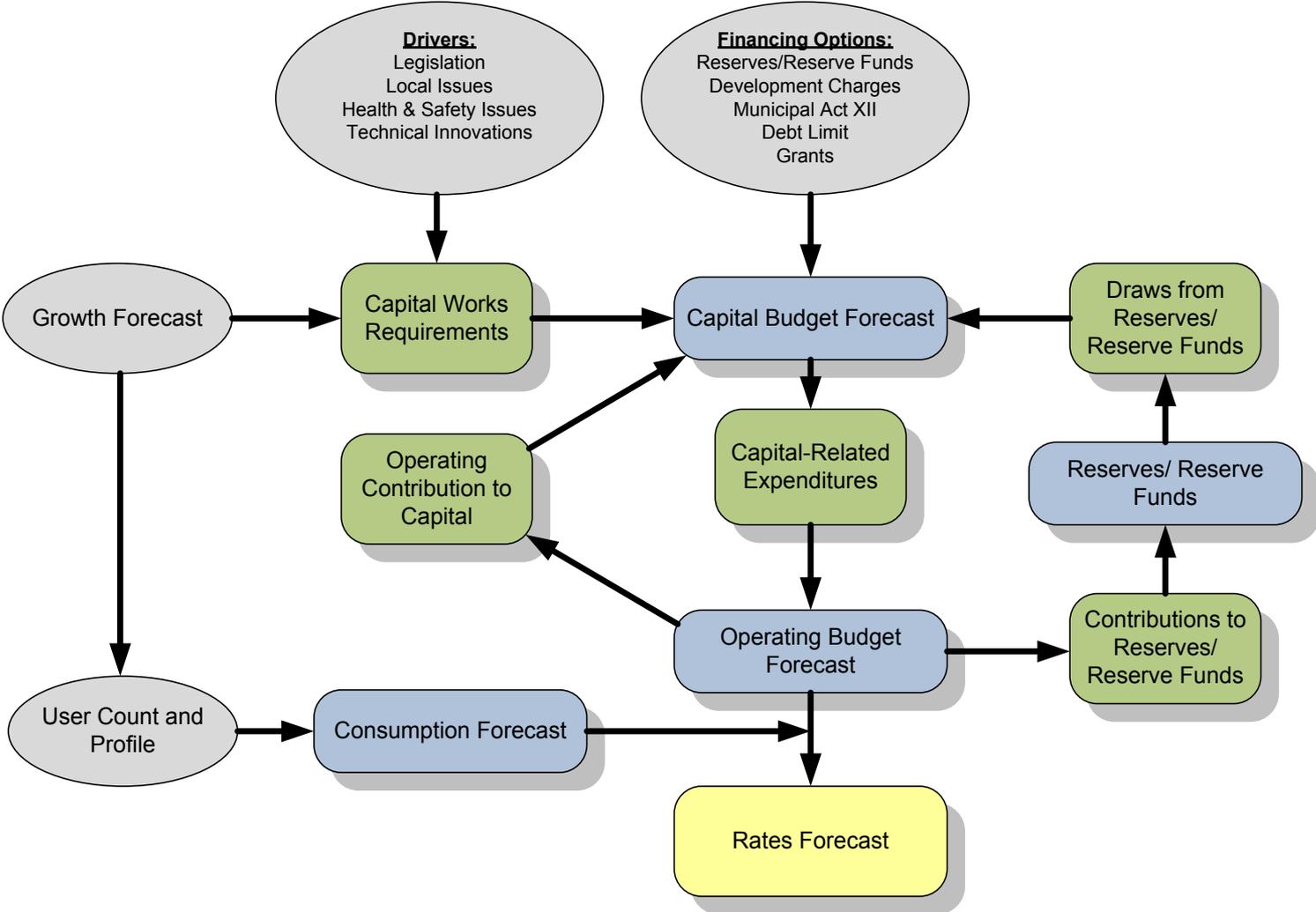
- Watson and Associates Economists Ltd. (Watson) was retained by the Municipality of South Huron (Municipality) to update the 2011 Water and Wastewater Rate Study and Water Financial Plan
- Review Included:
 - Update of water demand assumptions based on analysis of historical consumption patterns and recent trends;
 - Building a capital program that blends lifecycle needs (2016 Asset Management Plan) with specific needs identified by staff and the 2017 Water and Wastewater Master Plan;
 - Forecast annual operating cost and rate-based funding requirements;
 - Assess adequacy of current water/wastewater rates in addressing long-term financial plan needs;
 - Recommend water and wastewater rates for the 2018-2032 period, including updates to the Exeter-Hensall base charge; and
 - Providing impact assessment on rate payers

Legislative Context



- *Sustainable Water and Sewage Systems Act (SWSSA)* passed on Dec. 13, 2002 (repealed Dec. 31, 2012)
- *Safe Drinking Water Act Regulation (O.Reg. 453/07)* – Municipal Drinking Water Licensing Program requirements for a financial plan to be submitted to the Province six-months prior to license expiry
- *Water Opportunities Act, 2010* – preparation of sustainability plans for water, sanitary sewer and stormwater services

Rate Study Methodology



Sample of Current Quarterly Water and Sewer Bill

Exeter



THE MUNICIPALITY OF SOUTH HURON



UTILITY BILLING

Box 759 - 322 Main Street S
 Exeter, On N0M 1S6
 Phone # 519-235-0310 or 1-877-204-0747

Account Number 0XX000.0X
 Name
 Service Address
 Billing Period 01/02/2019 to 01/05/2019
 mm/dd/yyyy mm/dd/yyyy
 Number of Billing Days 90

Current Reading	Previous Reading	Consumption	Description	Amount
5000	5042	42	WTR CONS CHG @ 1.76/M3	\$73.48
			SWR CONS CHG @ 1.81/M3	\$75.57
			WATER BASE CHARGE	\$60.70
			SEWER BASE CHARGE	\$20.20
			PIPELINE DEBT CHG	\$83.90
			Current Charges	\$313.85
			Balance Forward	\$0.00
			Penalty	\$0.00
			AMOUNT DUE	\$313.85

Operations

Capital/Debt

Exeter-Hensall Debt Repayment

Annual Bill - \$1,255

Historical Context



- In 2011 Council adopted a rate forecast for the 2011-2017 period, maintaining the principles established in by Council in 2008, namely:
 - Uniform quarterly base charge and consumptive water and wastewater rates for Exeter and Stephen customers;
 - Exeter-Hensall quarterly base charge to recover annual debt repayment, based on proportionate share of max. day design flows;
 - Quarterly base charges imposed on multi-tenant customers on a per unit basis at 75% of single family dwelling rate, reflecting lower occupancy;
 - Quarterly base charges imposed on year-round land lease properties on per unit basis at single family dwelling rate;
 - Quarterly base charges for all other customers imposed on graduated basis, determined by water service size; and
 - Municipal Act Capital Charge recoveries for debt financed growth related infrastructure

Water and Wastewater Customer Profile and Consumption Growth



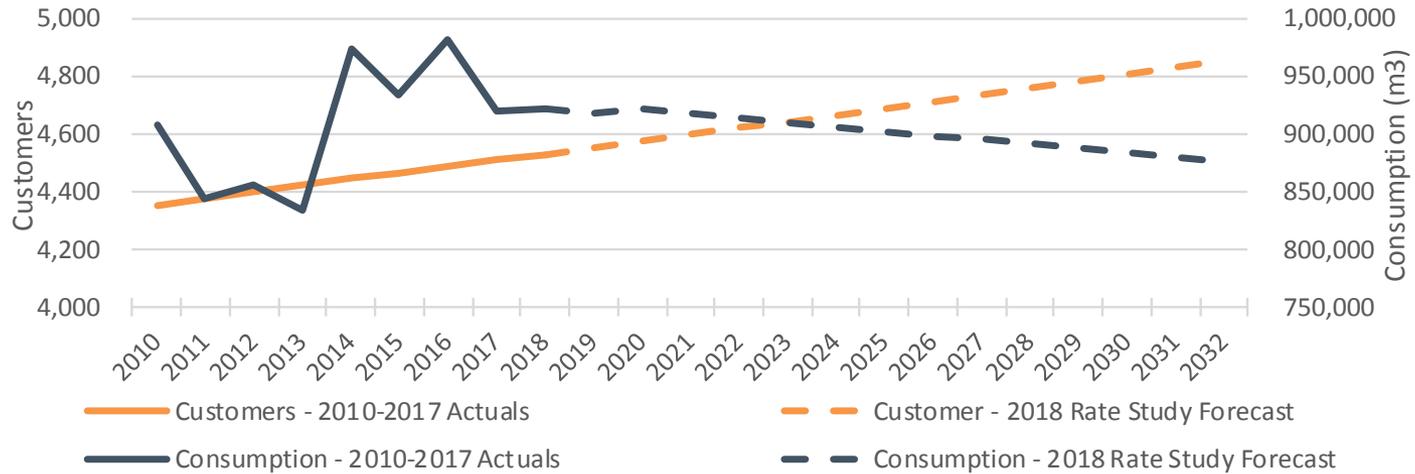
- Annual water and wastewater customer growth forecast based on 2010-2017 actuals and trend analysis
 - Exeter - 23 residential equivalents
 - Stephen – 16 residential equivalents
- Water consumption forecast at 167 m³ per customer, with 1% annual water conservation
- Suntastic and Med Relief (large volume consumers)
 - Consumption maintained at 2017 levels



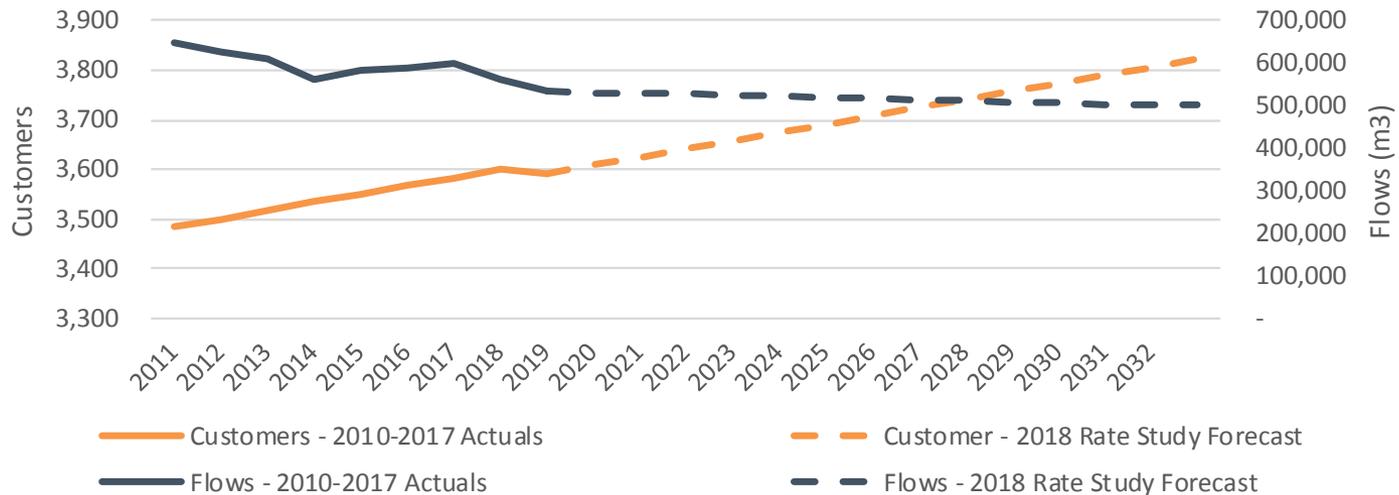
Customer Profile and Consumption Growth

2019-2032 Forecast Assumptions

Water Customers and Consumption



Wastewater Customers and Flows



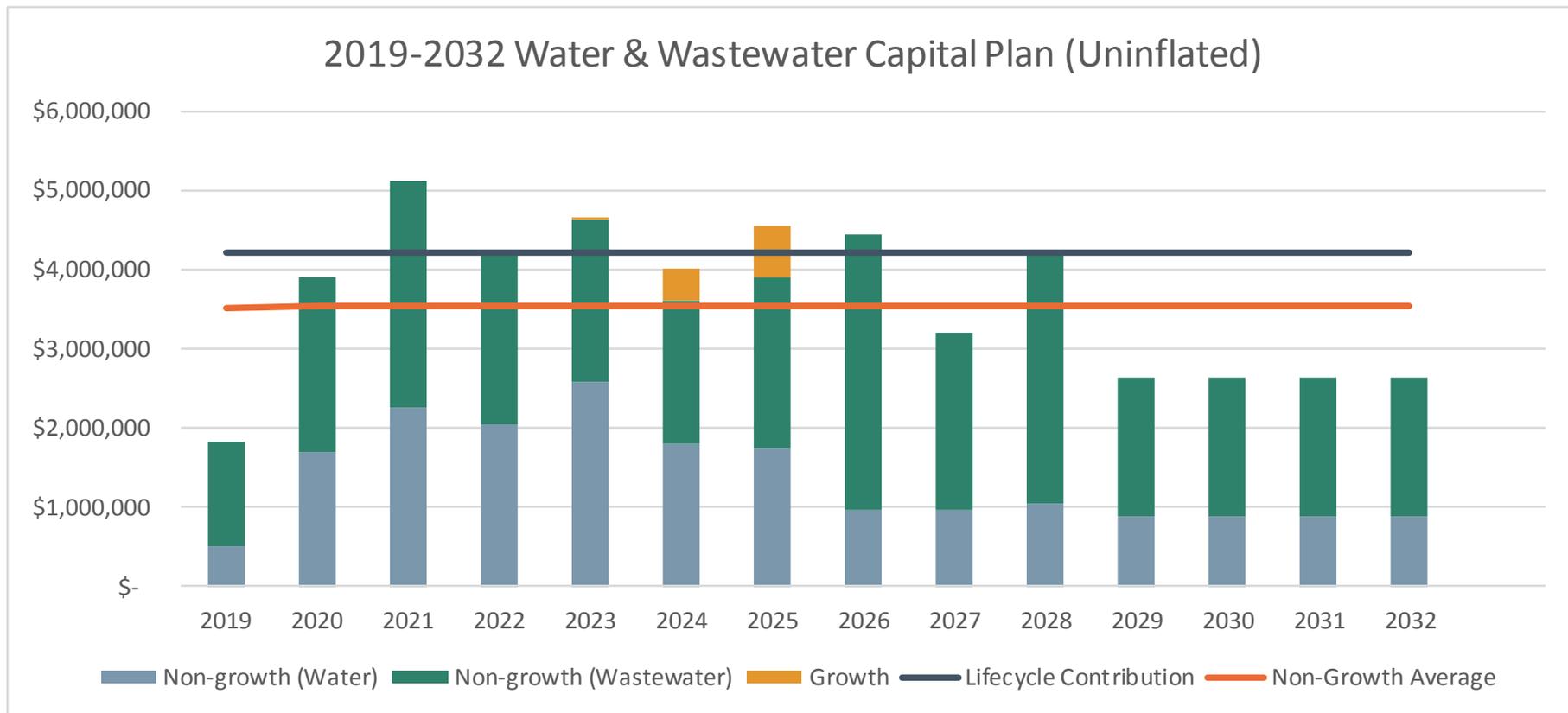
Water and Wastewater Capital Needs Forecast

2019-2032 Forecast Assumptions



- Annual lifecycle contribution based on 2016 AMP, plus attribution for urban road reconstruction (30% wastewater and 20% water), and Exeter Wastewater Treatment Plant (WWTP) replacement in 2040 at mechanical treatment plant cost estimate
 - Water at \$2.2 million and wastewater at \$2.0 million, annually
- Forecast average annual capital spending generally at annual lifecycle levels (i.e. water - \$2.2 million, wastewater - \$1.4 million), including:
 - Grand Bend Sewer
 - Treatment Plant, EA, and Pumping Station complete
 - Trunk Sewer proposed for 2023 subject to Council approval (no rate impact)
 - Exeter WWTP
 - Rehabilitation of Sewage Lagoon Sand Filters in 2020-2021 (\$1.5 million)
 - UV Treatment for Winter Discharge in 2022 (\$400,000)

Water and Wastewater Capital Needs Forecast 2019-2032



Water and Wastewater Capital Funding Sources

2019-2032 Forecast Assumptions



- Funding Options
 - Current Reserve Funds
 - Water \$8.3 million, Wastewater - \$0.5 million
 - Existing Annual Debt Repayment
 - \$1.8 million water and wastewater, debt repayment represent 10% of own source revenues
 - Total municipal debt repayment \$2.1 million for all services including water and wastewater, 12% of own source revenues (*currently rated as high risk*)
 - Annual debt repayment limit regulated at 25% of own source revenues
 - Development Charges – limited development charge funding
 - Grants – no additional grant funding assumed

Modeled Water and Wastewater Capital Funding Scenarios

2019-2032 Forecast Assumptions



- Two capital funding scenarios were considered:
 - Scenario 1 – no additional debt financing
 - Interim financing between water and wastewater reserve funds
 - No additional water and wastewater debt incurred
 - Scenario 2 – additional debt financing
 - Interim financing between water and wastewater reserve funds
 - Additional water and wastewater debt funding of \$20.6 million
- **Scenario 1 (no additional debt financing)** has been recommended to maintain the Municipality's debt capacity for other municipal services (e.g. recreation centre) and in recognition of the current risk rating regarding municipal borrowing

Water and Wastewater Capital Funding Plan

2019-2032 Forecast (inflated\$)



	Scenario 1 (2019-2032)	
	Water	Wastewater
Capital Expenditures	38,023,000	22,716,000
Capital Financing		
Provincial/Federal Grants	-	-
Development Charges Reserve Fund	-	-
Non-Growth Related Debenture Requirements	-	-
Growth Related Interim Funding	1,259,500	-
Water/Wastewater Reserve	36,763,500	21,019,000
Municipal Act Capital Charge		1,697,000
Total Capital Financing	38,023,000	22,716,000

- Exeter-Hensall debt repayment (\$767,000 annually)
 - \$261,000 annually to be recovered from D.C.s
 - Quarterly debt charge re-calculated to fund annual non-growth component (\$506,000) and interim D.C. financing (\$240,000)
- Existing Capital Charge debt repayments maintained
- Grand Bend Trunk Sewer assumed to be fully capital charge funded

Water and Wastewater Operating Expenditure Forecasts

2019-2032 Forecast Assumptions



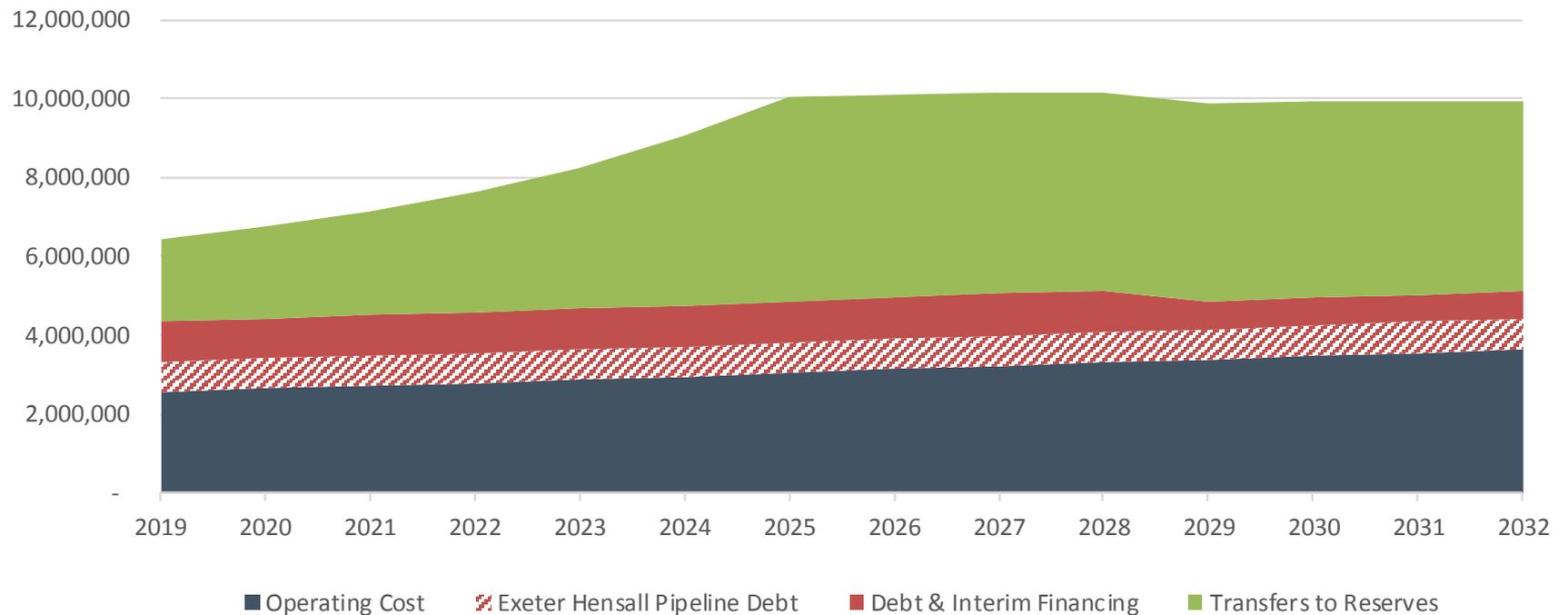
- Lake Huron & Elgin Area Primary Water System water purchases - forecast based on water consumption forecast and 2-3% annual increase in primary water rate
- Operating expenditures forecast including 2% inflation
- Capital-related expenditures forecast based on capital funding plan composition, including existing debt D.C. interim financing, and transfers to reserve funds

Water and Wastewater Net Operating Expenditure Forecasts

2019-2032 (inflated\$)



Operating Costs - Water and Wastewater Scenario 1



Water and Wastewater Rate Recommendations



- Recommendation is to maintain current practice of charging:
 - Uniform quarterly base charge and consumptive water and wastewater rates for Exeter and Stephen customers;
 - Quarterly Base Charges
 - Designed to recover annual lifecycle costs of capital;
 - Multi-tenant customers charged 75% of single family dwelling rate, reflecting lower occupancy; and
 - Imposed on year-round land lease properties on per unit basis at single family dwelling rate
 - Consumptive Rates designed to recover annual operating costs of services
 - Exeter-Hensall quarterly base charge to recover annual debt repayment costs

2018 Quarterly Water and Sewer Bill

Exeter



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5000

5042

42

WTR CONS CHG @ 1.77/M3	\$73.90
SWR CONS CHG @ 1.81/M3	\$75.57

Operations

WATER BASE CHARGE	\$67.20
SEWER BASE CHARGE	\$27.81

Capital/Debt

PIPELINE DEBT CHG	\$69.51
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Exeter-Hensall Debt
Repayment

Current Charges	\$313.99
Balance Forward	\$0.00
Penalty	\$0.00

AMOUNT DUE \$313.99

Annual Bill - \$1,256
(\$1 increase compared to 2018)

2019 Proposed Quarterly Water and Sewer Bill



Scenario 1 - Stephen

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			WATER BASE CHARGE	\$67.20
			SEWER BASE CHARGE	\$27.81
			PIPELINE DEBT CHG	\$3.99
			Current Charges	\$248.47
			Balance Forward	\$0.00
			Penalty	\$0.00
			AMOUNT DUE	\$248.47

Operations

Capital/Debt

Exeter-Hensall Debt
 Repayment

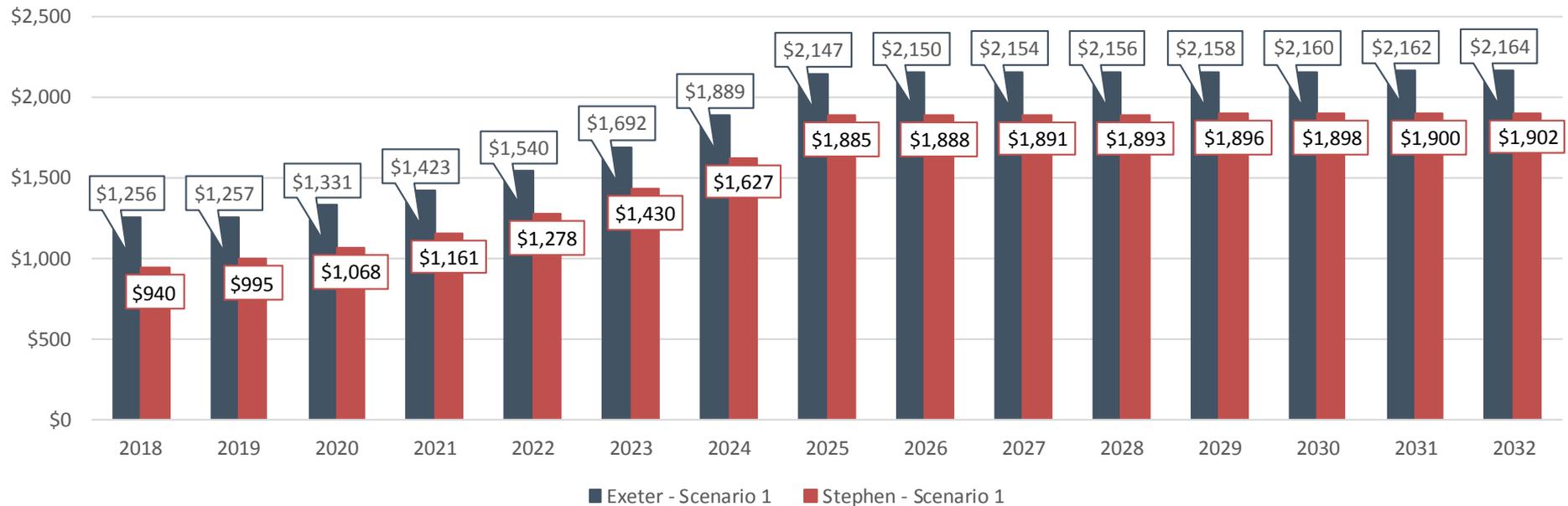
Annual Bill - \$994
 (\$55 increase compared to 2018)

Annual Customer Water and Wastewater Bill Impacts



Scenario Comparison – based on 167 m³ of usage and 19mm Service Size

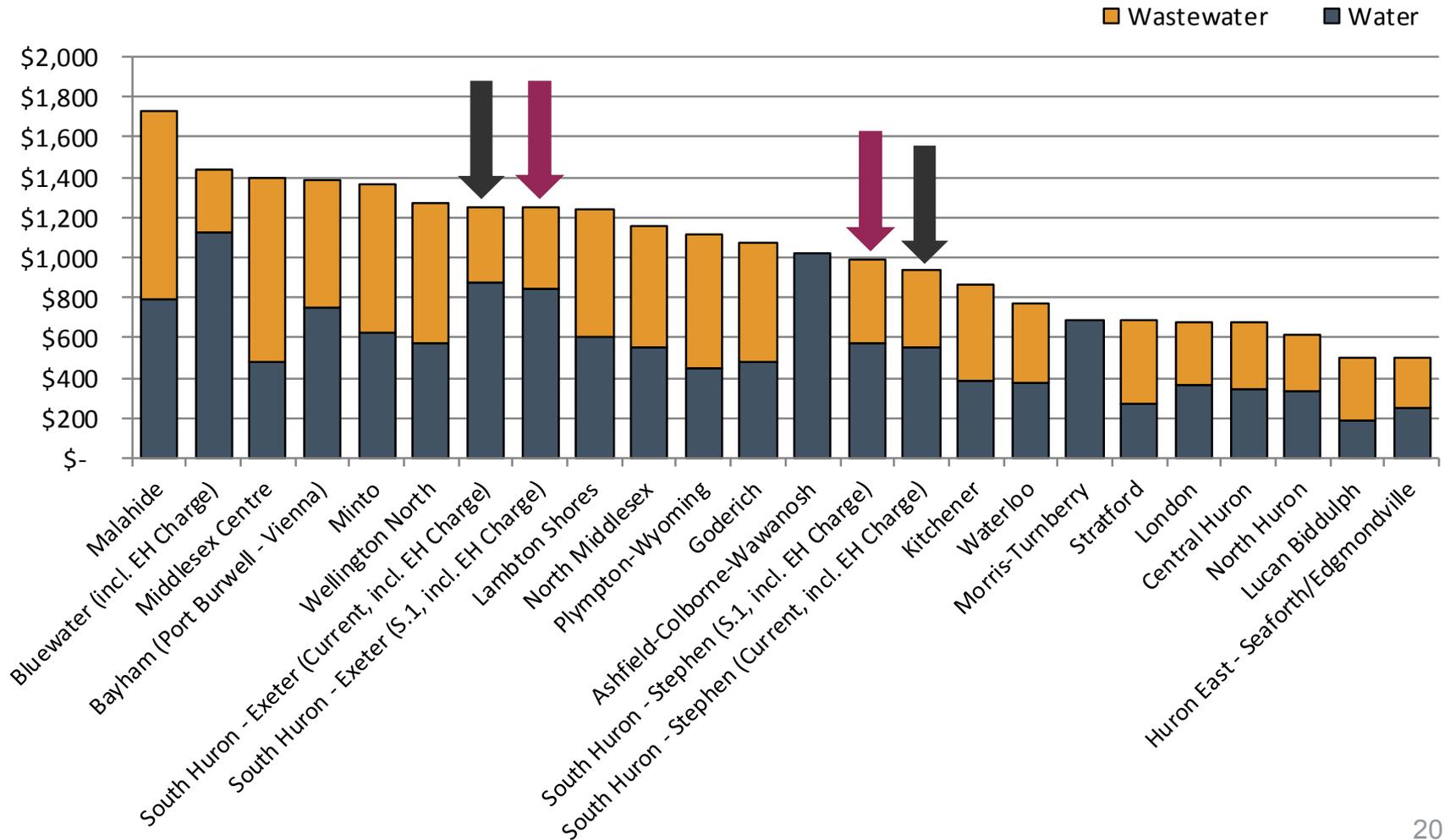
Annual Water and Wastewater Bills



Municipal Comparison of Annual Water and Wastewater Bill



Average Annual Residential Water and Wastewater Bill Based on 167 Cubic Metres of Consumption





Next Steps

- Finalize Water and Wastewater Rate Study
- Undertake public open house session to present study findings to ratepayers (January 22, 2019)
- Update rate bylaw and prepare O.Reg 453/07 Water Financial Plan for Council adoption (February 4, 2019)