



# Durham Budget

2022

## **2022 Consolidated Water Supply and Sanitary Sewerage Systems User Rates and Business Plans and Budget**

**Finance and Administration Committee – December 14, 2021**

1

2022 User Rates

2

Details of the 2022 Business Plans and Budget

3

Overview of the Capital Program

4

Details of the 2022 Capital Budget

5

Summary



# Durham Budget

2022

## 2022 User Rates

### POLICY

#### USER PAY PHILOSOPHY

No Contribution from Property Tax



#### GROWTH PAYS FOR GROWTH



Growth Capital Projects and Debt Servicing Costs

\$105.6 million DC funding in 2022

### CUSTOMERS

#### NUMBER OF CUSTOMERS

Projected

Water: 183,153

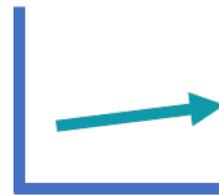
Sewer: 178,416

#### CUSTOMER GROWTH

Projected

Water: 1.00 per cent

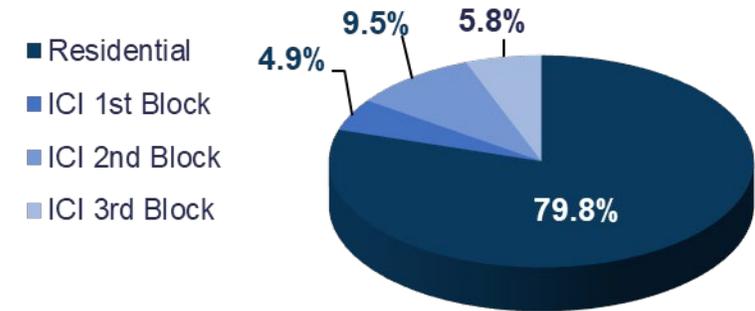
Sewer: 1.05 per cent



### CONSUMPTION

#### WATER CONSUMPTION PATTERNS

Share of Total Consumption 2020



#### Projected Residential Water Consumption

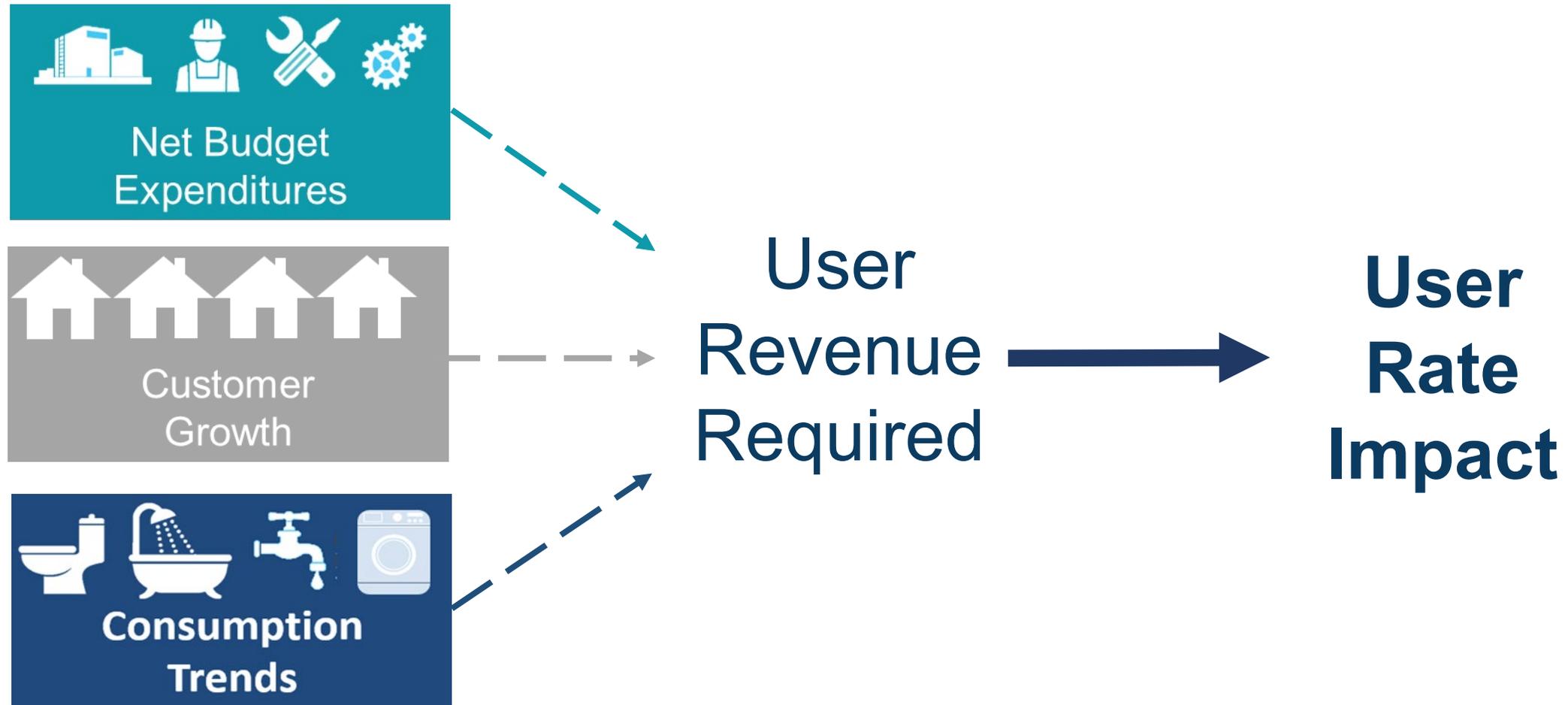
Residential base consumption: 233 m<sup>3</sup>/customer/year (2020 – 230 m<sup>3</sup>)

Seasonal usage: 12 m<sup>3</sup>/customer/year (2020 – 10m<sup>3</sup>)

#### Projected Non-Residential (ICI) Consumption

Consistent with 2021 consumption

# Factors Impacting User Rates



	<b>Water</b> %	<b>Sewer</b> %
Net Budget Expenditures Increase	2.3	5.5
Customer Growth	(0.5)	(0.2)
Consumption Trends	(1.3)	(2.2)
<b>User Rate Impact</b>	<u>0.5</u>	<u>3.1</u>
<b>Combined User Rate Impact</b>	<b>1.8%</b>	

**Recommend 2022  
combined water  
supply and sanitary  
sewer user rate  
increase by 1.8%  
over 2021**

(Based on Quarterly Billings)

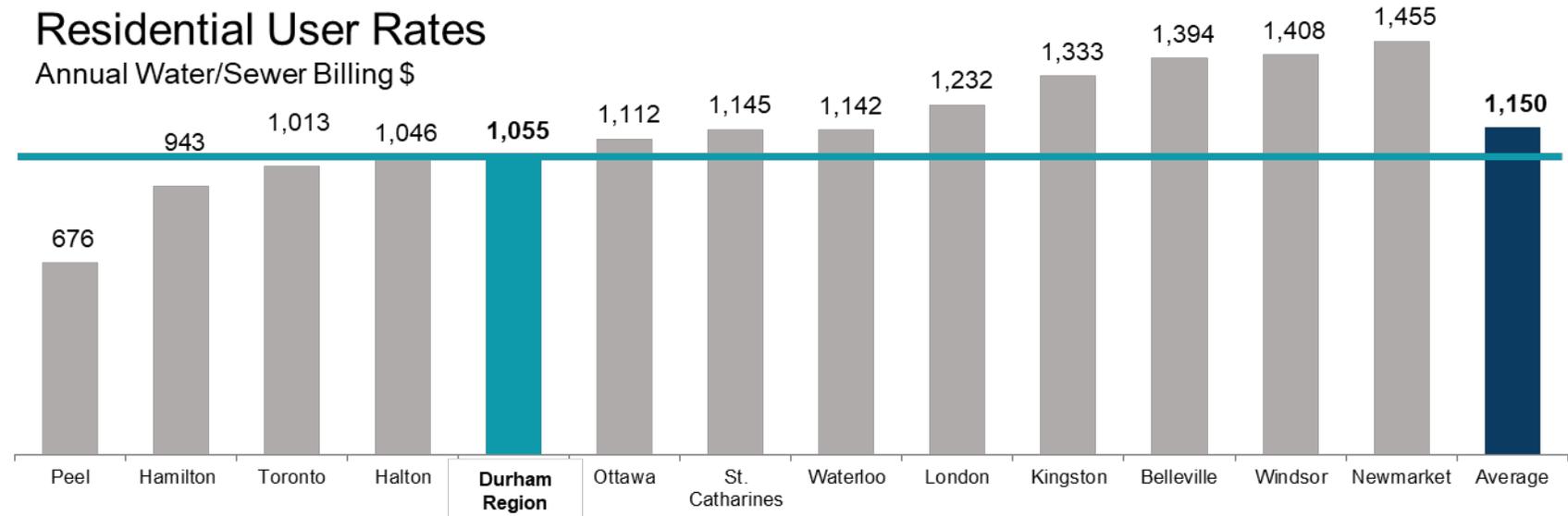
	<i>Billings</i>		<i>Increase</i>	
	2021 Actual \$	2022 Proposed \$	\$	%
<b>Quarterly Bill</b>				
Water	127.52	128.17	0.65	0.5
Sewer	136.32	140.55	4.23	3.1
<b>Total</b>	263.84	268.72	4.88	1.8
<b>Annual Cost</b>	1,055.36	1,074.88	19.52	1.8

# 2021 Proposed User Rates - Comparisons



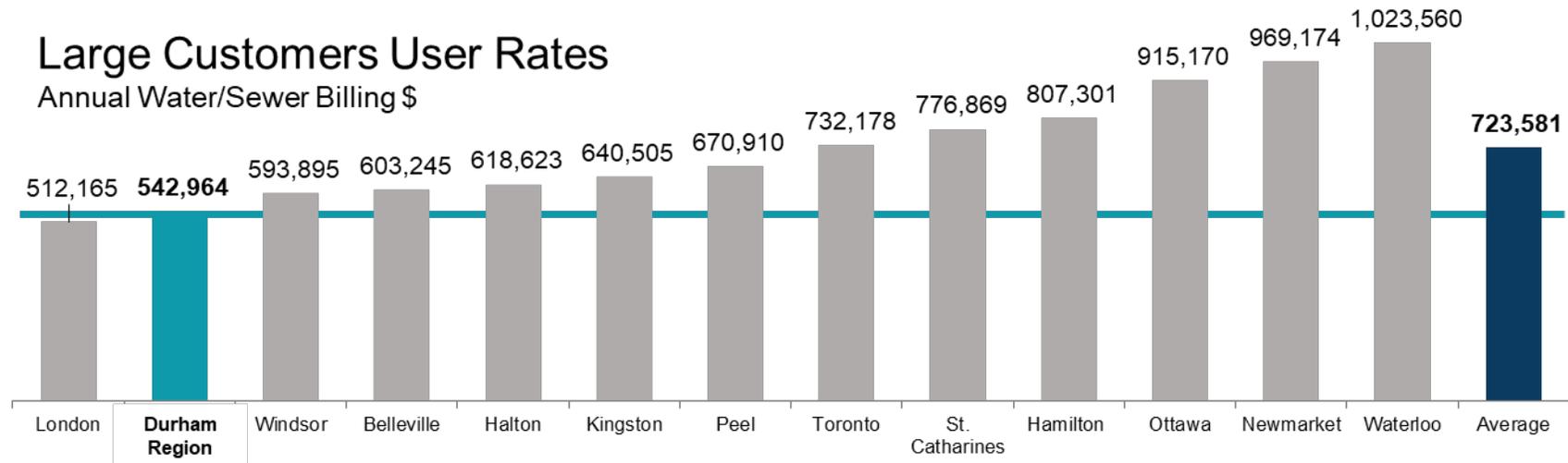
Durham ranks **fifth lowest** against similar municipalities

Residential User Rates  
Annual Water/Sewer Billing \$



Durham ranks **second lowest** against similar municipalities

Large Customers User Rates  
Annual Water/Sewer Billing \$





# Durham Budget

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## Details of the 2022 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

Accommodating ongoing **Legislative and Regulatory**  
**Changes**

Supporting the **Region's Strategic Plan**

### Water Supply



183,200 Customers



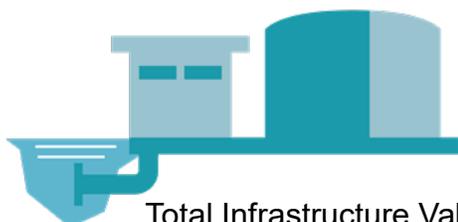
2,669 kms of Watermains



179,553 Water Meters



16,960 Fire Hydrants



Total Infrastructure Value  
\$4.909 Billion



2 Lake Water Supplies  
8 Groundwater Aquifer Supplies

### Sanitary Sewerage



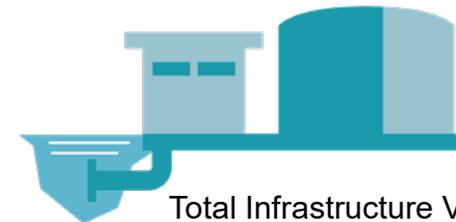
178,400 Customers



2,233 kms of Sanitary Sewers



31,451 Maintenance Holes



Total Infrastructure Value  
\$5.446 Billion



2 Receiving Lakes  
3 Receiving Rivers

### Utility Finance

THE REGIONAL MUNICIPALITY OF DURHAM		WATER AND SANITARY SEWER BILL	
ACCOUNT NUMBER		SERVICE ADDRESS	
Account Number		Average Residential Customer	
DESCRIPTION	AMOUNT	DESCRIPTION	AMOUNT
Water Consumption	\$61.60	Sanitary Sewer Usage Charge	\$98.56
Water Service Charge	\$55.44	Sanitary Sewer Service Charge	\$20.20
Total Water Charges	\$117.04	Total Sewer Charges	\$118.76
		UNREGISTERED FIRE LINE FEE	\$236.30
		2% LATE PAYMENT CHARGE EFFECTIVE AFTER	
		AMOUNT DUE AFTER DATE SHOWN	

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



Respond to over 90,000 telephone inquiries and 46,000 emails annually

## Service Improvements

21 water supply and sanitary sewerage projects under construction

Total project value implemented approximately \$48.2 million

Launched 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 28,000 (approximately 15% of total customers), with 11,000 customers choosing the paperless e-billing option

## Customer Service

0 Boil Water Advisories

99.9 % compliance of drinking water test results

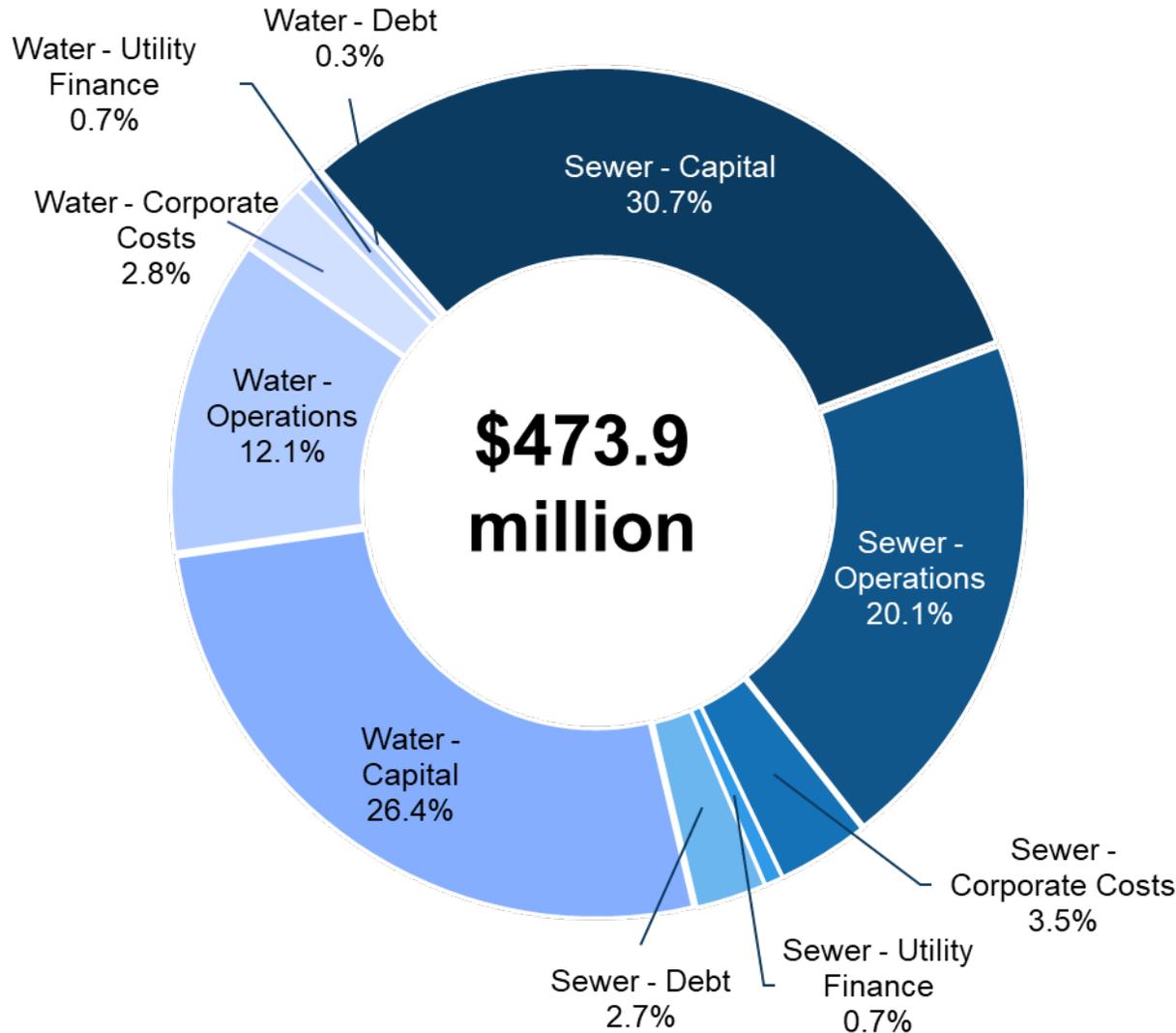
No sanitary sewage by-pass events

100% compliance of wastewater effluent results to protect the water environment

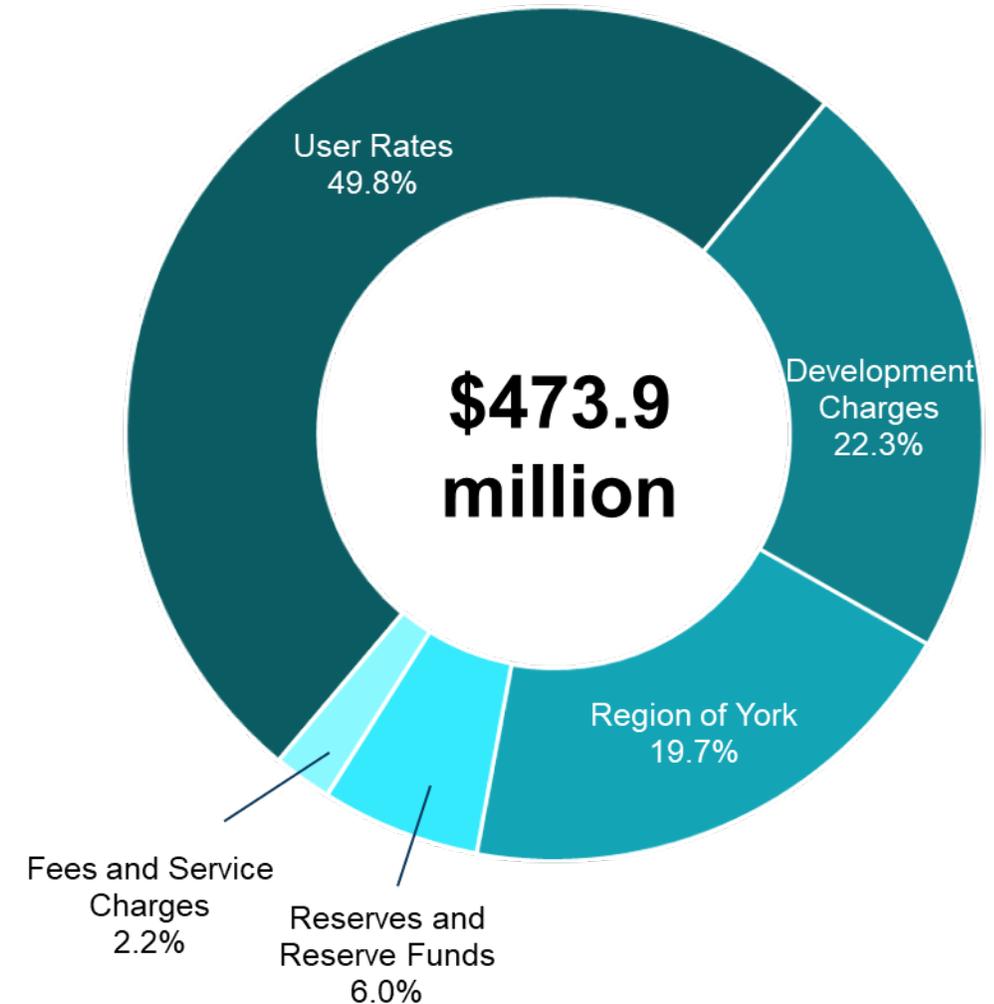
# 2022 Proposed Expenditures and Financing



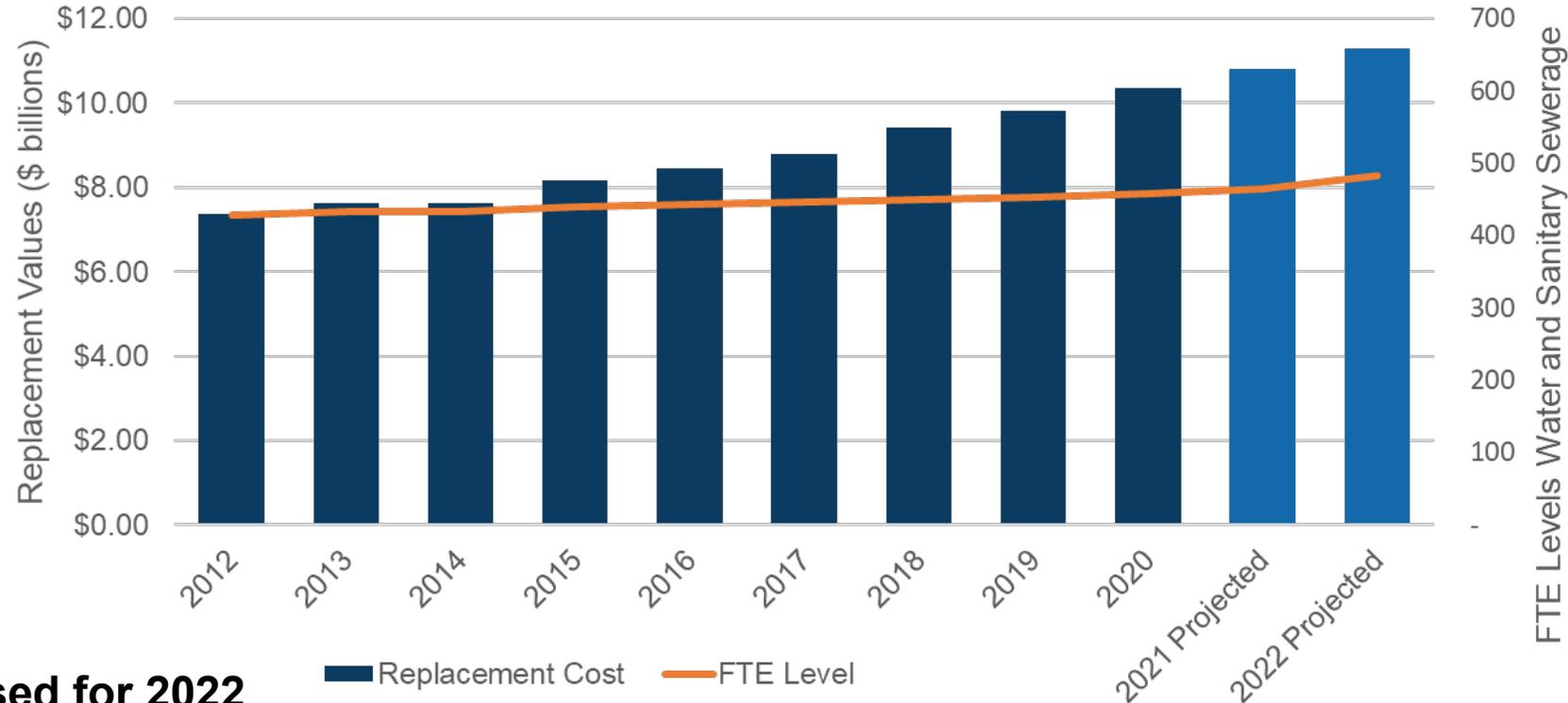
## 2022 Proposed Gross Expenditures



## 2022 Proposed Gross Financing



- Annualization of 7.956 FTE positions approved in 2021
- Professional services to support environmental and sustainability services, technical depot administration, asset management and cyber security activities
- Additional training to maintain legislative requirements and use new technology
- Implementation of the integrated water SCADA system from which all the water systems throughout the Region are monitored and controlled 24/7/365
- Data Management modernization continues at Duffin Creek WPCP with a focus on solids management operations in 2022. Similar data management modernization continues to be phased in at the Plant Operations division for water supply and sanitary sewerage service areas
- Implementation of the Enterprise Maintenance Management System is ongoing. Plant operations and infrastructure maintenance groups will be going live on the new system, Maximo, in spring 2022
- 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



### 16.520 FTEs proposed for 2022

- Service Improvements (0.634 FTEs) – supporting modernization of depot operations by introducing technology and process improvements
- State of Good Repair/Growth (13.586 FTEs) – addressing increased project volumes to advance asset management objectives, reducing GHG emissions and addressing Regional infrastructure growth
- Strategic Priorities (2.300 FTEs) – implementing system improvements to enhance service excellence and establishing in-house expertise for water quality planning and analysis

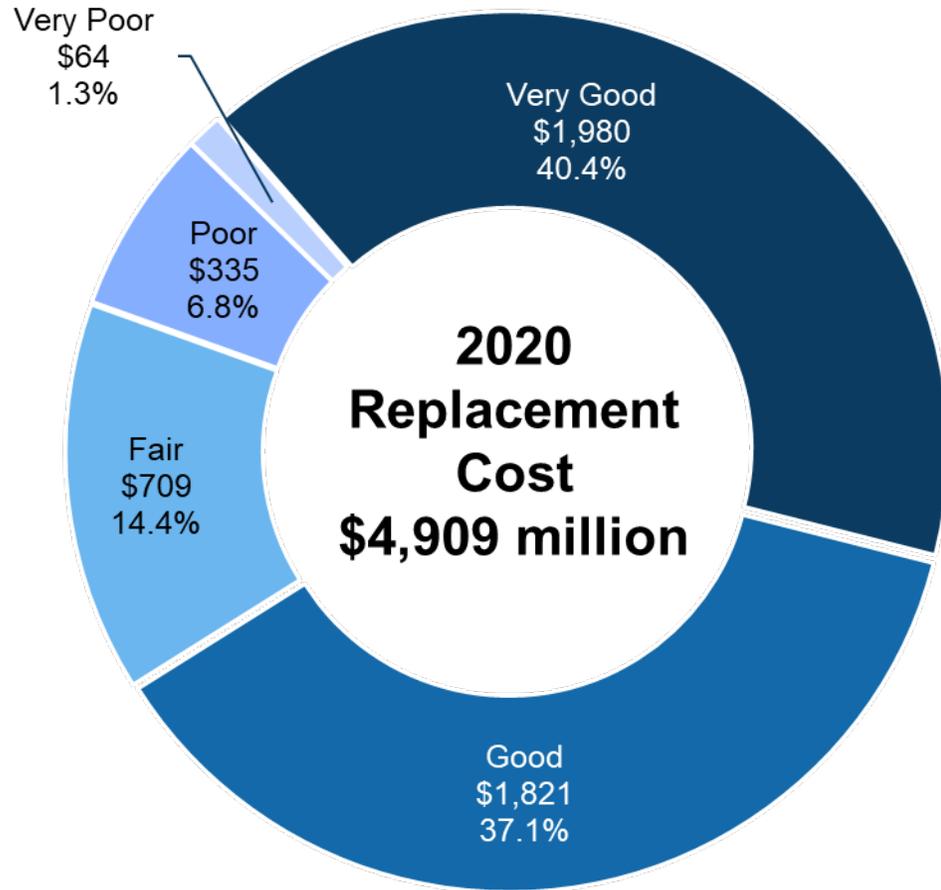


# Durham Budget

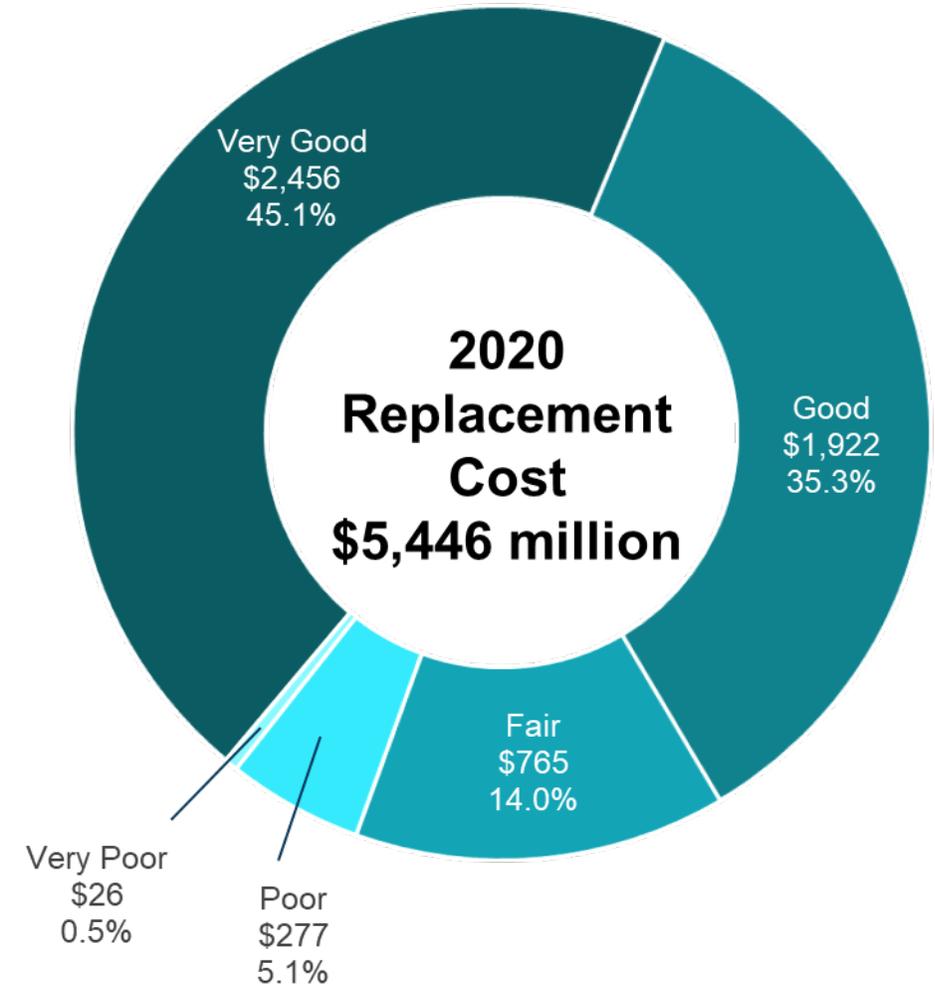
2022

## Overview of the Capital Program

### Water Supply (\$ millions)



### Sanitary Sewer (\$ millions)



# Ten-Year Capital Plan



(\$ millions)	Proposed 2022 Budget	2023	2024	2025	2026	2027-2031	Total 2022 - 2031
<b>Water Supply</b>	\$125.117	\$267.336	\$171.770	\$335.642	\$138.965	\$519.335	\$1,558.165
<b>Sanitary Sewerage</b>	\$145.364	\$340.256	\$195.944	\$247.450	\$244.713	\$737.155	\$1,910.882
<b>Total Capital Plan</b>	<b>\$270.481</b>	<b>\$607.592</b>	<b>\$367.714</b>	<b>\$583.092</b>	<b>\$383.678</b>	<b>\$1,256.490</b>	<b>\$3,469.047</b>

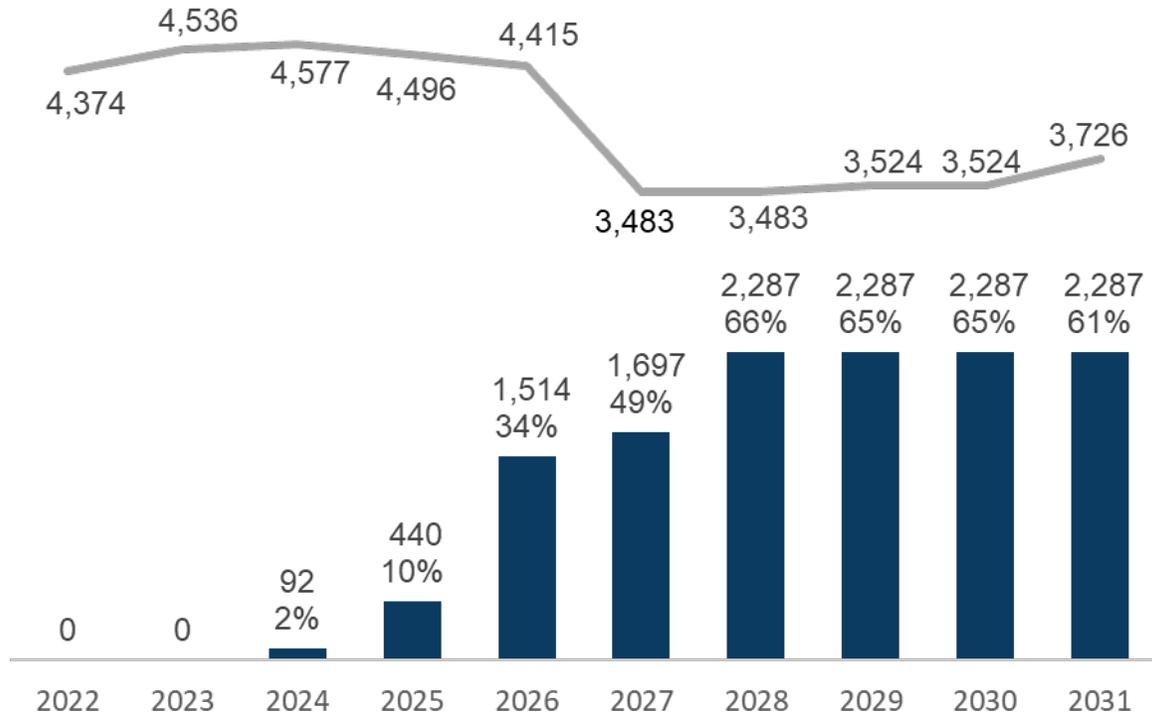
- Invest in new infrastructure to address anticipated growth
- Reflect advancement of Council’s strategic investments in water supply and sanitary sewer infrastructure to pre-service designated employment areas
- Address infrastructure rehabilitation, renewal and replacement requirements based on an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

# Proposed Financing

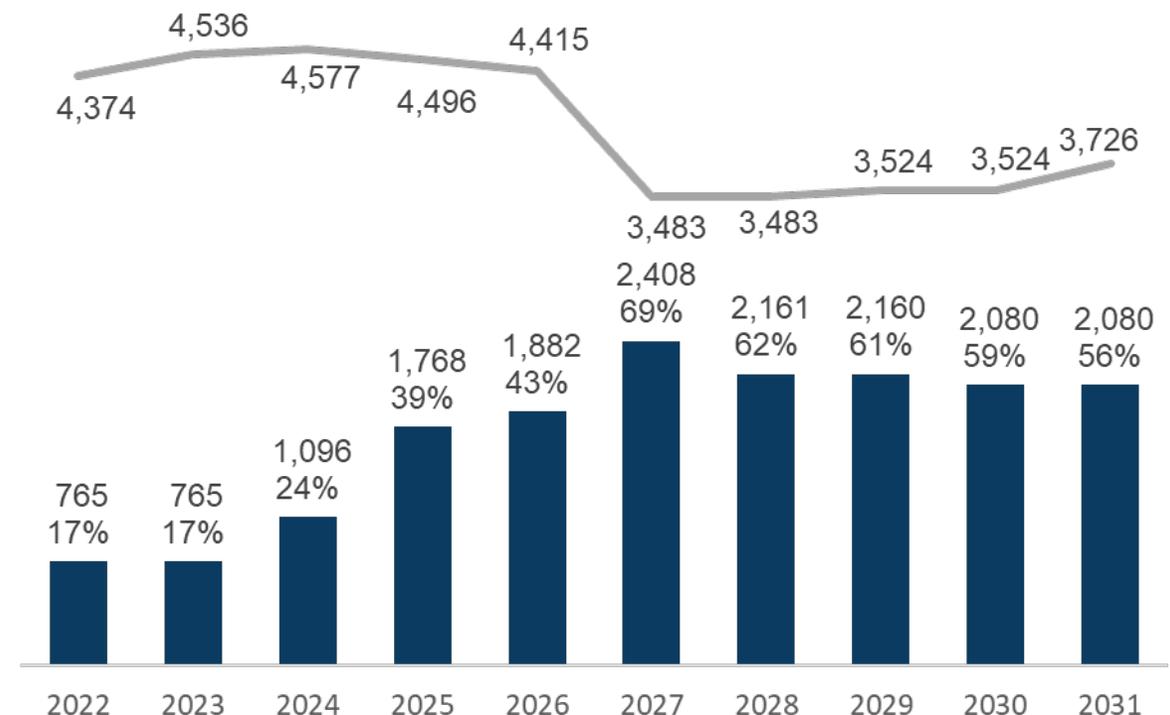
	Proposed 2022 Budget	2023	2024	2025	2026	2027-2031	Total 2022 - 2031
Development Charges	\$96.056	\$229.372	\$90.868	\$83.158	\$65.612	\$142.436	\$707.502
Asset Management RF	\$14.898	\$27.290	\$25.284	\$21.443	\$17.216	\$88.436	\$194.567
Rate Stabilization RF	\$11.897	\$110.844	\$31.022	\$104.243	\$60.771	-	\$318.777
Servicing of Employment Lands RF	\$1.002	\$3.227	\$0.003	\$2.171	\$0.003	\$1.777	\$8.183
Environmental Lab RF	\$0.750	-	-	-	-	-	\$0.750
Equipment Replacement R	\$0.107	\$0.060	\$0.060	\$0.060	-	\$0.240	\$0.527
Debenture Proceeds	-	\$45.203	\$109.507	\$141.215	\$103.185	\$64.505	\$463.615
Recovery from York	\$63.388	\$90.889	\$2.070	\$97.306	\$1.740	\$260.965	\$516.358
Developer Contributions	-	-	\$7.000	\$0.209	-	\$73.973	\$81.182
Subsidy/Grant	\$0.93	-	-	-	-	-	\$0.93
User Rates	\$82.290	\$100.707	\$101,900	\$133.287	\$135.151	\$624.158	\$1,177.493
<b>Total Capital Financing</b>	<b>\$270.481</b>	<b>\$607.592</b>	<b>\$367.714</b>	<b>\$583.092</b>	<b>\$383.678</b>	<b>\$1,256.490</b>	<b>\$3,469.047</b>

- 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 66 per cent of future water residential DC receipts and up to 69 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



# Durham Budget

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## Details of the 2022 Capital Budget

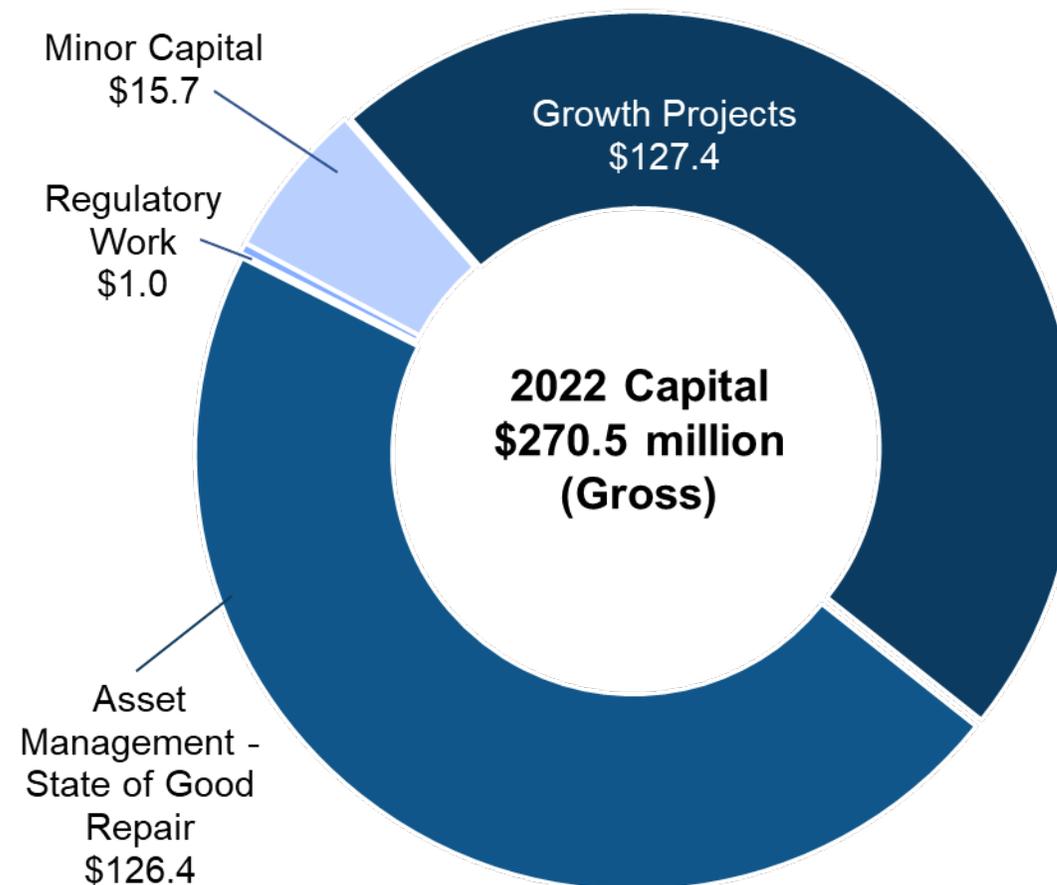
### Project Summary by Type:

- Class Environmental Assessments and Studies: \$2.9 million
- Detailed Design: \$18.2 million
- Construction: \$224.5 million
- Minor Capital: \$15.7 million

### Watermain and Sanitary Sewer Replacements Summary:

- Projects Co-ordinated with the Roads Projects: 9.2 km
- Independent Projects: 10.8 km
- **Total of Replacements: 20.0 km**

### Water Supply and Sanitary Sewerage Capital Projects



### Duffin Creek Water Pollution Control Plant

#### Replacement of Reactor 1 and 2

Detailed design has commenced

Prepurchase Contract Award – 2022

Enabling Contract Tender - 2022

**2022 Budget Provision: \$55,500,000**

**Total Estimated Project Cost: \$260,245,000**

**Durham's Share: \$68,184,190**

#### Phosphorous Optimization Implementation Plan and Outfall (PRAP projects)

Detailed design complete

Outfall modifications - Tender awarded

Phosphorous Optimization Implementation Plan – Tender awarded

**2022 Budget Provision: \$12,580,000**

**Total Estimated Project Cost: \$15,500,000**

**Durham's Share: \$3,100,000**



## Zone 1 Feedermain from Whitby Water Supply Plant to Thornton Rd., Whitby/Oshawa

**Phase 1: Victoria St. from South Blair St. to west of Thickson Rd., Whitby**

Works to be completed in conjunction with the Transportation works

**Phase 2: Victoria St./Bloor St. from east of Thickson Rd. to Thornton Rd.**

**Phase 3: Whitby WSP to South Blair St.**

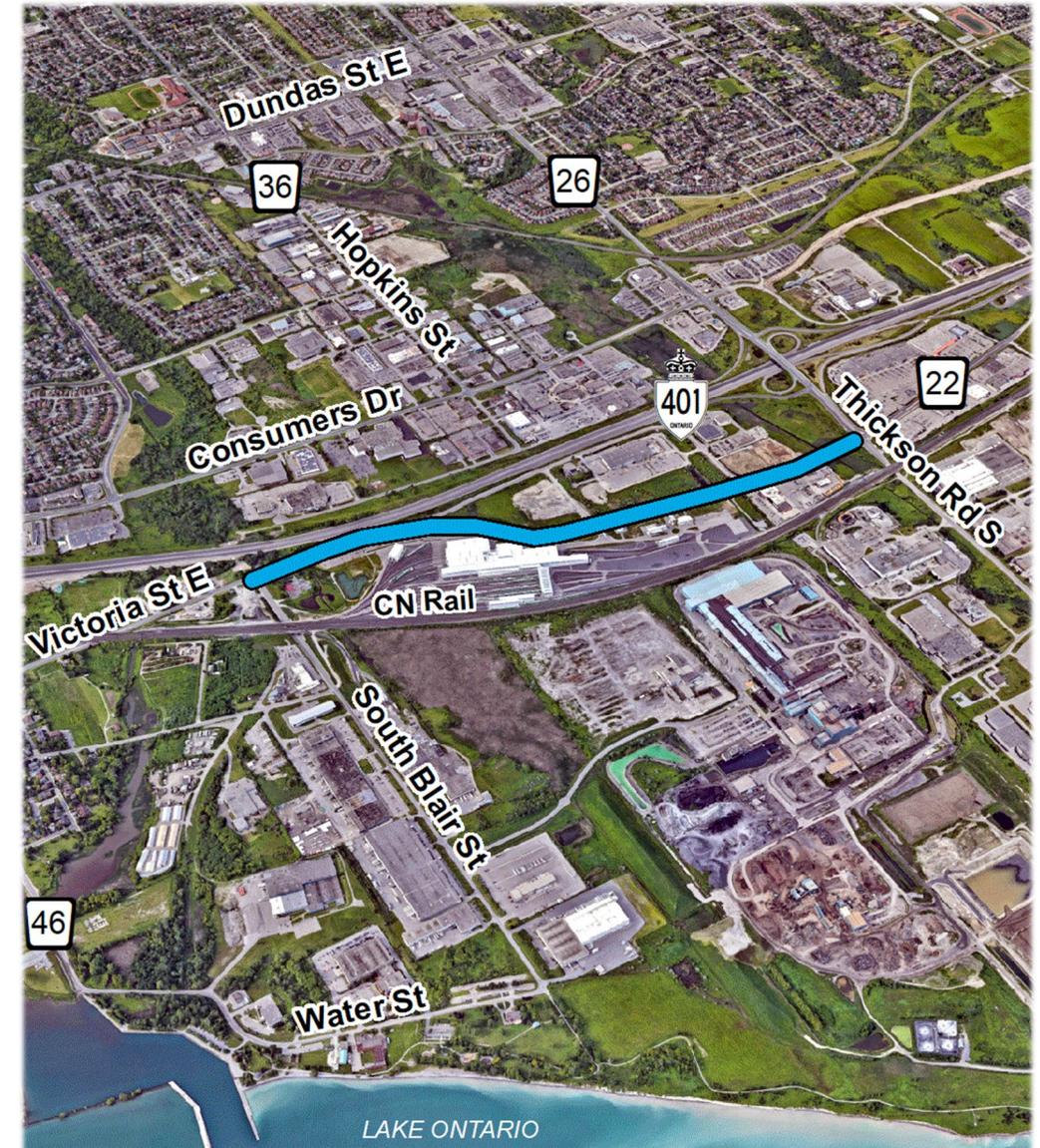
Detailed design has commenced

Tender ready 3rd quarter 2022

**2022 Budget Provision: \$8,000,000**

**Phase 1 Project Cost: \$17,100,000**

**Total Estimated Project Cost: \$51,000,000**



## Whitby Water Supply Plant – Expansion from 109 MLD to 218 MLD

Detailed Design has commenced

Multi-year construction to be completed in phases

Phase 1: Raw Water Pumping Station 2022

Phase 2: Energy Centre and Demolition of Facility Building 2023-2024

Phase 3: New Treatment Facility 2025-2027

**2022 Budget Provision: \$18,000,000**

**Total Estimated Project Cost: \$248,230,000**



## Oshawa Water Supply Plant - Rehabilitation of the Filters 1 to 6, Oshawa

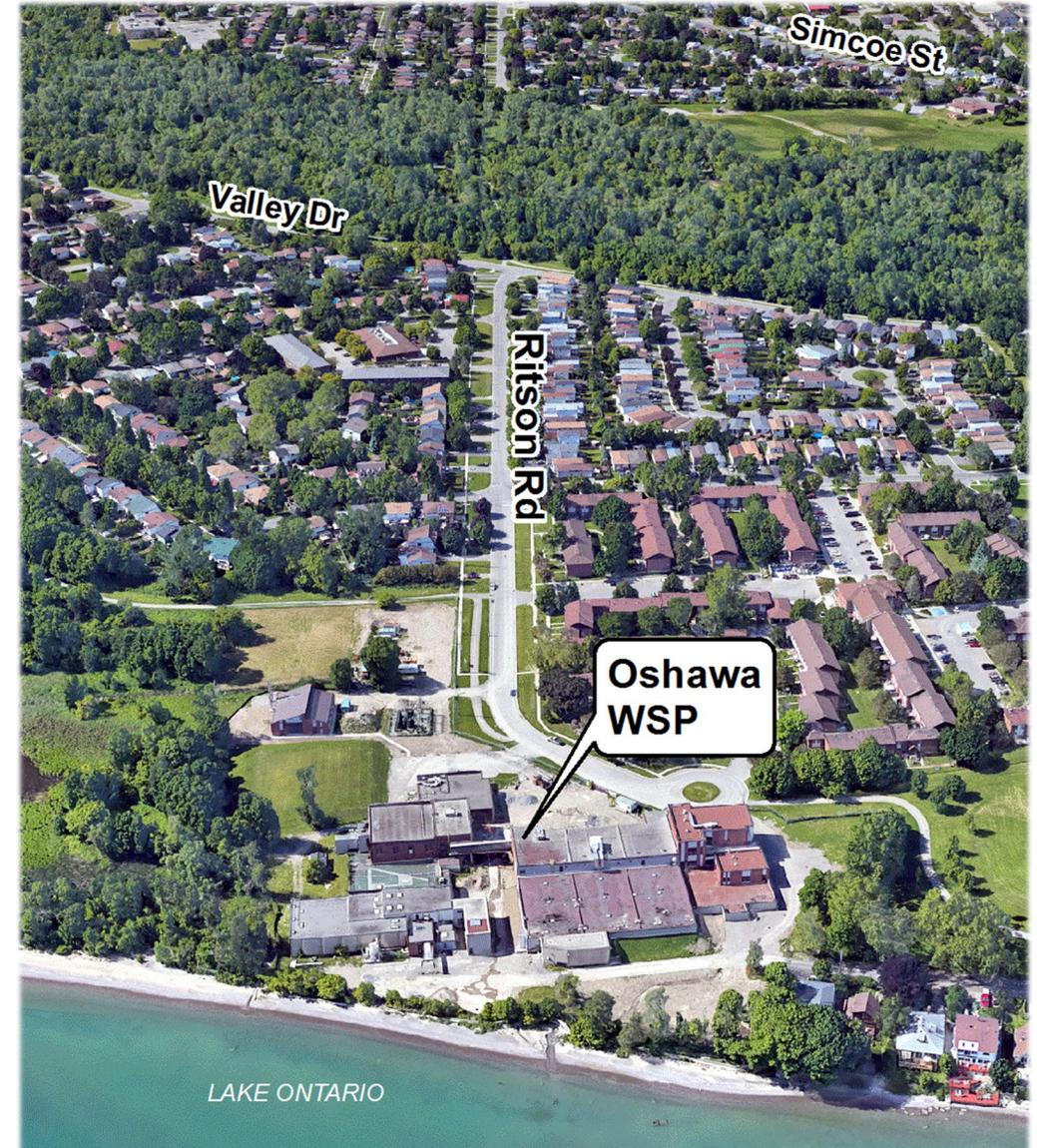
Detailed Design to commence 2022

Construction to be completed in phases.

Phase 1 construction – 2023-2024

**2022 Budget Provision: \$1,450,000**

**Total Estimated Project Cost: \$12,600,000**



### **Courtice Feedermain and Sanitary Trunk Sewer Phase 3: Baseline Rd. from Courtice Rd. to Trulls Rd. and Trulls Rd. from Baseline Rd. to Bloor St. Municipality of Clarington (Courtice)**

Detailed Design is complete

Tender ready 1st quarter 2022

#### Water Budget

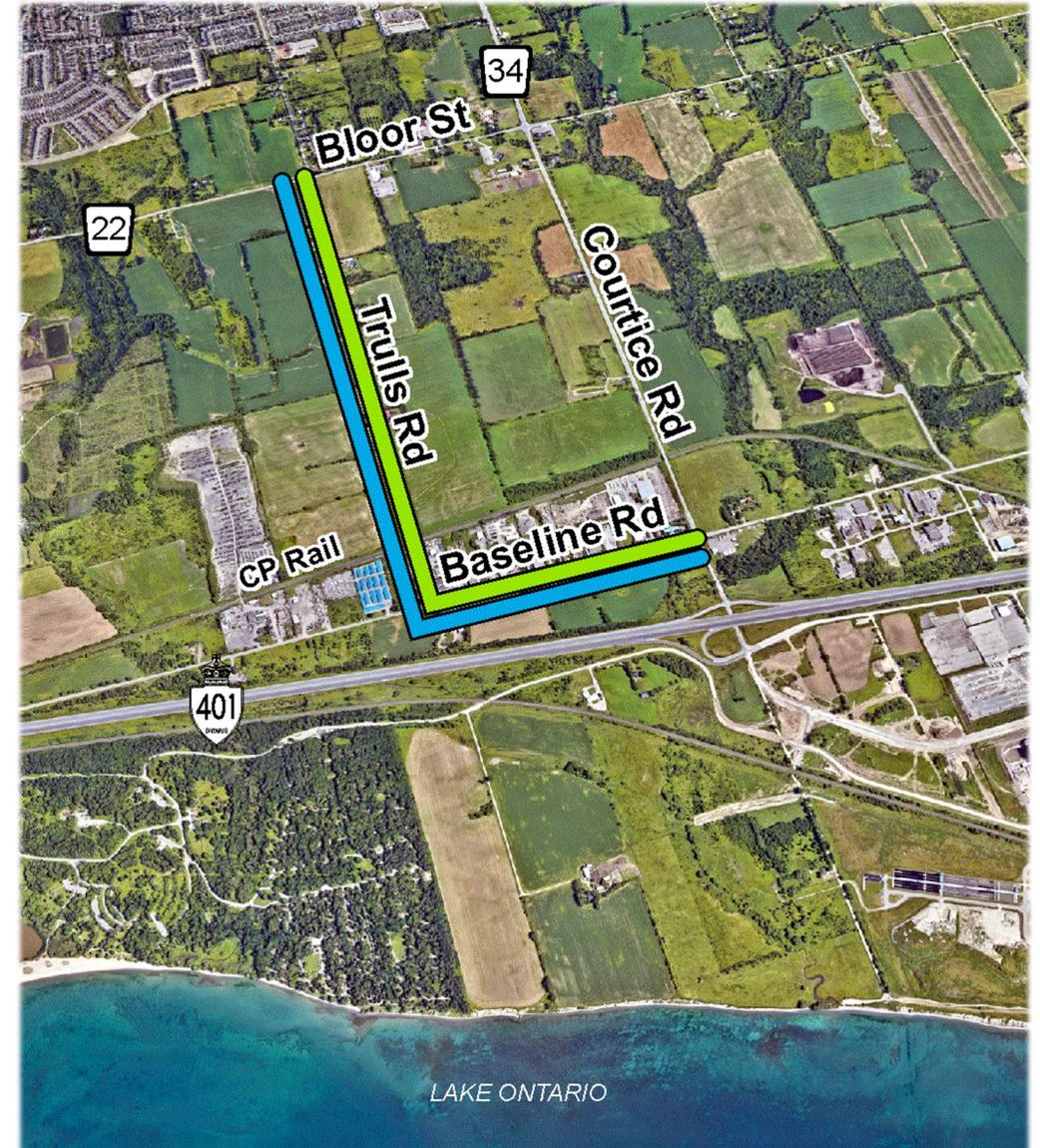
**Total Estimated Project Cost: \$5,690,700**

#### Sewer Budget

**2022 Budget Provision: \$6,000,000**

**Total Estimated Project Cost: \$39,200,000**

**Total Phase 3 Project Cost: \$44,890,700 (Water and Sewer)**



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

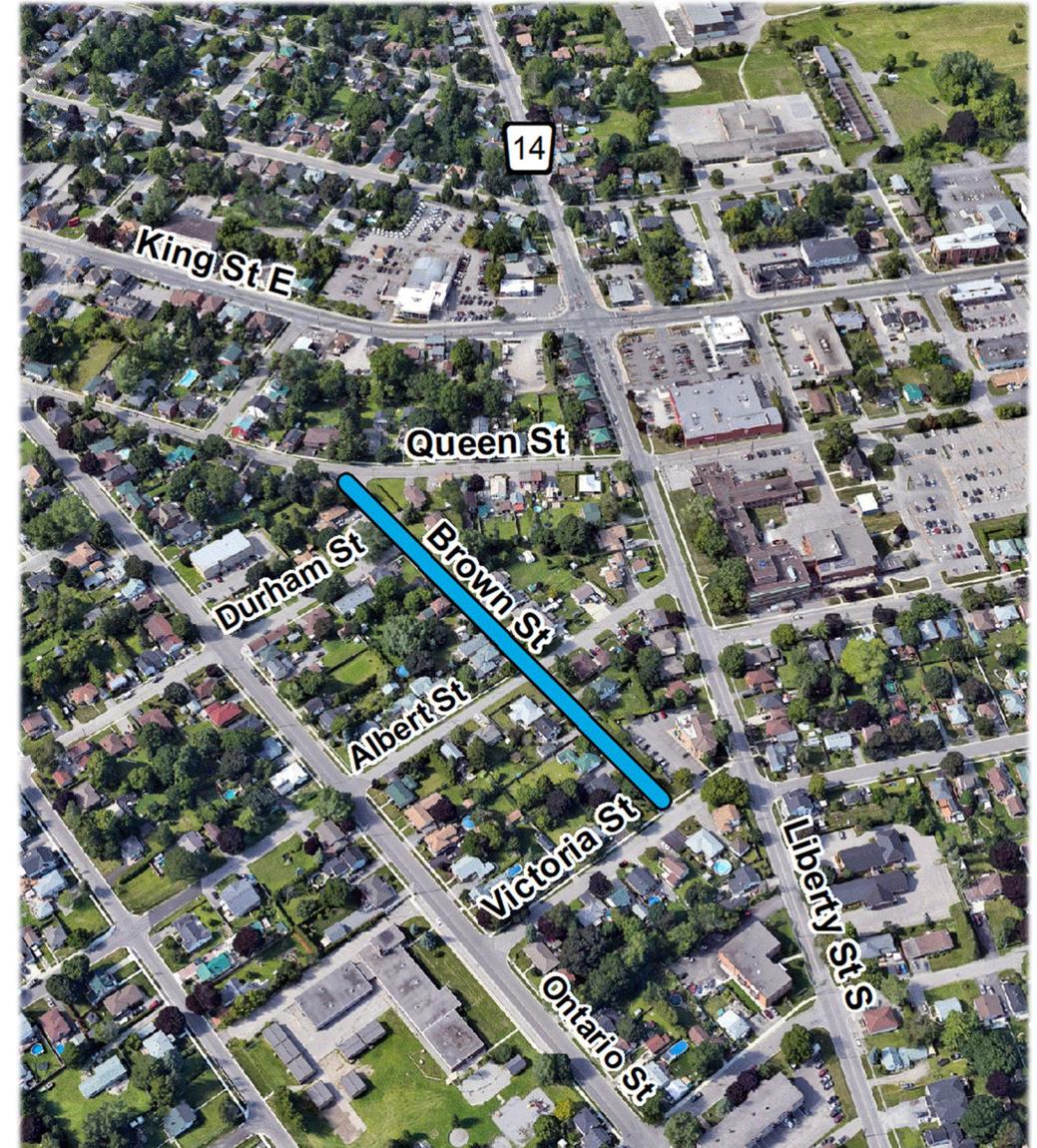
Work to be completed in conjunction with the Municipality of Clarington

Detailed design has commenced

Tender ready 2nd quarter 2022

**2022 Budget Provision: \$550,000**

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



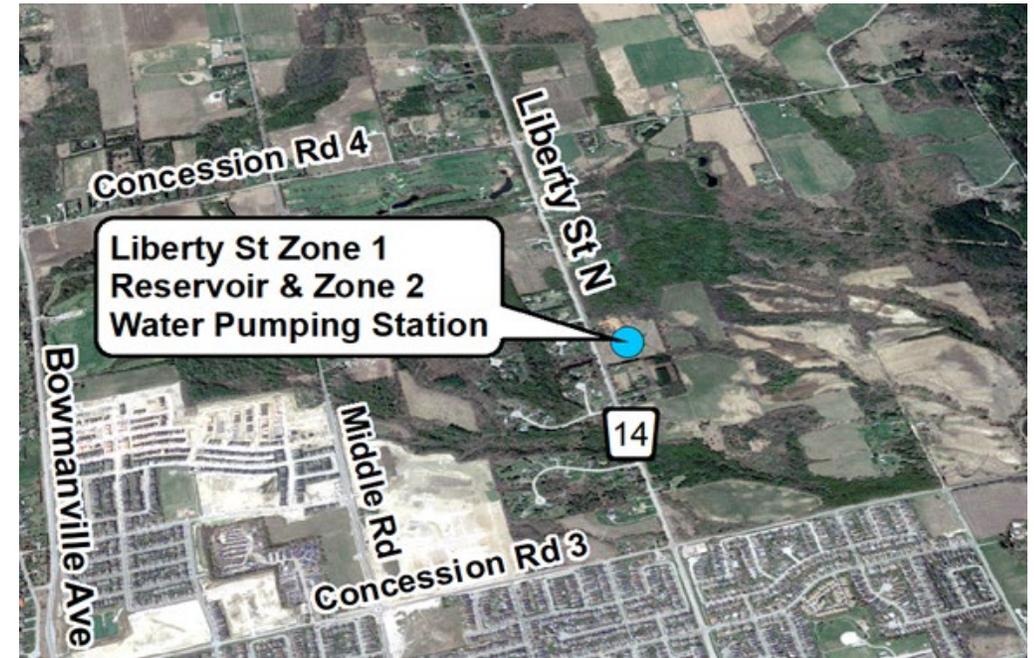
### Liberty Street Zone 1 Reservoir, Zone 2 Water Pumping Station Municipality of Clarington (Bowmanville)

Environmental Assessment Update and Detailed Design - have commenced

Tender ready 3rd quarter 2022

**2022 Budget Provision: \$28,150,000**

**Total Estimated Project Cost: \$30,900,000**



## Newcastle Water Pollution Control Plant – Capacity Re-rating 4 MLD to 7 MLD Municipality of Clarington (Newcastle)

Detailed design has commenced

Tender ready 2nd quarter 2022

**2022 Budget Provision: \$14,240,000**

**Total Estimated Project Cost: \$19,154,270**



### Port Perry Water Storage Facility – additional Capacity 2.8 ML and watermain Township of Scugog (Port Perry)

Detailed Design - to commence

Construction target: 2024-2025

**2022 Budget Provision: \$3,299,000**

**Total Estimated Project Cost: \$15,249,000**



## Water Street Sanitary Sewage Pumping Station – Expansion/Replacement Township of Scugog (Port Perry)

Environmental Assessment - Completed

Detailed Design – to commence 2022

Construction target: 2023-2024

**Total Estimated Project Cost: \$28,990,000**





# Durham Budget

2022

## Summary

# 1.8 Per Cent

## Proposed Water Supply and Sanitary Sewer User Rate Increase

\$19.52 annual increase for a typical residential customer

Residential Consumption projected at 245 m<sup>3</sup>/customer/year

Customer Growth projected at 1.00 per cent for water; 1.05 per cent for sewer

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

Customer/consumption growth

Market demands for engineering and construction services

Growth pressures

Increased rehabilitation needs informed by Region's Asset Management Plan

Impact of climate change on infrastructure investment levels

Legislative and regulatory changes from provincial and federal approval agencies

Operating cost increases (economic increases, chemicals and utilities)

Annualization of 2022 proposed budget decisions

Legislative and regulatory changes from provincial and federal approval agencies



# Durham Budget

2022

**QUESTIONS**