



Township of Adjala-Tosorontio 2021 Water & Wastewater Rate Study and O.Reg. 453/07 Financial Plan

Council Meeting

April 14, 2021



- Watson & Associates Economists Ltd. (Watson) has been retained by the Township to undertake a Water and Wastewater Rates and Connection Charges Study & O.Reg. 453/07 Water Financial Plan
- Rates and Connection Charge Study Objectives:
 - Forecast of water and wastewater service demands;
 - Assess capital needs and financing options;
 - Assess operating costs and revenue:
 - Calculate water and wastewater connection charges
 - Undertake rate calculations and assess current structure;
- Water Financial Plan Objectives
 - Prepare financial plan in accordance with O.Reg. 453/07 as part of the water license renewal application submission requirements
 - Approved financial plan must be submitted to the Province prior to the expiry of the water licenses on May 12, 2021

Background



- Watson has previously undertaken water and wastewater rate studies for the Township to assess the impacts rates and Township finances of timing and amount of development within the serviced areas Township
- 2014 and 2018 Reviews
 - Showed that existing rates were funding less than the full costs of service and annual tax-based funding was required support the water and wastewater services
 - Without serviced development, rate increases would be required
 - Interim funding from the tax base would continue to be required until growth and economies of scale occurred
- Since 2014, development within the serviced areas has not occurred and rates have remained unchanged
- Interim funding from the tax-base has continued to be relied on, placing pressures on funding sources for non-rate based capital needs

Water and Wastewater Service Demands

Anticipated Customer Growth 2021-2034



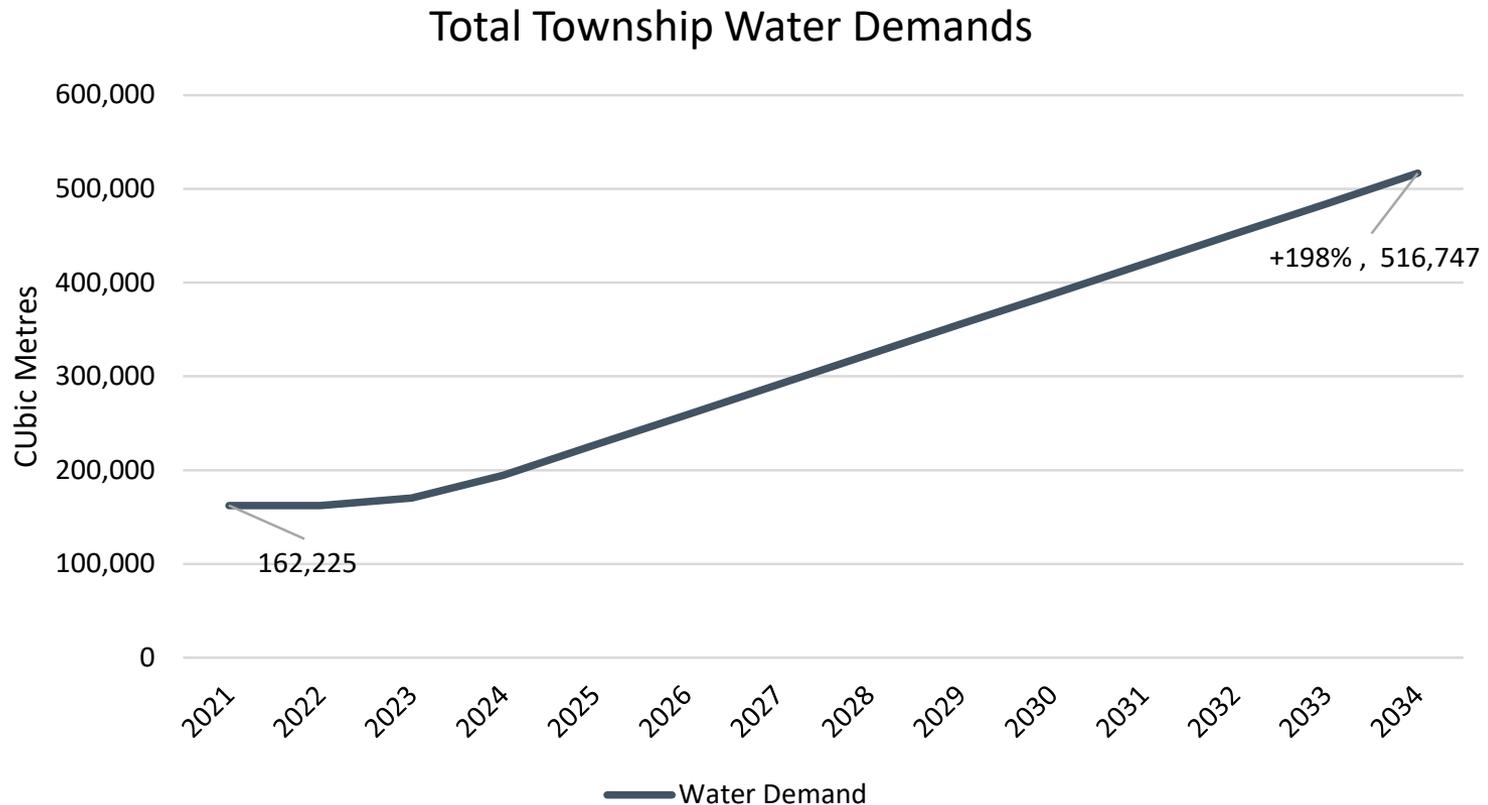
- Serviced development has been forecast for the Everett and Colgan settlement areas to 2034
- Projections based on anticipated timing of approved developments and optional private service conversions to municipal wastewater systems
- New development forecast at 200 units per year beginning mid-2023
 - Colgan
 - Tribute – 644 units (2023-2029)
 - 20 optional private service wastewater connections, including school (2023-2034)
 - 170-unit retirement home (2034)
 - Everett
 - Farsight – 646 units (2023-2029) and commercial development (67 residential equivalent units) in 2033-2034
 - Barzo – 733 units (2029-2033)
 - Cumac – 45 units in 2033

Water Demand Forecast

2021-2034



- Annual water usage analyzed from the each of the 6 municipal water systems
- Water demand forecast based on average annual consumption per customer in 2019 of 161 m³



Capital Needs Assessment

2021 – 2034



- Capital needs assessment based on:
 - OCWA Major Maintenance Recommendations (2021-2026)
 - OCWA Facility Investment Plan to maintain current service levels (2027-2034)
 - 2020 Asset Management Readiness and Level of Service for Core Assets (2022-2034 provision for linear assets)
 - Municipal Servicing Plan and preliminary design estimates for growth-related infrastructure (Colgan and Everett)

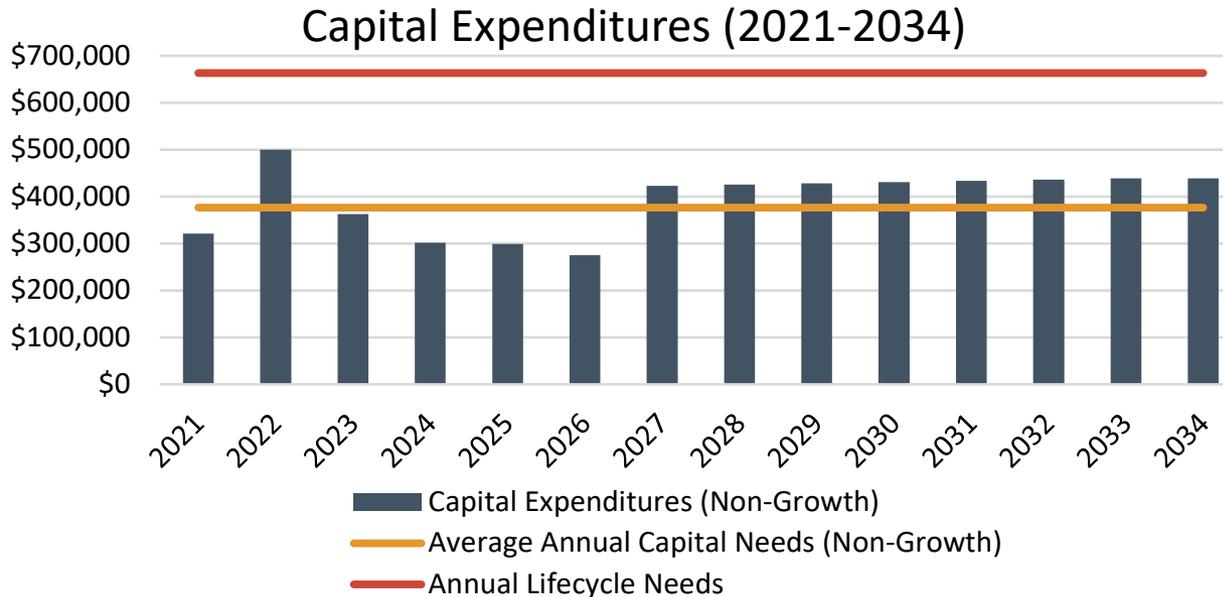
Capital Needs Assessment (2021-2034)



Water

Capital Expenditures (2021 - 2034)	Cost	Timing
Non-Growth Related Expenditures		
OCWA Major Maintenance Recommendations	1,768,650	2021-2026
OCWA Facility Investment Plan	2,330,667	2027-2034
2020 AM Readiness and LOS for Core Assets	1,415,771	2022-2034
Total	5,515,088	
Growth-Related Expenditures*		
Colgan	3,314,000	2021-2023
Everett	4,443,000	2032-2033
Total	7,757,000	

*Excluding direct developer responsibility local service costs



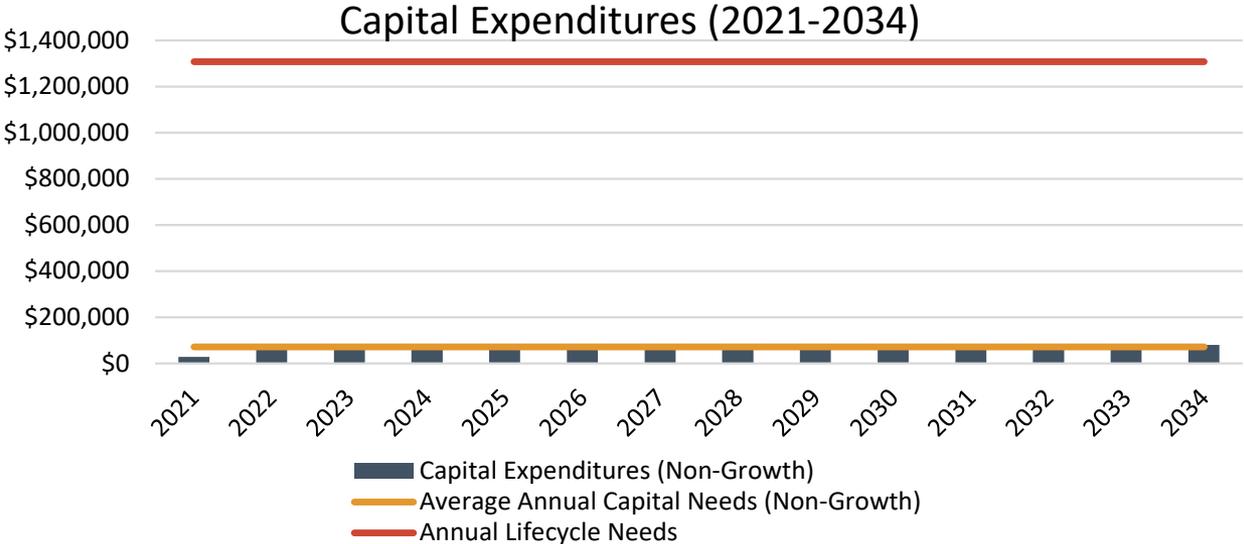


Capital Needs Assessment (2021-2034)

Wastewater

Capital Expenditures (2021 - 2034)	Cost	Timing
<u>Non-Growth Related Expenditures</u>		
OCWA Major Maintenance Recommendations	371,200	2021-2026
OCWA Facility Investment Plan	650,851	2027-2034
2020 AM Readiness and LOS for Core Assets	77,070	2022-2034
Total	1,099,121	
<u>Growth-Related Expenditures*</u>		
Colgan	17,783,814	2021-2023
Everett	25,860,000	2021-2023
Total	43,643,814	

*Excluding direct developer responsibility local service costs



Capital Funding Plan

Rate Study Approach



- Multiple capital funding plans were assessed to allow the Township to fully fund the operating and capital lifecycle costs of the systems
- Capital needs assessed with regard for:
 - Rate impacts (affordability and equity);
 - Sustainability of reserves (rate based and general working funds);
 - Ability to repay existing working fund loans; and
 - Debt borrowing limits

Capital Funding Plan

Connection Charges



- Costs of growth-related infrastructure are proposed to be recovered through the imposition of *Municipal Act* Connection Charges
- Connection charges to be calculated on a uniform Township-wide basis for water and wastewater services to recover the average cost of service benefits received by new users
- Practice is consistent with current Township practice to impose connection charges for water services on new development and private service conversions
- Connection charges calculated as:
 - Water - \$5,771
 - Wastewater - \$17,387

Capital Funding Plan

Connection Charge Assumptions



- Connection charges are imposed at the time of service connection, service availability, building permit issuance, or as required by development agreement
 - Front-ending and pre-payment agreements to be negotiated with developers to minimize cash flow impacts and debt requirements
- Development in Colgan and Everett to pre-pay water connection charges (525 units each) at time of subdivision registration
- Development in Colgan and Everett will front-end cost of new wastewater infrastructure and receive credits against connection charges payable
- Township to pay their share of growth-related infrastructure costs to the “front-ending” developers in Colgan and Everett in 20 equal annual installments (plus interest), with payments commencing in 2027
- New Horizons customers not subject to connection charges

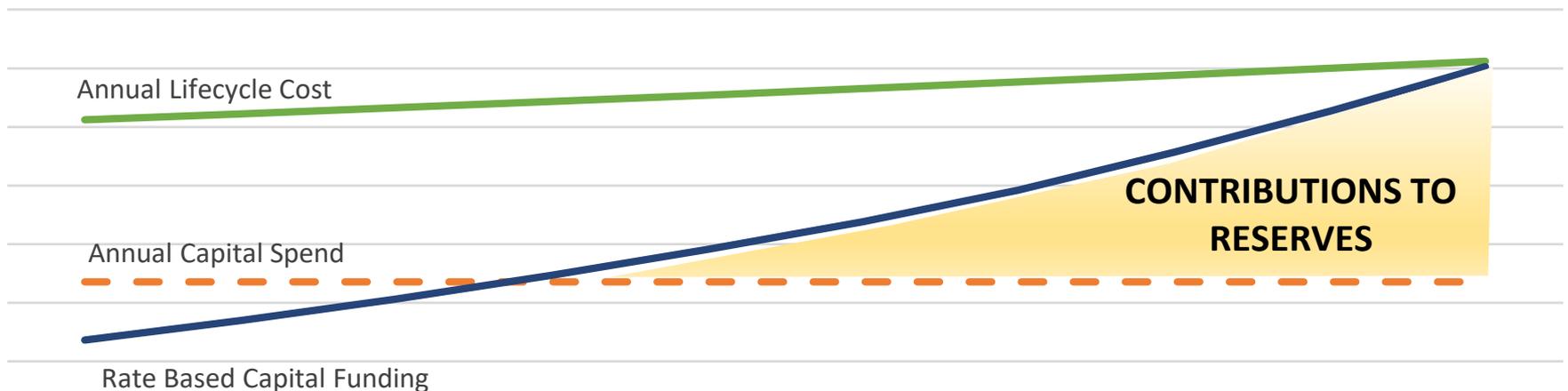


Capital Funding Plan

Rate Study Assumptions

- Capital needs adjusted for 3% annual inflation for rate determination purposes
- New debt forecast at 3% interest over 20-year term
- Billing revenue increased over forecast to fund operating costs asset management plan needs (i.e. average annual capital lifecycle costs)

Capital Funding Plan Example

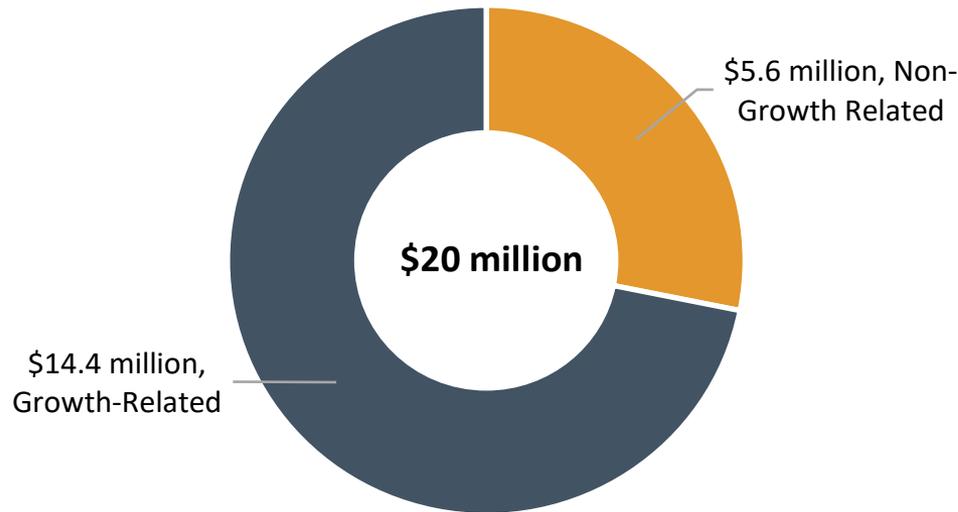


Capital Funding Plan

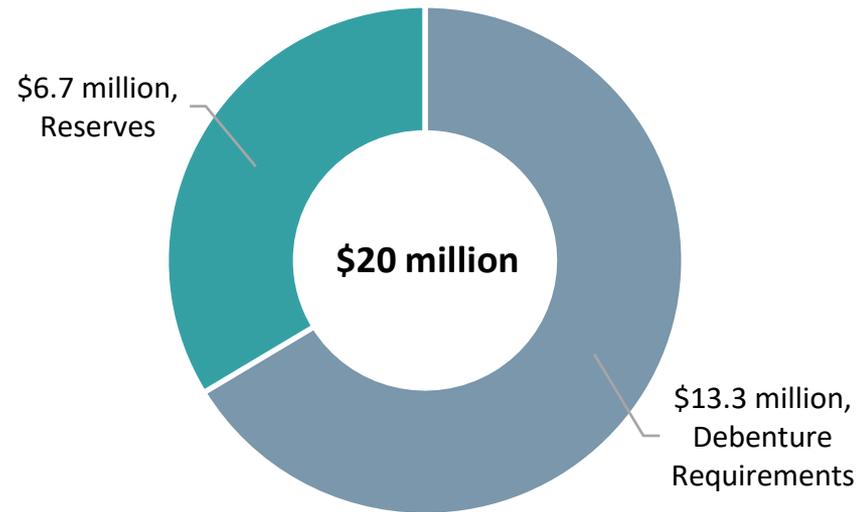
Water and Wastewater (Inflated \$)



Capital Expenditures



Capital Financing



- Municipalities are limited to annual debt financing costs of 25% of own-source revenues
- Incremental debt principal of \$13.3 million estimated to increase annual debt financing costs from 4% to 5% of own-source revenues
- \$7.1 million reserve accumulation by 2034 (water and wastewater)

Capital Funding Plan

Working Fund Loan



- Current working fund loan (plus accumulated interest) - \$3.4 million
- Approximately \$500,000 increase in 2021
- No further tax-based support required beyond 2021
- Working fund loan to be repaid (including interest) by 2032

Operating Budget Forecast

2021-2034



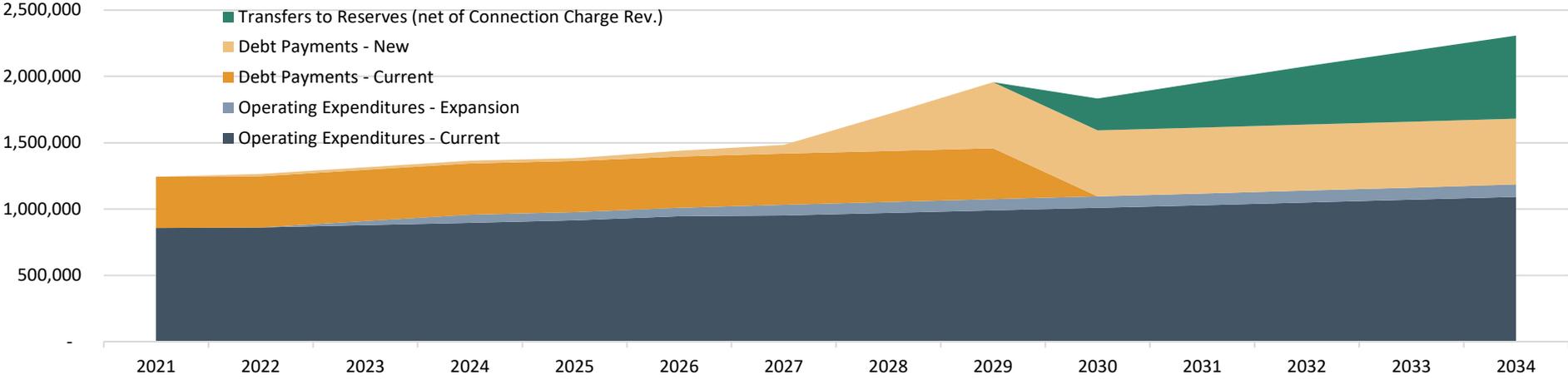
- Operating Budget Forecast based on two components:
 - Operating expenditures
 - Current expenditures
 - Forecast to increase with inflation (2% annually)
 - Expenditures related to system expansion
 - Forecast based on timing of anticipated development
 - Water – Increase from \$858,000 to \$1.2 million
 - Wastewater – Increase from \$217,000 to \$1.9 million
 - Capital-related expenditures (based on capital funding plan)

Operating Budget Forecast

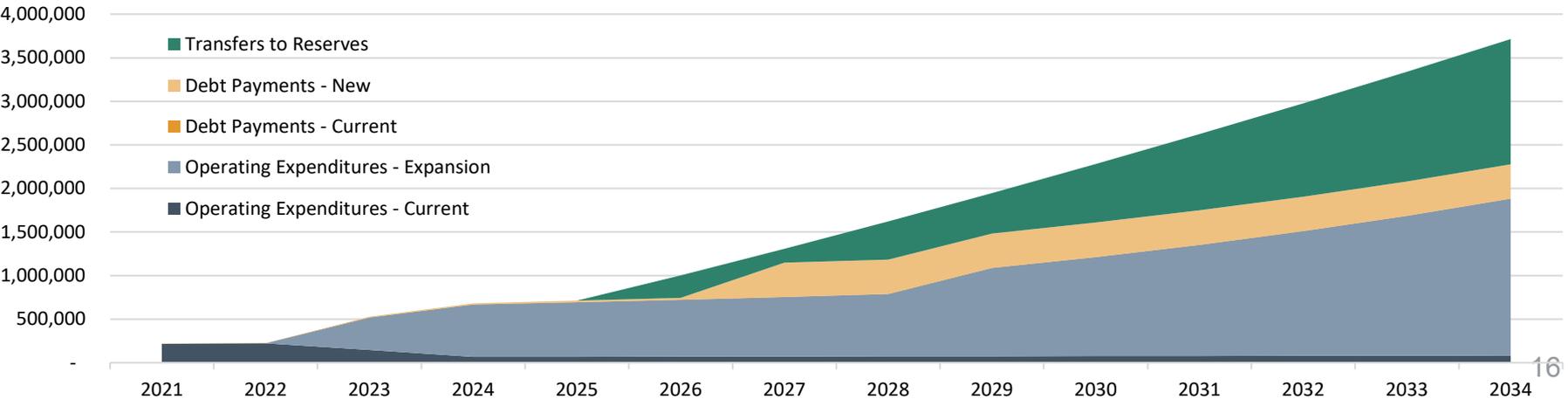
Water and Wastewater



Water Operating Costs



Wastewater Operating Costs





Water and Wastewater Rates

Current Rates

- Current Rates
 - Water
 - Base Charge - \$80 per year
 - Consumptive Rate
 - 19mm meters - \$4.54 per m³
 - 19mm meters - \$7.72 per m³
 - Wastewater
 - Base charge - \$1,313 per year
- Forecast Rates
 - Maintain current structure with removal of increased consumptive rate for >19mm meters

Water and Wastewater Rate Projections



Township of Adjala-Tosorontio Water Rate Summary

Annual Customer Water Bill - Based on 161 m³ of usage and 19mm meter

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Monthly Base Rate	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67
Block 1 Rate	\$4.54	\$4.54	\$4.54	\$4.54	\$4.54	\$4.47	\$4.40	\$4.33	\$4.26	\$4.20	\$4.13	\$4.07	\$4.00	\$3.94
Annual Base Rate Bill	\$80													
Volume	161	161	161	161	161	161	161	161	161	161	161	161	161	161
Annual Volume Bill	\$731	\$731	\$731	\$731	\$731	\$720	\$708	\$697	\$687	\$676	\$665	\$655	\$645	\$635
Total Annual Bill	\$811	\$811	\$811	\$811	\$811	\$800	\$788	\$777	\$767	\$756	\$745	\$735	\$725	\$715
% Increase - Base Rate		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Increase - Volume Rate		0.0%	0.0%	0.0%	0.0%	-1.6%	-1.6%	-1.6%	-1.6%	-1.6%	-1.6%	-1.6%	-1.6%	-1.6%
% Increase - Total Annual Bill		0.0%	0.0%	0.0%	0.0%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%

Wastewater Rate Summary

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Monthly Base Rate	\$109	\$111	\$113	\$115	\$116	\$118	\$120	\$122	\$124	\$125	\$127	\$129	\$131	\$133
Total Annual Bill	\$1,313	\$1,333	\$1,353	\$1,374	\$1,395	\$1,417	\$1,438	\$1,460	\$1,483	\$1,505	\$1,528	\$1,552	\$1,575	\$1,600
% Increase - Total Annual Bill		1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%

Water & Wastewater Rate Summary

Annual Customer Water Bill - Based on 161 m³ of usage and 19mm meter

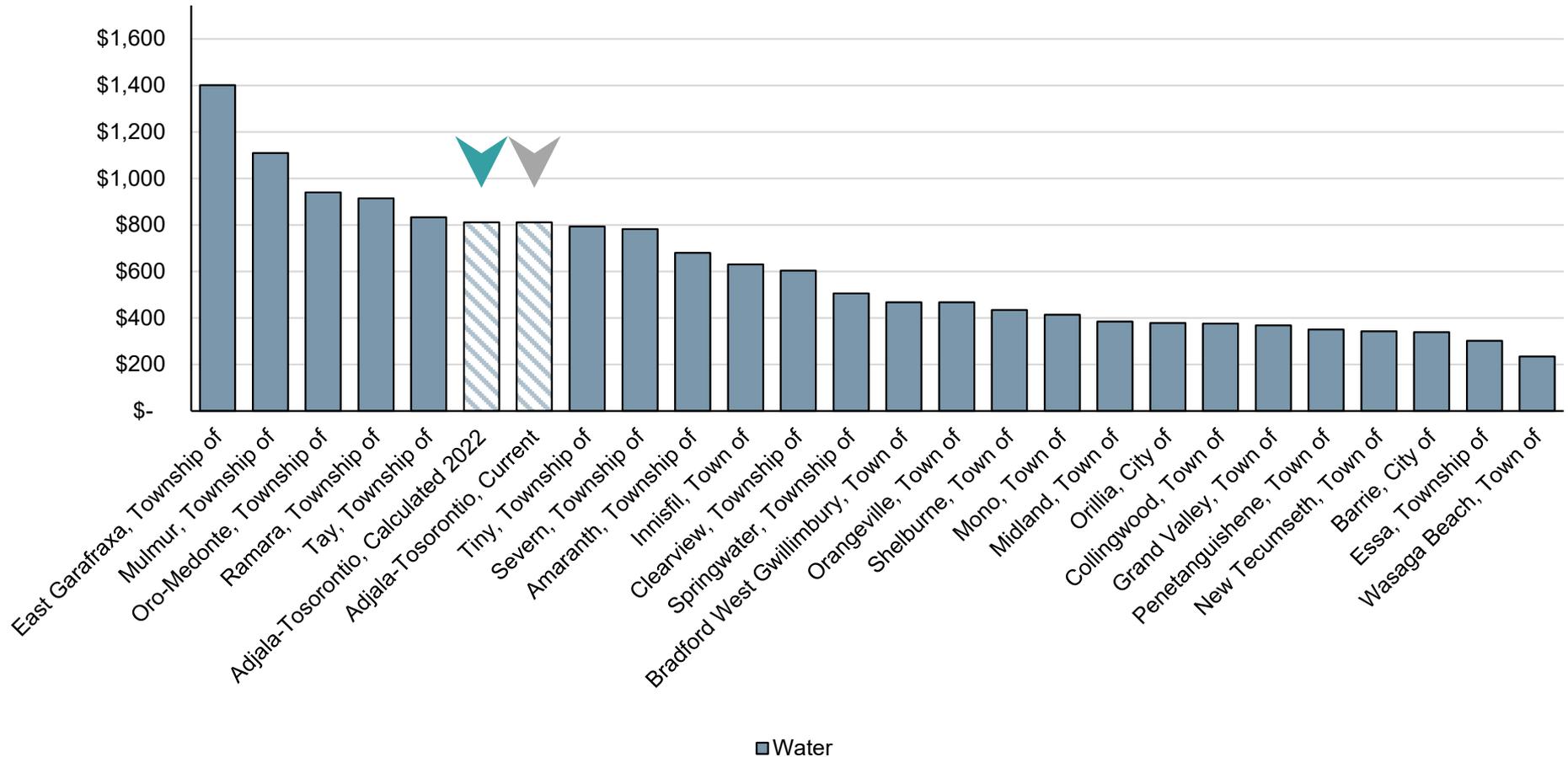
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Annual Water Bill	\$811	\$811	\$811	\$811	\$811	\$800	\$788	\$777	\$767	\$756	\$745	\$735	\$725	\$715
Annual Wastewater Bill	\$1,313	\$1,333	\$1,353	\$1,374	\$1,395	\$1,417	\$1,438	\$1,460	\$1,483	\$1,505	\$1,528	\$1,552	\$1,575	\$1,600
Total Annual Bill	\$2,124	\$2,144	\$2,164	\$2,185	\$2,206	\$2,216	\$2,227	\$2,238	\$2,249	\$2,261	\$2,274	\$2,287	\$2,300	\$2,314
% Increase - Total Annual Bill		0.9%	1.0%	1.0%	1.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.6%



Municipal Comparison

Annual Residential Water Bill

Survey of Annual Residential Water Bill - 161 m³ of Annual Consumption on 3/4" Meter

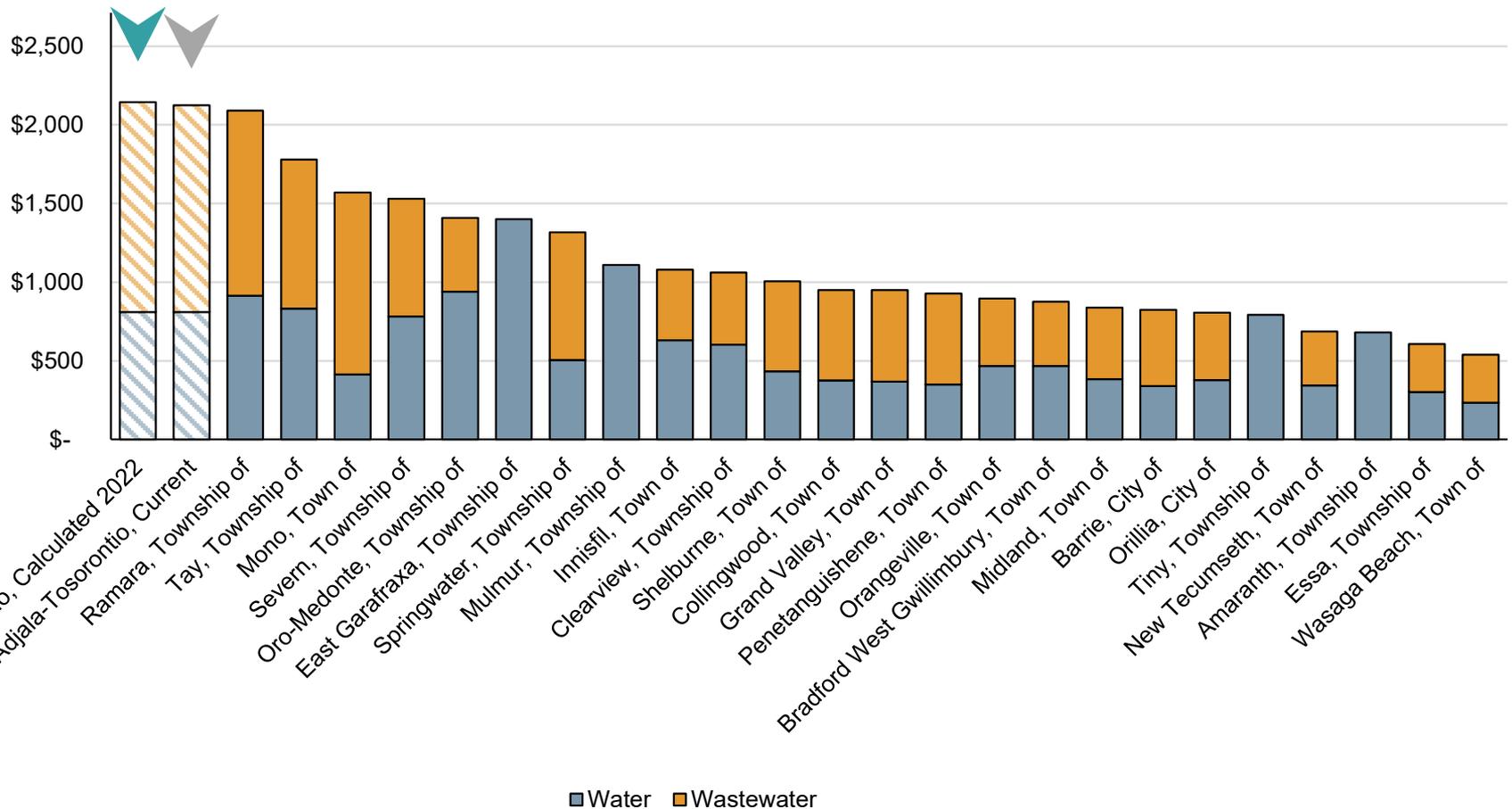


Municipal Comparison

Annual Residential Water and Wastewater Bill



Survey of Annual Residential Water & Wastewater Bill - 161 m³ of Annual Consumption on 3/4" Meter



Recommendations

Rate Study



1. That Council provide for the recovery of all water and wastewater costs through full cost recovery rates;
2. That Council consider the recommended water and wastewater connection charges and rates contained in Chapters 6 and 7 of the March 29, 2021 Water and Wastewater Rates and Connection Charges Study; and
3. That Council direct staff to review Rate Study in five years, or sooner as may be required based on timing and costs of growth, to validate study results and make any necessary rate adjustments

Recommendations

Financial Plan



1. The Township of Adjala-Tosorontio Financial Plan prepared by Watson & Associates Economists Ltd. dated March 29, 2021 be approved;
2. Notice of availability of the Financial Plan be advertised;
3. The Financial Plan, the Council Resolution approving the Financial Plan, and the Water Rate Study underpinning the Financial Plan be submitted to the Ministry of Municipal Affairs and Housing. (O.Reg. 453/07, Section 3 (1) 6); and
4. The Council Resolution approving the Financial Plan be submitted to the Ministry of the Environment, satisfying the requirements under the Safe Drinking Water Act. (S.D.W.A. Section 32 (5) 2 ii))