



Durham Budget

2023

2023 Consolidated Water Supply and Sanitary Sewerage Systems User Rates and Business Plans and Budget

Finance and Administration Committee – December 13, 2022

- 1 2023 User Rates
- 2 Details of the 2023 Business Plans and Budget
- 3 Overview of the Capital Program
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2023 User Rates

COMPONENTS



Water Supply and Sanitary Sewerage



Utility Finance



Corporate Items

POLICY

USER PAY PHILOSOPHY

No Contribution from Property Tax

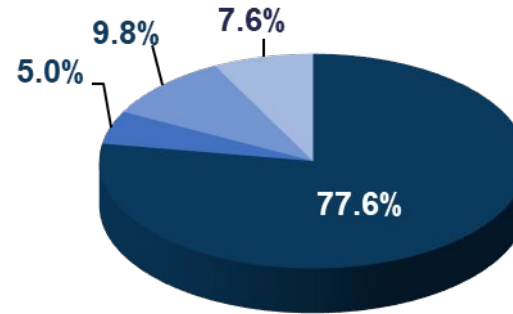


CONSUMPTION

WATER CONSUMPTION PATTERNS

Share of Total Consumption 2021

- Residential
- ICI 1st Block
- ICI 2nd Block
- ICI 3rd Block



PROJECTED RESIDENTIAL WATER CONSUMPTION

Residential base consumption:
227 m³/customer/year (2022 – 233 m³)

Seasonal usage:
13 m³/customer/year (2022 – 12m³)

PROJECTED NON-RESIDENTIAL (ICI) CONSUMPTION

- 1st Block: no change from 2022 budget
- 2nd Block: water 4.0%; sewer 4.6% increase from 2022 budget
- 3rd Block: water 5.7%; sewer 6.3% increase from 2022 budget

CUSTOMERS

NUMBER OF CUSTOMERS

Projected

Water: 184,950

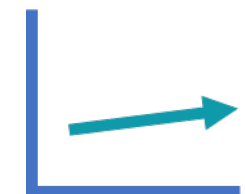
Sewer: 180,179

CUSTOMER GROWTH

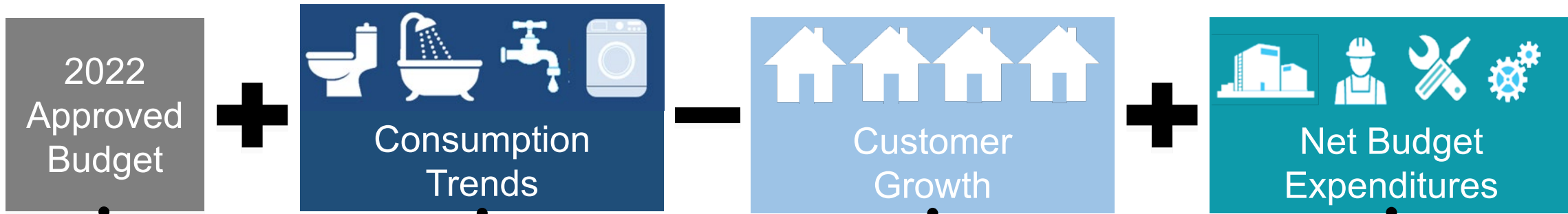
Projected

Water: 1.00 per cent

Sewer: 1.05 per cent



2023 Proposed User Rates



Water	\$118.2 million	0.1%	(0.4)%	3.9%
Sewer	\$117.5 million	0.3%	(0.4)%	5.1%
Total	\$235.7 million	0.2%	(0.4)%	4.5%

== Total Proposed Water Supply and Sanitary Sewerage 2023 User Rate Impact

	Impact
Water Supply	3.6%
Sanitary Sewerage	5.0%
Combined User Rate Impact	4.3%

**Recommend 2023
combined water
supply and sanitary
sewer user rate
increase of 4.3%
over 2022**

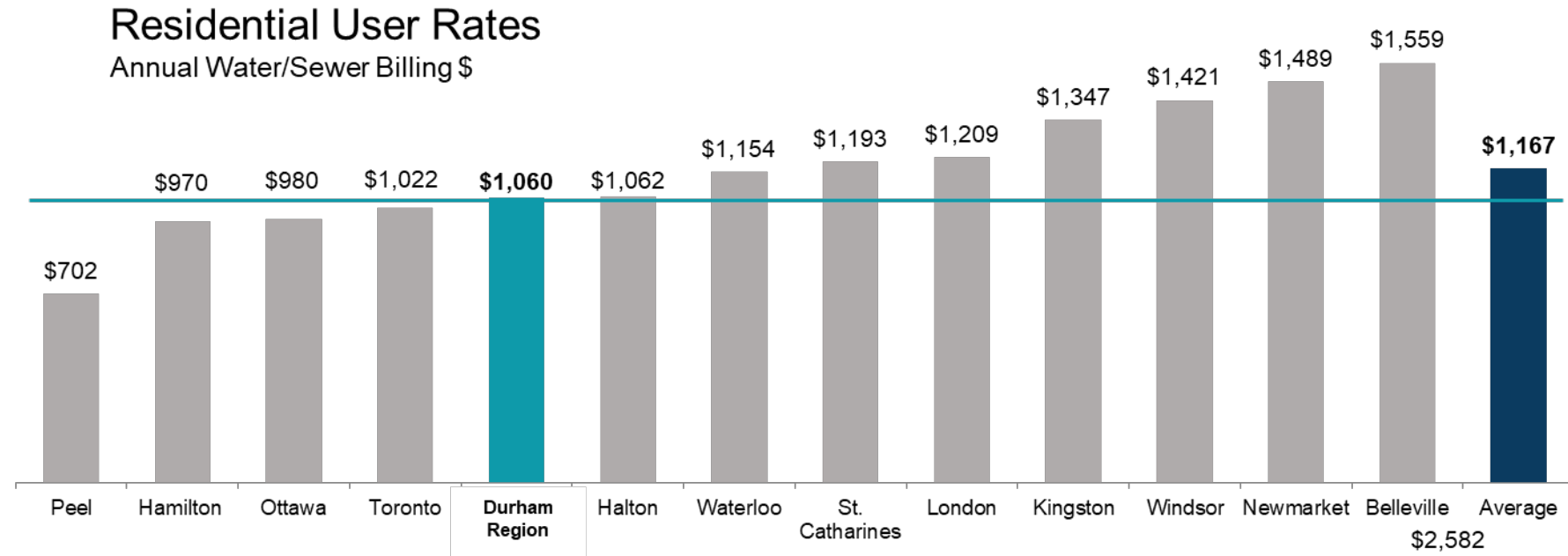
(Based on Quarterly Billings)

	<i>Billings</i>		<i>Increase</i>	
	2022 Actual \$	2023 Proposed \$	\$	%
Quarterly Bill				
Water	126.73	131.29	4.56	3.6
Sewer	138.15	145.07	6.92	5.0
Total	264.88	276.36	11.48	4.3
Annual Cost	1,059.52	1,105.44	45.92	4.3

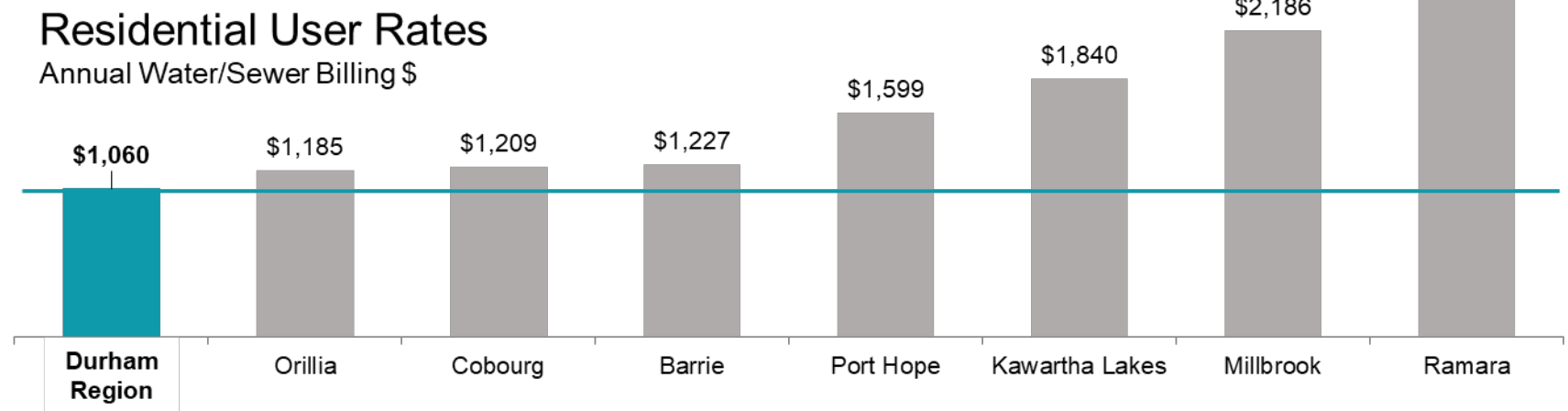
2022 User Rates - Comparisons



Durham ranks **fifth lowest** against similar municipalities



Durham ranks **lowest** against neighbouring municipalities





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Details of the 2023 Business Plans and Budget

Responding to **Growth and Affordability Pressures**

Investing in **Infrastructure Renewal**, consistent with the
Region's Asset Management Plan

Innovating and Modernizing Operations and Administration

Supporting the **Region's Strategic Plan**

Water Supply



184,950
Customers



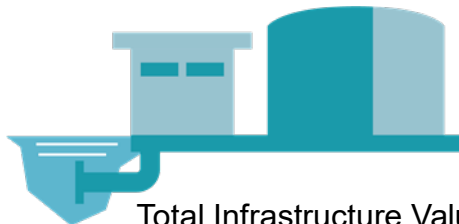
2,631 kms of
Watermains



182,063
Water Meters



16,785
Fire Hydrants



Total Infrastructure Value
\$5.43 Billion



2 Lake Water Supplies
8 Groundwater Aquifer Supplies

Sanitary Sewerage



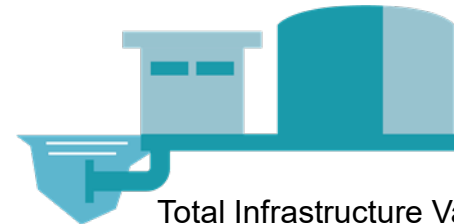
180,179
Customers



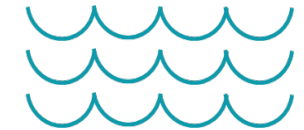
2,205 kms of
Sanitary Sewers



32,096
Maintenance Holes



Total Infrastructure Value
\$6.07 Billion



2 Receiving Lakes
3 Receiving Rivers

Utility Finance

Receive, deposit and record approximately 790,000 water and sanitary sewerage payments



Respond to over 90,000 telephone inquiries and 40,000 emails annually

THE REGIONAL MUNICIPALITY OF DURHAM		WATER AND SANITARY SEWER BILL	
ACCOUNT NUMBER		SERVICE ADDRESS	
PERIOD BILLED		Average Residential Customer	
CURRENT WATER METER READING		DESCRIPTION	AMOUNT
PREVIOUS WATER METER READING		Water Consumption	\$61.60
CONSUMPTION		Water Service Charge	\$55.44
TYPICAL QUARTERLY AVERAGE (56 cubic metres)		Total Water Charges	\$117.04
UNMETERED FIRE LINE SIZE		Sanitary Sewer Usage Charge	\$98.56
		Sanitary Sewer Service Charge	\$20.20
		Total Sewer Charges	\$119.26
		AMOUNT DUE NOW	\$236.30
		2% LATE PAYMENT CHARGE EFFECTIVE AFTER	
		AMOUNT DUE AFTER DATE SHOWN	

Service Improvements

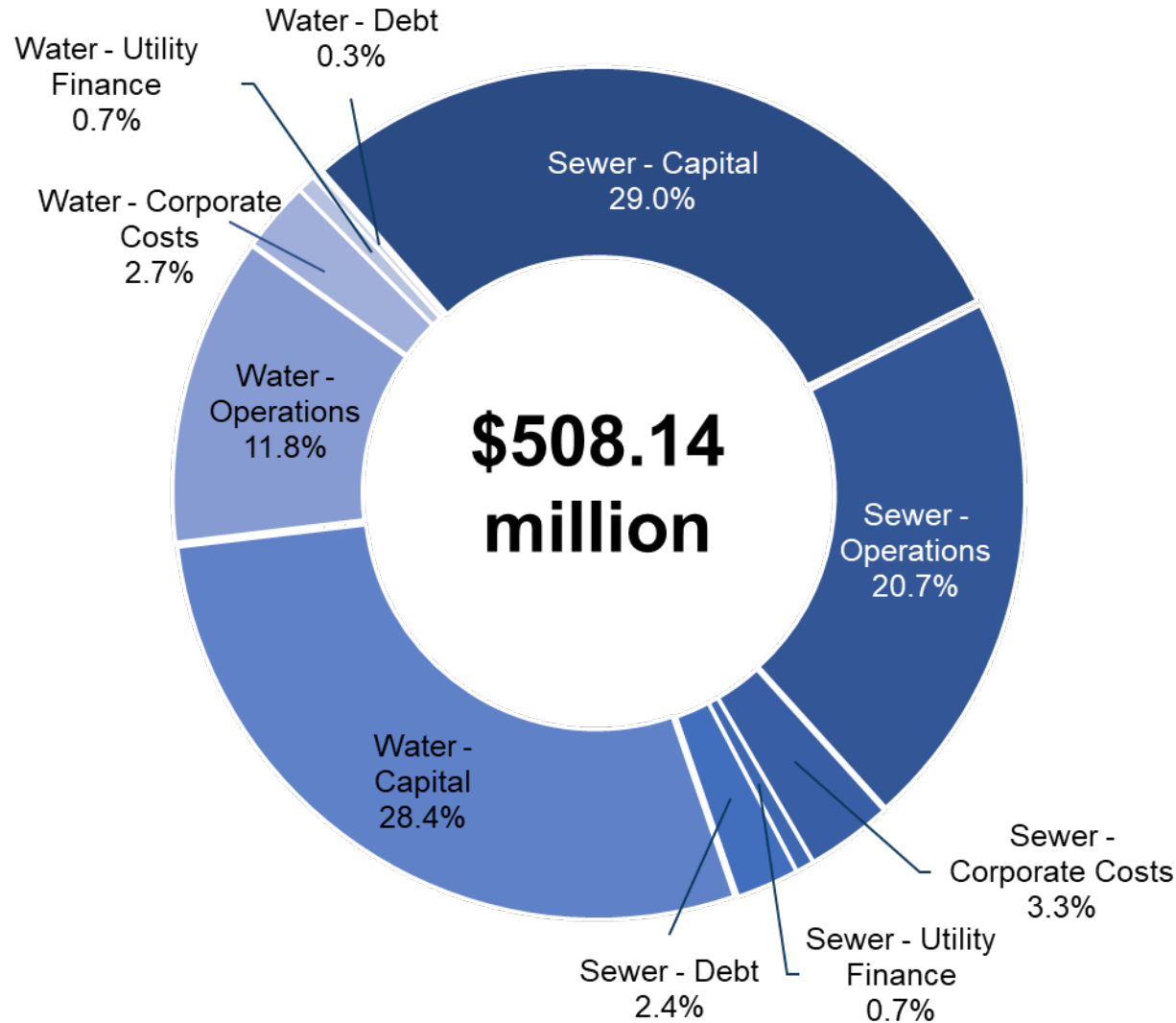
- 23 water supply and sanitary sewerage projects under construction
- Total project value implemented approximately \$169.7 million
- Advanced multi-year modernization of water supply and sanitary sewerage operational data with a focus on municipal well systems and wastewater solids management
- Implemented the enterprise maintenance management system (Maximo) to manage activities, capture lifecycle cost data and provide real time maintenance information
- Initiated a three-year project to retrofit existing water meters with radio frequency remote reading devices to eliminate manual meter readings
- Expanded monthly billing for the largest industrial, commercial and institutional water supply and sanitary sewerage customers to better understand customer requirements and support long-term planning
- Expanded customer enrollments in MyDurhamWater to 42,000 (approximately 22% of total customers), with 16,740 customers choosing the paperless e-billing option

Customer Service

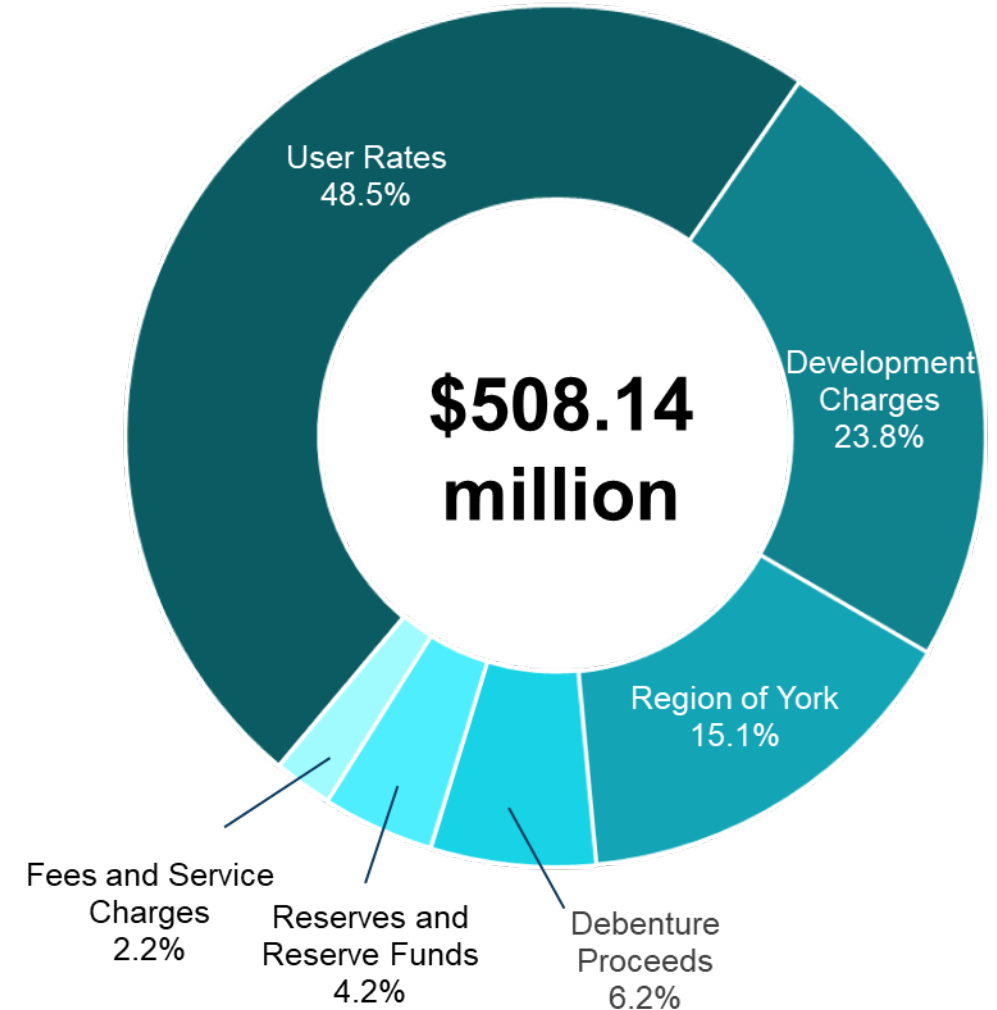
- No Boil Water Advisories
- 99.8 % compliance of drinking water test results
- No unplanned sanitary sewage by-pass events
- 100% compliance of wastewater effluent results to protect the water environment

2023 Proposed Expenditures and Financing

2023 Proposed Gross Expenditures



2023 Proposed Gross Financing



- Annualization of 16.520 full-time equivalent positions approved through the 2022 Budget
- Significant inflationary increases including chemicals (\$5.8 million – 66.3% increase) and electricity and natural gas (\$3.0 million – 16.7% increase) – a portion of this increase is recovered from the Region of York for their share of the Duffin Creek Water Pollution Control Plant operating costs
- Annualization of the annual licensing, consulting and cloud hosting fees for Maximo, the Region’s maintenance management system and preliminary consulting work to position the Region to migrate to Maximo Application Suite before 2025
- Enhancements to the Region’s utility locate program to ensure compliance with the *Ontario Underground Infrastructure Notification System Act, 2012*
- A total of 8.389 new full-time equivalent positions are proposed to meet growing number of assets and Works Department role in supporting core infrastructure responsibilities and contributing to broader, strategic corporate initiatives
- Ongoing investment in the modernization of the Region’s Business Planning and Budget process
- Continued enhancements to water billing software to support meter reading activities

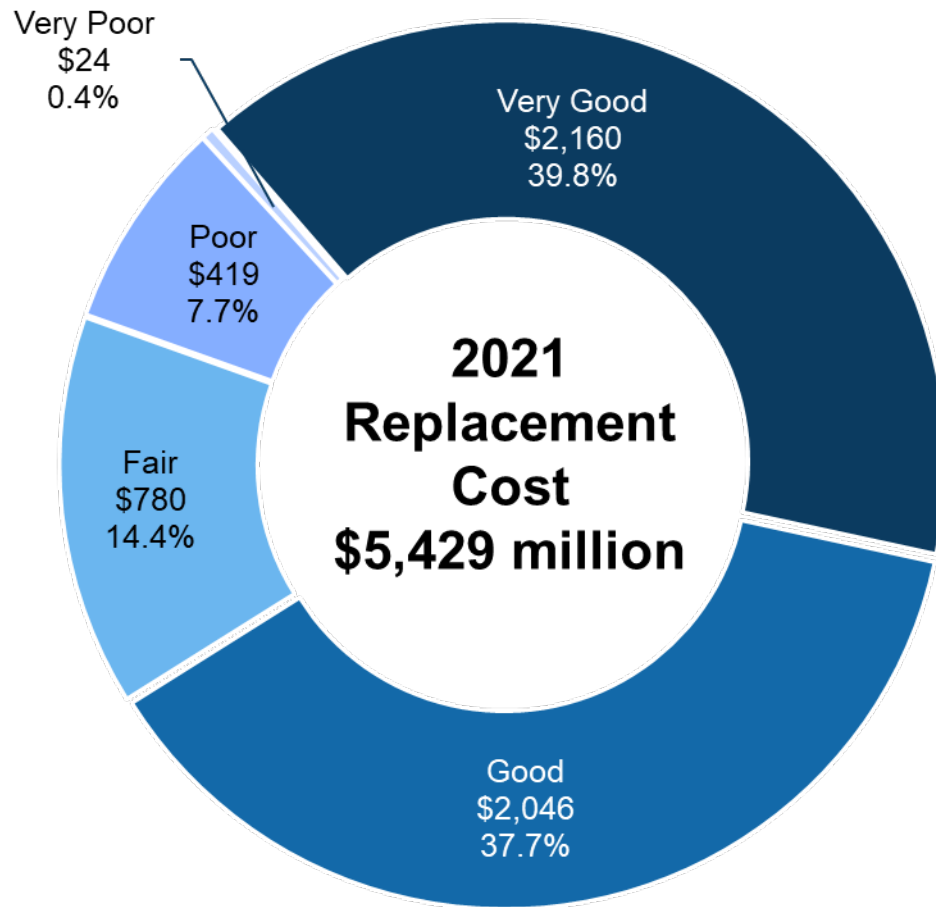


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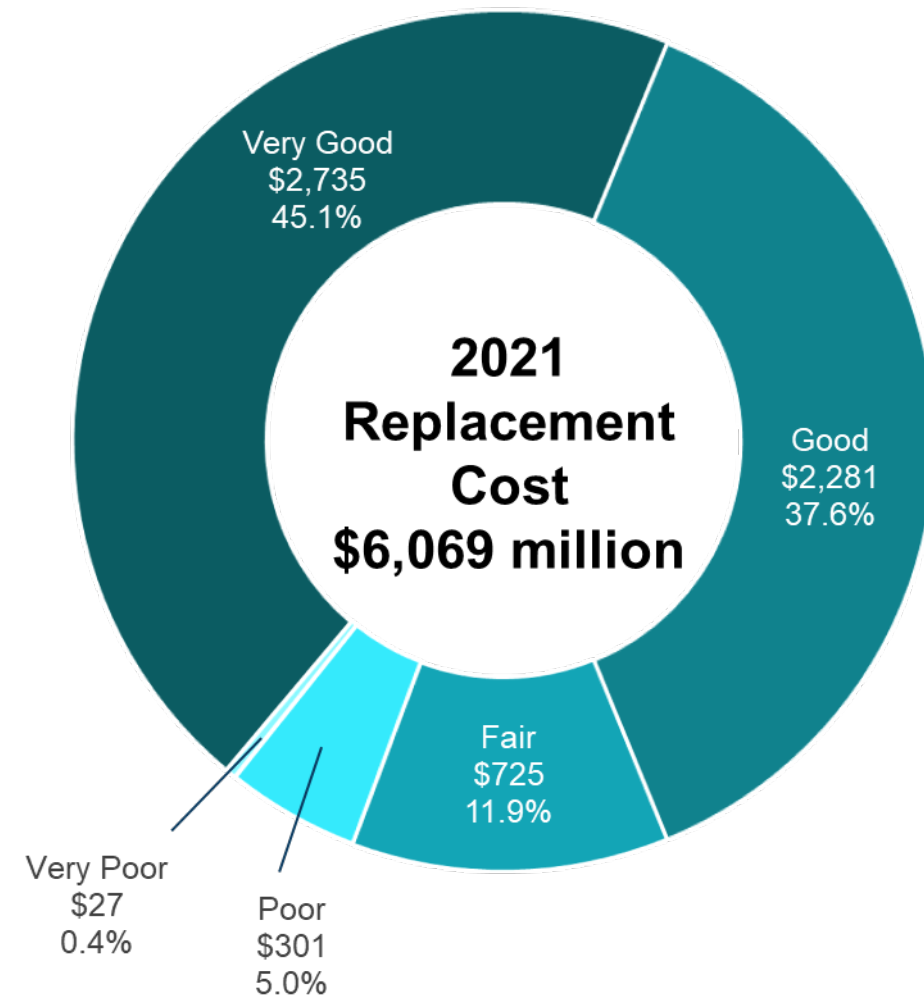
2023

Overview of the Capital Program

Water Supply (\$ millions)



Sanitary Sewer (\$ millions)



Ten-Year Capital Plan



(\$ millions)	Proposed 2023 Budget	2024	2025	2026	2027	2028-2032	Total 2023 – 2032
Water Supply	\$144.183	\$235.649	\$317.106	\$344.849	\$318.738	\$558.044	\$1,918.569
Sanitary Sewerage	\$147.518	\$343.970	\$302.030	\$249.886	\$211.934	\$1,155.669	\$2,411.007
Total Capital Plan	\$291.701	\$579.619	\$619.136	\$594.735	\$530.672	\$1,713.713	\$4,329.576

- Invest in new infrastructure to address anticipated growth
- Reflect advancement of Council’s strategic investments in water supply and sanitary sewer infrastructure to pre-service designated employment areas
- Address infrastructure rehabilitation, renewal and replacement requirements based on an asset management approach
- Ensure regulatory compliance
- Invest in infrastructure that incorporates climate change mitigation and adaptation
- Allow all capital projects ready for construction to proceed

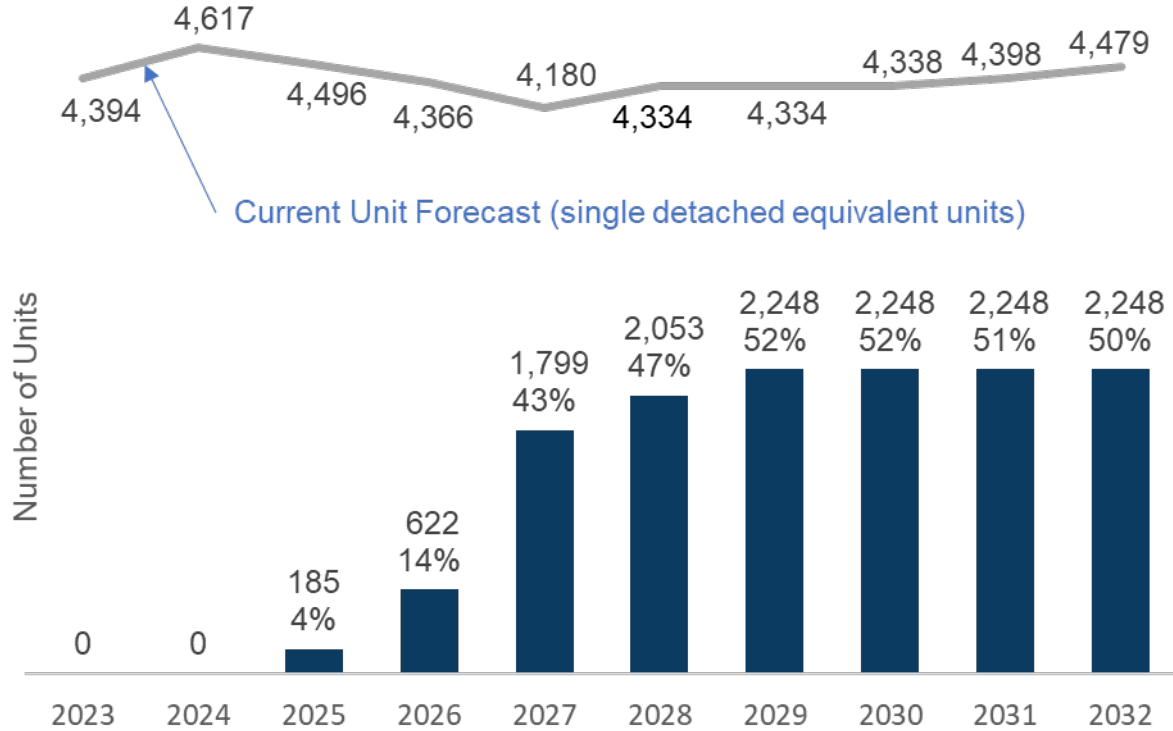
Proposed Financing



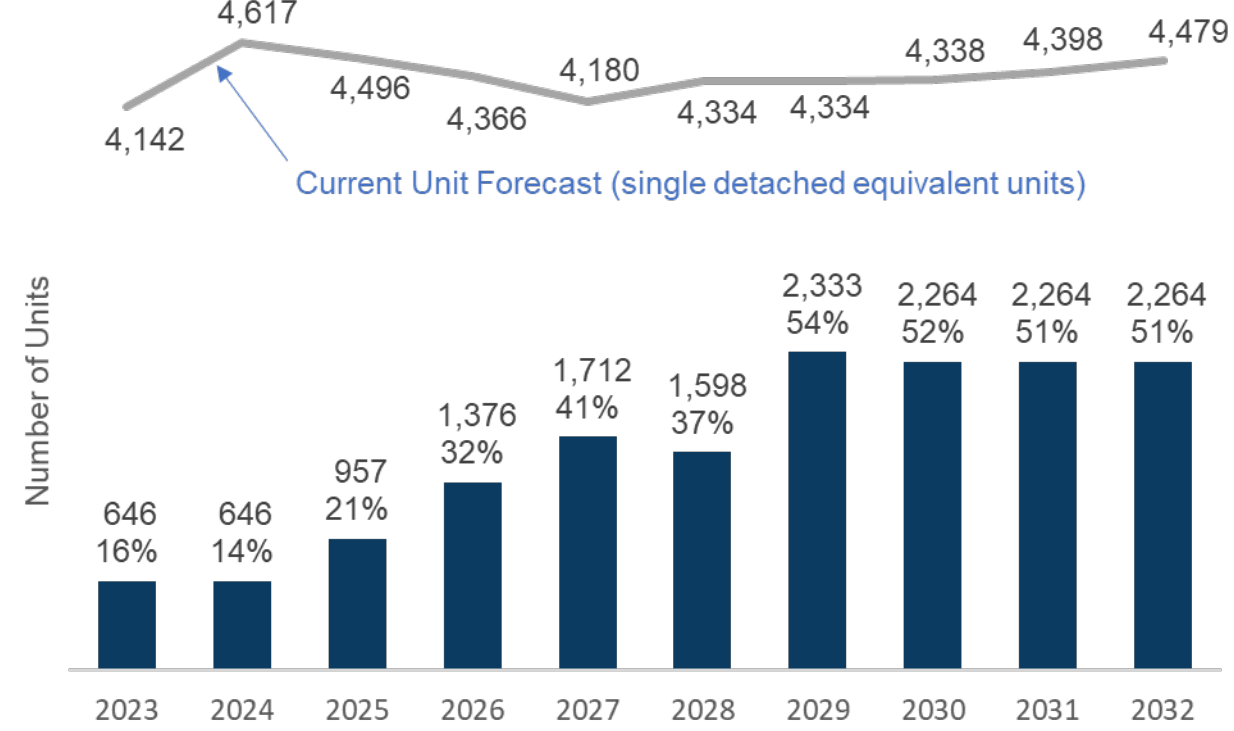
(\$ millions)	Proposed 2023 Budget	2024	2025	2026	2027	2028-2032	Total 2023 - 2032
Development Charges	\$111.353	\$176.972	\$157.324	\$98.786	\$118.750	\$229.714	\$892.899
Asset Management RF	\$16.871	\$34.859	\$17.263	\$21.444	\$16.856	\$91.452	\$198.745
Rate Stabilization RF	\$4.086	\$98.610	\$56.991	\$83.827	\$47.365	\$71.680	\$362.559
Servicing of Employment Lands RF	-	\$4.103	\$1.408	\$0.580	\$1.066	-	\$7.157
Environmental Lab RF	\$0.475	\$0.575	\$0.125	\$0.400	\$0.325	\$0.915	\$2.815
Equipment Replacement R	\$0.080	\$0.080	-	-	\$0.080	\$0.240	\$0.480
Debenture Proceeds	\$31.333	\$85.879	\$250.468	\$226.036	\$90.275	\$250.044	\$934.035
Recovery from York	\$40.691	\$51.670	\$27.882	\$54.980	\$58.199	\$404.296	\$637.718
Developer Contributions	-	\$7.000	\$0.314	-	\$81.826	-	\$89.140
User Rates	\$86.812	\$119.871	\$107.361	\$108.682	\$115.930	\$665.372	\$1,204.028
Total Capital Financing	\$291.701	\$579.619	\$619.136	\$594.735	\$530.672	\$1,713,713	\$4,329,576

- Significant use of reserve funds proposed to finance major capital projects including those projects required for asset management reasons. Water Rate Stabilization Reserve Fund and Sewer Rate Stabilization Reserve fund will be essentially fully utilized and significant Development Charges utilization will occur to accommodate the forecasted growth
- Strategic use of debt proposed over forecast to fund development charge shortfalls for large plant expansions

Water Supply



Sanitary Sewerage



- Estimated that the future residential DC debt requirements could require up to 52 per cent of future water residential DC receipts and up to 54 per cent of future sanitary sewerage residential DC receipts
- Ongoing review of the use of reserve funds, debenture financing and pressures on future user rate revenues will be conducted as part of the Region’s annual business planning and budget process

- Bill 23 – Supporting Growth and Housing in York and Durham Regions Act, 2022 received Royal Assent on November 28, 2022. This legislation will have a significant impact on the Region’s capital forecast and associated financing.
- Preliminary financial impacts are noted in Report [2022-COW-33](#). Staff will continue to work to assess the financial impacts on future Regional budgets through the update to the Region’s Development Charge Background Study and specific Bill 23 impact reports in early 2023.
- Impacts of Bill 23 are not included in the proposed 2023 capital budget and nine-year forecast. Impacts will be accommodated beginning in the 2024 Business Plans and Budget. The following are the impacts that staff have identified to date:
 - Reduction in Development Charges available to fund new and expanded infrastructure to service growth. Without development charges this infrastructure will need to be funded from user rates, reserves and reserve funds and debt.
 - The provincial direction to develop 1.5 million homes in an expedited manner and allowing the development of Greenbelt lands with restricted timelines will be another development pressure competing for Regional infrastructure funds.
 - Schedule 10 within Bill 23 provides the provincial direction for the wastewater servicing for the Upper York Sewage Solution which includes the Lake Ontario option of conveying wastewater south to the York Durham Sewage System. A detailed review of the proposed servicing option will need to be conducted in consultation with the Region of York to determine infrastructure planning impacts. Durham understands this to be cost neutral for Durham.



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Details of the 2023 Capital Budget

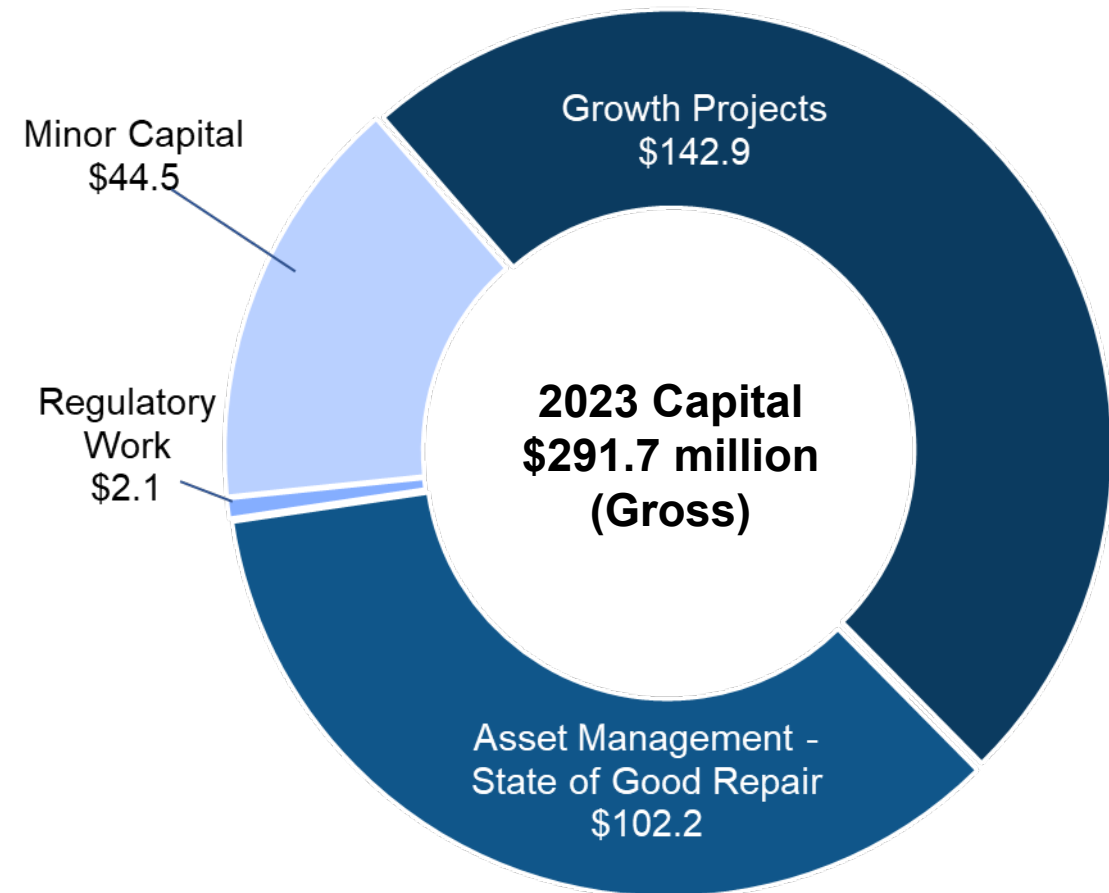
Project Summary by Type:

- Class Environmental Assessments and Studies: \$10.7 million
- Detailed Design: \$30.5 million
- Construction: \$206.0 million
- Minor Capital: \$44.5 million

Watermain and Sanitary Sewer Replacements Summary:

- Projects Co-ordinated with the Roads Projects: 15.1 km (Transportation/Local Municipalities/Bus Rapid Transit)
- Independent Projects: 9.0 km
- **Total of Replacements: 24.1 km**

Water Supply and Sanitary Sewerage Capital Projects



Duffin Creek Water Pollution Control Plant, Pickering

Digester Mixing Improvements and Motor Control Centre Replacement

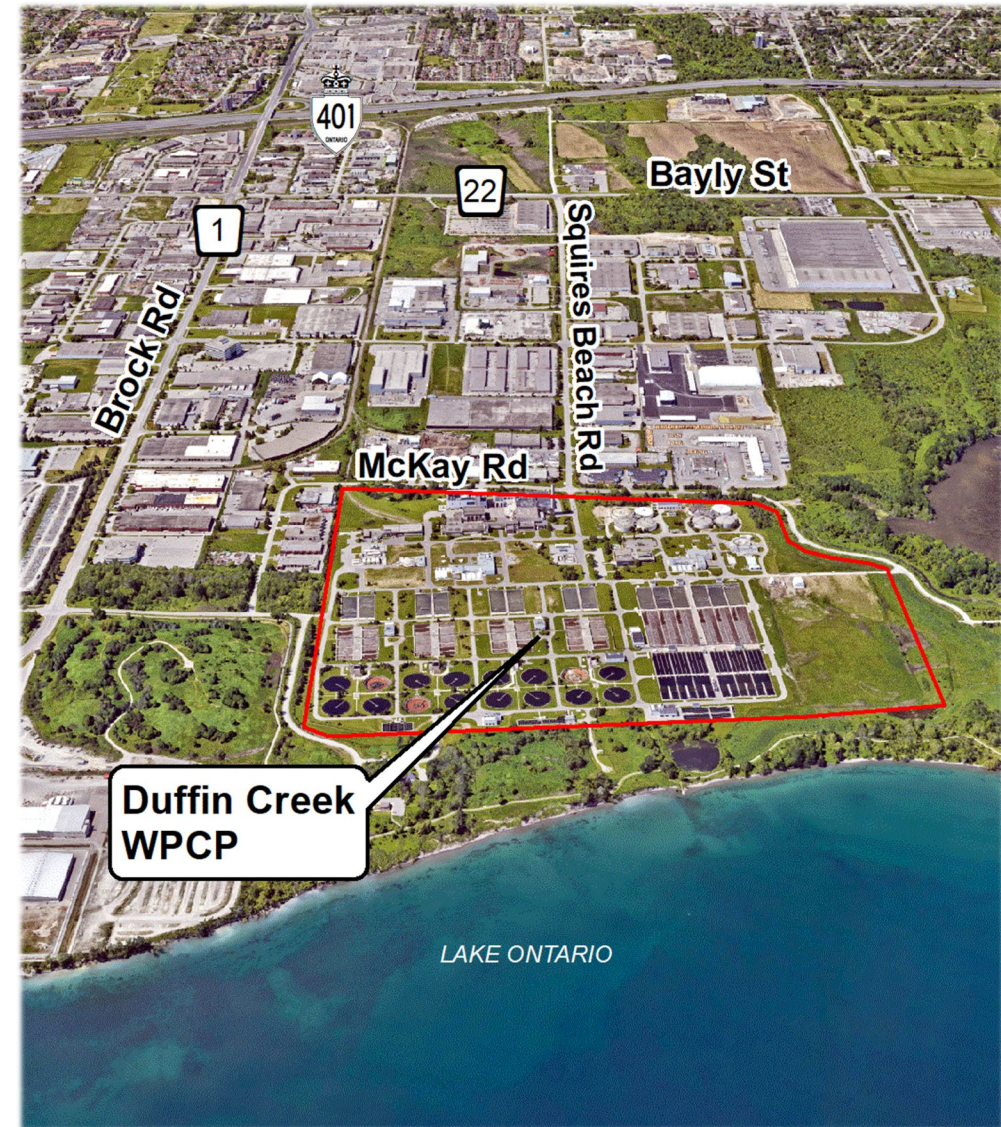
Detailed design underway
Construction: 2023 - 2026

2023 Budget Provision: \$21,450,000
Total Estimated Project Cost: \$64,700,000
Durham's Share: \$18,400,000

Remedial works and Improvements in various locations throughout the plant

Detailed design underway
Pre-purchase/Construction: 2023 - 2025

2023 Budget Provision: \$27,500,000
Total Estimated Project Cost: \$44,000,000
Durham's Share: \$8,800,000



Trunk Sanitary Sewer on Kingston Rd. (Highway No. 2) from East of Harwood Ave. to East of Galea Rd., Ajax

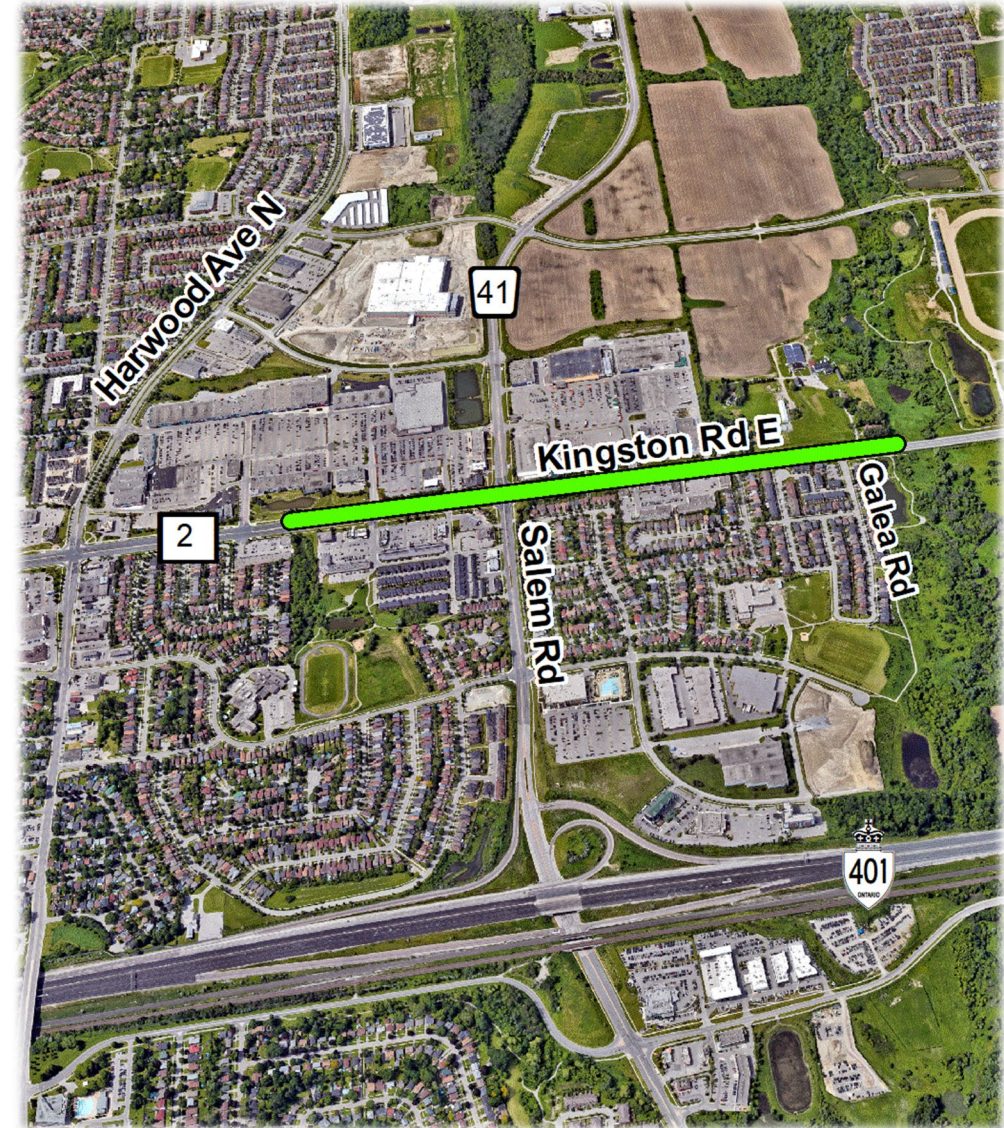
Project to be completed in conjunction with the Bus Rapid Transit (BRT)

Detailed design underway

Tender ready 3rd quarter 2023

2023 Budget Provision: \$11,350,000

Total Estimated Project Cost: \$11,700,000



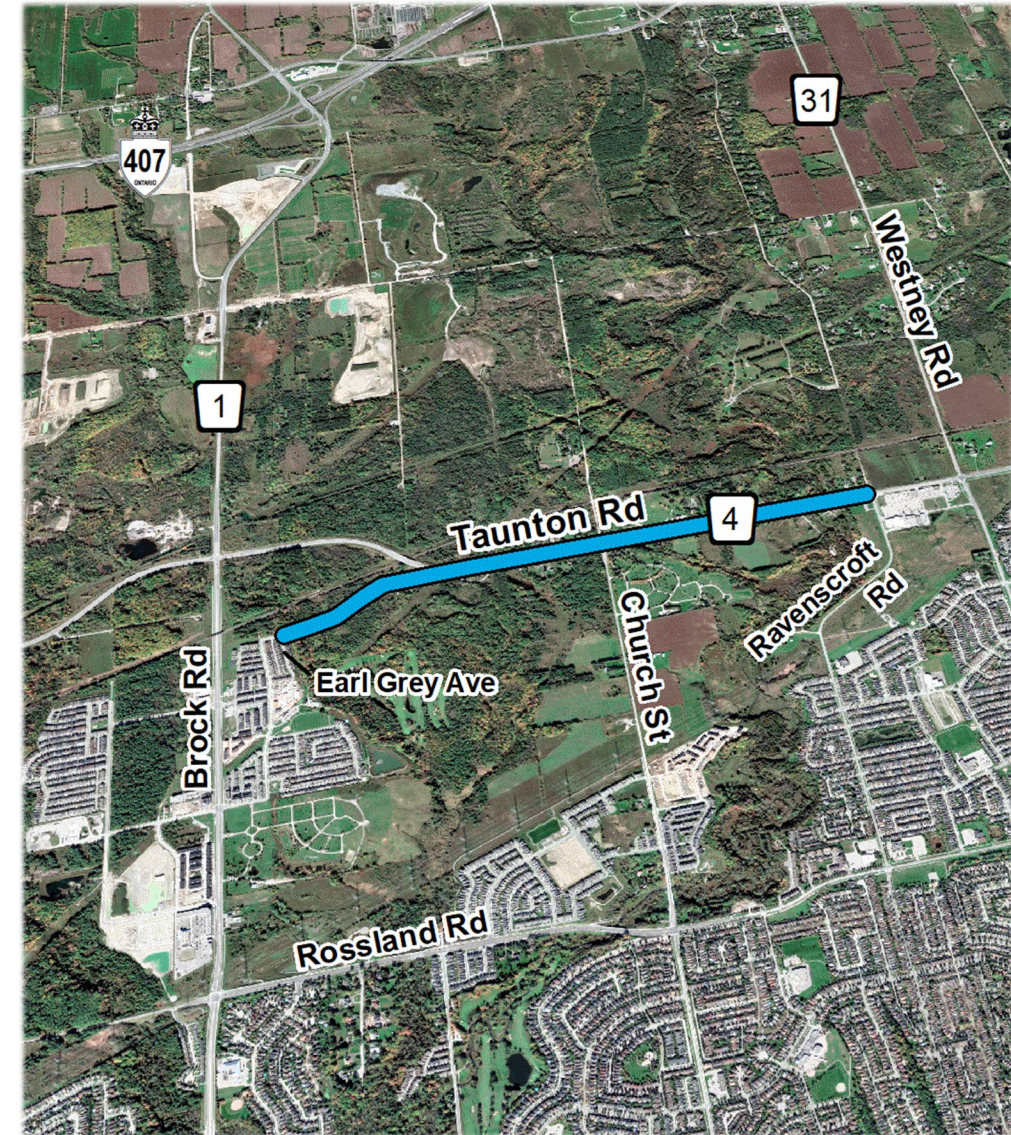
Zone 2 Feedermain on William Jackson Dr. & Taunton Rd. from Earl Grey Ave. to Ravenscroft Rd., Ajax

Detailed design underway

Tender ready 3rd quarter 2023

2023 Budget Provision: \$7,900,000

Total Estimated Project Cost: \$8,800,000



Whitby Water Supply Plant – Expansion -109 MLD to 218 MLD, Whitby

Detailed design underway

Multi-year construction to be completed in phases

Phase 1: Raw Water Pumping Station - awarded

Phase 2: Energy Centre – 2023

Phase 3: Demolition of the Facility Building 2024

Phase 4: New Treatment Facility 2026 - 2028

2023 Budget Provision: \$13,500,000

Total Estimated Project Cost: \$278,459,000



Watermain and Sanitary Sewer Replacement on Mary St. from Rossland Rd. to Robert St., Oshawa

Detailed design underway

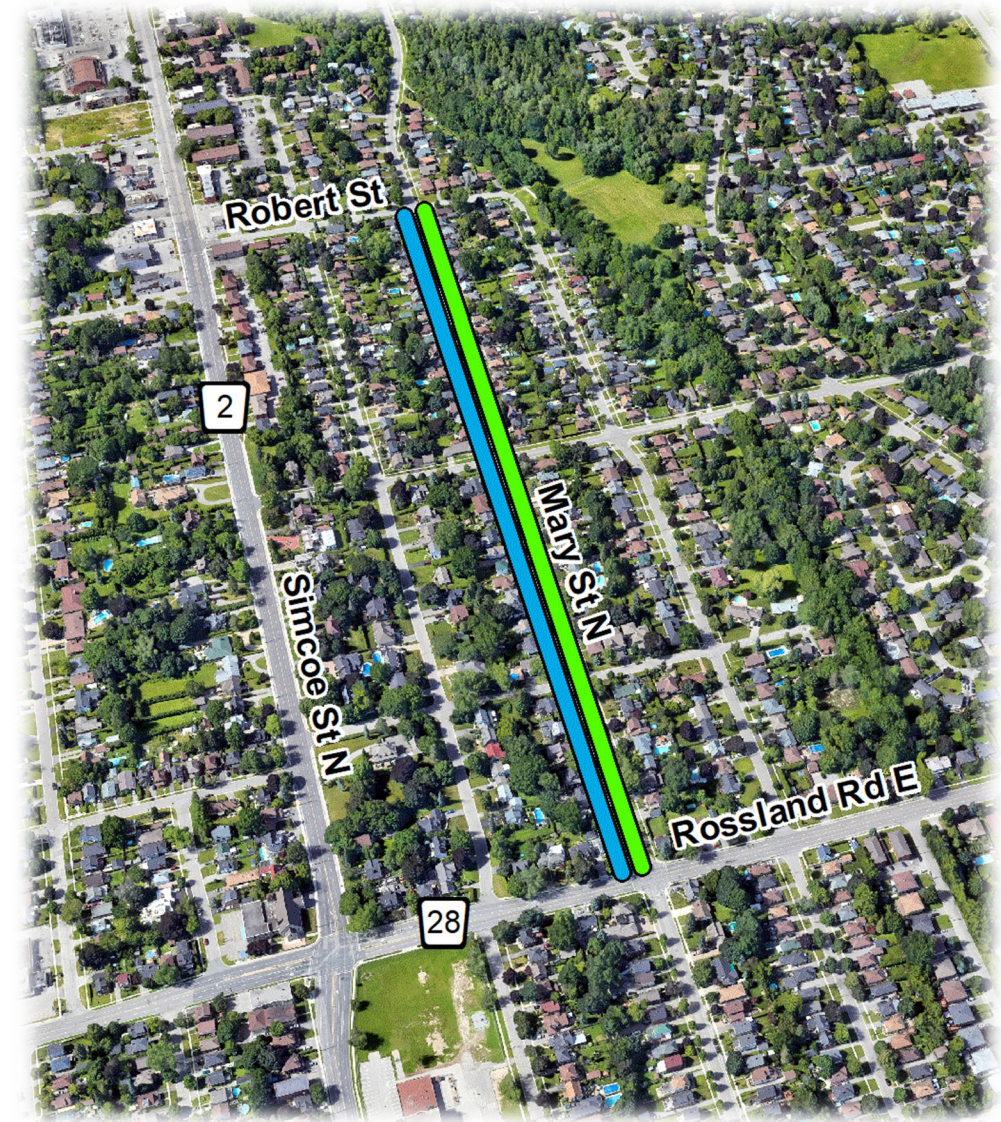
Tender ready 3rd quarter 2023

2023 Budget Provision: \$4,485,000

Water Supply Budget: \$2,335,000

Sanitary Sewerage Budget: \$2,150,000

Total Estimated Project Cost: \$4,650,000



Courtice Trunk Sanitary Sewer

1/ Trulls Rd. from Bloor St. to Future Adelaide Ave., Courtice

Detailed design underway

Construction target 2024

2023 Budget Provision: \$3,000,000

Total Estimated Project Cost: \$57,102,000

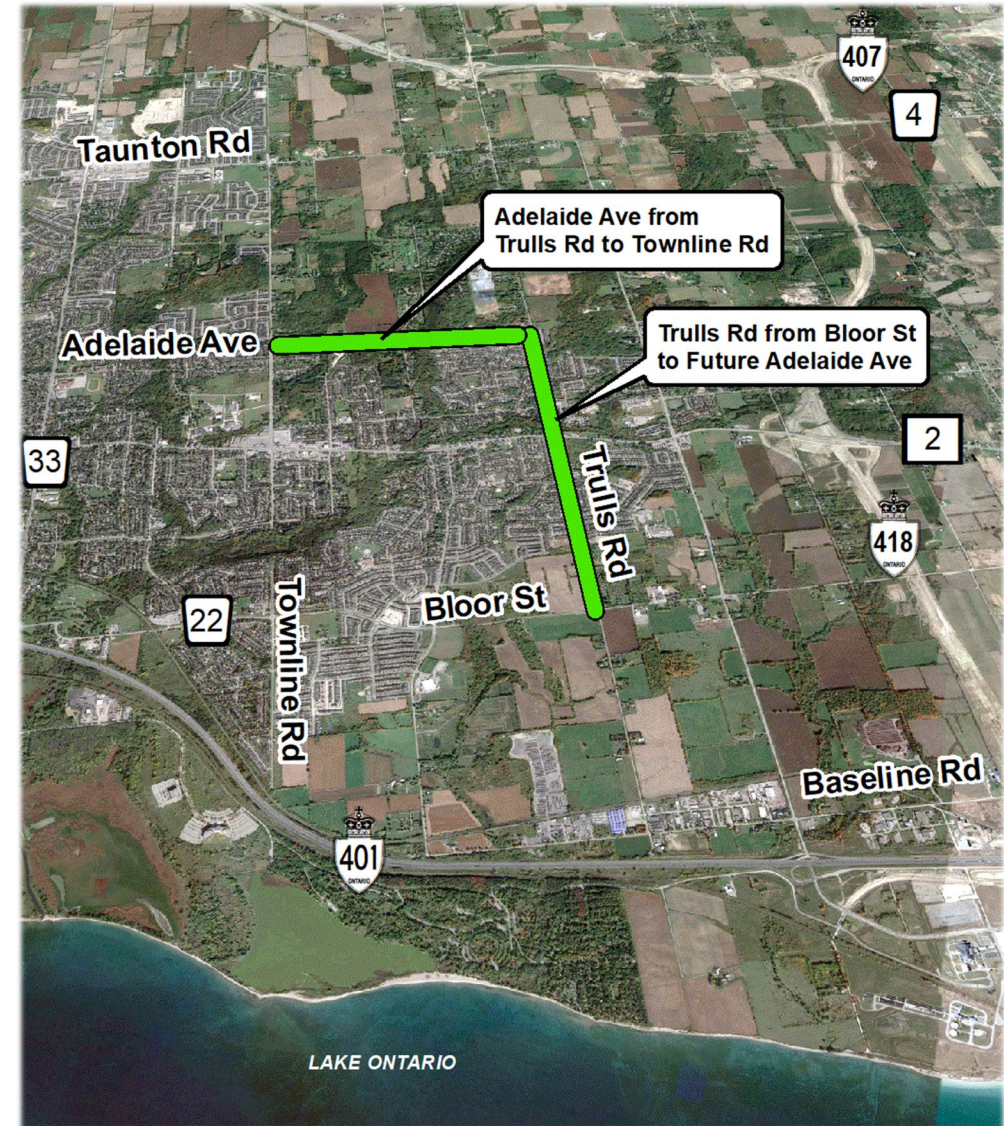
2/ Adelaide Ave. from Trulls Rd. to Townline Rd., Courtice

Detailed design to commence 2023

Construction target 2026

2023 Budget Provision: \$8,800,000

Total Estimated Project Cost: \$62,200,000



Liberty Street Zone 1 Reservoir & Zone 2 Water Pumping Station Municipality of Clarington (Bowmanville)

Environmental Assessment Update - completed

Detailed design underway

Tender ready 3rd quarter 2023

2023 Budget Provision: \$23,500,000

Total Estimated Project Cost: \$55,900,000



Watermain Replacement on Brown St. from Queen St. to Victoria St., Municipality of Clarington (Bowmanville)

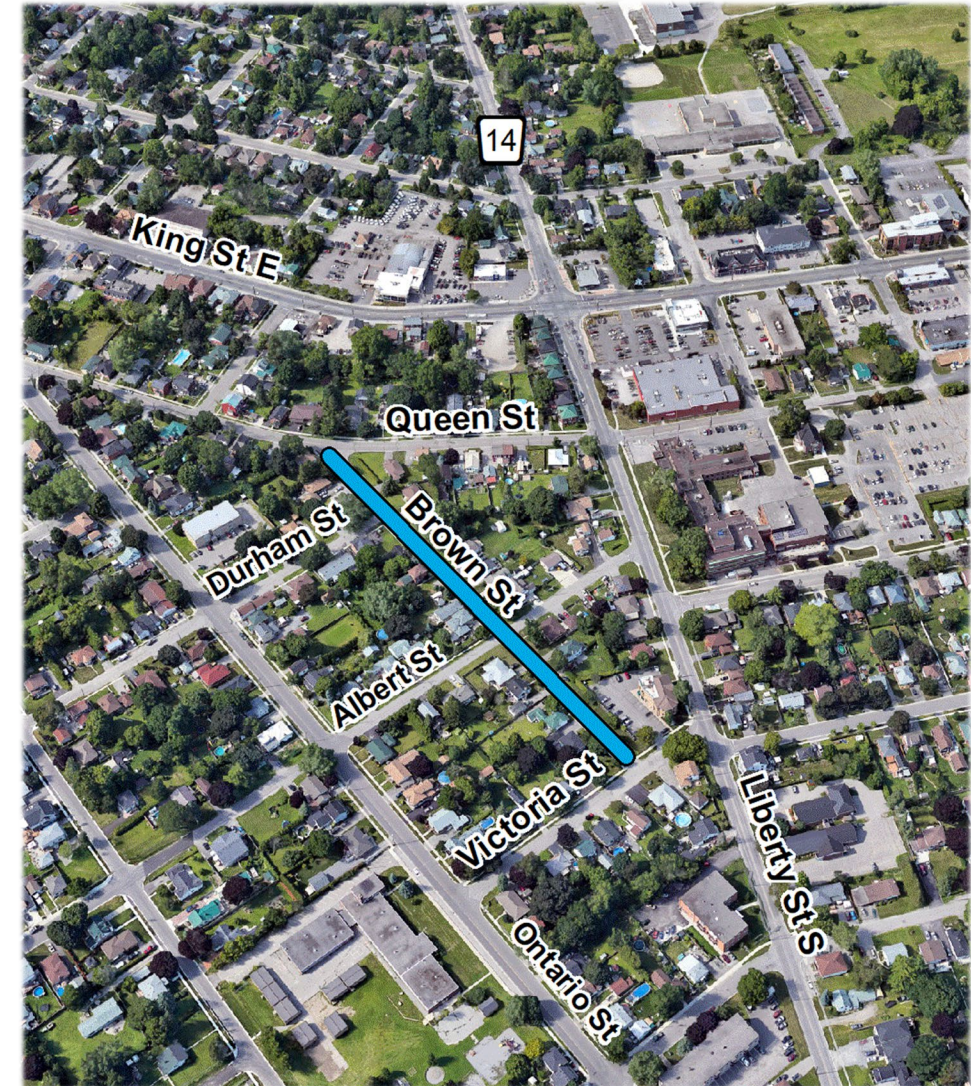
Work to be completed in conjunction with the Municipality of Clarington

Detailed design underway

Tender ready 1st quarter 2023

2023 Budget Provision: \$550,000

Total Estimated Project Cost: \$1,000,000

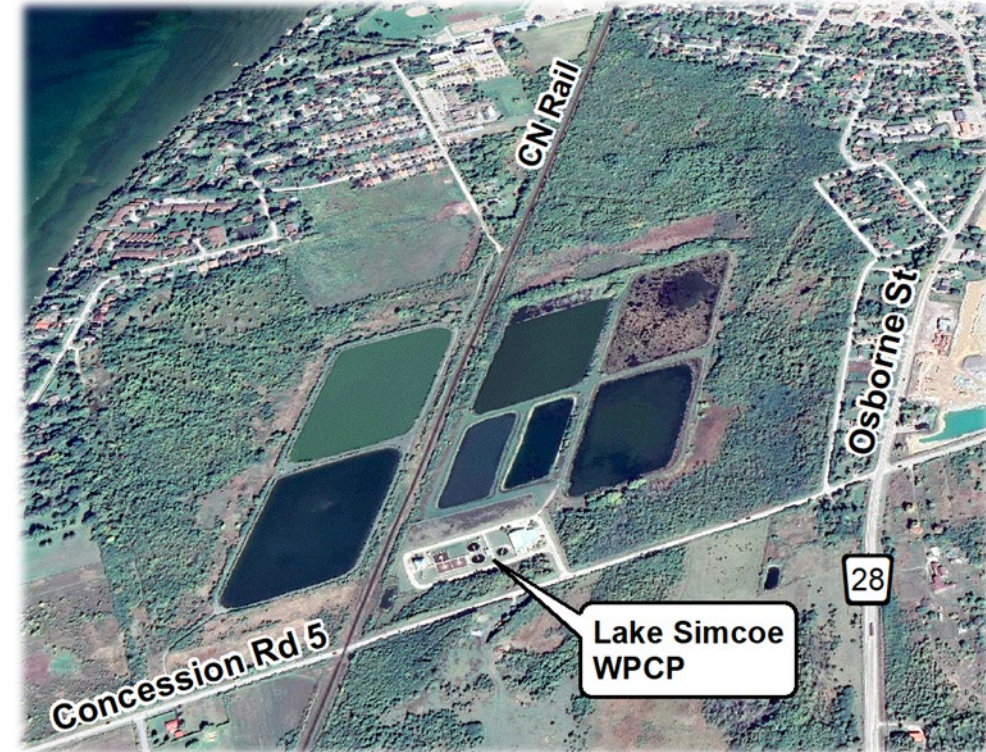


Lake Simcoe Water Pollution Control Plant Diffused Air System Replacement and Associated System Upgrades, Brock (Beaverton)

Detailed design underway
Tender ready 3rd quarter

2023 Budget Provision: \$7,050,000

Total Estimated Project Cost: \$15,200,000





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Summary

- **Works Committee approved the Works section of the 2023 Water Supply and Sanitary Sewerage Systems Business Plans and Budget.**
- To achieve a 2% reduction in the overall rate increase (2.3% compared to current proposed rate increase of 4.3%) total draws from reserve funds of \$4,722,000 are required (\$2,372,000 from the Water Rate Stabilization Reserve Fund and \$2,350,000 from the Sewer Rate Stabilization Reserve fund).
- Balances in the Water Rate Stabilization Reserve Fund and Sewer Rate Stabilization Reserve Fund have been building to fund the significant increase in capital requirements over the forecast period (with many in this term of Council) including the following capital works:

Major water supply plant/vertical expansions - Ajax Water Supply Plant, Whitby Water Supply Plant, Garrard Road Zone 1 Reservoir, Taunton Road Zone 2 Reservoir, Scugog Water Supply System

Major sanitary sewerage plant/vertical expansions – Corbett Creek Water Pollution Control Plant, Harmony Creek Water Pollution Control Plant, Conlin Road Sanitary Sewage Pumping Station, Water Street Sewage Pumping Station

Expansion of water supply linear infrastructure – Zone 1 feedermain on Bayly Street from Toy Avenue to Pickering Beach Road (Pickering/Ajax)

Expansion of the sanitary sewerage linear infrastructure – York/Durham primary trunk sewer twinning, West Whitby sub trunk on Dundas Street from Des Newman Boulevard to Halls Road (Whitby), Baseline Road Trunk Sewer from Simpson Avenue to Bennett Road (Clarington), Foster Creek Trunk Sewer on Sunset Boulevard/Lakeview Road from Rudell Road to Church Street (Clarington), Port Darlington Trunk Sewer from Baseline Road to existing easement (Clarington)

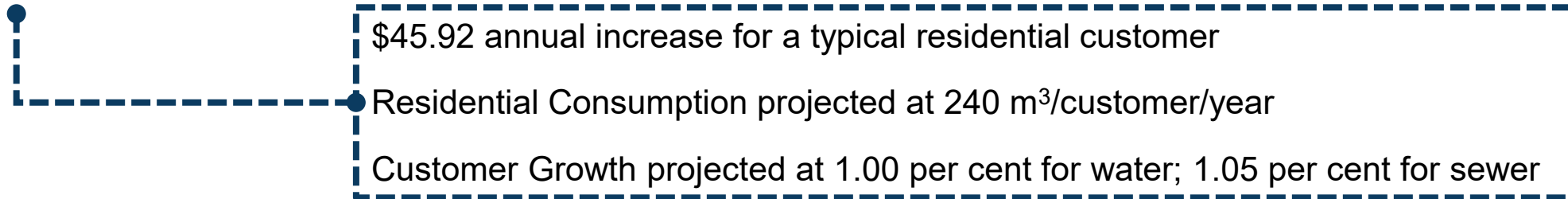
Rehabilitation of water supply system – Hortop Water Pumping Station (Oshawa), Oshawa Water Supply Plant

Rehabilitation of sanitary sewerage system – Uxbridge Water Pollution Control Plant, Duffin Creek Digester Mixing Improvements, Replacement of Reactors #1 and #2, and Motor Control Centre Replacements

- Draws totaling \$362.6 million from the Water Rate Stabilization Reserve Fund and the Sewer Rate Stabilization Reserve Funds are projected based on the current 2023 to 2032 capital forecast. This is before any potential Development Charge shortfalls resulting from Bill 23 (in addition to the current 2023 to 2032 forecasted Development Charge shortfall of \$1.14 billion that is being proposed to be financed from the Water Rate Stabilization and Sewer Rate Stabilization reserve funds, debt and user rates).
- The Water Rate Stabilization Reserve Fund and the Sewer Rate Stabilization Reserve Fund are used to fund any in-year unbudgeted emergency capital expenditures (approximately \$8.5 million over the last five years), revenue shortfalls from unfavourable variances in consumption assumptions, and unanticipated unfavourable operating variances that cannot be accommodated within the overall approved Water Supply and Sanitary Sewerage Systems Budget.
- Additional total draws of \$4,722,000 from the Water Rate Stabilization Reserve Fund and the Sewer Rate Stabilization Reserve Fund in 2023 to reduce the combined user rate increase to 2.3% would require 2024 user rate increases of 2.0% for both the water supply and sanitary sewerage user rates before consideration of any 2024 base operating or capital increases. A 2% reduction in the 2023 user rate increase achieved through a drawdown of the reserve funds for ongoing base expenditures creates a funding shortfall in subsequent years that must be funded by increasing user rates.

4.3%

Proposed Water Supply and Sanitary Sewer User Rate Increase



Pressures/Risks on User Rates and Business Plans and Budget over Forecast Period:

- Customer/consumption growth
- Infrastructure requirements to address Regional growth
- Increased rehabilitation needs informed by the Region's Asset Management Plan
- Impact of climate change on infrastructure investment levels including implementing recommendations from the Integrated Resource Recovery Studies and ongoing review of district heating and cooling opportunities
- Operating cost increases related to major facility and system expansions and inflationary/contract increases
- Annualization of 2023 proposed budget decisions including annualization of proposed new staff positions and annual debt servicing costs from the debenture financing proposed in the 2023 Budget
- Legislative and regulatory changes from provincial and federal approval agencies (e.g., Bill 23, regulation of Perfluoroalkyl (PFAS) substances and Innovation, Science and Economic Development Canada's proposed changes to radio frequencies)



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QUESTIONS