



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

---

Council Presentation

March 13, 2024

# Introduction



- 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 m<sup>3</sup>/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
<b>Total</b>	<b>932,199</b>	<b>611,128</b>

- Scenario 1 includes additional costs for:
  - Decommissioning the New Horizons Plant (\$300,000)
  - Construction of new forecmain (\$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 m<sup>3</sup> of usage**

Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Water</b>											
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
<b>Water and Wastewater</b>											
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 m<sup>3</sup> of usage**

Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Water</b>											
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
<b>Water and Wastewater</b>											
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 <sup>3</sup> of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Water</b>											
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
<b>Water and Wastewater</b>											
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

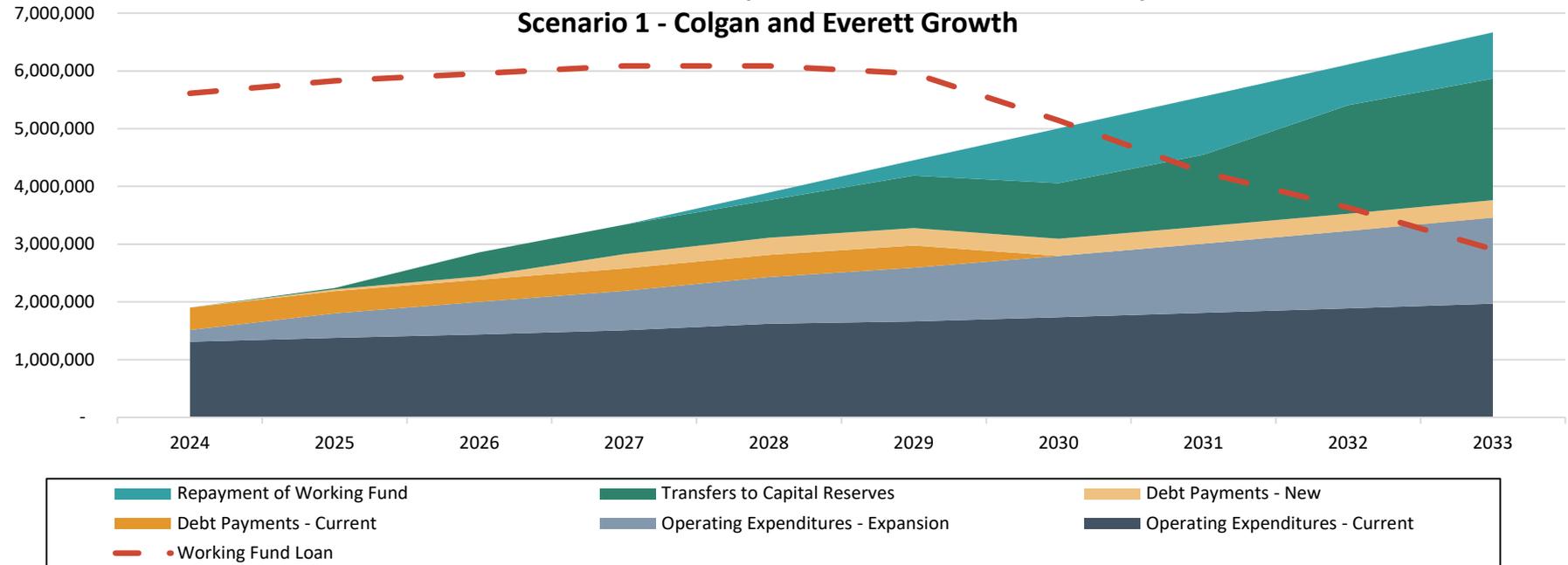
- March 13, 2024**

Annual Customer Bill - Based on 159 m <sup>3</sup> of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Water</b>											
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
<b>Water and Wastewater</b>											
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)	
<b>December 7, 2023</b>						
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	
<b>March 13, 2024</b>						
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	
<b>December 7, 2023</b>						
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	
<b>March 13, 2024</b>						
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 <sup>3</sup> of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Water</b>											
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
<b>Wastewater</b>											
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
<b>Total</b>											
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 <sup>3</sup> of usage											
Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Water</b>											
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
<b>Wastewater</b>											
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
<b>Total</b>											
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 <sup>3</sup> )	4.54	4.65	4.76	4.87	
<b>Annual Bill</b>					
Annual Consumption (m <sup>3</sup> )	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 <sup>3</sup> )	-	2.49	4.43	5.83	
<b>Annual Bill</b>					
Annual Consumption (m <sup>3</sup> )	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

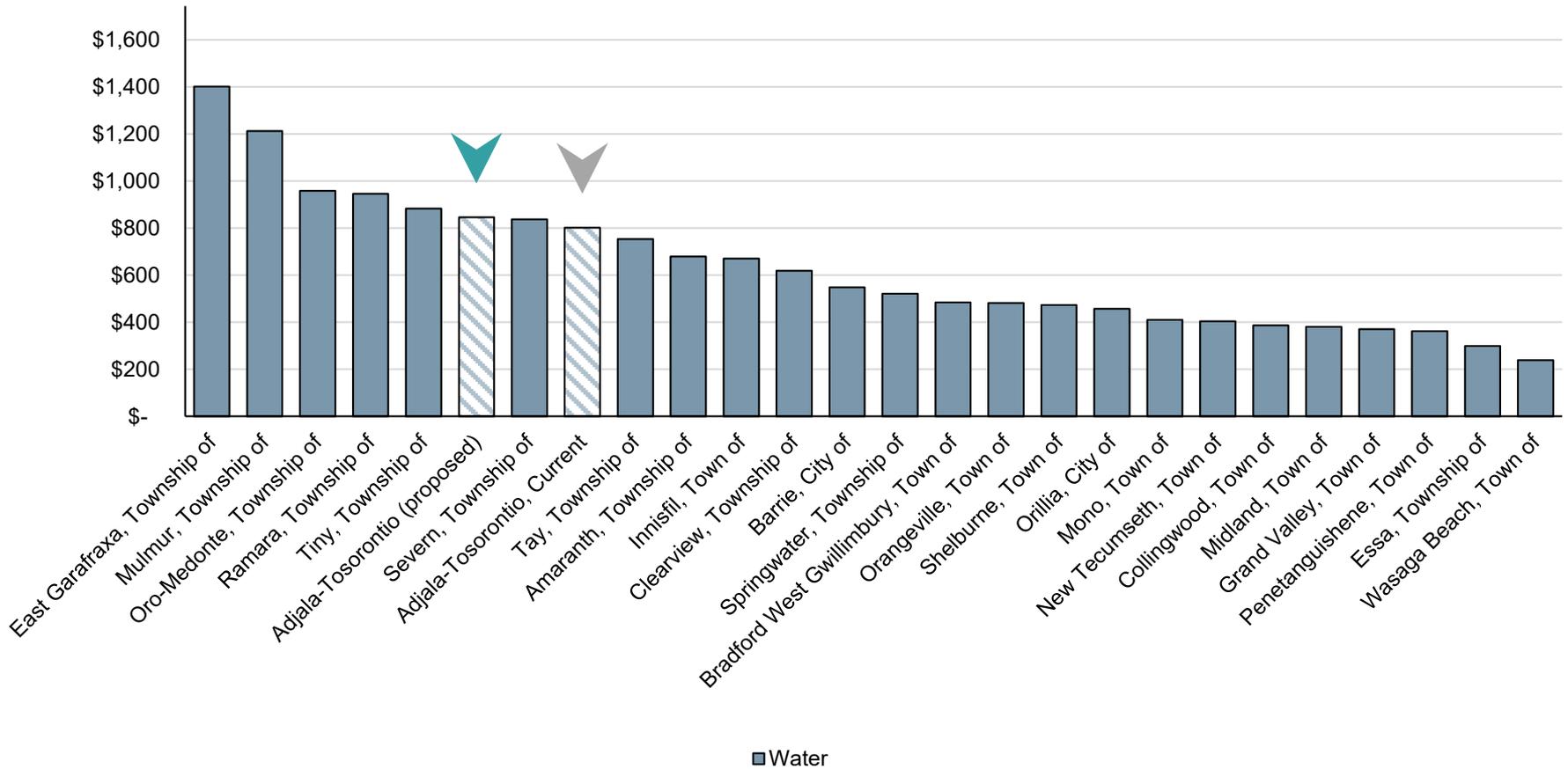
New Connections	2023	2024	2025	2026	
Monthly Base Rate	-	41.78	43.29	44.86	
Variable Rate (\$/per m <sup>3</sup> )	-	5.43	5.63	5.83	
<b>Annual Bill</b>					
Annual Consumption (m <sup>3</sup> )	2023	2024	2025	2026	
120 m3	-	1,153	1,195	1,238	3.6% annual increase
160 m3	-	1,371	1,420	1,472	3.6% annual 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 m<sup>3</sup> of Annual Consumption on 3/4" Meter

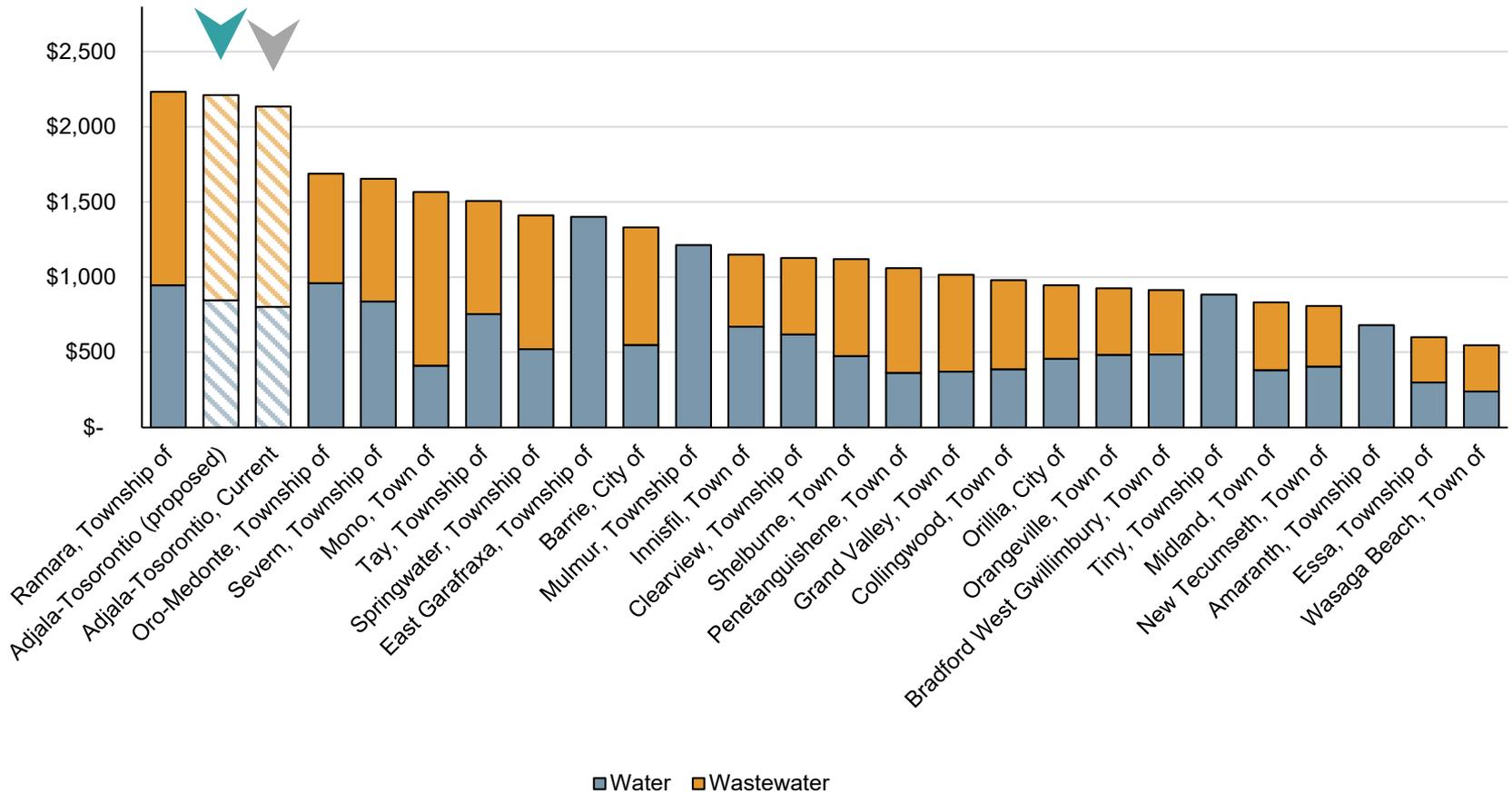




# Municipal Comparison – Scenario 1

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

Survey of Annual Residential Water & Wastewater Bill - 159 m<sup>3</sup> of Annual Consumption on 3/4" Meter



# Questions