



Township of Adjala-Tosorontio 2024 Water & Wastewater Rate Study Update

Council Presentation

March 13, 2024



- Watson & Associates Economists Ltd. (Watson) prepared a Water and Wastewater Rate Study for the Township in 2021
- 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; and
 - Undertake rate calculations and assess current structure



- Rate recommendations were premised on the growth in the Township commencing in 2023 and preliminary assumptions for developer contributions to offset the ongoing funding support required from Township working funds
- The Township requested an updated rate forecast to account for:
 - Changes in the amount and timing of anticipated development (including assessment of alternative scenarios)
 - Forecast capital expenditures and capital funding plan;
 - The appropriateness of the Township to continue supporting the water and wastewater systems through working funds; and
 - Revised rate structures

Introduction



- Council was provided preliminary rate forecast scenarios on December 7, 2023
 - Forecast rate increases were weighted towards the first 5-years of the forecast period to eliminate working fund support by 2025 and minimize requirements for long-term debt
- Council requested an additional scenario for consideration to assess financial impacts of rates being phased in over a longer period



Growth Forecast

Anticipated Customer Growth 2024-2033

- Anticipated serviced development has been forecast for two scenarios based on approved or anticipated development in the Colgan and Everett serviced areas:
 - Scenario 1 – Colgan and Everett
 - 644 units in Colgan between 2024-2026
 - 1,400 units in Everett between 2027 and 2033
 - Scenario 2 – Colgan Only
 - 644 units in Colgan between 2024-2026
- Future water consumption forecast based on average household water consumption of 159 m³/year
- Private service conversions not included in forecast

Capital Needs Assessment

Water and Wastewater - 2024 – 2033 (2023\$)



Average Annual Capital Needs

	Scenario 1	Scenario 2
Water	444,881	444,881
Wastewater	487,319	166,247
Total	932,199	611,128

- Scenario 1 includes additional costs for:
 - Decommissioning the New Horizons Plant (\$300,000)
 - Construction of new forecemain (\$2.4 million); and
 - Township share of Everett wastewater treatment facility costs (\$2.8 million)

Operating Costs

Rate Study assumptions



- Operating costs forecast based on 2023 budget, plus:
 - \$75,000 per year for each of Colgan and Everett water systems
 - \$440,000 per year for each of Colgan and Everett wastewater systems
- Operating costs adjusted for 3% annual inflation for rate determination purposes
- Capital-related expenditures (transfers to reserves and debt) based on capital funding plan

Rate Setting Approach



- Rates increased over the 10-year period to fund:
 - Annual operating costs; and
 - Average annual infrastructure lifecycle costs (including contributions towards the working fund loan)
- Higher levels of development results in economies of scale and lower required rate increases
- To protect against the financial risk of slower development, rates have been designed for Scenario 2 (Colgan only)
- As development proceeds in Everett, further increases to rates can be assessed
 - i.e., recommend frequent (every 2- 3 years) assessment of anticipated development and impacts on rates

Rate Setting Approach

Scenario 2 (Colgan Only)



- December 7, 2023**

Annual Customer Bill - Based on 159 m³ of usage

Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water											
Total Annual Bill	\$801	\$881	\$969	\$1,066	\$1,173	\$1,202	\$1,232	\$1,263	\$1,296	\$1,329	\$1,364
% Increase		10.0%	10.0%	10.0%	10.0%	2.5%	2.5%	2.5%	2.6%	2.6%	2.6%
\$ Increase		\$80	\$88	\$97	\$107	\$29	\$30	\$31	\$32	\$34	\$35
Water and Wastewater											
Total Annual Bill	\$2,134	\$2,281	\$2,439	\$2,610	\$2,793	\$2,903	\$2,967	\$3,033	\$3,101	\$3,171	\$3,243
% Increase		6.9%	6.9%	7.0%	7.0%	3.9%	2.2%	2.2%	2.2%	2.3%	2.3%
\$ Increase		\$147	\$158	\$170	\$184	\$110	\$64	\$66	\$68	\$70	\$72

- March 13, 2024**

Annual Customer Bill - Based on 159 m³ of usage

Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water											
Total Annual Bill	\$801	\$845	\$891	\$940	\$991	\$1,046	\$1,103	\$1,163	\$1,227	\$1,294	\$1,364
% Increase		5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
\$ Increase		\$44	\$46	\$49	\$51	\$54	\$57	\$60	\$64	\$67	\$71
Water and Wastewater											
Total Annual Bill	\$2,134	\$2,209	\$2,305	\$2,405	\$2,509	\$2,618	\$2,732	\$2,852	\$2,976	\$3,107	\$3,243
% Increase		3.5%	4.3%	4.3%	4.3%	4.3%	4.4%	4.4%	4.4%	4.4%	4.4%
\$ Increase		\$75	\$96	\$100	\$104	\$109	\$114	\$119	\$125	\$130	\$136

Rate Setting Approach

Scenario 1 (Colgan and Everett)



- December 7, 2023**

Annual Customer Bill - Based on 159 m ³ of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water											
Total Annual Bill	\$801	\$881	\$969	\$1,066	\$1,066	\$1,066	\$1,066	\$1,066	\$1,066	\$1,066	\$1,066
% Increase		10.0%	10.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$ Increase		\$80	\$88	\$97	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water and Wastewater											
Total Annual Bill	\$2,134	\$2,281	\$2,439	\$2,610	\$2,610	\$2,610	\$2,610	\$2,610	\$2,610	\$2,610	\$2,610
% Increase		6.9%	6.9%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$ Increase		\$147	\$158	\$170	\$0	\$0	\$0	\$0	\$0	\$0	\$0

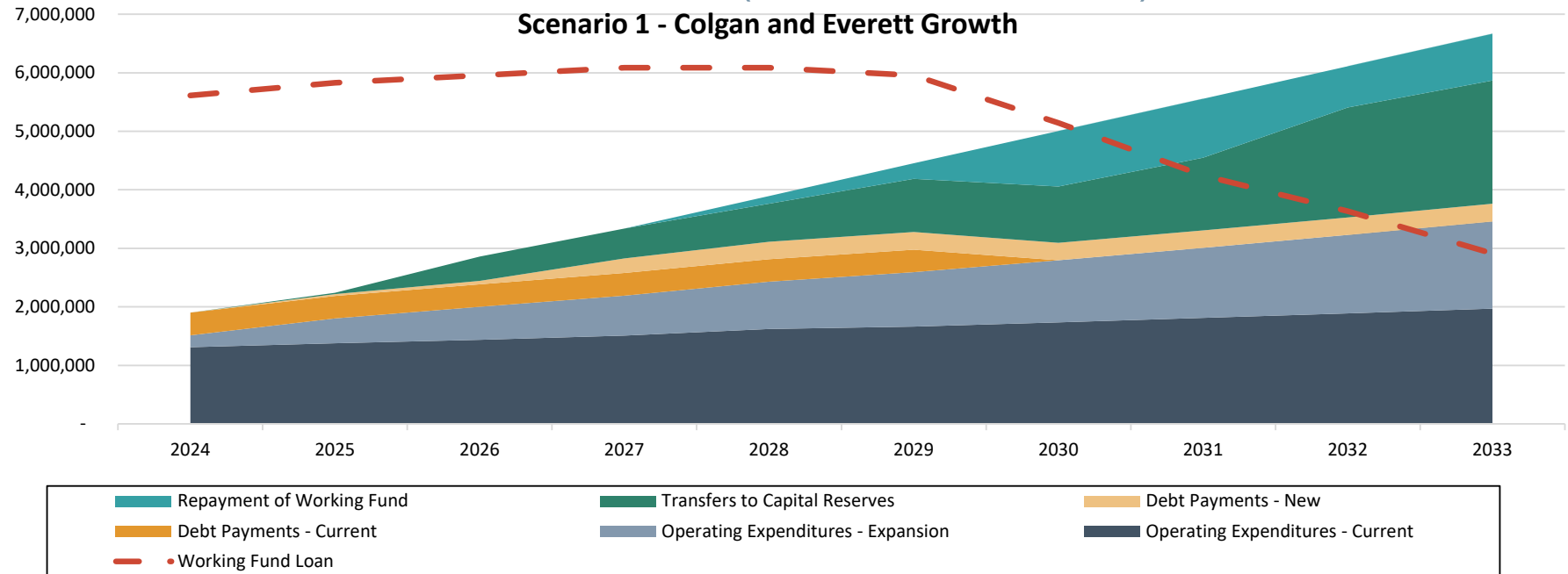
- March 13, 2024**

Annual Customer Bill - Based on 159 m ³ of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water											
Total Annual Bill	\$801	\$845	\$891	\$940	\$940	\$940	\$940	\$940	\$940	\$940	\$940
% Increase		5.5%	5.5%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$ Increase		\$44	\$46	\$49	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water and Wastewater											
Total Annual Bill	\$2,134	\$2,209	\$2,305	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405
% Increase		3.5%	4.3%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$ Increase		\$75	\$96	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Capital and Operating Funding Plan



Water & Wastewater – Scenario 1 (December 7, 2023)



- Transitioning rate increases over a longer period results in:
 - Increased working fund support in short term and decreased repayment of working fund loan over long term
 - Increased long-term debt funding of capital needs
 - Lower transfers to reserves for future infrastructure replacement

Capital and Operating Funding Plan

Working Fund Loan Impacts



	Working Fund Support		Working Fund Repayments		2033 Working Fund Loan (incl. accumulated)	
December 7, 2023						
Scenario 1 (Colgan and Everett)	2024-2025 \$605,691		2028-2033 \$3,861,852		\$2,910,016	
Scenario 2 (Colgan Only)	2024-2025 \$605,691		2028-2033 \$1,710,807		\$5,011,418	
March 13, 2024						
Scenario 1 (Colgan and Everett)	2024-2026 \$784,445	+ \$178,754	2028-2033 \$2,253,438	- \$1,608,413	\$4,803,284	+ \$1,893,268
Scenario 2 (Colgan Only)	2024-2026 \$784,445	+ \$178,754	2028-2033 \$1,298,247	- \$412,561	\$5,785,624	+ \$774,206

Capital and Operating Funding Plan

Reserve and Long-Term Debt Impacts



	Long-Term Debt Funding		Reserve Funding		2033 Reserve Fund	
December 7, 2023						
Scenario 1 (Colgan and Everett)	<i>2024-2028</i> \$4,222,427		<i>2025-2033</i> \$6,715,573		\$2,016,444	
Scenario 2 (Colgan Only)	<i>2024-2029</i> \$2,055,964		<i>2025-2033</i> \$5,190,036		\$402,483	
March 13, 2024						
Scenario 1 (Colgan and Everett)	<i>2024-2026</i> \$5,385,968	+ \$1,163,541	<i>2028-2033</i> \$5,552,032	- \$1,163,541	\$1,175,202	+ -\$841,243
Scenario 2 (Colgan Only)	<i>2024-2026</i> \$3,295,138	+ \$1,239,174	<i>2028-2033</i> \$3,950,862	- \$1,239,174	\$0	+ -\$402,483

Water and Wastewater Rate Projections

March 13, 2024 Projections



Scenario 1 Annual Customer Bill - Based on 159 m ³ of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water											
Total Annual Bill	\$801	\$845	\$891	\$940	\$940	\$940	\$940	\$940	\$940	\$940	\$940
% Increase		5.5%	5.5%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$ Increase		\$44	\$46	\$49	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wastewater											
Total Annual Bill	\$1,333	\$1,364	\$1,414	\$1,465	\$1,465	\$1,465	\$1,465	\$1,465	\$1,465	\$1,465	\$1,465
% Increase		2.3%	3.6%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$ Increase		\$31	\$49	\$51	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total											
Total Annual Bill	\$2,134	\$2,209	\$2,305	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405	\$2,405
% Increase		3.5%	4.3%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$ Increase		\$75	\$96	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Scenario 2 Annual Customer Bill - Based on 159 m ³ of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water											
Total Annual Bill	\$801	\$845	\$891	\$940	\$991	\$1,046	\$1,103	\$1,163	\$1,227	\$1,294	\$1,364
% Increase		5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
\$ Increase		\$44	\$46	\$49	\$51	\$54	\$57	\$60	\$64	\$67	\$71
Wastewater											
Total Annual Bill	\$1,333	\$1,364	\$1,414	\$1,465	\$1,518	\$1,573	\$1,630	\$1,689	\$1,750	\$1,813	\$1,879
% Increase		2.3%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
\$ Increase		\$31	\$49	\$51	\$53	\$55	\$57	\$59	\$61	\$63	\$66
Total											
Total Annual Bill	\$2,134	\$2,209	\$2,305	\$2,405	\$2,509	\$2,618	\$2,732	\$2,852	\$2,976	\$3,107	\$3,243
% Increase		3.5%	4.3%	4.3%	4.3%	4.3%	4.4%	4.4%	4.4%	4.4%	4.4%
\$ Increase		\$75	\$96	\$100	\$104	\$109	\$114	\$119	\$125	\$130	\$136



Water Rates

Customer Impacts – March 13, 2024 Projections

- Same rates to be imposed for all new and existing customers

All Customers	2023	2024	2025	2026	
Monthly Base Rate	6.67	8.89	11.27	13.83	
Variable Rate (\$/per m ³)	4.54	4.65	4.76	4.87	
Annual Bill					
Annual Consumption (m ³)	2023	2024	2025	2026	
120 m3	625	664	706	751	\$42 annual increase
160 m3	806	850	897	946	\$46 annual increase
200 m3	988	1,036	1,087	1,140	\$51 annual increase



Wastewater Rates

Customer Impacts – March 13, 2024 Projections

- Variable rates for New Horizons customers to be phased-in over the 2024-2026 period

New Horizons	2023	2024	2025	2026	
Monthly Base Rate	111.09	82.11	60.69	44.86	
Variable Rate (\$/per m ³)	-	2.49	4.43	5.83	
Annual Bill					
Annual Consumption (m³)	2023	2024	2025	2026	
120 m3	1,333	1,284	1,259	1,238	-2.4% annual decrease
160 m3	1,333	1,384	1,436	1,472	3.3% annual increase
200 m3	1,333	1,484	1,613	1,705	8.5% annual increase

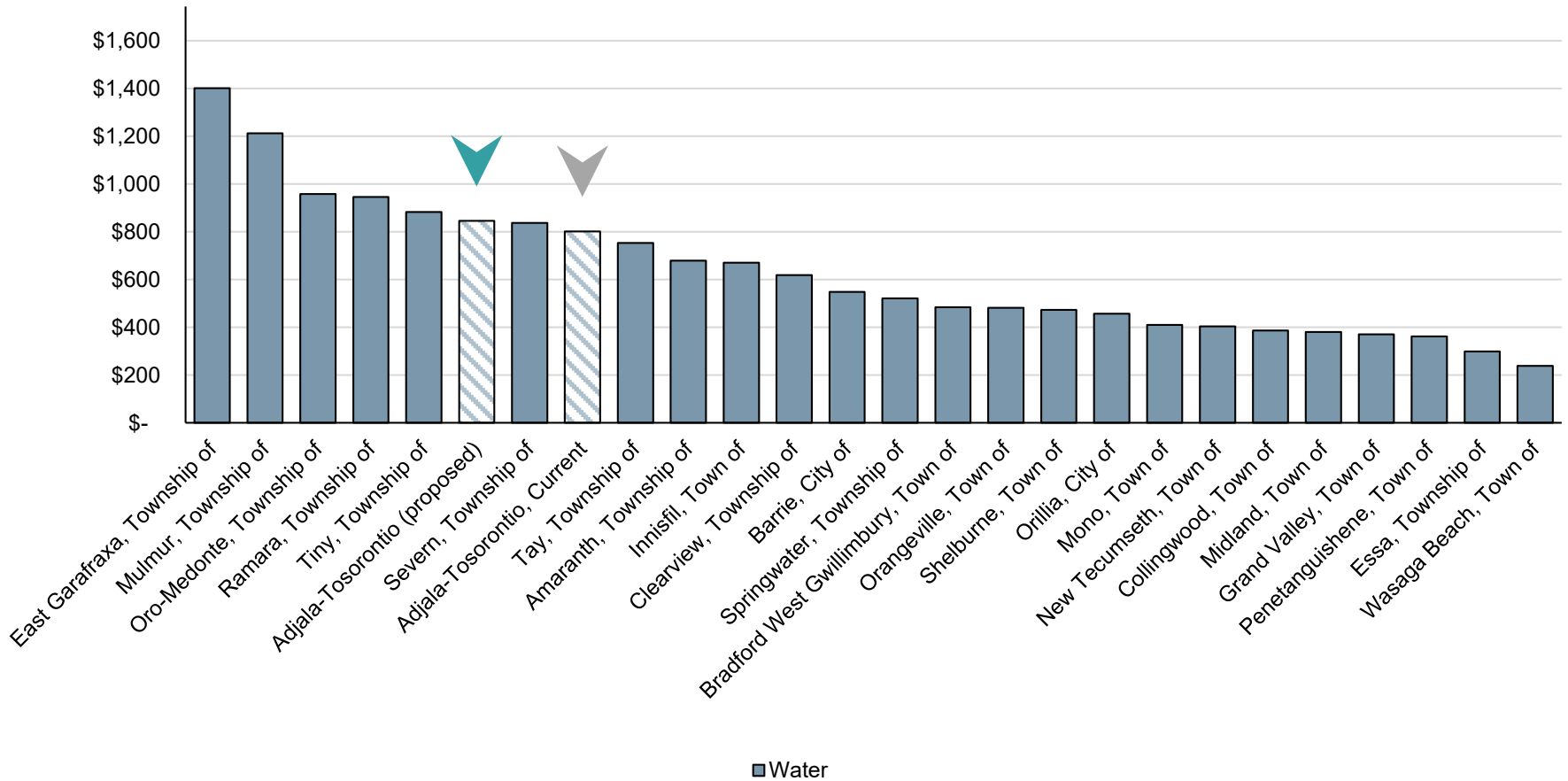
New Connections	2023	2024	2025	2026	
Monthly Base Rate	-	41.78	43.29	44.86	
Variable Rate (\$/per m ³)	-	5.43	5.63	5.83	
Annual Bill					
Annual Consumption (m³)	2023	2024	2025	2026	
120 m3	-	1,153	1,195	1,238	3.6% annual increase
160 m3	-	1,371	1,420	1,472	3.6% annual increase
200 m3	-	1,588	1,645	1,705	3.6% annual increase



Municipal Comparison – Scenario 1 & 2

Annual Residential Water Bill - March 13, 2024 Projections

Survey of Annual Residential Water Bill - 159 m³ of Annual Consumption on 3/4" Meter

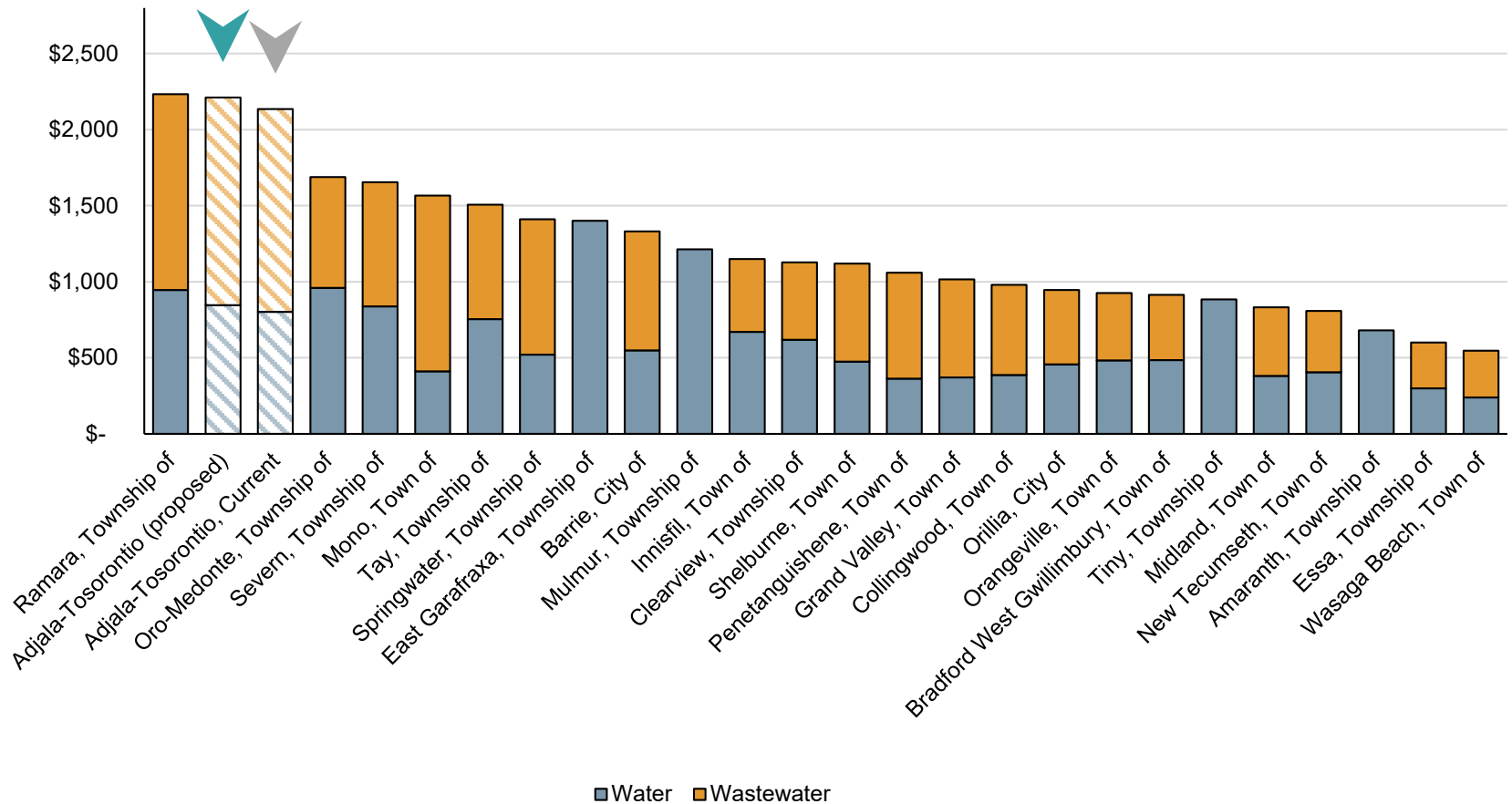




Municipal Comparison – Scenario 1

Annual Residential Water and Wastewater Bill - March 13, 2024 Projections

Survey of Annual Residential Water & Wastewater Bill - 159 m³ of Annual Consumption on 3/4" Meter



Questions