



**Durham  
Budget**

**2022**

# **2022 BUSINESS PLANS AND BUDGETS**

## **CONSOLIDATED WATER SUPPLY AND SANITARY SEWERAGE**

WORKS – WATER SUPPLY AND SANITARY SEWERAGE

UTILITY FINANCE

CORPORATE NON-DEPARTMENTAL – WATER SUPPLY AND SANITARY SEWERAGE

Presented to Finance and Administration Committee on December 14, 2021



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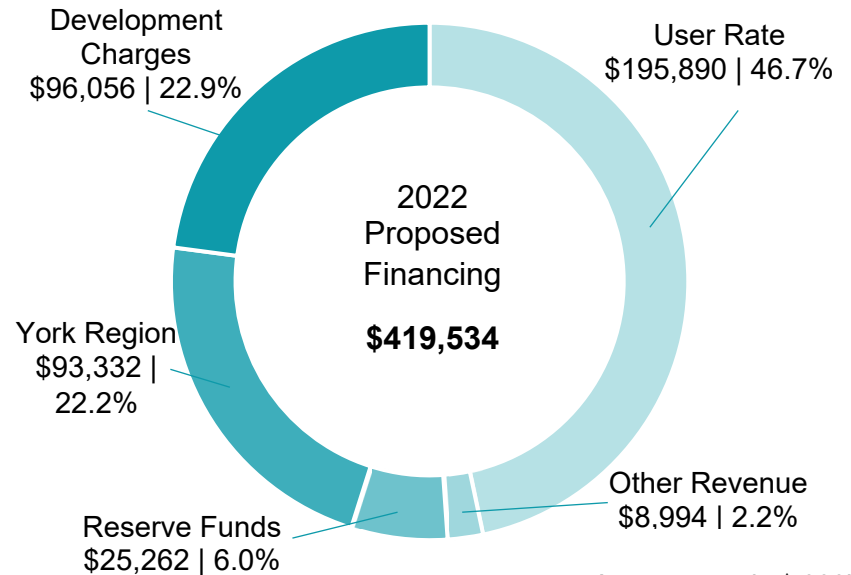
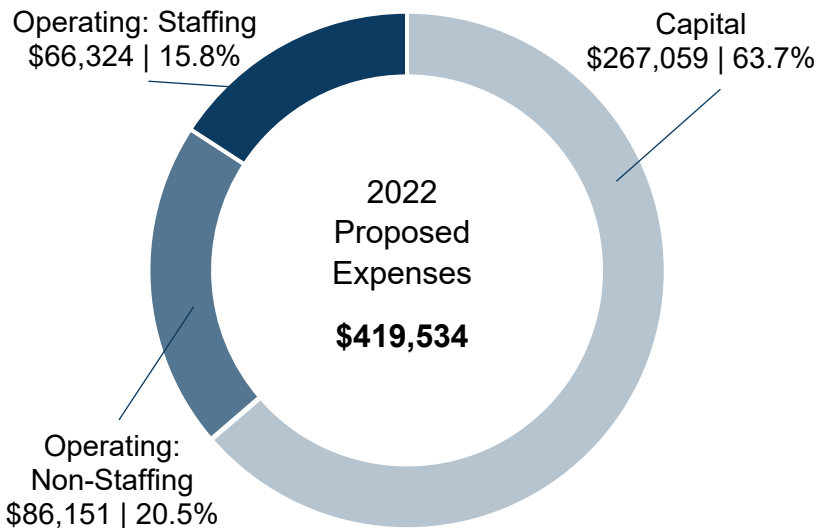


Durham Budget

2022

# WORKS - WATER SUPPLY AND SANITARY SEWERAGE

Plans, designs, constructs, operates and maintains Regional infrastructure related to the supply of drinking water and the protection of the water environment through the collection and treatment of sanitary sewage.



Amounts are in \$,000's



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## Major Programs and Services

### Water Supply

#### **Watermain Cleaning and Repairs**

Maintain and operate the Region's water distribution system by flushing watermains, cleaning through foam swabbing, repairing breaks, administering leak detection surveys and preventing corrosion of infrastructure through cathodic protection.

#### **Valves and Hydrants**

Maintain the Region's water valves and hydrants ensuring all are in good working condition.

#### **Water Connections**

Maintain the Region's water connection inventory to provide potable water for domestic use and fire protection.

#### **Water Meter Repair and Testing**

Maintain the Region's water meter inventory to accurately measure the consumption of water by replacing meters based on age. Other work includes the calibration, testing, repair and replacement of large meters as required.

#### **Depot Operations**

Support the delivery of water infrastructure maintenance activities including watermain repairs, valve and hydrant operations and water meter repair, calibration and replacement.

#### **Water Supply Plants – Plants East**

Serve Bowmanville, Newcastle, Orono and Blackstock (comprised of two surface water plants, six storage facilities, four municipal groundwater wells and three water pumping stations) by providing potable water which meets all quality requirements prescribed by the Ministry of the Environment, Conservation and Parks' (MECP) legislation and regulations, accomplished through continuous monitoring of water quality and flows.

#### **Water Supply Plants – Plants Central**

Serve Pickering, Ajax, Whitby, Oshawa and Courtice (Clarington) (comprised of three surface water plants, 13 water pumping stations and 11 storage facilities) by providing safe, potable water which meets all quality requirements prescribed by the MECP's legislation and regulations, accomplished through continuous monitoring of water quality and flows.

#### **Water Supply Plants – Plants North**

Serve the Townships of Brock, Scugog and Uxbridge (comprised of one surface water plant, 21 municipal groundwater wells, seven storage facilities and one water pumping station) by providing safe, potable water which meets all quality

## Major Programs and Services *Continued*

### **Sun Valley Co-Operative Water System**

A private water system operated by the Region on behalf of the Sun Valley Co-operative comprised of 17 properties in the City of Oshawa to supply safe, potable water which meets all quality requirements prescribed by MECP's legislation and regulations accomplished through continuous monitoring of water quality and flows.

### **SCADA Systems**

The centralized SCADA (Supervisory Control and Data Acquisition) Systems Group based at the Oshawa Water Supply Plant monitors, gathers and processes real time data to control plant processes, directly interacting with sensors, valves, pumps and motors while logging events for regulatory reporting requirements.

### **Engineering and Staff Support**

Support the delivery of capital projects and initiatives through planning, design and construction activities, including advancing the servicing of key Regional employment lands, providing real estate services for infrastructure projects including well head protection land acquisitions, maintaining linear infrastructure data within GIS systems, coordinating development applications with impacts to Regional services, providing technical support including water conservation programming, energy management guidance, oversight to the Region's Source Water Protection programs and supplying financial and administrative support services to all divisions within the Works Department.

### **Facilities Management**

Provide overall lifecycle management of all Regional facilities. Services include the design and construction of Regional facilities, delivery of major repair and renovation projects, lifecycle maintenance and replacement strategies, delivering corporate security services, and the ongoing and preventative maintenance and overall operation of Regional facilities, properties and grounds.

### **Administration**

Provide the overall strategic planning and direction to all programs within the Works Department.

### **Headquarters Shared Costs – Works - Water Supply Portion**

The allocated share of costs attributable to the Works Department – Water Supply for the operation of Regional Headquarters facility.

### **Construction of Municipal Services**

Plan, design and construction of the water supply system major capital program.



## Major Programs and Services *Continued*

### **Sanitary Sewerage**

#### **Cleaning, Repairs and Maintenance Holes**

Maintain and operate the Region's sanitary sewerage collection system efficiently and effectively, undertaking spot repairs of damaged sanitary sewers, and scheduled cleaning of sanitary sewers and syphons.

#### **Sewer Connections**

Maintain the Region's sanitary sewer connection inventory efficiently and effectively, safeguarding the public and environment from any public health hazards and ensuring continuity of service.

#### **Depot Operations**

Support the delivery of sanitary sewerage infrastructure maintenance activities which include the maintenance, cleaning and repairs of sanitary sewers, maintenance holes and sewer connections.

#### **Water Pollution Control Plants and Pumping Stations**

The water pollution control plants and sanitary sewerage pumping stations treat and convey sanitary sewerage, ensuring it meets the discharge requirements prescribed by the MECP. The system is comprised of 11 treatment plants and 51 pumping stations spread across the Region.

#### **Duffin Creek Water Pollution Control Plant**

Operation of the plant, co-owned by the Regions of Durham and York, to treat sanitary sewage, ensuring it meets the discharge requirements prescribed by the MECP. The Duffin Creek Water Pollution Control Plant is one the largest water pollution control plants in Ontario.

#### **Regional Environmental Laboratory**

Operation of a certified laboratory, co-owned by the Regions of Durham and York, which provides testing services for water and wastewater monitoring for the Regions of Durham and York, local municipalities and private clients. Services are provided in accordance with the MECP License and laboratory accreditation for drinking water and wastewater requirements.

## Major Programs and Services *Continued*

### **Engineering and Staff Support**

Support the delivery of capital projects and initiatives through planning, design and construction activities, including advancing the servicing of key Regional employment lands, providing real estate services for infrastructure projects including well head protection land acquisitions, maintaining linear infrastructure data within GIS systems, coordinating development applications with impacts to Regional services, providing technical support including water conservation programming, energy management guidance, oversight to the Region's Source Water Protection programs and supplying financial and administrative support services to all divisions within the Works Department.

### **Facilities Management**

Provide overall lifecycle management of all Regional facilities. Services include the design and construction of Regional facilities, delivery of major repair and renovation projects, lifecycle maintenance and replacement strategies, delivering corporate security services, and the ongoing and preventative maintenance and overall operation of Regional facilities, properties and grounds.

### **Administration**

The overall strategic planning and direction to all programs within the Works Department.

### **Headquarters Shared Costs – Works - Sanitary Sewerage Portion**

The allocated share of costs attributable to Works Department – Sanitary Sewerage for the operation of Regional Headquarters for the operation of Regional Headquarters facility.

### **Construction of Municipal Services**

Plan, design and construction of the sanitary sewerage system major capital program.

# Strategic Priorities

For 2022 some of the key priorities and planned actions focus on:

## Environmental Sustainability



Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment with internal and external partners and academic institutions.



Continuation of Integrated Resource Recovery studies at water pollution control plants; implement programs to reduce emissions and use energy efficiently; and explore other energy resource recovery initiatives.



Protect, preserve and restore the natural environment including greenspaces, waterways, parks, trails, and farmlands by planning and implementing critical sanitary sewerage infrastructure identified through asset management planning.



Demonstrate leadership in sustainability and climate change action by mitigating the environmental impacts of projects and incorporating strategies in the construction and rehabilitation of Regional infrastructure and facilities by incorporating climate-friendly strategies.

## Strategic Priorities *Continued*

### Economic Prosperity



Position Durham Region as the location of choice for business by servicing strategic employment lands; streamlining review and payment processes; and planning for growth. The Region has tendered 1 out of 8 contracts to service strategic employment lands in 2021, and a detailed design contract has been awarded for another project. Class EA work will commence for two projects in 2022. Two other projects will be led by developers with construction on one project anticipated for 2022.



Provide a supportive environment for agriculture and agri-food industries by maintaining beneficial re-use of treated municipal wastewater solids (biosolids) on agricultural lands; and working collaboratively with industry to promote growth while maintaining a sewer-use program.

### Service Excellence



Optimize resources and partnerships to deliver exceptional quality services and value by continuing a “customer first” focus.



Collaborate for a seamless service experience by seeking new partnerships with local municipalities; developing a coordinated complaints log for Works to ultimately roll into myDurham311; and maintaining and expanding the service request system for addressing external concerns through a single point of contact.



Demonstrate commitment to continuous quality improvement and transparency through public engagement on all major public works initiatives in real time.

## Strategic Priorities *Continued*



Leverage the Enterprise Maintenance Management System for a coordinated complaints log and tool for public requests for work; modernizing the review and approval of development engineering submissions through the PlanIT platform; and modernizing data management and automation within the water supply and water pollution control plants.

### Community Vitality



Review and expand system capacity to facilitate balanced growth to provide an adequate mix of attainable housing for residents at all ages and stages of life. Through revitalized infrastructure, we will ensure traditional neighbourhoods remain great places to live and work, and build complete communities that are walkable, well-connected and adequately served by nearby amenities.



Revitalize existing neighbourhoods and build complete communities that are walkable, well-connected, and have a mix of attainable housing through monitoring and assessing excess capacity available in existing sanitary sewer and water distribution systems.

## Key Targets for 2022

### Water Supply

- Maintain and operate 2,669 kilometres of watermains – 1.5% system growth over 2021
- Maintain and operate 28,864 valves – 1.5% growth over 2021
- Inspect and maintain 16,960 fire hydrants – 2.7% increase over 2021 inventory
- Maintain 184,260 water supply connections – 1.1% system growth over 2021
- Treat 72,731 megalitres of water – 6.2% increase over projections for 2021

### Sanitary Sewerage

- 2,233 kilometres of gravity sanitary sewer maintained and operated - 1.2% system growth over 2021
- 64 kilometres of sanitary sewerage forcemains maintained and operated - consistent with 2021 inventory
- 95 siphons representing 9.5 kilometres of sanitary sewer maintained and operated
- 180,360 sanitary sewer connections maintained – 1.1% system growth over 2021
- Treat a total of 181,179 megalitres of sanitary sewerage, a slight decrease from 2021, with 130,758 megalitres flowing through Duffin Creek Water Pollution Control Plant
- Analyze 60,000 samples for 200,000 tests at the Regional Environmental Laboratory - consistent with 2021 levels

## Financial Details: Summary by Account (\$,000's)


*Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user-rate requirement*

	2021 Estimated Actuals	2021 Approved Budget	2022 Proposed Budget	Variance	
				\$	%
<b>Expenses</b>					
<b>Operating Expenses</b>					
Personnel Expenses	60,674	63,541	66,324		
Personnel Related	1,450	2,168	2,193		
Communications	1,393	1,106	1,093		
Supplies	8,073	7,775	8,041		
Utilities	18,244	20,850	20,155		
Chemicals	8,474	8,126	8,747		
Computer Maintenance & Operations	734	893	901		
Materials & Services	8,042	8,180	8,538		
Buildings & Grounds Operations	4,424	4,164	4,822		
Equipment Maintenance & Repairs	4,334	4,095	3,762		
Vehicle Operations	3,747	3,854	4,177		
Professional Services	1,375	1,839	2,240		
Contracted Services	4,432	4,539	4,274		
Leased Facilities Expenses	41	43	43		
Financial Expenses	2,544	2,689	2,887		
Property Taxes	5,243	5,206	5,341		
Minor Assets & Equipment	105	12	441		
Major Repairs & Renovations	1,516	1,601	788		
Contribution to Reserves / Reserve Funds	250	250	264		
Headquarters Shared Costs	2,250	2,250	2,306		
<b>Operating Expenses Subtotal</b>	<b>137,345</b>	<b>143,181</b>	<b>147,337</b>	<b>4,156</b>	<b>2.9%</b>

## Financial Details: Summary by Account (\$,000's)

Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user-rate requirement

Continued

 <b>Durham Budget</b> <span style="font-size: 2em; font-weight: bold; color: white;">2022</span>	2021 Estimated Actuals	2021 Approved Budget	2022 Proposed Budget	Variance	
				\$	%
<b>Internal Transfers &amp; Recoveries</b>					
NextGen Fees	46	46	46		
Communications Charge	357	357	362		
Corporate IT Charge	321	321	321		
Corporate HR Charge	160	160	160		
Health Charge	25	25	-		
Works-General Administration Charge	3,074	3,074	3,138		
Works-Facilities Management Charge	1,432	1,432	1,546		
Recovery - Ajax WSP - Labour	(3)	(3)	(4)		
Recovery - Works-General Tax	(338)	(338)	(338)		
Recovery - Regional Environmental Lab	(93)	(93)	(93)		
<b>Internal Transfers &amp; Recoveries Subtotal</b>	<b>4,981</b>	<b>4,981</b>	<b>5,138</b>	<b>157</b>	<b>3.2%</b>
<b>Gross Operating Expenses</b>	<b>142,326</b>	<b>148,162</b>	<b>152,475</b>	<b>4,313</b>	<b>2.9%</b>
<b>Capital Expenses</b>					
New	1,853	1,853	3,111		
Replacement	7,521	7,521	9,184		
Major Capital	168,755	168,755	254,764		
<b>Capital Expenses Subtotal</b>	<b>178,129</b>	<b>178,129</b>	<b>267,059</b>	<b>88,930</b>	<b>49.9%</b>
<b>Total Expenses</b>	<b>320,455</b>	<b>326,291</b>	<b>419,534</b>	<b>93,243</b>	<b>28.6%</b>

## Revenues and Financing

### Operating Revenue


Fees & Service Charges	(5,037)	(5,906)	(6,053)		
Sale of Publications	(13)	(23)	(19)		
Rents	(35)	(47)	(48)		
Sundry Revenue	(3,478)	(1,273)	(1,274)		
Revenue from Municipalities	(28,437)	(31,001)	(31,445)		



## Financial Details: Summary by Account (\$,000's)

*Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user-rate requirement*

*Continued*

	2021 Estimated Actuals	2021 Approved Budget	2022 Proposed Budget	Variance	
				\$	%
Revenue from Related Entities	(6)	(6)	(6)		
<b>Operating Revenue Subtotal</b>	<b>(37,007)</b>	<b>(38,256)</b>	<b>(38,845)</b>	<b>(589)</b>	<b>1.5%</b>
<b>Capital Financing</b>					
Sewer Residential DC	(22,581)	(22,581)	(25,703)		
Sewer Commercial DC	(1,456)	(1,456)	(2,341)		
Sewer Industrial DC	(1,707)	(1,707)	(192)		
Water Residential DC	(26,536)	(26,536)	(63,793)		
Water Commercial DC	(714)	(714)	(2,420)		
Water Industrial DC	(1,460)	(1,460)	(1,607)		
Servicing of Employment Lands RF	(1,218)	(1,218)	(1,003)		
Asset Management Reserve Fund	(14,535)	(14,535)	(14,898)		
Recovery from York	(15,672)	(15,672)	(63,388)		
Developer Contributions	(14,792)	(14,792)	-		
Federal Grant	(15)	(15)	(93)		
Recovery from Reserve Funds - Capital	(160)	(160)	(797)		
Rate Stabilization Reserve Fund	-	-	(8,564)		
<b>Capital Financing Subtotal</b>	<b>(100,846)</b>	<b>(100,846)</b>	<b>(184,799)</b>	<b>(83,953)</b>	<b>83.2%</b>
<b>Total Revenues and Financing</b>	<b>(137,853)</b>	<b>(139,102)</b>	<b>(223,644)</b>	<b>(84,542)</b>	<b>60.8%</b>
<b>Works - Water Supply System and Sanitary Sewerage System Total</b>	<b>182,602</b>	<b>187,189</b>	<b>195,890</b>	<b>8,701</b>	<b>4.6%</b>

## Financial Details: Summary by Program (\$,000's)

*Provides the total operating expense, capital expense, subsidy, other revenue and the resulting user-rate requirement for each major program and service*

	2021 Estimated Actuals	2021 Approved Budgets					2022 Proposed Budgets					Variance	
		Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Approved Budget	Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Proposed Budget	\$	%
<b>Works - Water Supply</b>													
1 Watermain Cleaning and Repairs	3,511	3,691	-	-	-	3,691	3,545	-	-	-	3,545	(146)	
2 Valves and Hydrants	2,276	3,042	-	-	(767)	2,275	3,255	-	-	(853)	2,402	127	
3 Water Connections	4,027	4,281	-	-	(489)	3,792	4,725	-	-	(497)	4,228	436	
4 Water Meter Repair and Testing	423	562	-	-	(131)	431	594	-	-	(133)	461	30	
5 Depot Operations	6,019	6,163	40	-	(141)	6,062	6,220	331	-	(136)	6,415	353	
6 Water Supply Plants – Plants East	3,486	3,368	235	-	(89)	3,514	3,332	235	-	(89)	3,478	(36)	
7 Water Supply Plants – Plants Central	15,853	14,226	2,348	-	(103)	16,471	14,602	435	-	(103)	14,934	(1,537)	
8 Water Supply Plants – Plants North	2,674	2,882	100	-	(100)	2,882	3,011	30	-	(30)	3,011	129	
9 Sun Valley Co-Operative Water System	-	29	-	-	(29)	-	30	-	-	(30)	-	-	
10 SCADA Systems	200	-	200	-	-	200	-	-	-	-	-	(200)	
11 Engineering and Staff Support	6,790	7,835	335	-	(617)	7,553	8,293	433	-	(666)	8,060	507	
12 Facilities Management	9,011	7,514	1,632	-	(29)	9,117	8,184	1,971	(67)	(977)	9,111	(6)	
13 Administration	312	335	-	-	-	335	342	-	-	-	342	7	
14 Headquarters Shared Cost - Works - Water Supply Portion	1,125	1,125	-	-	-	1,125	1,153	-	-	-	1,153	28	
15 Construction of Municipal Services	41,892	-	76,337	-	(34,445)	41,892	-	118,304	-	(73,943)	44,361	2,469	
<b>Works - Water Supply Subtotal</b>	<b>97,599</b>	<b>55,053</b>	<b>81,227</b>	<b>-</b>	<b>(36,940)</b>	<b>99,340</b>	<b>57,286</b>	<b>121,739</b>	<b>(67)</b>	<b>(77,457)</b>	<b>101,501</b>	<b>2,161</b>	<b>2.2%</b>

## Financial Details: Summary by Program (\$,000's)


Provides the total operating expense, capital expense, subsidy, other revenue and the resulting user-rate requirement for each major program and service

Continued

	2021 Estimated Actuals	2021 Approved Budgets					2022 Proposed Budgets					Variance		
		Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Approved Budget	Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Proposed Budget	\$	%	
<b>Works - Sanitary Sewerage System</b>														
1	Cleaning, Repairs and Maintenance Holes	2,112	2,143	-	-	-	2,143	2,188	-	-	-	2,188	45	
2	Sewer Connections	2,572	3,418	-	-	(953)	2,465	3,567	-	-	(1,011)	2,556	91	
3	Depot Operations	3,377	3,407	40	-	(32)	3,415	3,492	331	-	(29)	3,794	379	
4	WPCPs and Pumping Stations	25,456	25,496	1,303	-	(264)	26,535	25,240	2,196	-	(214)	27,222	687	
5	Duffin Creek WPCP													
	(a) Management Committee	871	2,796	-	-	(1,840)	956	2,836	-	-	(1,771)	1,065	109	
	(b) Duffin Creek Plant	4,931	30,065	1,587	-	(26,158)	5,494	30,313	2,494	-	(27,171)	5,636	142	
	(c) Duffin Creek Tech Support	46	226	-	-	(184)	42	231	-	-	(189)	42	-	
	(d) Duffin Creek Administration	547	2,931	-	-	(2,384)	547	3,019	-	-	(2,472)	547	-	
	(e) Duffin Creek Facility	431	2,025	180	(15)	(1,775)	415	2,000	550	-	(2,067)	483	68	
	<b>Total Duffin Creek WPCP</b>	<b>6,826</b>	<b>38,043</b>	<b>1,767</b>	<b>(15)</b>	<b>(32,341)</b>	<b>7,454</b>	<b>38,399</b>	<b>3,044</b>	<b>-</b>	<b>(33,670)</b>	<b>7,773</b>	<b>319</b>	
6	Regional Environmental Laboratory	529	3,083	196	-	(2,819)	460	3,213	1,057	-	(3,660)	610	150	
7	Engineering and Staff Support	6,028	7,461	582	-	(895)	7,148	8,076	197	-	(962)	7,311	163	
8	Facilities Management	9,078	8,595	596	-	(5)	9,186	9,516	2,035	(26)	(952)	10,573	1,387	
9	Administration	320	338	-	-	-	338	345	-	-	-	345	7	
10	Headquarters Shared Cost - Works - Sanitary Sewerage Portion	1,125	1,125	-	-	-	1,125	1,153	-	-	-	1,153	28	
11	Construction of Municipal Services	27,580	-	92,418	-	(64,838)	27,580	-	136,460	-	(105,596)	30,864	3,284	
<b>Works - Sanitary Sewerage Subtotal</b>		<b>85,003</b>	<b>93,109</b>	<b>96,902</b>	<b>(15)</b>	<b>(102,147)</b>	<b>87,849</b>	<b>95,189</b>	<b>145,320</b>	<b>(26)</b>	<b>(146,094)</b>	<b>94,389</b>	<b>6,540</b>	<b>7.4%</b>
<b>Works - Water Supply System and Sanitary Sewerage Total</b>		<b>182,602</b>	<b>148,162</b>	<b>178,129</b>	<b>(15)</b>	<b>(139,087)</b>	<b>187,189</b>	<b>152,475</b>	<b>267,059</b>	<b>(93)</b>	<b>(223,551)</b>	<b>195,890</b>	<b>8,701</b>	<b>4.6%</b>

## Financial Details: Summary of Capital (\$,000's)


Provides a summary of the current year capital budget, nine-year capital forecast and proposed financing summarized by asset type. See Appendices for specific capital projects

	2021 Approved Budget	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
<b>Water Supply</b>								
<b>Capital Expenditures</b>								
Linear Infrastructure	37,167	43,668	118,859	80,027	49,998	93,920	186,180	528,984
Building & Structures	15,556	64,013	123,070	72,604	264,402	29,851	294,465	784,392
Machinery & Equipment	24,075	8,163	10,021	12,271	14,615	5,686	13,436	56,029
Information Technology Infrastructure	380	1,278	6,687	11	2,511	5,022	27	14,258
Vehicles	244	304	168	25	25	25	75	318
Furniture & Fixtures	130	88	29	20	13	13	42	117
Allowances & Other Provisions	3,675	4,225	5,116	3,425	4,025	4,425	24,875	41,866
<b>Capital Expenditure Subtotal</b>	<b>81,227</b>	<b>121,739</b>	<b>263,950</b>	<b>168,383</b>	<b>335,589</b>	<b>138,942</b>	<b>519,100</b>	<b>1,425,964</b>
<b>Capital Financing</b>								
Water Residential DC	26,536	63,793	140,402	48,623	45,973	31,375	65,875	332,248
Water Commercial DC	714	2,420	5,071	2,331	2,661	1,845	6,074	17,982
Water Industrial DC	1,459	1,607	9,434	-	3,023	2,955	6,740	22,152
Reserve Fund - Asset Management	5,486	5,623	13,458	5,907	6,455	6,716	33,276	65,812
Reserve Fund - Water Rate Stabilization	-	932	24,016	6,400	75,883	-	-	106,299
Equipment Replacement Reserve	-	33	-	-	-	-	-	-
Reserve Fund- Servicing of Employment Lands	250	500	2,384	-	1,600	-	-	3,984
Developer Contributions	-	-	-	7,000	209	-	73,973	81,182
Subsidy / Grant	-	67	-	-	-	-	-	-
Debentures - DC Funded	-	-	10,000	38,068	129,097	20,000	64,505	261,670
User Rate	46,782	46,764	59,185	60,054	70,688	76,051	268,657	534,635
<b>Capital Financing Subtotal</b>	<b>81,227</b>	<b>121,739</b>	<b>263,950</b>	<b>168,383</b>	<b>335,589</b>	<b>138,942</b>	<b>519,100</b>	<b>1,425,964</b>
<b>Total Capital Water Supply</b>	<b>81,227</b>	<b>121,739</b>	<b>263,950</b>	<b>168,383</b>	<b>335,589</b>	<b>138,942</b>	<b>519,100</b>	<b>1,425,964</b>

## Financial Details: Summary of Capital (\$,000's)

Provides a summary of the current year capital budget, nine-year capital forecast and proposed financing summarized by asset type. See Appendices for specific capital projects

Continued

 <b>Durham Budget</b>	2022	2021 Approved Budget	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
<b>Sanitary Sewerage</b>									
<b>Capital Expenditures</b>									
Linear Infrastructure		46,991	26,299	167,565	54,124	87,338	35,252	390,095	734,374
Building & Structures		16,921	20,715	49,804	123,404	39,730	201,400	280,450	694,788
Machinery & Equipment		27,116	91,956	115,634	12,917	113,709	3,231	42,886	288,377
Information Technology Infrastructure		1,828	3,008	948	1,780	2,154	441	1,980	7,303
Vehicles		44	379	625	25	25	25	75	775
Furniture & Fixtures		127	88	32	16	16	16	59	139
Allowances and Other Provisions		3,875	2,875	5,595	3,625	4,425	4,325	21,375	39,345
<b>Capital Expenditure Subtotal</b>		<b>96,902</b>	<b>145,320</b>	<b>340,203</b>	<b>195,891</b>	<b>247,397</b>	<b>244,690</b>	<b>736,920</b>	<b>1,765,101</b>
<b>Capital Financing</b>									
Sewer Residential DC		22,581	25,703	55,609	32,004	25,478	23,713	45,638	182,442
Sewer Commercial DC		1,456	2,341	8,106	4,875	2,387	2,486	7,251	25,105
Sewer Industrial DC		1,707	192	10,750	3,035	3,636	3,238	10,858	31,517
Reserve Fund - Environmental Lab		160	750	-	-	-	-	-	-
Reserve Fund - Sewer Rate Stabilization		-	7,632	83,495	21,288	28,360	60,771	-	193,914
Reserve Fund - Servicing of Employment Lands		968	502	843	3	571	3	1,777	3,197
Equipment Replacement Reserve			14	-	-	-	-	-	-
Reserve Fund - Asset Management		9,049	9,275	13,832	19,377	14,988	10,500	55,160	113,857
Recovery From York		15,672	63,388	90,889	2,070	97,306	1,740	260,965	452,970
Developer Contribution		14,792	-	-	-	-	-	-	-
Subsidy / Grant		15	26	-	-	-	-	-	-
Debentures - DC Funded		-	-	35,203	71,439	12,118	83,185	-	201,945
User Rate		30,502	35,497	41,476	41,800	62,553	59,054	355,271	560,154
<b>Capital Financing Subtotal</b>		<b>96,902</b>	<b>145,320</b>	<b>340,203</b>	<b>195,891</b>	<b>247,397</b>	<b>244,690</b>	<b>736,920</b>	<b>1,765,101</b>
<b>Total Capital Sanitary Sewerage</b>		<b>96,902</b>	<b>145,320</b>	<b>340,203</b>	<b>195,891</b>	<b>247,397</b>	<b>244,690</b>	<b>736,920</b>	<b>1,765,101</b>
<b>Total Capital Water Supply and Sanitary Sewerage</b>		<b>178,129</b>	<b>267,059</b>	<b>604,153</b>	<b>364,274</b>	<b>582,986</b>	<b>383,632</b>	<b>1,256,020</b>	<b>3,191,065</b>

## Details of Budget Changes

<b>Strategic Investments – Water Supply</b>	<b>2022 Impact</b> (\$ 000's)
New positions – details of the 9.001 FTEs are provided in Staffing Details	568
Additional provision to address increased repairs to infrastructure and growth in inventory	270
Additional snow removal and salting to respond to changing weather patterns	247
Increasing vehicle operation to respond to more infrastructure issues in the field driven by growth and the age of infrastructure	316
Utilities from Seaton Reservoir: A new account has been established for 2022 for the new Seaton Zone 4 Reservoir and Zone 5 Pumping Station including a Bulk Water Filling Station currently under construction	227
Professional services to support environmental and sustainability services, implementation of the Enterprise Maintenance Management System and technical depot administration	127
Additional training to maintain legislative requirements and utilize new technology	48
Replacement of and maintenance for equipment at Regional facilities including backflow preventor devices that reduce the risk of contamination to water sources	87
Additional provision to address increasing repair costs of equipment	104
Net increase in capital investment – see detailed project listing in Appendix A	(61)
<b>Strategic Investments – Water Supply Subtotal</b>	<b>1,933</b>

<b>Base Adjustments – Water Supply</b>	<b>2022 Impact</b> (\$ 000's)
Economic increases	285
Annualization of 5.047 FTEs approved in the 2021 budget	183
Inflationary increases	367
Utility savings	(564)

## Details of Budget Changes *Continued*

Increase in Water Supply's share of costs for the operation and maintenance of Regional Headquarters	28
Line-by-line review savings	(71)
<b>Base Adjustments – Water Supply Subtotal</b>	<b>228</b>
<b>Net Changes – Water Supply</b>	<b>2,161</b>

### Strategic Investments – Sanitary Sewerage

**2022 Impact**  
(\$ 000's)

New positions – details of the 7.519 FTEs are provided in Staffing Details	500
Part-time salaries to support laboratory testing and wastewater treatment	79
Professional services to support environmental and sustainability services, implementation of the Enterprise Maintenance Management System, technical depot administration, asset management and cyber security activities	233
Replacement of and maintenance for equipment at Regional facilities including backflow preventor devices that reduce the risk of contamination to water sources	193
Implementation of the Integrated Water SCADA system from which all the water systems throughout the Region will be monitored and controlled 24/7/365	109
Additional snow removal and salting to respond to changing weather patterns	351
Net increase in capital investment – see detailed project listing in Appendix B	5,000
<b>Strategic Investments – Sanitary Sewerage Subtotal</b>	<b>6,465</b>

## Details of Budget Changes *Continued*

<b>Base Adjustments – Sanitary Sewerage</b>	<b>2022 Impact</b> (\$ 000's)
Economic increases	202
Annualization of 2.909 FTEs approved in the 2021 budget	51
Inflationary increases	512
Utility savings	(44)
Line-by-line review savings	(674)
Increase in Sanitary Sewerage's share of costs for the operation and maintenance of Regional Headquarters	28
<b>Base Adjustments – Sanitary Sewerage Subtotal</b>	<b>75</b>
<b>Net Changes – Sanitary Sewerage</b>	<b>6,540</b>
<b>Net Changes Works - Water Supply and Sanitary Sewerage</b>	<b>8,701</b>

\*Note that impacts are net of recoveries



## Staffing Details

	<b>Full Time Equivalents (FTE's)</b>
<b>Water Supply</b>	
<b>2021 Approved Complement</b>	<u>194.656</u>
<b>Position Transfer</b>	
Manager of Waste Services transferred from Waste Administration to Facilities Maintenance and Operations. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.271
Enterprise Maintenance Management System Technical Assistant transferred from Traffic Payroll Clearing to Works Financial Services. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.250
<b>Total Position Transfer</b>	<u>0.521</u>
<b>Proposed New Positions</b>	
District Technician – to support the implementation of new technology and new software programs at the Sunderland Depot and Scugog Depot. (Note: position is shared with Sanitary Sewerage and Works General Tax)	0.444
Senior Project Coordinator – to support new projects including those related to GHG reduction. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.271
Policy Analyst – to review and plan for the long-term needs of Regional facilities including responding to new and anticipated legislative changes. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.271
Project Engineer – to support the delivery of capital facility projects including infrastructure renewal in alignment with the Region's Asset Management Plan and prudent asset management practices. (Note: position is shared with Sanitary Sewerage)	0.530
Works Technician 5 – to support the delivery of capital facility projects including infrastructure renewal in alignment with the Region's Asset Management Plan and prudent asset management practices and new and changing provincial policy implementation. (Note: position is shared with Sanitary Sewerage)	0.530

## Staffing Details *Continued*

Senior Project Coordinator – to support the increased volume review, coordination and administration of complex construction tenders. (Note: these two positions are shared with Sanitary Sewerage and Works General Tax)	0.770
Limnologist/Hydrologist – to lead studies and conduct modelling for the Ontario Collaborative Group and the Lake Ontario Water Quality Forecasting System. (Note: position is shared with Sanitary Sewerage)	0.461
Business Analyst – to support the implementation of the Enterprise Maintenance Management System with access, configuration and data loading. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.250
Project Manager – to provide leadership to the implementation of the Enterprise Maintenance Management System including coordinating system configuration and functionality changes. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.250
Leasing Specialist – to support increasing leasing volumes and significant change management issues. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.140
System Mechanic – maintenance and monitoring of operational building systems. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.271
Works Technician 5 – to support the delivery of maintenance projects. (Note: position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.271
Mobile Maintenance Mechanic – to provide more rapid response and closure to work orders so issues are addressed in a timely manner	0.271
Security Technician 3 –to support new and continuously evolving corporate security systems. (Note: position is shared with Sanitary Sewerage, General Tax and Waste Management)	0.271
Maintenance Operator – to support the implementation of the new Integrated Water SCADA system and allow for continuous remote monitoring of the East and North hub	1.000
SCADA Technologist – to support the new Integrated Water SCADA system	2.000

## Staffing Details *Continued*

SCADA Technologist WAN specialist – to provide SCADA communications to all water supply facilities in the Region of Durham	1.000
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<b>Total Proposed New Positions</b>	<u>9.001</u>
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<b>Water Supply Subtotal</b>	<b>204.178</b>
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### Sanitary Sewerage

**Full Time Equivalents  
(FTE's)**

<b>2021 Approved Complement</b>	<u>270.538</u>
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#### Position Transfer

Manager of Waste Services transferred from Waste Administration to Facilities Maintenance and Operations. (Note: position is shared with Water Supply, General Tax and Waste Management)	0.386
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Enterprise Maintenance Management System Technical Assistant transferred from Traffic Payroll Clearing to Works Financial Services. (Note: position is shared with Water Supply, General Tax and Waste Management)	0.400
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<b>Total Position Transfer</b>	<u>0.786</u>
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#### Proposed New Positions

District Technician – to support the implementation of new technology and new software programs at the Sunderland Depot and Scugog Depot. (Note: position is shared with Water Supply and Works General Tax)	0.190
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Senior Project Coordinator – to support new projects including those related to GHG reduction. (Note: position is shared with Water Supply, Works General Tax and Waste Management)	0.386
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## Staffing Details *Continued*

Policy Analyst – to review and plan for the long-term needs of Regional facility including responding to new and anticipated legislative changes. (Note: position is shared with Water Supply, Works General Tax and Waste Management)	0.386
Project Engineer – to support the delivery of capital facility projects including infrastructure renewal in alignment with the Region’s Asset Management Plan and prudent asset management practices. (Note: position is shared with Water Supply)	0.470
Works Technician 5 – to support the delivery of capital facility projects including infrastructure renewal in alignment with the Region’s Asset Management Plan and prudent asset management practices and new and changing provincial policy implementation. (Note: position is shared with Water Supply)	0.470
Senior Project Coordinator – to support the increased volume review, coordination and administration of complex construction tenders. (Note: these two positions are shared with Water Supply and Works General Tax)	0.514
Limnologist/Hydrologist – to lead studies and conduct modelling for the Ontario Collaborative Group and the Lake Ontario Water Quality Forecasting System. (Note: position is shared with Water Supply)	0.539
Business Analyst – to support the implementation of the Enterprise Maintenance Management System with access, configuration and data loading. (Note: position is shared with Water Supply, Works General Tax and Waste Management)	0.400
Project Manager – to provide leadership to the implementation of the Enterprise Maintenance Management System including coordinating system configuration and functionality changes. (Note: position is shared with Water Supply, Works General Tax and Waste Management)	0.400
Leasing Specialist – to support to increasing leasing volumes and significant change management issues. (Note: position is shared with Water Supply, Works General Tax and Waste Management)	0.220
System Mechanic – maintenance and monitoring of operational building systems. (Note: position is shared with Water Supply, Works General Tax and Waste Management)	0.386

## Staffing Details *Continued*

Works Technician 5 – to support the delivery of maintenance projects. (Note: position is shared with Water Supply, Works General Tax and Waste Management)	0.386
Mobile Maintenance Mechanic – to provide more rapid response and closure to work orders so issues are addressed in a timely manner	0.386
Security Technician 3 – to support new and continuously evolving corporate security systems. (Note: position is shared with Water Supply, General Tax and Waste Management)	0.386
Clerk 3 – to support the daily operations of the Courtice WPCP	1.000
Maintenance Operator – to support increased instrumentation and electrical equipment data like York Durham metering	1.000

**Total Proposed New Positions** 7.519

**Sanitary Sewerage Subtotal** **278.843**

**Total Complement Works - Water Supply and Sanitary Sewerage** **483.021**

## Looking Forward

Water supply and sanitary sewerage systems support residents, businesses and institutions by providing public infrastructure, reliable service and expertise so that healthy and sustainable communities thrive. To support these commitments the Region continues to modernize operations through a variety of initiatives including:

- the implementation of the Enterprise Maintenance Management System resulting in a move from paper-based information processing to a comprehensive work management system, capturing more accurate maintenance activities and information;
- the utilization of technology such as drones, sonar and submersible cameras for inspections and assessments; and innovative mapping technology;
- implementation of recommendations from the Public Facing Service Modernization project, including web-based forms and payment options;
- continued enhancements to the online permitting system including adding additional permits to the system;
- active participation in the Low Carbon Fleet Strategy development and the development of the Corporate Climate Change Strategic Framework;
- progress towards the establishment of the Durham Building Standard, providing guidelines including energy efficiency, greenhouse gas emission reductions and employee inclusion for all projects related to the construction or renovation/retrofit of Regional facilities;
- future implementation of recommendations from Integrated Resource Recovery Studies for Water Pollution Control Plants;
- development of a GHG Emissions Management Strategy for Water Supply and Sanitary Sewerage Facilities; and
- initiate, in conjunction with utility finance staff, a three-year project, starting in 2022, to retrofit existing water meters with radio frequency remote reading devices (RF) to eliminate manual meter readings. The total estimated cost of this initiative over the three period is \$10.0 million to be funded from the Water Rate Stabilization Reserve Fund and included in the Utility Finance portion of the Consolidated Water Supply and Sanitary Sewerage Business Plans and Budget. This is a significant enhancement from a customer service perspective and has been much anticipated as the follow up step to the MyDurhamWater project.

The Region will continue to leverage long-term financial planning to chart a response to some of the significant challenges ahead which include: leading infrastructure renewal (in alignment with the Region's Asset Management Plan and prudent asset management practices), preparing for projected Regional growth and new development which will increase demands for Regional services, and major plant expansions and infrastructure construction projects (including

## Looking Forward *Continued*

the servicing of employment lands and infrastructure constructed to service developments in Seaton in Pickering, West Whitby, Courtice and Newcastle in Clarington, and in North Oshawa).

As part of these long-term financial planning efforts the Region continues to monitor its SCADA WAN which provides wireless communication to approximately 75 water sites. The existing 3650-3700Mhz frequency band used is regulated by Innovation, Science and Economic Development Canada (ISED). ISED has planned to terminate all radio licenses in the Region's current band to reallocate for 5G cellular communications and provisioning of frequencies to lesser served areas. Also, ISED has allocated a new frequency band for users displaced by this decision, which means that the Region must discontinue use of the current frequency band by March 31, 2025. The Works Department is expecting this frequency band reallocation decision will result in the replacement of radio units, antennas, routers, cabling and communication panel modifications. The Region has included \$3 million in the capital budget and forecast to help address these challenges.

Further, in alignment with Regional Council's commitment to confront climate change, a core element in the design and construction of Regional infrastructure is sustainability - using best practices and innovations developed through in-house research and partnerships with academia. The Region will continue to identify and evaluate potential investments in technology and systems – in partnership with local municipalities – to promote sustainable infrastructure and mitigate climate impacts.

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031		
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate						
<b>Water Supply</b>																	
<b>Linear Infrastructure</b>																	
3	Allowance for unknown requirements in conjunction with area municipality road programs	-	-	-	-	-	-	-	-	-	-	-	200	200	-	1,800	2,000
6	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the City of Oshawa Road Program	-	-	-	-	-	-	-	-	-	-	-	450	450	-	9,900	10,350
8	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Municipality of Clarington Road Program	-	-	-	-	-	-	-	-	-	-	-	670	670	-	4,330	5,000
9	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Town of Ajax Road Program	-	-	-	-	-	-	-	-	-	-	-	125	125	-	3,700	3,825
12	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Township of Scugog Road Program	-	-	-	-	-	-	-	-	-	-	-	525	525	-	2,467	2,992
13	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Township of Uxbridge Road Program	-	-	-	-	-	-	-	-	-	-	-	200	200	-	2,430	2,630
16	Cemetery Rd. from Toronto St to 600 m northerly - required to loop the watermain and system security, Uxbridge	-	-	-	-	-	-	-	-	-	-	-	135	135	544	-	679



**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Quantity	New / Replacement	2022 Proposed Financing										2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
		Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate						
18												250	250	-	-	250
Control Valve repair on the Townline Rd. feedermain between Nash Rd. and Adelaide Ave., Oshawa/Courtice																
19												100	100	-	-	100
Depots - Replacement of polybutylene service connections in various locations																
21												200	200	344	560	1,104
Erosion protection Crystal Beach Boulevard watermain																
29												230	230	-	675	905
Main St. from Station St. to Winter Rd., Clarington																
31												3,000	3,000	-	37,000	40,000
Rehabilitation of existing watermains in various locations.																
45												500	500	1,650	-	2,150
Replacement of a watermain on Olive Ave from Simcoe St. to Drew St., Oshawa																
48												100	100	-	-	100
Replacement of a watermain on Pickering Beach Rd. from Foord Rd. to Hewitt Cres., Ajax																
52				465								-	465	100	-	565
Replacement of a watermain on Simcoe St. South and easement from Erie St. to Albert St., Oshawa																
53				100								-	100	-	670	770
Replacement of a watermain on Thorncroft Cres. from Billingsgate Cres. to Billingsgate Cres., Ajax																
55				690								-	690	200	-	890
Replacement of a watermain on Veterans Rd. from R.R. 35 Wilson Rd. to R.R. 56 Farewell St., Oshawa																
59												200	200	-	3,600	3,800
Replacement of hydrants, various locations																
60												500	500	-	29,000	29,500
Replacement of lead service connection in various locations																
61												400	400	-	6,350	6,750
Replacement of valves, various locations																

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
64	Replacement of watermain on Baseline Rd. East from Liberty St. to Mearns Ave., Bowmanville	-	-	-	350	-	-	-	-	-	-	-	350	-	1,000	1,350
65	Replacement of watermain on Bay St. from Mill St. to Main St., Beaverton	-	-	-	149	-	-	-	-	-	-	-	149	595	-	744
67	Replacement of watermain on Bay St. from Osborne St. to Mill St., Beaverton	-	-	-	100	-	-	-	-	-	-	-	100	400	-	500
68	Replacement of watermain on Bay St. from Union St. to Osborne St., Beaverton	-	-	-	161	-	-	-	-	-	-	-	161	545	-	706
71	Replacement of watermain on Caleb St. from Clarke St. to Queen St., Port Perry	-	-	-	-	-	-	-	-	-	-	1,200	1,200	350	-	1,550
75	Replacement of watermain on Church St. from Osborne St. to Mill St., Beaverton	-	-	-	143	-	-	-	-	-	-	-	143	570	-	713
80	Replacement of watermain on East Shore Dr./Port Darlington Rd. from Lake Rd. to Bowmanville Water Supply Plant, Bowmanville	-	-	-	500	-	-	-	-	-	-	-	500	-	1,750	2,250
81	Replacement of watermain on Euclid St. from Dundas St. to 75 m north of John St., Whitby	-	-	-	-	-	-	-	-	-	-	120	120	180	-	300
88	Replacement of watermain on Holland St. from Veterans Rd. to Bloor St, Oshawa	-	-	-	95	-	-	-	-	-	-	-	95	260	-	355
92	Replacement of watermain on Krosno Blvd. from Liverpool Rd. E. to Fanshaw Place, Pickering	-	-	-	1,500	-	-	-	-	-	-	-	1,500	100	-	1,600
94	Replacement of watermain on Mill St. from Church St. to Bay St., Beaverton	-	-	-	96	-	-	-	-	-	-	-	96	385	-	481
99	Replacement of watermain on R.R. 26 (Thickson Rd.) from 84 m north of William Smith Dr. to 60 m south of William Smith Dr., Whitby	-	-	-	-	-	-	-	-	-	-	100	100	360	-	460
102	Replacement of watermain on RR 56 Farewell St. from Canadian National Railway to Bloor St., Oshawa	-	-	-	360	-	-	-	-	-	-	-	360	470	-	830

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
104 Replacement of watermain on Simcoe St. from Canadian National Railway to John St., Beaverton	-	-	-	210	-	-	-	-	-	-	-	210	100	565	875
106 Replacement of watermain on Simcoe St. from Union St. to 480 m south of Union St., Beaverton	-	-	-	208	-	-	-	-	-	-	-	208	830	-	1,038
109 Replacement of watermain on Water St. from the Whitby WSP to Breakwater SSPS, Whitby	-	-	-	-	-	-	-	-	-	-	100	100	-	670	770
110 Ritson Rd. from Taunton Rd. to Conlin Rd., Oshawa	-	-	-	-	-	-	-	-	-	-	150	150	-	1,000	1,150
116 Thickson Rd. from Wentworth St. to Canadian National Railway Bridge, Whitby	-	-	-	-	-	-	-	-	-	-	242	242	215	-	457
117 Thickson Rd./Wentworth St. Culvert rehabilitation	-	-	-	-	-	-	-	-	-	-	130	130	-	760	890
118 Thornton Rd. from King St. to Stellar Dr., Whitby/Oshawa	-	-	-	-	-	-	-	-	-	-	225	225	-	1,190	1,415
119 Water Meter installation and replacement, Whitby	-	-	-	-	-	-	-	-	-	-	2,000	2,000	-	46,800	48,800
120 Water works to rectify identified system deficiencies independent of road programs in various locations	-	-	-	-	-	-	-	-	-	-	600	600	-	7,800	8,400
121 Watermain and valve improvements at Brock Rd. and Montgomery Park Rd., Pickering	-	-	-	-	-	-	-	-	-	-	150	150	-	750	900
124 Watermain on Concession Rd. 5 from Cedar Beach Rd. to 850 m east of Cedar Beach Rd., Beaverton	-	-	-	-	-	-	-	-	-	-	1,990	1,990	1,760	-	3,750
125 Watermain on Concession Rd. 5 to service the westerly portion of the Beaverton Avenue Employment Area A, Brock	-	-	-	500	-	-	-	-	-	-	-	500	250	2,200	2,950

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
131 Watermain replacement at Highway 401 and Wilson Rd., in conjunction with the MTO, Oshawa	-	-	-	-	-	-	-	-	-	-	-	250	250	-	2,750	3,000
132 Watermain replacement in conjunction with the Metrolinx Toronto East Rail Corridor expansion to Bowmanville	-	-	-	-	-	-	-	-	-	-	-	500	500	-	3,000	3,500
139 Zone 1 feedermain from Whitby Water Supply Plant to Thornton Rd., Whitby/Oshawa	-	-	-	-	-	-	-	176	7,008	-	-	816	8,000	9,100	33,900	51,000
145 Zone 1 feedermain on Lambs Rd. from Hwy No. 2 King St. to Zone 1 Liberty Street Reservoir, Bowmanville	-	-	-	-	-	-	-	22	876	-	-	102	1,000	15,000	21,000	37,000
146 Zone 1 feedermain on Manning Rd. from Anderson St. to Hydro corridor., Whitby	-	-	-	-	-	-	-	9	350	-	-	41	400	-	1,630	2,030
155 Zone 3 feedermain on Anderson St. and Watford St. from Clair Ave. to Carnwith Dr., Whitby	-	-	-	-	-	-	-	169	6,745	-	-	785	7,699	-	-	7,699
156 Zone 3 feedermain on Anderson St. from Conlin Rd. to Clair Ave., Whitby	-	0	-	-	-	-	-	119	4,730	-	-	551	5,400	-	-	5,400
<b>Linear Infrastructure Subtotal</b>			-	<b>5,627</b>	-	-	<b>495</b>	<b>19,709</b>	-	-	<b>17,837</b>	<b>43,668</b>	<b>34,308</b>	<b>230,997</b>	<b>308,973</b>	
<b>Building and Structures</b>																
165 20,000 lb above ground Hoist, Scugog Depot	1	New	-	-	-	-	-	-	-	-	-	33	33	-	-	33
172 Bowmanville Water Supply Plant Expansion from 36 MLD to 55 MLD	-	-	-	-	-	-	-	30	295	-	-	176	501	500	54,000	55,001
174 Concession St. Water Pumping Station Expansion - increasing pump capacity	-	-	-	-	-	-	-	3	127	-	-	24	154	6,000	-	6,154
175 EV Charger	7	New	-	-	-	-	-	-	-	67	-	232	299	-	-	299
178 Expansion of the Whitby Water Supply Plant from 109 MLD to 218 MLD, Whitby	-	-	-	-	-	-	-	1,091	10,802	-	-	6,107	18,000	9,850	220,380	248,230
179 Fleet furnace replacement, Orono	1	New	-	-	-	-	-	-	-	-	-	33	33	-	-	33
180 Garrard Rd. Zone 1 Reservoir Expansion from 31 ML to 50 ML and Zone 2 pumping station expansion, Whitby	-	-	-	-	-	-	-	13	503	-	-	85	601	-	17,600	18,201

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Project ID	Project Description	Quantity	New / Replacement	2022 Proposed Financing								2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture					User Rate
182	Grandview Zone 2 Pumping Station Expansion, Oshawa	-	-	-	-	-	-	13	505	-	-	83	601	-	7,000	7,601
185	Hortop Water Pumping Station - pumping station replacement, Oshawa	-	-	-	-	-	-	-	-	-	-	400	400	1,100	9,600	11,100
186	New Locker/Change Room Facility	3	Replacement	-	-	-	-	-	-	-	-	130	130	-	-	130
188	New Well and Pumphouse with standby power - Brock (Cannington) System (DC600)	-	-	-	-	-	-	1	8	-	-	792	801	7,350	-	8,151
193	Oshawa Water Supply Plant - break wall modifications	-	-	-	-	-	-	-	-	-	-	150	150	100	1,000	1,250
195	Port Perry Water Storage Facility - additional capacity 2.8 ML and watermain	-	-	-	-	-	-	66	2,639	-	-	594	3,299	-	11,950	15,249
197	Proposed Liberty Street Zone 1 Reservoir 11 ML and demolition of the existing elevated tank	-	-	-	-	1,607	-	350	13,942	-	-	5,001	20,900	1,200	-	22,100
203	Proposed Zone 2 Pumping Station at the Zone 1 Reservoir-Bowmanville	-	-	-	-	-	-	150	5,970	-	-	1,130	7,250	1,550	-	8,800
206	Proposed Zone 4 Pumping Station at the Harmony Rd. Reservoir, Oshawa	-	-	-	-	-	-	13	532	-	-	155	700	1,000	6,500	8,200
207	Proposed Zone 4 Pumping Station at the Thicksen Rd. Reservoir, Whitby	-	-	-	-	-	-	141	5,606	-	-	653	6,400	2,100	-	8,500
209	Relocation of Materials Testing Lab*	1	New	-	932	-	-	-	-	-	-	-	932	-	-	932
210	Remove and Replace Perimeter Fence, Sunderland Depot	1	Replacement	-	-	-	-	-	-	-	-	85	85	-	-	85
211	Replace Existing 15000 lb above ground Hoist, Plants Central	1	Replacement	-	33	-	-	-	-	-	-	-	33	-	-	33
212	Rills of Liberty Water Pumping Station - demolition	-	-	-	-	-	-	-	-	-	-	600	600	-	-	600
213	Taunton Rd. Zone 2 Reservoir Expansion from 13 ML to 27 ML, Oshawa	-	-	-	-	-	-	13	526	-	-	61	600	-	13,000	13,600
216	Update Freight Elevator, Ajax WSP	1	Replacement	-	-	-	-	-	-	-	-	315	315	-	-	315

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
Water Storage Facilities inspections, 217 condition assessment and rehabilitation works	-	-	-	396	-	-	-	-	-	-	-	396	615	3,931	4,942	
219 Wellhead protection at Regional well sites	-	-	-	-	-	-	-	-	-	-	800	800	-	7,200	8,000	
<b>Buildings &amp; Structures Subtotal</b>			-	<b>1,361</b>	<b>1,607</b>	-	-	<b>1,884</b>	<b>41,455</b>	<b>67</b>	-	<b>17,639</b>	<b>64,013</b>	<b>31,365</b>	<b>352,161</b>	<b>447,539</b>
<b>Machinery &amp; Equipment</b>																
222 Ajax Water Supply Plant - Chlorine line replacement	-	-	-	-	-	-	-	-	-	-	-	450	450	460	-	910
224 Autosamplers	2	-	-	-	-	-	-	-	-	-	-	20	20	-	-	20
225 Beaverton Water Supply Plant - Chlorine line Replacement	-	-	-	-	-	-	-	-	-	-	-	450	450	400	-	850
226 Beaverton Water Supply Plant - upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch, Standby power and uninterrupted power supply UPS	-	-	-	-	-	-	-	-	-	-	-	400	400	350	2,300	3,050
230 Chlorine Analyzers	3	-	-	-	-	-	-	-	-	-	-	30	30	-	-	30
231 Finch Ave. Elevated Water Storage Tank - Recoating	-	-	-	-	-	-	-	-	-	-	-	540	540	120	-	660
239 Orono Water Supply System - Standpipe Water Storage Tank Recoating	-	-	-	-	-	-	-	-	-	-	-	1,800	1,800	560	-	2,360
241 Oshawa Water Supply Plant - Rehabilitation of the filters 1 to 6	-	-	-	-	-	-	-	-	-	-	-	1,450	1,450	-	11,150	12,600
244 Oshawa Water Supply Plant - Valve Chamber Upgrades	-	-	-	-	-	-	-	-	-	-	-	300	300	100	1,000	1,400
245 Oshawa Water Supply Plant -Header & Backwash valve replacement and associated piping rehabilitation/replacement	-	-	-	-	-	-	-	-	-	-	-	150	150	400	1,700	2,250
246 Pump / Motor / Mixer Repair / Replacement	1	-	-	-	-	-	-	-	-	-	-	50	50	-	-	50

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031		
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate						
247	Regulatory Instrumentation Replacement and Maintenance	2	-	-	-	-	-	-	-	-	-	-	84	84	-	-	84
250	Safety upgrades to access ladders at various plants and pumping station	-	-	-	-	-	-	-	-	-	-	-	120	120	44	-	164
251	SCADA Integration - Move to Wireless	1	-	-	-	-	-	-	-	-	-	-	130	130	-	-	130
254	Survey GPS Instrument	1	-	-	-	-	-	-	-	-	-	-	17	17	-	-	17
256	Tablets	2	-	-	-	-	-	-	-	-	-	-	7	7	-	-	7
258	Teleloggers	2	-	-	-	-	-	-	-	-	-	-	5	5	-	-	5
260	Valve Replacements - Oshawa WSP	3	-	-	-	-	-	-	-	-	-	-	60	60	-	-	60
262	Whitby Water Supply Plant - replacement of the standby power	-	-	-	-	-	-	-	-	-	-	-	1,550	1,550	300	-	1,850
263	Whitby Water Supply Plant - Chlorine line replacement	-	-	-	-	-	-	-	-	-	-	-	450	450	460	-	910
264	Whitby Water Supply Plant - Valve Chamber upgrades	-	-	-	-	-	-	-	-	-	-	-	100	100	-	1,000	1,100
<b>Machinery &amp; Equipment Subtotal</b>			-	-	-	-	-	-	-	-	-	-	<b>8,163</b>	<b>8,163</b>	<b>3,194</b>	<b>17,150</b>	<b>28,507</b>
<b>Information Technology Infrastructure</b>																	
265	EMMS Maximo - Hardware Requirement	1	New	-	-	-	-	-	-	-	-	-	26	26	-	-	26
268	Mobile Laptop	4	Replacement	-	-	-	-	-	-	-	-	-	14	14	-	-	14
269	Power Desktop	22	Replacement	-	-	-	-	-	-	-	-	-	50	50	-	-	50
270	Power Laptop	7	New	-	-	-	-	-	-	-	-	-	9	9	-	-	9
270	Power Laptop	56	Replacement	-	-	-	-	-	-	-	-	-	66	66	-	-	66
271	Power Tablet	7	Replacement	-	-	-	-	-	-	-	-	-	27	27	-	-	27
272	Replacement of wireless WAN frequency Replacement	-	-	-	-	-	-	-	-	-	-	-	500	500	150	2,675	3,325
273	SCADA Workstation	1	Replacement	-	-	-	-	-	-	-	-	-	10	10	-	-	10
275	Standard Desktop	41	Replacement	-	-	-	-	-	-	-	-	-	79	79	-	-	79
276	Standard Laptop	23	New	-	-	-	-	-	-	-	-	-	14	14	-	-	14

**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
276 Standard Laptop	138	Replacement	-	-	-	-	-	-	-	-	-	85	85	-	-	85
277 Standard Tablet	68	New	-	-	-	-	-	-	-	-	-	63	63	-	-	63
280 WATER SCADA - PC/OIT, PLC, Radios3.65G/Support WAN	1	Replacement	-	-	-	-	-	-	-	-	-	335	335	-	-	335
<b>Information Technology Infrastructure Subtotal</b>			-	-	-	-	-	-	-	-	-	<b>1,278</b>	<b>1,278</b>	<b>150</b>	<b>2,675</b>	<b>4,103</b>
<b>Vehicles</b>																
281 1/2 Ton Pick-up Truck	2	New	-	-	-	-	-	-	-	-	-	50	50	-	-	50
282 1/2 Ton Van	1	New	-	-	-	-	-	-	-	-	-	17	17	-	-	17
283 1/4 Ton Van	1	New	-	-	-	-	-	-	-	-	-	18	18	-	-	18
284 3/4 Ton Pick Up	1	New	-	-	-	-	-	-	-	-	-	28	28	-	-	28
285 3/4 Ton Van	3	New	-	-	-	-	-	-	-	-	-	78	78	-	-	78
286 Asphalt Hotbox	1	New	-	-	-	-	-	-	-	-	-	22	22	-	-	22
288 Industrial Snowblower	2	New	-	-	-	-	-	-	-	-	-	46	46	-	-	46
290 Rubber tire roller compaction unit	2	New	-	-	-	-	-	-	-	-	-	27	27	-	-	27
291 Small SUV - PHEV	1	New	-	-	-	-	-	-	-	-	-	18	18	-	-	18
<b>Vehicles Subtotal</b>			-	-	-	-	-	-	-	-	-	<b>304</b>	<b>304</b>	-	-	<b>304</b>
<b>Furniture &amp; Fixtures</b>																
297 Office Furniture/Equipment/Technology	1	New	-	-	-	-	-	-	-	-	-	5	5	-	-	5
298 Parts Cabinets	1	New	-	-	-	-	-	-	-	-	-	83	83	-	-	83
<b>Furniture &amp; Fixtures Subtotal</b>			-	-	-	-	-	-	-	-	-	<b>88</b>	<b>88</b>	-	-	<b>88</b>
<b>Allowances &amp; Other Provisions</b>																
299 Allowance for acquisition of easements			-	-	-	-	-	-	-	-	-	150	150	150	1,350	1,650
300 Allowance for CTC Source Water Protection Plan related to the Lake Ontario Collaborative			-	-	-	-	-	-	-	-	-	500	500	600	5,300	6,400
301 Allowance for engineering studies			-	-	-	-	-	-	-	-	-	300	300	150	1,950	2,400
302 Allowance for land severance review and drawing requirements			-	-	-	-	-	-	-	-	-	100	100	-	900	1,000



**Appendix A: 2022 Water Supply Capital Projects (\$,000's)**

Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
303 Allowance for Regional share for works in conjunction with non-residential development			-	-	-	-	9	350	-	-	41	400	-	3,600	4,000
304 Allowance for Regional share for works in conjunction with residential subdivision development			-	-	-	-	32	1,279	-	-	149	1,460	-	13,140	14,600
305 Allowance for sundry extensions as per Council policy			-	-	-	-	-	-	-	-	15	15	15	135	165
306 Allowance for unknown requirements			-	-	-	-	-	-	-	-	100	100	-	900	1,000
308 Asset Condition Assessment/ investigation on transmission pipe			-	100	-	-	-	-	-	-	-	100	850	1,410	2,360
313 Preliminary engineering			-	-	-	-	-	-	-	-	100	100	-	900	1,000
315 Well interference works			-	-	-	-	-	1,000	-	-	-	1,000	-	7,200	8,200
<b>Allowances &amp; Other Provisions Subtotal</b>			-	<b>100</b>	-	-	<b>41</b>	<b>2,629</b>	-	-	<b>1,455</b>	<b>4,225</b>	<b>1,765</b>	<b>36,785</b>	<b>42,775</b>
<b>Water Supply Subtotal</b>			-	<b>7,088</b>	<b>1,607</b>	-	<b>2,420</b>	<b>63,793</b>	<b>67</b>	-	<b>46,764</b>	<b>121,739</b>	<b>70,782</b>	<b>639,768</b>	<b>832,289</b>
<b>Total Capital Water Supply</b>			-	<b>7,088</b>	<b>1,607</b>	-	<b>2,420</b>	<b>63,793</b>	<b>67</b>	-	<b>46,764</b>	<b>121,739</b>	<b>70,782</b>	<b>639,768</b>	<b>832,289</b>

\* This project has pre-budget approval

\*\* Appendix A includes financing of the following development charge shortfalls from a combination of user-rate, and Water Rate Stabilization Reserve Fund:

	2022
Institutional DC Shortfall	110
Industrial DC Shortfall	9,505
<b>Total DC Shortfall</b>	<b>9,615</b>

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022



**Durham**  
Budget

2022

	Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
<b>Water Supply</b>								
<b>Linear Infrastructure</b>								
1	Allowance for construction of services in unserved areas in response to requests or petitions							
	Pre-Construction	-	-	-	-	-	-	-
	Construction	-	200	200	200	200	1,000	1,800
	Total	-	200	200	200	200	1,000	1,800
2	Allowance for replacement of watermains in various locations							
	Pre-Construction	-	-	-	200	-	3,880	4,080
	Construction	-	-	-	688	-	16,526	17,214
	Total	-	-	-	888	-	20,406	21,294
3	Allowance for unknown requirements in conjunction with area municipality road programs							
	Pre-Construction	200	200	200	200	200	1,000	1,800
	Construction	-	-	-	-	-	-	-
	Total	200	200	200	200	200	1,000	1,800
4	Allowance for watermains in conjunction with the MTO & Go Transit projects							
	Pre-Construction	-	-	-	-	-	-	-
	Construction	-	100	100	100	200	1,750	2,250
	Total	-	100	100	100	200	1,750	2,250
5	Allowance for watermains in conjunction with the Regional Road Program							
	Pre-Construction	-	-	-	-	-	7,500	7,500
	Construction	-	-	-	-	-	-	-
	Total	-	-	-	-	-	7,500	7,500
6	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the City of Oshawa Road Program							
	Pre-Construction	-	-	-	-	-	-	-
	Construction	450	1,100	1,100	1,100	1,100	5,500	9,900
	Total	450	1,100	1,100	1,100	1,100	5,500	9,900
7	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the City of Pickering Road Program							
	Pre-Construction	-	-	-	-	-	-	-
	Construction	-	275	275	275	275	1,375	2,475
	Total	-	275	275	275	275	1,375	2,475

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
8	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Municipality of Clarington Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	670	1,370	370	370	370	1,850	4,330
		Total	670	1,370	370	370	370	1,850	4,330
9	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Town of Ajax Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	125	200	2,100	200	200	1,000	3,700
		Total	125	200	2,100	200	200	1,000	3,700
10	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Town of Whitby Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	900	720	770	1,220	3,100	6,710
		Total	-	900	720	770	1,220	3,100	6,710
11	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Township of Brock Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	250	250	250	250	1,250	2,250
		Total	-	250	250	250	250	1,250	2,250
12	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Township of Scugog Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	525	829	229	629	130	650	2,467
		Total	525	829	229	629	130	650	2,467
13	Area Municipality Road Program - Replacement of deficient watermain and/or construction of required works in conjunction with the Township of Uxbridge Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	200	270	270	270	270	1,350	2,430
		Total	200	270	270	270	270	1,350	2,430
14	Bayly St. from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	1,720	1,720
		Total	-	-	-	-	-	1,720	1,720
15	Bowmanville Ave. from Baseline Rd. to Highway No.2, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	443	-	-	-	-	443
		Total	-	443	-	-	-	-	443

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
16	Cemetery Rd. from Toronto St to 600 m northerly - required to loop the watermain and system security, Uxbridge System	Pre-Construction	-	-	-	-	-	-	-
		Construction	135	-	-	-	-	-	-
		Total	135	-	-	-	-	-	-
17	Centre St from King St. to Brock St. West, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	190	-	-	-	-	190
		Total	-	190	-	-	-	-	190
18	Control Valve repair on the Townline Rd. feedermain between Nash Rd. and Adelaide Ave. Oshawa/Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	250	-	-	-	-	-	-
		Total	250	-	-	-	-	-	-
19	Depots - Replacement of polybutylene service connections in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	100	-	-	-	-	-	-
		Total	100	-	-	-	-	-	-
21	Erosion protection Crystal Beach Boulevard watermain, Whitby/Oshawa/Clarington System	Pre-Construction	200	-	-	-	-	-	-
		Construction	-	-	560	-	-	-	560
		Total	200	-	560	-	-	-	560
22	Farewell St. from Harbour Rd. to Bloor St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	625	-	-	-	-	625
		Total	-	625	-	-	-	-	625
23	Finch Ave. from Altona Rd. to Brock Rd., Pickering	Pre-Construction	-	500	-	-	-	-	500
		Construction	-	-	-	-	5,450	-	5,450
		Total	-	500	-	-	5,450	-	5,950
24	Gibb St. from Stevenson Rd. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,875	-	-	-	1,875
		Total	-	-	1,875	-	-	-	1,875

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
25	Gibb St./Olive Ave. Extension from Drew St. to Ritson Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	385	-	385
		Total	-	-	-	-	385	-	385
26	Hopkins St. from Consumers Dr. to Dundas St., Whitby	Pre-Construction	-	-	250	-	-	-	250
		Construction	-	-	-	-	125	470	595
		Total	-	-	250	-	125	470	845
27	Liberty St. from Baseline Rd. to King St., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,670	-	-	-	1,670
		Total	-	-	1,670	-	-	-	1,670
28	Liverpool Rd. from Highway 401 to Kingston Rd. Highway No. 2, Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	220	-	-	-	-	220
		Total	-	220	-	-	-	-	220
29	Main St. from Station St. to Winter Rd., Clarington	Pre-Construction	230	-	-	-	-	-	-
		Construction	-	-	675	-	-	-	675
		Total	230	-	675	-	-	-	675
30	Manning Rd./Adelaide Ave. interconnection from Garrard Rd. to Thornton Rd., Whitby and Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	885	-	-	-	885
		Total	-	-	885	-	-	-	885
31	Rehabilitation of existing watermains in various locations.	Pre-Construction	-	-	-	-	-	-	-
		Construction	3,000	2,400	3,600	3,500	4,000	23,500	37,000
		Total	3,000	2,400	3,600	3,500	4,000	23,500	37,000
32	Replacement of a feedermain on R.R. 22 Bloor St. from Cubert St. to Oxford St., Oshawa	Pre-Construction	-	-	-	-	-	60	60
		Construction	-	-	-	-	-	240	240
		Total	-	-	-	-	-	300	300

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
33	Replacement of a feedermain on R.R. 22 Bloor St. from Wilson Rd. to Holland St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	65	-	-	-	65
		Total	-	-	65	-	-	-	65
34	Replacement of a watermain on Adelaide Ave. from Kaiser Cres. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	100	-	100
		Construction	-	-	-	-	220	-	220
		Total	-	-	-	-	320	-	320
35	Replacement of a watermain on Alliance Rd. from 20 m North of Bayly St. S. to dead-end, Pickering	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	400	400
		Total	-	-	-	-	-	500	500
36	Replacement of a watermain on Ansley Crt. from Rossland Rd. to dead-end, Oshawa	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	250	250
		Total	-	-	-	-	-	350	350
37	Replacement of a watermain on Bayly St. from Westshore Blvd. to Mattins Rd., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,525	-	-	-	-	2,525
		Total	-	2,525	-	-	-	-	2,525
38	Replacement of a watermain on Brock Rd. from Feldspar Crt. to Clements Rd., Pickering	Pre-Construction	-	-	-	-	-	134	134
		Construction	-	-	-	-	-	401	401
		Total	-	-	-	-	-	535	535
39	Replacement of a watermain on Cedar St. from Tudor Ave. W. to Beatty Rd., Ajax	Pre-Construction	-	-	-	-	-	120	120
		Construction	-	-	-	-	-	360	360
		Total	-	-	-	-	-	480	480
40	Replacement of a watermain on Clements Rd. E. from Burcher Rd. E. to Dryer Dr., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,340	-	-	-	1,340
		Total	-	-	1,340	-	-	-	1,340
41	Replacement of a watermain on Douglas St. from Conant St. to Wolfe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	260	-	-	-	-	260
		Total	-	260	-	-	-	-	260

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
42	Replacement of a watermain on Kingston Rd. (Hwy No. 2) from Altona Rd. to Liverpool Rd., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,030	-	-	-	1,030
		Total	-	-	1,030	-	-	-	1,030
43	Replacement of a watermain on Kingston Rd. (Hwy No. 2) from Glenanna Rd. to Brock Rd., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	150	-	-	-	150
		Total	-	-	150	-	-	-	150
44	Replacement of a watermain on Notion Rd. from Kingston Rd. to approx. 230 m South, Pickering	Pre-Construction	-	-	-	-	-	325	325
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	325	325
45	Replacement of a watermain on Olive Ave from Simcoe St. to Drew St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	500	-	-	-	-	-	-
		Total	500	-	-	-	-	-	-
46	Replacement of a watermain on Orchard Crt. from St. Lawrence St. to Orchard Crt., Whitby	Pre-Construction	-	-	-	-	-	85	85
		Construction	-	-	-	-	-	255	255
		Total	-	-	-	-	-	340	340
47	Replacement of a watermain on Oxford St. from Malaga Rd. to Porter St. and Porter St. from Oxford St. to Glen St., Oshawa	Pre-Construction	-	-	-	240	-	-	240
		Construction	-	-	-	-	1,100	-	1,100
		Total	-	-	-	240	1,100	-	1,340
48	Replacement of a watermain on Pickering Beach Rd. from Foord Rd. to Hewitt Cres., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	100	-	-	-	-	-	-
		Total	100	-	-	-	-	-	-
49	Replacement of a watermain on Ritson Rd. from Annis St. to Conant St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	230	-	-	-	-	230
		Total	-	230	-	-	-	-	230
50	Replacement of a watermain on Ritson Rd. S. from Kawartha Ave. to Simcoe St. S., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	2,525	-	-	-	2,525
		Total	-	-	2,525	-	-	-	2,525

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
51	Replacement of a watermain on Rougemount Dr. from Kingston Rd. to approx. 100 m South, Pickering	Pre-Construction	-	-	-	-	-	30	30
		Construction	-	-	-	-	-	135	135
		Total	-	-	-	-	-	165	165
52	Replacement of a watermain on Simcoe St. South and easement from Erie St. to Albert St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	465	-	-	-	-	-	-
		Total	465	-	-	-	-	-	-
53	Replacement of a watermain on Thorncroft Cres. From Billingsgate Cres. to Billingsgate Cres., Ajax	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	-	670	-	-	-	670
		Total	100	-	670	-	-	-	670
54	Replacement of a watermain on Thornton Rd. from Adelaide Ave. to Tatra Dr., Oshawa	Pre-Construction	-	-	-	100	-	-	100
		Construction	-	-	-	-	550	-	550
		Total	-	-	-	100	550	-	650
55	Replacement of a watermain on Veterans Rd. from R.R. 35 Wilson Rd. to R.R. 56 Farewell St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	690	-	-	-	-	-	-
		Total	690	-	-	-	-	-	-
56	Replacement of a watermain on Wilson Rd. from Raleigh Ave. to Wentworth St., Oshawa	Pre-Construction	-	-	-	-	-	140	140
		Construction	-	1,750	-	-	-	385	2,135
		Total	-	1,750	-	-	-	525	2,275
57	Replacement of feedermain on Ritson Rd. from Oshawa Water Supply Plant Valve Chamber to Kawartha Ave., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	6,900	-	-	-	-	6,900
		Total	-	6,900	-	-	-	-	6,900
58	Replacement of feedermain on Simcoe St. from Albert St. to Bloor St. and Bloor St. from Simcoe St. to Albert St.	Pre-Construction	-	500	-	-	-	-	500
		Construction	-	-	-	-	4,400	-	4,400
		Total	-	500	-	-	4,400	-	4,900



## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
59	Replacement of hydrants	Pre-Construction	-	-	-	-	-	-	-
		Construction	200	200	250	300	350	2,500	3,600
		Total	200	200	250	300	350	2,500	3,600
60	Replacement of lead service connection in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	500	1,000	1,000	1,000	1,000	25,000	29,000
		Total	500	1,000	1,000	1,000	1,000	25,000	29,000
61	Replacement of valves	Pre-Construction	-	-	-	-	-	-	-
		Construction	400	400	450	500	600	4,400	6,350
		Total	400	400	450	500	600	4,400	6,350
62	Replacement of watermain on Amos St. from Toronto St. to Highway 401, Newcastle	Pre-Construction	-	-	-	-	-	50	50
		Construction	-	-	-	-	-	230	230
		Total	-	-	-	-	-	280	280
63	Replacement of watermain on Athol St. from St. Lawrence St. to Clemence St., Whitby	Pre-Construction	-	-	100	-	-	-	100
		Construction	-	-	300	-	-	-	300
		Total	-	-	400	-	-	-	400
64	Replacement of watermain on Baseline Rd. East from Liberty St. to Mearns Ave., Bowmanville	Pre-Construction	350	-	-	-	-	-	-
		Construction	-	-	1,000	-	-	-	1,000
		Total	350	-	1,000	-	-	-	1,000
65	Replacement of watermain on Bay St. from Mill St. to Main St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	149	-	-	-	-	-	-
		Total	149	-	-	-	-	-	-
66	Replacement of watermain on Bay St. from Old Simcoe St. to Bigelow St., Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,049	-	-	-	-	1,049
		Total	-	1,049	-	-	-	-	1,049
67	Replacement of watermain on Bay St. from Osborne St. to Mill St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	100	-	-	-	-	-	-
		Total	100	-	-	-	-	-	-

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
68	Replacement of watermain on Bay St. from Union St. to Osborne St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	161	-	-	-	-	-	-
		Total	161	-	-	-	-	-	-
69	Replacement of watermain on Bigelow St. from 140 m north of Kellett St. to Kellett St., Kellett St. from Bigelow St. to Simcoe St., Beech St from Simcoe St. to 60 m east of Kent St., and Kent St. from Beech St. to 100 m north of Beech St., Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	165	-	-	-	-	165
		Total	-	165	-	-	-	-	165
70	Replacement of watermain on Byron St. North from Willis Ave. to Starr Ave., Whitby	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	260	260
		Total	-	-	-	-	-	360	360
71	Replacement of watermain on Caleb St. from Clarke St. to Queen St., Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,200	-	-	-	-	-	-
		Total	1,200	-	-	-	-	-	-
72	Replacement of watermain on Cameron St. from 215 m east of McRae St. to 750 m west of R.R. 2 Simcoe St., Cannington	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	820	-	-	-	-	820
		Total	-	820	-	-	-	-	820
73	Replacement of watermain on Centre St. from Mara Rd. to James St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	425	-	-	-	-	425
		Total	-	425	-	-	-	-	425
74	Replacement of watermain on Centre St. N. from Willis Ave. to Rossland Rd. W., Whitby	Pre-Construction	-	-	-	250	-	-	250
		Construction	-	-	-	800	-	-	800
		Total	-	-	-	1,050	-	-	1,050
75	Replacement of watermain on Church St. from Osborne St. to Mill St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	143	-	-	-	-	-	-
		Total	143	-	-	-	-	-	-

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
76	Replacement of watermain on Cochrane St. from Ferguson St. to 125 m north of Beech St. W., Whitby	Pre-Construction	-	-	300	-	-	-	300
		Construction	-	-	-	-	1,000	-	1,000
		Total	-	-	300	-	1,000	-	1,300
77	Replacement of watermain on Conant St. from Myers Rd. to Nelson St., Oshawa	Pre-Construction	-	100	-	-	-	-	100
		Construction	-	-	-	340	-	-	340
		Total	-	100	-	340	-	-	440
78	Replacement of watermain on Consumers Dr. from 140 m west of Thickson Rd. S to 110 m east of Sunray St., Whitby	Pre-Construction	-	-	-	-	100	-	100
		Construction	-	-	-	-	620	-	620
		Total	-	-	-	-	720	-	720
79	Replacement of watermain on Dundas St. (Hwy No. 2) from Lakeridge Rd. to McQuay Blvd., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,300	-	-	-	-	2,300
		Total	-	2,300	-	-	-	-	2,300
80	Replacement of watermain on East Shore Dr./Port Darlington Rd. from Lake Rd. to Bowmanville Water Supply Plant, Bowmanville	Pre-Construction	500	-	-	-	-	-	-
		Construction	-	1,000	-	750	-	-	1,750
		Total	500	1,000	-	750	-	-	1,750
81	Replacement of watermain on Euclid St. from Dundas St. to 75 m north of John St., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	120	-	-	-	-	-	-
		Total	120	-	-	-	-	-	-
82	Replacement of watermain on First Ave. from Brock St. to Dominion St., Uxbridge	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	210	-	-	-	-	210
		Total	-	210	-	-	-	-	210
83	Replacement of watermain on Greenwood Cres. from McCullough Dr. N/L to McCullough Dr. S/L, Whitby	Pre-Construction	-	-	-	-	-	130	130
		Construction	-	-	-	-	-	385	385
		Total	-	-	-	-	-	515	515
84	Replacement of watermain on Highway No. 2 King St. E. from Harmony Rd. to Kingsway College, Oshawa	Pre-Construction	-	-	-	500	-	-	500
		Construction	-	-	-	-	1,700	-	1,700
		Total	-	-	-	500	1,700	-	2,200

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
85	Replacement of watermain on Highway No. 2 King St. E. from Wilson Rd. to 30 m east of Harmony Creek, Oshawa	Pre-Construction	-	-	-	200	-	-	200
		Construction	-	-	-	-	715	-	715
		Total	-	-	-	200	715	-	915
86	Replacement of watermain on Highway No. 2 King St. W. from Garrard Rd. to Thornton Rd., Oshawa	Pre-Construction	-	-	-	-	-	55	55
		Construction	-	-	-	-	-	110	110
		Total	-	-	-	-	-	165	165
87	Replacement of watermain on Highway No. 2 King St. W. from Midtown Dr. to Queen St., Oshawa	Pre-Construction	-	100	-	-	-	-	100
		Construction	-	-	400	-	-	-	400
		Total	-	100	400	-	-	-	500
88	Replacement of watermain on Holland St. from Veterans Rd. to Bloor St, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	95	-	-	-	-	-	-
		Total	95	-	-	-	-	-	-
89	Replacement of watermain on James St. from Main St. to Centre St./Highland Crt., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	335	-	-	-	-	335
		Total	-	335	-	-	-	-	335
90	Replacement of watermain on Jane St. from Ida St. to 220 m north of Ida St., Sunderland	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	385	-	-	-	-	385
		Total	-	385	-	-	-	-	385
91	Replacement of watermain on King St. from Mara Rd. to dead-end, Beaverton	Pre-Construction	-	138	-	-	-	-	138
		Construction	-	-	-	447	-	-	447
		Total	-	138	-	447	-	-	585
92	Replacement of watermain on Krosno Blvd. from Liverpool Rd. E. to Fanshaw Place, Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,500	-	-	-	-	-	-
		Total	1,500	-	-	-	-	-	-
93	Replacement of watermain on Laidlaw St. from Cameron St. to Park St., Cannington	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	400	400
		Total	-	-	-	-	-	500	500

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
94	Replacement of watermain on Mill St. from Church St. to Bay St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	96	-	-	-	-	-	-
		Total	96	-	-	-	-	-	-
95	Replacement of watermain on North St. from Wilmot St. to Concession Rd. 3, Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,480	-	-	-	-	1,480
		Total	-	1,480	-	-	-	-	1,480
96	Replacement of watermain on Ottawa St. from Queen St. to MacDonald St., Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	100	-	570	-	-	670
		Total	-	100	-	570	-	-	670
97	Replacement of watermain on Palmerston Ave. from Centre St. to Walton Blvd., Whitby	Pre-Construction	-	-	-	150	-	-	150
		Construction	-	-	-	470	-	-	470
		Total	-	-	-	620	-	-	620
98	Replacement of watermain on Perry St. from North St. to Paxton St., Port Perry	Pre-Construction	-	-	-	-	-	60	60
		Construction	-	-	-	-	-	170	170
		Total	-	-	-	-	-	230	230
99	Replacement of watermain on R.R. 26 (Thickson Rd.) from 84 m north of William Smith Dr. to 60 m south of William Smith Dr., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	100	-	-	-	-	-	-
		Total	100	-	-	-	-	-	-
100	Replacement of watermain on R.R. 52 Thornton Rd. from South of Bloor St. under the Canadian National Railway, Oshawa	Pre-Construction	-	-	-	-	200	2,300	2,500
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	200	2,300	2,500
101	Replacement of watermain on Rosa St. from Paxton St. to dead-end, Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,318	-	-	-	1,318
		Total	-	-	1,318	-	-	-	1,318
102	Replacement of watermain on RR 56 Farewell St. from Canadian National Railway to Bloor St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	360	-	-	-	-	-	-
		Total	360	-	-	-	-	-	-

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
103	Replacement of watermain on Simcoe St. from Beaverton Water Supply Plant to 60 m west of Canadian National Railway, Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	780	-	-	-	-	780
		Total	-	780	-	-	-	-	780
104	Replacement of watermain on Simcoe St. from Canadian National Railway to John St., Beaverton	Pre-Construction	210	-	-	-	-	-	-
		Construction	-	565	-	-	-	-	565
		Total	210	565	-	-	-	-	565
105	Replacement of watermain on Simcoe St. from Metcalf St. to Quebec St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	615	-	-	-	-	615
		Total	-	615	-	-	-	-	615
106	Replacement of watermain on Simcoe St. from Union St. to 480 m south of Union St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	208	-	-	-	-	-	-
		Total	208	-	-	-	-	-	-
107	Replacement of watermain on St. Lawrence St. from Brock St. to Athol St., Whitby	Pre-Construction	-	-	60	-	-	-	60
		Construction	-	-	150	-	-	-	150
		Total	-	-	210	-	-	-	210
108	Replacement of watermain on Valencia Rd. from Oxford St. to dead-end, Oshawa	Pre-Construction	-	-	-	100	275	-	375
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	100	275	-	375
109	Replacement of watermain on Water St. from the Whitby WSP to Breakwater SSPS, Whitby	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	670	-	-	-	-	670
		Total	100	670	-	-	-	-	670
110	Ritson Rd. from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	150	-	-	-	-	-	-
		Construction	-	-	-	1,000	-	-	1,000
		Total	150	-	-	1,000	-	-	1,000
111	Rossland Rd. from Park Rd. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	950	-	-	-	950
		Total	-	-	950	-	-	-	950

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
112	Rossland Rd. from Ritson Rd. to Harmony Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	2,150	-	-	2,150
		Total	-	-	-	2,150	-	-	2,150
113	Stevenson Rd. from Bond St. to Rossland Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	3,420	-	3,420
		Total	-	-	-	-	3,420	-	3,420
114	Stevenson Rd. from Highway 401 to Bond St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	1,290	-	-	1,290
		Total	-	-	-	1,290	-	-	1,290
115	Thickson Rd. from Consumers Dr. to Dundas St., Whitby	Pre-Construction	-	-	-	400	-	-	400
		Construction	-	-	-	-	-	2,700	2,700
		Total	-	-	-	400	-	2,700	3,100
116	Thickson Rd. from Wentworth St. to Canadian National Railway Bridge, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	241	-	-	-	-	-	-
		Total	241	-	-	-	-	-	-
117	Thickson Rd./Wentworth St. Culvert rehabilitation	Pre-Construction	130	-	-	-	-	-	-
		Construction	-	760	-	-	-	-	760
		Total	130	760	-	-	-	-	760
118	Thornton Rd. from King St. to Stellar Dr., Whitby/Oshawa	Pre-Construction	225	-	-	-	-	-	-
		Construction	-	-	-	1,190	-	-	1,190
		Total	225	-	-	1,190	-	-	1,190
119	Water Meter installation and replacement	Pre-Construction	-	-	-	-	-	-	-
		Construction	2,000	3,100	3,100	3,100	5,000	32,500	46,800
		Total	2,000	3,100	3,100	3,100	5,000	32,500	46,800

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
120	Water works to rectify identified system deficiencies independent of road programs in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	600	800	800	800	900	4,500	7,800
		Total	600	800	800	800	900	4,500	7,800
121	Watermain and valve improvements at Brock Rd. and Montgomery Park Rd., Pickering	Pre-Construction	150	-	-	-	-	-	-
		Construction	-	750	-	-	-	-	750
		Total	150	750	-	-	-	-	750
122	Watermain modifications in conjunction with the twinning of northwest branch of Harmony Creek sub-trunk sanitary sewer from 200 m south of Beatrice St. to Ritson Rd., Oshawa	Pre-Construction	-	-	25	-	-	-	25
		Construction	-	-	135	-	-	-	135
		Total	-	-	160	-	-	-	160
123	Watermain on Britannia Ave. from Thornton Rd. to Windfields Farm Dr., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,800	-	-	-	-	1,800
		Total	-	1,800	-	-	-	-	1,800
124	Watermain on Concession Rd. 5 from Cedar Beach Rd. to 850 m east of Cedar Beach Rd., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,990	-	-	-	-	-	-
		Total	1,990	-	-	-	-	-	-
125	Watermain on Concession Rd. 5 to service the westerly portion of the Beaverton Avenue Employment Area A, Brock	Pre-Construction	-	-	-	-	-	-	-
		Construction	500	2,200	-	-	-	-	2,200
		Total	500	2,200	-	-	-	-	2,200
126	Watermain on Grady Dr. from Whitehand Cres. to North St., Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	750	-	-	-	-	750
		Total	-	750	-	-	-	-	750
127	Watermain on Hunt St. from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	1,450	-	-	1,450
		Total	-	-	-	1,450	-	-	1,450
128	Watermain on local road from Windfields Farm Dr. to Winchester Rd., Oshawa	Pre-Construction	-	-	-	150	-	-	150
		Construction	-	-	-	-	1,000	-	1,000
		Total	-	-	-	150	1,000	-	1,150



## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
129	Watermain on Stevenson Rd. from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	-	-	300	-	-	-	300
		Construction	-	-	-	2,000	-	-	2,000
		Total	-	-	300	2,000	-	-	2,300
130	Watermain on Thornton Rd. from Conlin Rd. within the Northwood Employment Area, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,800	-	-	-	-	1,800
		Total	-	1,800	-	-	-	-	1,800
131	Watermain replacement at Highway 401 and Wilson Rd., in conjunction with the MTO, Oshawa	Pre-Construction	250	-	-	-	-	-	-
		Construction	-	2,750	-	-	-	-	2,750
		Total	250	2,750	-	-	-	-	2,750
132	Watermain replacement in conjunction with the Metrolinx Toronto East Rail Corridor expansion to Bowmanville	Pre-Construction	500	-	-	-	-	-	-
		Construction	-	-	3,000	-	-	-	3,000
		Total	500	-	3,000	-	-	-	3,000
133	Watermain replacement on Bloor St. E. from 300 m south of Grandview Dr. to Grandview Dr. in conjunction with the MTO Hwy 401/ Harmony Rd. interchange, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,600	-	-	-	1,600
		Total	-	-	1,600	-	-	-	1,600
134	Westney Rd. from Finley Ave. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,100	-	-	-	1,100
		Total	-	-	1,100	-	-	-	1,100
135	Whites Rd. from Kingston Rd. Highway 2 to Finch Ave., Pickering	Pre-Construction	-	400	-	-	-	-	400
		Construction	-	-	-	-	2,175	-	2,175
		Total	-	400	-	-	2,175	-	2,575
136	Zone 1 feedermain on Baseline Rd. from Bowmanville Ave. to Liberty St., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,850	-	-	-	-	4,850
		Total	-	4,850	-	-	-	-	4,850
137	Zone 1 feedermain from Arthur Street reservoir to future Zone 1 water storage facility, Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,860	-	-	-	-	2,860
		Total	-	2,860	-	-	-	-	2,860

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
138	Zone 1 feedermain from Bowmanville Water Supply Plant to Baseline Rd., Bowmanville	Pre-Construction	-	-	500	-	500	-	1,000
		Construction	-	-	-	-	-	9,600	9,600
		Total	-	-	500	-	500	9,600	10,600
139	Zone 1 feedermain from Whitby Water Supply Plant to Thornton Rd., Whitby/Oshawa	Pre-Construction	-	-	4,500	-	-	-	4,500
		Construction	8,000	-	-	-	29,400	-	29,400
		Total	8,000	-	4,500	-	29,400	-	33,900
140	Zone 1 feedermain on Baseline Rd. from Prestonvale Rd. to Trulls Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,300	-	-	-	-	3,300
		Total	-	3,300	-	-	-	-	3,300
141	Zone 1 feedermain on Baseline Rd. from Liberty St. to Mearns Ave., Bowmanville	Pre-Construction	-	-	-	-	520	540	1,060
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	520	540	1,060
142	Zone 1 feedermain on Bayly St. from Toy Ave. to Pickering Beach Rd., Pickering/Ajax	Pre-Construction	-	-	-	1,000	-	-	1,000
		Construction	-	-	-	-	-	19,000	19,000
		Total	-	-	-	1,000	-	19,000	20,000
143	Zone 1 feedermain on easement from Townline Rd. to Prestonvale Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,915	-	-	-	-	2,915
		Total	-	2,915	-	-	-	-	2,915
144	Zone 1 feedermain on King Ave. Highway No. 2 from Rudell Rd. to 200 m west of North St., Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,500	-	-	-	-	3,500
		Total	-	3,500	-	-	-	-	3,500
145	Zone 1 feedermain on Lambs Rd. from Hwy No. 2 King St. to Zone 1 Liberty Street Reservoir, Bowmanville	Pre-Construction	1,000	-	-	-	-	-	-
		Construction	-	21,000	-	-	-	-	21,000
		Total	1,000	21,000	-	-	-	-	21,000
146	Zone 1 feedermain on Manning Rd. from Anderson St. to Hydro corridor., Whitby	Pre-Construction	400	-	-	-	-	-	-
		Construction	-	-	1,630	-	-	-	1,630
		Total	400	-	1,630	-	-	-	1,630

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
147	Zone 1 feedermain on Prestonvale Rd. from Baseline Rd. to 950 m North of Baseline Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,650	-	-	-	-	1,650
		Total	-	1,650	-	-	-	-	1,650
148	Zone 1 West Whitby feedermain on Brock St./Victoria St. to Rossland Rd., Whitby	Pre-Construction	-	-	-	-	-	1,250	1,250
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	1,250	1,250
149	Zone 2 feedermain on Arthur St. from the Zone 2 pumping station to existing Andrew St. pumping station, Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,400	-	-	-	-	4,400
		Total	-	4,400	-	-	-	-	4,400
150	Zone 2 feedermain on Bloor St. from Trulls Rd. to Courtice Rd., Courtice	Pre-Construction	-	-	-	-	-	600	600
		Construction	-	-	-	-	-	2,299	2,299
		Total	-	-	-	-	-	2,899	2,899
151	Zone 2 feedermain on Church St. from south side of the hydro right of way to Taunton Rd., Ajax	Pre-Construction	-	600	-	-	-	-	600
		Construction	-	3,250	-	-	-	-	3,250
		Total	-	3,850	-	-	-	-	3,850
152	Zone 2 feedermain on Liberty St. from Concession 3 and Concession 4 to Zone 2 Reservoir, Bowmanville	Pre-Construction	-	-	600	-	-	-	600
		Construction	-	-	-	-	7,500	-	7,500
		Total	-	-	600	-	7,500	-	8,100
153	Zone 2 feedermain on Taunton Rd. from Westney Rd. to 200 m west of Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,700	-	-	-	-	2,700
		Total	-	2,700	-	-	-	-	2,700
154	Zone 2 feedermain on William Jackson Dr. & Taunton Rd. from Earl Grey Ave. to Ravenscroft Rd., Pickering/Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	7,100	-	-	-	-	7,100
		Total	-	7,100	-	-	-	-	7,100
155	Zone 3 feedermain on Anderson St. and Watford St. from Clair Ave. to Carnwith Dr., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	7,700	-	-	-	-	-	-
		Total	7,700	-	-	-	-	-	-

**Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2022*

**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
156	Zone 3 feedermain on Anderson St. from Conlin Rd. to Clair Ave., Whitby	Pre-Construction	5,400	-	-	-	-	-	-
		Construction	-	-	-	-	-	-	
		Total	5,400	-	-	-	-	-	
157	Zone 3 feedermain on Conlin Rd. from Ritson Rd. to Wilson Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	
		Construction	-	-	3,600	-	-	-	
		Total	-	-	3,600	-	-	-	
158	Zone 4 feedermain from Proposed Zone 4 Water Pumping Station at Harmony Reservoir to Proposed Oshawa Zone 4 Reservoir, Oshawa	Pre-Construction	-	-	-	-	-	-	
		Construction	-	-	15,350	-	-	-	
		Total	-	-	15,350	-	-	-	
159	Zone 4 feedermain from Thickson Rd. Zone 4 water pumping station to Zone 4 Reservoir, Whitby	Pre-Construction	-	-	-	-	-	-	
		Construction	-	3,500	14,200	-	-	-	
		Total	-	3,500	14,200	-	-	-	
160	Zone 4 feedermain on Ashburn Rd. from Brawley Rd. to Columbus Rd., Whitby	Pre-Construction	-	-	700	-	-	-	
		Construction	-	-	-	7,400	-	-	
		Total	-	-	700	7,400	-	-	
161	Zone 4 feedermain on Brawley Rd. from Ashburn Rd. to Duffs Rd., Whitby	Pre-Construction	-	-	-	-	-	-	
		Construction	-	5,850	-	-	-	-	
		Total	-	5,850	-	-	-	-	
162	Zone 4 feedermain on Columbus Rd. from Thickson Rd. to Ritson Rd., Whitby/Oshawa	Pre-Construction	-	-	1,500	-	-	-	
		Construction	-	-	-	-	16,200	-	
		Total	-	-	1,500	-	16,200	-	
163	Zone 4 feedermain on Ritson Rd. from Columbus Rd. to Winchester Rd., Oshawa	Pre-Construction	-	600	-	-	-	-	
		Construction	-	-	-	6,500	-	-	
		Total	-	600	-	6,500	-	-	
164	Zone 4 feedermain on Winchester Rd. from Ritson Rd. to Harmony Rd., Oshawa	Pre-Construction	-	600	-	-	-	-	
		Construction	-	-	-	6,099	-	-	
		Total	-	600	-	6,099	-	-	
<b>Linear Infrastructure Subtotal</b>			<b>43,668</b>	<b>118,859</b>	<b>80,027</b>	<b>49,998</b>	<b>93,920</b>	<b>186,180</b>	<b>528,984</b>

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022


Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
<b>Buildings and Structures</b>									
165	20000 lb above ground Hoist, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	33	-	-	-	-	-	-
		Total	33	-	-	-	-	-	-
166	Additional Water Storage from 1.4 ML to 3.0 ML - Sunderland System	Pre-Construction	-	-	-	-	-	2,200	2,200
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	2,200	2,200
167	Additional Water Storage from 1.4 ML to 3.0 ML - Cannington System	Pre-Construction	-	-	-	-	-	1,700	1,700
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	1,700	1,700
168	Additional Water Storage from 2 ML to 4.8 ML, Brock	Pre-Construction	-	-	-	-	-	1,025	1,025
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	1,025	1,025
169	Alternative Water Supply Source, Scugog System	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	25,000	-	-	25,000
		Total	-	-	-	25,000	-	-	25,000
170	Automatic Gate at front Entrance, Plants Central	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	150	-	-	-	-	150
		Total	-	150	-	-	-	-	150
171	Beaverton Water Supply Plant Expansion	Pre-Construction	-	-	-	-	-	3,400	3,400
		Construction	-	-	-	-	-	20,000	20,000
		Total	-	-	-	-	-	23,400	23,400
172	Bowmanville Water Supply Plant Expansion from 36 MLD to 55 MLD	Pre-Construction	500	-	-	4,000	-	-	4,000
		Construction	-	-	-	-	-	50,000	50,000
		Total	500	-	-	4,000	-	50,000	54,000
173	Bowmanville Zone 2 reservoir expansion	Pre-Construction	-	600	-	-	1,325	-	1,925
		Construction	-	-	-	-	-	7,000	7,000
		Total	-	600	-	-	1,325	7,000	8,925

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022


Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
174	Concession St. Water Pumping Station Expansion - increasing pump capacity, Clarington	Pre-Construction	-	-	-	-	-	-	-
		Construction	155	-	-	-	-	-	-
		Total	155	-	-	-	-	-	-
175	EV Charger, various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	299	-	-	-	-	-	-
		Total	299	-	-	-	-	-	-
176	Expansion of Quaker Hill Reservoir from 2.8 ML to 5.2 ML, Uxbridge	Pre-Construction	-	1,200	-	-	-	-	1,200
		Construction	-	-	-	-	3,000	-	3,000
		Total	-	1,200	-	-	3,000	-	4,200
177	Expansion of the Ajax Water Supply Plant from 163.6 MLD to 327 MLD, Ajax	Pre-Construction	-	-	12,500	-	-	-	12,500
		Construction	-	-	-	-	-	125,000	125,000
		Total	-	-	12,500	-	-	125,000	137,500
178	Expansion of the Whitby Water Supply Plant from 109 MLD to 218 MLD, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	18,000	25,000	-	195,380	-	-	220,380
		Total	18,000	25,000	-	195,380	-	-	220,380
179	Fleet furnace replacement, Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	33	-	-	-	-	-	-
		Total	33	-	-	-	-	-	-
180	Garrard Rd. Zone 1 Reservoir Expansion from 31 ML to 50 ML and Zone 2 pumping station expansion, Whitby	Pre-Construction	600	-	1,200	-	-	-	1,200
		Construction	-	-	-	-	16,400	-	16,400
		Total	600	-	1,200	-	16,400	-	17,600
181	Garrard Rd. Zone 3 Water Pumping Station - upgrades, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,550	-	-	-	-	1,550
		Total	-	1,550	-	-	-	-	1,550
182	Grandview Zone 2 Pumping Station Expansion, Oshawa	Pre-Construction	600	-	-	1,200	-	-	1,200
		Construction	-	-	-	-	-	5,800	5,800
		Total	600	-	-	1,200	-	5,800	7,000

**Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2022.*


**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
183	Greenbank Water Supply System - Replacement of Municipal Well 1	Pre-Construction	-	-	-	500	-	-	500
		Construction	-	-	-	-	-	1,200	1,200
		Total	-	-	-	500	-	1,200	1,700
184	Harmony Rd. Zone 3 Reservoir Expansion, Oshawa	Pre-Construction	-	-	600	-	1,000	-	1,600
		Construction	-	-	-	-	-	3,200	3,200
		Total	-	-	600	-	1,000	3,200	4,800
185	Hortop Water Pumping Station - pumping station replacement, Oshawa	Pre-Construction	400	-	-	-	-	-	-
		Construction	-	-	-	9,600	-	-	9,600
		Total	400	-	-	9,600	-	-	9,600
186	New Locker/Change Room Facility, Scugog/Ajax/Orono	Pre-Construction	-	-	-	-	-	-	-
		Construction	130	-	-	-	-	-	-
		Total	130	-	-	-	-	-	-
187	New Well and Pumphouse with standby power, Brock (Cannington) System (DC601)	Pre-Construction	-	-	-	-	-	1,540	1,540
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	1,540	1,540
188	New Well and Pumphouse with standby power - Brock (Cannington) System (DC600)	Pre-Construction	-	-	-	-	-	-	-
		Construction	800	-	-	-	-	-	-
		Total	800	-	-	-	-	-	-
189	New Well and Pumphouse with standby power - Brock (Sunderland) System (DC602)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,900	-	-	-	-	3,900
		Total	-	3,900	-	-	-	-	3,900
190	New Well and Pumphouse with standby power - Brock (Sunderland) System (DC603)	Pre-Construction	-	-	-	-	-	2,700	2,700
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	2,700	2,700
191	New Well and Pumphouse, Uxbridge	Pre-Construction	-	1,170	-	-	-	-	1,170
		Construction	-	-	-	3,000	-	-	3,000
		Total	-	1,170	-	3,000	-	-	4,170

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
192	Newcastle Water Supply Plant - demolition of plant No. 1	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	3,100	-	-	-	3,100
		Total	-	-	3,100	-	-	-	3,100
193	Oshawa Water Supply Plant - break wall modifications	Pre-Construction	150	-	-	-	-	-	-
		Construction	-	1,000	-	-	-	-	1,000
		Total	150	1,000	-	-	-	-	1,000
194	Overhead doors painting and repair to metal supports, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	22	-	-	22
		Total	-	-	-	22	-	-	22
195	Port Perry Water Storage Facility - additional capacity 2.8 ML and watermain	Pre-Construction	3,300	-	-	-	-	-	-
		Construction	-	-	11,950	-	-	-	11,950
		Total	3,300	-	11,950	-	-	-	11,950
196	Proposed Ajax Zone 1 Water Storage facility - 11 ML, Ajax	Pre-Construction	-	1,200	-	-	-	-	1,200
		Construction	-	-	-	11,400	-	-	11,400
		Total	-	1,200	-	11,400	-	-	12,600
197	Proposed Liberty Street Zone 1 Reservoir 11 ML and demolition of the existing elevated tank	Pre-Construction	900	-	-	-	-	-	-
		Construction	20,000	-	-	-	-	-	-
		Total	20,900	-	-	-	-	-	-
198	Proposed Oshawa Zone 4 Water Storage Facility - 16 ML, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	40,400	-	-	-	-	40,400
		Total	-	40,400	-	-	-	-	40,400
199	Proposed Whitby Zone 4 & 5 Pumping Station at Duffs Rd. Reservoir and feedermain, Whitby	Pre-Construction	-	2,000	-	-	-	-	2,000
		Construction	-	-	-	11,000	-	-	11,000
		Total	-	2,000	-	11,000	-	-	13,000
200	Proposed Whitby Zone 4 Storage Facility - 13 ML, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	32,300	-	-	-	-	32,300
		Total	-	32,300	-	-	-	-	32,300



## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
201	Proposed Zone 1 Orono Storage Facility 1 ML	Pre-Construction	-	-	-	-	-	1,500	1,500
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	1,500	1,500
202	Proposed Zone 1 Reservoir 11 ML, Clarington	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	14,700	-	-	-	14,700
		Total	-	-	14,700	-	-	-	14,700
203	Proposed Zone 2 Pumping Station at the Zone 1 Reservoir - Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	7,250	-	-	-	-	-	-
		Total	7,250	-	-	-	-	-	-
204	Proposed Zone 2 reservoir, Clarington	Pre-Construction	-	-	500	-	-	1,600	2,100
		Construction	-	-	-	-	-	5,600	5,600
		Total	-	-	500	-	-	7,200	7,700
205	Proposed Zone 2 Water Pumping Station, Clarington	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	10,000	-	-	-	10,000
		Total	-	-	10,000	-	-	-	10,000
206	Proposed Zone 4 Pumping Station at the Harmony Rd. Reservoir, Oshawa	Pre-Construction	700	-	-	-	-	-	-
		Construction	-	-	6,500	-	-	-	6,500
		Total	700	-	6,500	-	-	-	6,500
207	Proposed Zone 4 Pumping Station at the Thickson Rd. Reservoir, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	6,400	-	-	-	-	-	-
		Total	6,400	-	-	-	-	-	-
208	Proposed Zone 5 Pumping Station at Harmony Rd. Reservoir and feedermain, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	9,700	-	-	-	9,700
		Total	-	-	9,700	-	-	-	9,700
209	Relocation of Materials Testing Lab*	Pre-Construction	-	-	-	-	-	-	-
		Construction	932	-	-	-	-	-	-
		Total	932	-	-	-	-	-	-

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
210	Remove and Replace Perimeter Fence, Plants Central	Pre-Construction	-	-	-	-	-	-	-
		Construction	85	-	-	-	-	-	-
		Total	85	-	-	-	-	-	-
211	Replace Existing 15000 lb above ground Hoist, Sunderland Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	33	-	-	-	-	-	-
		Total	33	-	-	-	-	-	-
212	Rills of Liberty Water Pumping Station - demolition	Pre-Construction	200	-	-	-	-	-	-
		Construction	400	-	-	-	-	-	-
		Total	600	-	-	-	-	-	-
213	Taunton Rd. Zone 2 Reservoir Expansion from 13 ML to 27 ML, Oshawa	Pre-Construction	600	-	-	2,000	-	-	2,000
		Construction	-	-	-	-	-	11,000	11,000
		Total	600	-	-	2,000	-	11,000	13,000
214	Taunton Rd. Zone 3 Water Pumping Station Expansion from 27 ML to 75 ML, Oshawa	Pre-Construction	-	-	550	-	-	-	550
		Construction	-	-	-	-	2,000	-	2,000
		Total	-	-	550	-	2,000	-	2,550
215	Thickson Rd. Zone 3 Water Pumping Station Expansion to 22.7 MLD, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	11,800	-	-	-	-	11,800
		Total	-	11,800	-	-	-	-	11,800
216	Update Freight Elevator, Ajax WSP	Pre-Construction	-	-	-	-	-	-	-
		Construction	315	-	-	-	-	-	-
		Total	315	-	-	-	-	-	-
217	Water Storage Facilities inspections, condition assessment and rehabilitation works	Pre-Construction	100	-	100	100	100	500	800
		Construction	298	-	404	400	326	2,000	3,130
		Total	398	-	504	500	426	2,500	3,930
218	Water Supply Plants - Asset Management Remediation and Rehabilitation works	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	28,000	28,000
		Total	-	-	-	-	-	28,000	28,000

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022


Continued

Durham Budget 2022		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
219	Wellhead protection at Regional well sites	Pre-Construction	-	-	-	-	-	-	-
		Construction	800	800	800	800	800	4,000	7,200
		Total	800	800	800	800	800	4,000	7,200
220	Whitby Water Supply Plant - Plant 1 Upgrades and Rehabilitation Works Proposed works to include but not limit to building envelope improvements, filter treatment process upgrades, rehabilitation works for electrical, mechanical and process systems	Pre-Construction	-	-	-	-	4,900	-	4,900
		Construction	-	-	-	-	-	15,500	15,500
		Total	-	-	-	-	4,900	15,500	20,400
<b>Buildings and Structures Subtotal</b>			<b>64,013</b>	<b>123,070</b>	<b>72,604</b>	<b>264,402</b>	<b>29,851</b>	<b>294,465</b>	<b>784,392</b>
<b>Machinery &amp; Equipment</b>									
221	48" Round Shoring		-	3	-	-	-	3	6
222	Ajax Water Supply Plant - Chlorine line replacement		450	-	-	-	-	-	-
223	Automatic Bulk Water Dispensing System		-	-	3,700	4,100	2,000	-	9,800
224	Autosamplers		20	-	-	-	-	-	-
225	Beaverton Water Supply Plant - Chlorine line Replacement		450	-	-	-	-	-	-
226	Beaverton Water Supply Plant - upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch, Standby power and uninterrupted power supply UPS		400	-	-	2,300	-	-	2,300
227	Bowmanville Water Supply Plant - Chlorine line replacement		-	-	-	910	-	-	910
228	Cherrywood Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power		-	-	-	200	400	1,900	2,500
229	Cherrywood Water Pumping Station upgrades - pumps and feeder main, Pickering		-	-	1,620	-	-	-	1,620
230	Chlorine Analyzers		30	30	30	30	60	120	270

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022


Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
231	Finch Ave. Elevated Water Storage Tank - Recoating		540	-	-	-	-	-	-
232	Grandview Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power		-	2,270	-	-	-	-	2,270
233	Greenbank Water Supply System - upgrades to the uninterrupted power supply UPS		-	-	-	-	500	-	500
234	Mill St. Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power		-	-	600	-	1,799	-	2,399
235	Newcastle Water Supply Plant - Chlorine line replacement		-	-	-	-	910	-	910
236	Newtonville Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power		-	-	-	600	-	1,800	2,400
237	Nuclear Densometer		-	3	-	-	-	-	3
238	Orono Water Supply System - upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch, Standby power and uninterrupted power supply UPS		-	-	-	-	-	2,700	2,700

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
239	Orono Water Supply System - Standpipe water storage tank recoating		1,800	-	-	-	-	-	-
240	Port Perry Groundwater Supply System Municipal Well No. 6 - Upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power		-	-	2,500	-	-	-	2,500
241	Oshawa Water Supply Plant - Rehabilitation of the filters 1 to 6		1,450	3,950	-	4,200	-	3,000	11,150
242	Oshawa Water Supply Plant - Replacement of the Motor Control Centre		-	-	-	-	-	1,280	1,280
243	Oshawa Water Supply Plant - upgrading the uninterrupted power supply UPS		-	800	-	-	-	-	800
244	Oshawa Water Supply Plant - Valve Chamber Upgrades		300	-	1,000	-	-	-	1,000
245	Oshawa Water Supply Plant -Header & Backwash valve replacement and associated piping rehabilitation/replacement		150	-	1,699	-	-	-	1,699
246	Pump / Motor / Mixer Repair / Replacement		50	50	50	50	-	-	150
247	Regulatory Instrumentation Replacement and Maintenance		85	-	55	-	-	-	55
248	Replace Uninterrupted Power Supply (UPS) Batteries		-	50	-	-	-	-	50
249	Rosebank Rd. Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power		-	-	-	-	-	2,500	2,500
250	Safety upgrades to access ladders at various plants and pumping station		120	-	-	-	-	-	-
251	SCADA Integration - Move to Wireless		130	-	-	-	-	-	-
252	Sewer Camera		-	-	-	3	-	-	3

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022.


Continued

Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
		2023	2024	2025	2026	2027-2031	
253 Sunderland Standpipe Water Storage Tank - Recoating	-	750	-	-	-	-	750
254 Survey GPS Instrument	17	10	10	10	10	53	93
255 Survey Total Station Replacement	-	-	-	-	-	40	40
256 Tablets	6	-	-	7	-	14	21
257 Taunton Rd. Water Pumping Station and Reservoir - station improvements and replacement	-	2,100	-	-	-	-	2,100
258 Teleloggers	5	5	5	5	5	23	43
259 Temporary Traffic Control Sign replacement	-	-	2	-	2	3	7
260 Valve Replacements - Oshawa WSP	60	-	-	-	-	-	-
261 Waverly Rd. Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power	-	-	-	2,200	-	-	2,200
262 Whitby Water Supply Plant - replacement of the standby power, Whitby	1,550	-	-	-	-	-	-
263 Whitby Water Supply Plant - Chlorine line replacement	450	-	-	-	-	-	-
264 Whitby Water Supply Plant - Valve Chamber upgrades	100	-	1,000	-	-	-	1,000
<b>Machinery and Equipment Subtotal</b>	<b>8,163</b>	<b>10,021</b>	<b>12,271</b>	<b>14,615</b>	<b>5,686</b>	<b>13,436</b>	<b>56,029</b>
<b>Information Technology</b>							
265 EMMS Maximo - Hardware Requirement	26	-	-	-	-	-	-
266 Laptop Computer	-	2	1	1	1	5	10
267 Minor Office Improvements	-	-	-	-	-	1	1
268 Mobile Laptop	14	-	-	-	-	-	-
269 Power Desktop	50	-	-	-	-	-	-

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
270	Power Laptop		75	-	-	-	-	-	-
271	Power Tablet		27	-	-	-	-	-	-
272	Replacement of wireless WAN frequency Replacement		500	2,675	-	-	-	-	2,675
273	SCADA Workstation		10	10	10	10	-	-	30
274	Scanner and Wide Format Black & White Printer		-	-	-	-	21	21	42
275	Standard Desktop		79	-	-	-	-	-	-
276	Standard Laptop		100	-	-	-	-	-	-
277	Standard Tablet		62	-	-	-	-	-	-
278	Supervisory Control and Data Acquisition (SCADA) Plant North Improvements		-	-	-	-	5,000	-	5,000
279	Supervisory Control and Data Acquisition (SCADA) Plant South Improvements		-	4,000	-	2,500	-	-	6,500
280	WATER SCADA - PC/OIT, PLC, Radios3.65G/Support WAN		335	-	-	-	-	-	-
<b>Information Technology Subtotal</b>			<b>1,278</b>	<b>6,687</b>	<b>11</b>	<b>2,511</b>	<b>5,022</b>	<b>27</b>	<b>14,258</b>
<b>Vehicles</b>									
281	1/2 Ton Pick-up Truck		50	68	25	25	25	75	218
282	1/2 Ton Van		17	-	-	-	-	-	-
283	1/4 Ton Van		18	-	-	-	-	-	-
284	3/4 Ton Pick Up		28	28	-	-	-	-	28
285	3/4 Ton Van		77	-	-	-	-	-	-
286	Asphalt Hotbox		22	-	-	-	-	-	-
287	Forklift		-	26	-	-	-	-	26
288	Industrial Snowblower		47	-	-	-	-	-	-

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022.

Continued


Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
		2023	2024	2025	2026	2027-2031	
289 Infrared Asphalt Heater	-	33	-	-	-	-	33
290 Rubber tire roller compaction unit	27	13	-	-	-	-	13
291 Small SUV - PHEV	18	-	-	-	-	-	-
<b>Vehicles Subtotal</b>	<b>304</b>	<b>168</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>75</b>	<b>318</b>
<b>Furniture and Fixtures</b>							
292 Ergonomic upgrades and new chairs	-	1	1	1	1	3	7
293 Minor Office Improvements	-	1	1	1	1	2	6
294 New Chair Allowance	-	1	1	1	1	2	6
295 Office Chairs	-	1	1	1	1	3	7
296 Office Furniture	-	1	8	1	1	3	14
297 Office Furniture/Equipment/Technology	5	8	8	8	8	29	61
298 Parts Cabinets	83	16	-	-	-	-	16
<b>Furniture and Fixtures Subtotal</b>	<b>88</b>	<b>29</b>	<b>20</b>	<b>13</b>	<b>13</b>	<b>42</b>	<b>117</b>
<b>Allowances &amp; Other Provisions</b>							
299 Allowance for acquisition of easements	150	150	150	150	150	750	1,350
300 Allowance for CTC Source Water Protection Plan related to the Lake Ontario Collaborative	500	500	400	300	400	3,700	5,300



## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022.


Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
301	Allowance for engineering studies		300	150	300	150	300	1,050	1,950
302	Allowance for land severance review and drawing requirements		100	100	100	100	100	500	900
303	Allowance for Regional share for works in conjunction with non-residential development		400	400	400	400	400	2,000	3,600
304	Allowance for Regional share for works in conjunction with residential subdivision development		1,460	1,460	1,460	1,460	1,460	7,300	13,140
305	Allowance for sundry extensions as per Council policy - Various		15	15	15	15	15	75	135
306	Allowance for unknown requirements		100	100	100	100	100	500	900
307	Allowance for Vulnerability Assessments for Water Supply Plants		-	350	-	350	-	-	700
308	Asset Condition Assessment/ investigation on transmission pipe		100	110	-	200	100	1,000	1,410
309	Asset Condition Assessments - Reports for the Vertical Assets		-	31	-	300	100	1,500	1,931
310	Climate Change Strategy Allowance		-	150	-	-	-	-	150
311	Emergency Planning Updating Requirements		-	100	-	-	-	-	100
312	Master planning energy management		-	200	-	-	200	200	600
313	Preliminary engineering		100	100	100	100	100	500	900
314	Regional Water Supply Master Planning Study for the Regional Official Plan Review		-	800	-	-	-	800	1,600
315	Well interference works		1,000	400	400	400	1,000	5,000	7,200
<b>Allowances &amp; Other Provisions Subtotal</b>			<b>4,225</b>	<b>5,116</b>	<b>3,425</b>	<b>4,025</b>	<b>4,425</b>	<b>24,875</b>	<b>41,866</b>

## Appendix B: 2022-2031 Water Supply Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix A for financing details for capital projects proposed in 2022

Continued

	Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
<b>Water Supply Subtotal</b>		<b>121,739</b>	<b>263,950</b>	<b>168,383</b>	<b>335,589</b>	<b>138,942</b>	<b>519,100</b>	<b>1,425,964</b>
<b>Total Capital Water Supply</b>		<b>121,739</b>	<b>263,950</b>	<b>168,383</b>	<b>335,589</b>	<b>138,942</b>	<b>519,100</b>	<b>1,425,964</b>

\* This project has pre-budget approval

\*\* Pre-construction capital financing includes expenditures for land purchases, utility relocates, preliminary studies, design, etc.

\*\*\* Projects with regularly recurring expenditures include allowances, machinery and equipment, information technology, vehicles and furniture and fixtures, etc. do not include separate pre-construction and construction capital financing

\*\*\*\* Appendix B includes financing of the following development charge shortfalls from a combination of user-rate, Water Rate Stabilization Reserve Fund and debentures (to be repaid from future development charges):

	2022	2023	2024	2025	2026	2027-2031
Residential DC Shortfall	-	10,000	38,068	131,066	39,546	77,124
Commercial DC Shortfall	-	-	-	11,850	-	2,912
Institutional DC Shortfall	110	232	108	666	84	485
Industrial DC Shortfall	9,505	13,849	10,704	63,611	5,517	34,697
<b>Total DC Shortfall</b>	<b>9,615</b>	<b>24,081</b>	<b>48,880</b>	<b>207,193</b>	<b>45,147</b>	<b>115,218</b>

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

Durham Region Budget 2022		Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
<b>Sanitary Sewer</b>																
<b>Linear Infrastructure</b>																
4	Allowance for unknown sanitary sewerage requirements in conjunction with area municipality road programs in various locations	-	-	-	-	-	-	-	-	-	-	200	200	-	1,800	2,000
9	Bowmanville Ave. from Highway No. 2 to Stevens Rd., Bowmanville	-	-	-	-	-	-	64	1,030	-	-	301	1,395	2,075	-	3,470
15	City of Oshawa Road Program	-	-	-	-	-	-	-	-	-	-	150	150	-	9,900	10,050
19	Courtice Sanitary Trunk Sewer	-	-	-	-	-	-	276	4,428	-	-	1,296	6,000	39,396	-	45,396
36	Merritt Street sanitary sewer tunnel decommissioning, Oshawa	-	-	-	-	-	-	-	-	-	-	750	750	600	-	1,350
37	Municipality of Clarington Road Program	-	-	-	-	-	-	-	-	-	-	25	25	-	2,700	2,725
43	Rehabilitation of existing sanitary sewers in various locations	-	-	-	474	-	-	-	-	-	-	-	474	-	4,250	4,724
44	Replacement of forcemain on Wilmot Creek easement from Cobble Dick Rd. to Toronto St., Newcastle	-	-	-	300	-	-	-	-	-	-	-	300	2,000	-	2,300
49	Replacement of sanitary sewer on Euclid St. from Dundas St. to 75 m north of John St. and Walnut St. from Euclid St. to Kent St., Whitby	-	-	-	710	-	-	-	-	-	-	-	710	995	-	1,705
51	Replacement of sanitary sewer on Krosno Blvd. from Modlin Rd. to Alyssum St., Pickering/Ajax System	-	-	-	400	-	-	-	-	-	-	-	400	100	-	500
52	Replacement of sanitary sewer on Old Simcoe Rd. from Reach St. to Cartan Dr., Port Perry	-	-	-	-	-	-	-	-	-	-	100	100	-	400	500
53	Replacement of sanitary sewer on Olive Ave from Simcoe St. to Drew St., Oshawa	-	-	-	115	-	-	-	-	-	-	-	115	1,490	-	1,605
61	Replacement of sanitary sewer on Veterans Rd. from R.R. 35 (Wilson Rd.) to R.R. 56 (Farewell St.), Oshawa	-	-	-	1,050	-	-	-	-	-	-	-	1,050	150	-	1,200

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
62 Replacement of sanitary sewer on Water St. from the Whitby Water Supply Plant to Breakwater Sanitary Sewage Pumping Station, Whitby	-		-	-	-	-	-	-	-	-	-	75	75	-	835	910
63 Ritson Rd. from Taunton Rd. to Conlin Rd., Oshawa	-		-	-	-	-	-	-	-	-	-	200	200	-	1,300	1,500
66 Sanitary Sewer on Concession Rd. 5 to service the westerly portion of the Beaverton Avenue Employment Area A, Brock	-		-	500	-	-	-	-	-	-	-	-	500	250	3,300	4,050
71 Sanitary Sewer replacement at Highway 401 and Wilson Rd., in conjunction with the MTO, Oshawa	-		-	-	-	-	-	-	-	-	-	50	50	-	-	50
72 Sanitary Sewer replacement in conjunction with the Metrolinx Toronto East Rail Corridor expansion to Bowmanville	-		-	-	-	-	-	-	-	-	-	500	500	-	2,800	3,300
73 Sanitary sewerage works to rectify identified system deficiencies independent of road programs in various locations	-		-	-	-	-	-	-	-	-	-	600	600	-	5,850	6,450
74 Soper Creek Trunk Sanitary Sewer on Mearns Ave. from Freeland Ave. to Concession Rd. 3 and on Concession Rd. 3 from Mearns Ave. to 450 m west of Mearns Ave., Bowmanville	-		-	-	-	-	-	11	177	-	-	52	240	-	1,260	1,500
76 Southwest Brooklin Trunk Sanitary Sewer from west of Cochrane St. on New collector road to east of Highway 12, Whitby (Region's share)	-		-	-	-	-	-	184	2,952	-	-	864	4,000	-	4,000	8,000
79 Thickson Rd. Sub-Trunk sanitary sewer from Glengowan St. to Conlin Rd., Whitby (Region's share only)	-		-	-	-	-	-	153	2,454	-	-	718	3,325	-	-	3,325
80 Thornton Rd. from King St. to Stellar Dr., Oshawa	-		-	-	-	-	-	-	-	-	-	65	65	-	150	215
81 Town of Ajax Road Program	-		-	-	-	-	-	-	-	-	-	100	100	-	5,640	5,740
84 Township of Scugog Road Program	-		-	-	-	-	-	-	-	-	-	625	625	-	1,465	2,090

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Region Budget 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
85 Township of Uxbridge Road Program	-		-	-	-	-	-	-	-	-	-	350	350	-	3,060	3,410
91 West Brooklin Trunk Sanitary Sewer from west of Cochrane St. to east of Highway No. 12, Whitby (Region's share)	-		-	-	-	-	-	138	2,214	-	-	648	3,000	6,945	10,600	20,545
93 West Whitby sub trunk on Dundas St. from Des Newman Blvd. to Halls Rd., Whitby	-		-	3	192	-	-	41	664	-	-	100	1,000	600	8,000	9,600
<b>Linear Infrastructure Subtotal</b>			-	<b>3,552</b>	<b>192</b>	-	-	<b>867</b>	<b>13,919</b>	-	-	<b>7,769</b>	<b>26,299</b>	<b>54,601</b>	<b>67,310</b>	<b>148,210</b>
<b>Building and Structures</b>																
95 20000 lb above ground Hoist, Scugog Depot	1	New	-	-	-	-	-	-	-	-	-	14	14	-	16,300	16,314
100 Chemical Room Ventilation - Additional Funding, Port Darlington WPCP	1	Replacement	-	-	-	-	-	-	-	-	-	150	150	-	1,550	1,700
105 Create Office Space (2 Offices), Corbett Creek WPCP	1	New	-	-	-	-	-	-	-	-	-	30	30	5,000	70,700	75,730
118 EV Charger, various locations	4	New	-	-	-	-	-	-	-	26	-	133	159	4,999	1,650	6,808
122 Expansion of the Conlin Rd. Sanitary Sewage Pumping Station and twinning of the forcemain, Oshawa	-		-	-	-	-	-	139	2,214	-	-	648	3,001	-	-	3,001
123 Fire Alarm System Replacement - Headworks Building, Duffin WPCP	1	Replacement	244	-	-	-	-	-	-	-	-	56	300	-	-	300
124 Fleet furnace replacement, Orono Depot	1	New	-	-	-	-	-	-	-	-	-	33	33	-	-	33
128 Install Electric Gates, various locations	1	Replacement	-	-	-	-	-	-	-	-	-	162	162	-	-	162
135 New Locker/Change Room Facility, Scugog/Ajax/Sunderland	3	Replacement	-	-	-	-	-	-	-	-	-	129	129	-	-	129
136 Newcastle Water Pollution Control Plant - Capacity Re-rating 4 MLD to 7 MLD	-		-	-	-	-	-	1,180	7,505	-	-	5,556	14,241	-	-	14,241
139 Perimeter Fencing and Gate, at various pumping stations	1	New	-	-	-	-	-	-	-	-	-	50	50	-	-	50

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Budget 2022		Quantity	New / Replacement	2022 Proposed Financing								2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture					User Rate
144	Proposed Pickering Parkway Sanitary Sewage Pumping Station and forcemain, Pickering	-		-	-	-	-	9	148	-	-	43	200	-	-	200
145	Proposed Squires Beach Sanitary Sewage Pumping Station, Pickering	-		-	-	-	-	-	-	-	-	200	200	-	-	200
146	Refurbishment of HVAC System - Dewatering Building, Duffin	1	Replacement	185	-	-	-	-	-	-	-	65	250	-	-	250
147	Relocation of Materials Testing Lab*	1	New	-	932	-	-	-	-	-	-	-	932	-	-	932
150	Replace Existing 15000 lb above ground Hoist, Oshawa Depot	1	Replacement	-	14	-	-	-	-	-	-	-	14	-	-	14
155	Rudell Rd. Sanitary Sewage Pumping Station - decommissioning	-		-	-	-	-	-	-	-	-	600	600	-	-	600
156	Septage receiving stations, various locations	-		-	-	-	-	-	-	-	-	250	250	-	-	250
<b>Buildings &amp; Structures Subtotal</b>				<b>429</b>	<b>946</b>	<b>-</b>	<b>-</b>	<b>1,328</b>	<b>9,867</b>	<b>26</b>	<b>-</b>	<b>8,119</b>	<b>20,715</b>	<b>9,999</b>	<b>90,200</b>	<b>120,914</b>
<b>Machinery &amp; Equipment</b>																
165	Admin Building HVAC Replace - Additional Funding, Corbett Creek	1	Replacement	-	-	-	-	-	-	-	-	250	250	-	-	250
167	Analytical Balance (Inorganics)	2	Replacement	15	-	-	-	-	-	-	-	15	30	-	-	30
169	Ash Thickener Gearbox	1	Replacement	48	-	-	-	-	-	-	-	17	65	-	-	65
171	Autosamplers	2	New	-	-	-	-	-	-	-	-	20	20	-	-	20
172	Auxiliary Boiler Replacement, Duffin	1	Replacement	185	-	-	-	-	-	-	-	65	250	-	-	250
176	Biosolids Transfer Pumps, Courtice WPCP	1	Replacement	-	-	-	-	-	-	-	-	15	15	-	-	15
178	Breakwater Sanitary Sewage Pumping Station - station modifications	-		-	-	-	-	-	-	-	-	290	290	-	855	1,145
181	Centrifuge 10 Year Overhaul, Duffin	1	Replacement	56	-	-	-	-	-	-	-	18	74	-	-	74
183	Clarifier Mechanisms	1	Replacement	-	-	-	-	-	-	-	-	31	31	-	-	31

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Region Budget 2022		Quantity	New / Replacement	2022 Proposed Financing								2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture					User Rate
193	Duffin Creek Water Pollution Control Plant - Remedial works and improvements in various locations throughout the plant	-		8,800	-	-	-	-	-	-	-	2,200	11,000	5,500	-	16,500
194	Duffin Creek Water Pollution Control Plant - Replacement of Reactor No. 1 & 2, Pickering	-		40,959	6,700	-	-	-	-	-	-	7,841	55,500	41,000	163,745	260,245
196	Duffin Creek Water Pollution Control Plant - Phosphorous Optimization Implementation Plan	-		10,064	-	-	-	-	-	-	-	2,516	12,580	1,550	-	14,130
197	Duffin Creek WPCP - Stage III Solids expansion - EMR removal and replacement	-		1,060	-	-	-	45	287	-	-	108	1,500	20,000	-	21,500
198	Electrical Equipment Replacements, various pumping stations	1	Replacement	-	-	-	-	-	-	-	-	50	50	-	-	50
201	Force Draft Fan Clutch, Duffin	1	New	111	-	-	-	-	-	-	-	39	150	-	-	150
206	Hach Spectrophotometer	2	Replacement	15	-	-	-	-	-	-	-	15	30	-	-	30
207	Hanover Sanitary Sewage Pumping Station - the replacement of pumps and forcemain	-		-	-	-	-	-	-	-	-	700	700	-	-	700
208	Harbour Sanitary Sewage Pumping Station - Pump and Motor Control Center	-		-	400	-	-	-	-	-	-	-	400	900	-	1,300
209	IC Water Purification System	1	New	8	-	-	-	-	-	-	-	8	16	-	-	16
213	Inductively Coupled Plasma - Mass Spectrometer	1	Replacement	-	499	-	-	-	-	-	-	-	499	-	-	499
216	Laidlaw, Cedar and Harbour St. Sanitary Sewage Pumping Station - Major Maintenance and replacement work	-		-	500	-	-	-	-	-	-	-	500	500	3,100	4,100
217	Lake Simcoe Water Pollution Control Plant - Diffused Air System replacement and associated system upgrades	-		-	3,900	-	-	-	-	-	-	-	3,900	4,250	-	8,150
221	Liverpool Road Sanitary Sewage Pumping Station - Replacement of Standby Power, Pickering	-		-	-	-	-	-	-	-	-	450	450	4,340	-	4,790

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
222 Liverpool Road Sanitary Sewage Pumping Station -communication, mechanical and process upgrades, Pickering	-		-	-	-	-	-	-	-	-	200	200	500	3,300	4,000
223 Macerator Scum/Raw sludges	2	New	-	-	-	-	-	-	-	-	60	60	-	-	60
229 Mechanical Maintenance - Digester Recirculation Pump	2	Replacement	74	-	-	-	-	-	-	-	26	100	-	-	100
238 O2 Analyzers	2	New	37	-	-	-	-	-	-	-	13	50	-	-	50
242 Port Darlington Water Pollution Control Plant - Major Maintenance replacement work, Bowmanville	-		-	1,026	-	-	-	-	-	-	-	1,026	974	6,228	8,228
243 Port Darlington Water Pollution Control Plant - work to recitify deficiencies, Bowmanville	-		-	400	-	-	-	-	-	-	-	400	-	600	1,000
245 Pump Replacements	1	Replacement	-	-	-	-	-	-	-	-	100	100	-	-	100
246 Purge and Trap / Mass Spectrometer (VOCs)	1	Replacement	-	250	-	-	-	-	-	-	-	250	-	-	250
247 RAS Pump Replacement	1	Replacement	-	-	-	-	-	-	-	-	30	30	-	-	30
248 Raw Lift Pumps	1	Replacement	-	-	-	-	-	-	-	-	85	85	-	-	85
249 Raw Sludge Pumps	1	Replacement	-	-	-	-	-	-	-	-	28	28	-	-	28
250 Replacement Sludge Pump Major Replacement	1	Replacement	149	-	-	-	-	-	-	-	52	201	-	-	201
252 Safety upgrades to access ladders at various plants and pumping station	-		-	-	-	-	-	-	-	-	350	350	297	-	647
254 Secondary Clarifier Gearbox	1	Replacement	65	-	-	-	-	-	-	-	15	80	-	-	80
255 Secondary Clarifier Recirculation Pump	1	Replacement	81	-	-	-	-	-	-	-	19	100	-	-	100
256 Secondary Gearbox X2	2	New	163	-	-	-	-	-	-	-	37	200	-	-	200
258 Skalar Auto Samplers	2	Replacement	25	-	-	-	-	-	-	-	25	50	-	-	50
261 Solid Phase Oil & Grease Extraction System	1	New	33	-	-	-	-	-	-	-	33	66	-	-	66
264 Survey GPS Instrument	1	Replacement	-	-	-	-	-	-	-	-	17	17	-	-	17



**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
266 Tablets	2	Replacement	-	-	-	-	-	-	-	-	-	7	7	-	-	7
267 Teleloggers	2	Replacement	-	-	-	-	-	-	-	-	-	5	5	-	-	5
271 Turbovaps	2	Replacement	18	-	-	-	-	-	-	-	-	18	36	-	-	36
272 Valve Actuators	1	Replacement	-	-	-	-	-	-	-	-	-	25	25	-	-	25
273 Variable Frequency Drive Replacement	1	Replacement	-	-	-	-	-	-	-	-	-	100	100	-	-	100
274 WAS Pump Replacement	2	Replacement	-	-	-	-	-	-	-	-	-	50	50	-	-	50
276 Water Purification System (Inorganics)	1	Replacement	10	-	-	-	-	-	-	-	-	10	20	-	-	20
277 Water Purification System (Organics)	1	New	10	-	-	-	-	-	-	-	-	10	20	-	-	20
<b>Machinery &amp; Equipment Subtotal</b>			<b>61,986</b>	<b>13,675</b>	-	-	<b>45</b>	<b>287</b>	-	-	-	<b>15,963</b>	<b>91,956</b>	<b>79,811</b>	<b>177,828</b>	<b>349,595</b>
<b>Information Technology Infrastructure</b>																
280 Computer Peripherals	1	Replacement	20	-	-	-	-	-	-	-	-	20	40	-	-	40
282 Control System - 7 node Upgrade	1	New	-	-	-	-	-	-	-	-	-	50	50	-	-	50
283 Cyber Security Solution	1	Replacement	58	-	-	-	-	-	-	-	-	17	75	-	-	75
284 EMMS Maximo - Hardware Requirement	1	New	-	-	-	-	-	-	-	-	-	26	26	-	-	26
287 iFix\historian upgrade	1	Replacement	51	-	-	-	-	-	-	-	-	14	65	-	-	65
288 Laptop Computer	16	New	-	-	-	-	-	-	-	-	-	10	10	-	-	10
290 Mobile ERIS Equipment	1	New	-	-	-	-	-	-	-	-	-	9	9	-	-	9
291 Network Upgrade	2	New	-	-	-	-	-	-	-	-	-	145	145	-	-	145
292 Network Upgrade/DMZ/Servers	1	New	-	-	-	-	-	-	-	-	-	220	220	-	-	220
293 Networking equipment	1	Replacement	93	-	-	-	-	-	-	-	-	27	120	-	-	120
294 Operation User Interface (OIT) replacement	1	Replacement	44	-	-	-	-	-	-	-	-	12	56	-	-	56
295 Panasonic Toughbook	68	New	-	-	-	-	-	-	-	-	-	63	63	-	-	63

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
297 PLC Upgrades	1	Replacement	-	-	-	-	-	-	-	-	-	72	72	-	-	72
297 PLC Upgrades	20	New	-	-	-	-	-	-	-	-	-	70	70	-	-	70
299 Power Laptop	56	Replacement	-	-	-	-	-	-	-	-	-	22	22	-	-	22
300 Power Laptops and 32" Monitors	2	New	-	-	-	-	-	-	-	-	-	4	4	-	-	4
301 Power Laptop and Monitor	4	New	-	-	-	-	-	-	-	-	-	4	4	-	-	4
302 Power Laptop Computer	1	New	-	-	-	-	-	-	-	-	-	2	2	-	-	2
303 Programming/Hardware - SPS SCADA	1	Replacement	-	-	-	-	-	-	-	-	-	60	60	-	-	60
304 Radio upgrade with services	1	Replacement	75	-	-	-	-	-	-	-	-	21	96	-	-	96
305 Remote Monitoring	1	Replacement	11	-	-	-	-	-	-	-	-	3	14	-	-	14
306 Replace end of life SCADA control system	3	Replacement	-	-	-	-	-	-	-	-	-	60	60	-	-	60
309 Server upgrades	1	Replacement	58	-	-	-	-	-	-	-	-	17	75	-	-	75
310 Server/Communications Equipment	1	New	-	-	-	-	-	-	-	-	-	150	150	-	-	150
311 Standard Laptop	8	New	-	-	-	-	-	-	-	-	-	5	5	-	-	5
311 Standard Laptop	138	Replacement	-	-	-	-	-	-	-	-	-	54	54	-	-	54
312 Touch Panel upgrades	1	Replacement	324	-	-	-	-	-	-	-	-	92	416	-	-	416
313 UPS replacements	1	Replacement	181	-	-	-	-	-	-	-	-	52	233	-	-	233
314 UPS/Power PDU	110	Replacement	-	-	-	-	-	-	-	-	-	192	192	-	-	192
315 Vmware Upgrades	3	New	-	-	-	-	-	-	-	-	-	600	600	-	-	600
<b>Information Technology Infrastructure Subtotal</b>			<b>915</b>	-	-	-	-	-	-	-	-	<b>2,093</b>	<b>3,008</b>	-	-	<b>3,008</b>
<b>Vehicles</b>																
316 1/2 Ton Pick-up Truck	2	New	-	-	-	-	-	-	-	-	-	50	50	-	-	50
317 1/2 Ton Van	1	New	-	-	-	-	-	-	-	-	-	17	17	-	-	17

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Durham Region <b>Durham Budget</b> 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
318 1/4 Ton Van	1	New	-	-	-	-	-	-	-	-	-	18	18	-	-	18
319 3/4 Ton Pick Up	1	New	-	-	-	-	-	-	-	-	-	29	29	-	-	29
320 3/4 Ton Van	3	New	-	-	-	-	-	-	-	-	-	78	78	-	-	78
321 Asphalt Hotbox	1	New	-	-	-	-	-	-	-	-	-	22	22	-	-	22
324 Industrial Snowblower	2	New	-	-	-	-	-	-	-	-	-	46	46	-	-	46
326 Maintenance Gator	1	Replacement	19	-	-	-	-	-	-	-	-	6	25	-	-	25
327 Operations Gator	2	New	39	-	-	-	-	-	-	-	-	11	50	-	-	50
328 Rubber tire roller compaction unit	2	New	-	-	-	-	-	-	-	-	-	26	26	-	-	26
329 Small SUV - PHEV	1	New	-	-	-	-	-	-	-	-	-	18	18	-	-	18
<b>Vehicles Subtotal</b>			<b>58</b>	-	-	-	-	-	-	-	-	<b>321</b>	<b>379</b>	-	-	<b>379</b>
<b>Furniture &amp; Fixtures</b>																
336 Office Furniture/Equipment/Technology	1	New	-	-	-	-	-	-	-	-	-	5	5	-	-	5
337 Parts Cabinets	1	New	-	-	-	-	-	-	-	-	-	83	83	-	-	83
<b>Furniture &amp; Fixtures Subtotal</b>			-	-	-	-	-	-	-	-	-	<b>88</b>	<b>88</b>	-	-	<b>88</b>
<b>Allowances &amp; Other Provisions</b>																
339 Allowance for acquisition of easements			-	-	-	-	-	-	-	-	-	150	150	-	1,350	1,500
340 Allowance for engineering studies			-	-	-	-	-	-	-	-	-	200	200	-	1,350	1,550
341 Allowance for intensification			-	-	-	-	-	16	258	-	-	77	351	-	3,150	3,501
342 Allowance for land severance review and drawing requirements			-	-	-	-	-	-	-	-	-	100	100	-	900	1,000
343 Allowance for Regional share for works in conjunction with non-residential development			-	-	-	-	-	18	295	-	-	87	400	-	3,600	4,000

**Appendix C: 2022 Sanitary Sewerage Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix D for the comprehensive 2022 capital budget and 2023-2031 forecast*

**Continued**

Quantity	New / Replacement	2022 Proposed Financing										2022 Proposed Budget	Approved Funding Prior to 2022	Forecast 2023-2031	Total Project to 2031	
		Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate						
344	Allowance for Regional share for works in conjunction with residential subdivision development	-	-	-	-	67	1,077	-	-	315	1,459	-	13,140	14,599		
345	Allowance for sundry extensions as per Council policy	-	-	-	-	-	-	-	-	15	15	-	135	150		
346	Allowance for unknown requirements	-	-	-	-	-	-	-	-	100	100	-	900	1,000		
354	Preliminary engineering	-	-	-	-	-	-	-	-	100	100	-	900	1,000		
<b>Allowances &amp; Other Provisions Subtotal</b>		-	-	-	-	<b>101</b>	<b>1,630</b>	-	-	<b>1,144</b>	<b>2,875</b>	-	<b>25,425</b>	<b>28,300</b>		
<b>Sanitary Sewer Subtotal</b>				<b>63,388</b>	<b>18,173</b>	<b>192</b>	<b>-</b>	<b>2,341</b>	<b>25,703</b>	<b>26</b>	<b>-</b>	<b>35,497</b>	<b>145,320</b>	<b>144,411</b>	<b>360,763</b>	<b>650,494</b>
<b>Total Capital Sanitary Sewerage</b>				<b>63,388</b>	<b>18,173</b>	<b>192</b>	<b>-</b>	<b>2,341</b>	<b>25,703</b>	<b>26</b>	<b>-</b>	<b>35,497</b>	<b>145,320</b>	<b>144,411</b>	<b>360,763</b>	<b>650,494</b>

\* This project has pre-budget approval

\*\* Appendix C includes financing of the following development charge shortfalls from a combination of user-rate, and Sewer Rate Stabilization Reserve Fund:

	2022
Residential DC Shortfall	-
Commercial DC Shortfall	-
Institutional DC Shortfall	159
Industrial DC Shortfall	10,556
<b>Total DC Shortfall</b>	<b>10,715</b>

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

		Expenditure Category	2022 Proposed Budget	Forecast					
				2023	2024	2025	2026	2027-2031	Forecast Total
<b>Sanitary Sewerage</b>									
<b>Linear Infrastructure</b>									
1	Allowance for construction of services in unserved areas in response to requests or petitions	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	200	200	200	200	1,000	1,800
		Total	-	200	200	200	200	1,000	1,800
2	Allowance for sanitary sewers in conjunction with the MTO & Go Transit projects	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	100	100	100	100	500	900
		Total	-	100	100	100	100	500	900
3	Allowance for sanitary sewers in conjunction with the Regional Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,500	-	-	410	8,800	10,710
		Total	-	1,500	-	-	410	8,800	10,710
4	Allowance for unknown sanitary sewerage requirements in conjunction with area municipality road programs in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	200	200	200	-	200	1,000	1,600
		Total	200	200	200	200	200	1,000	1,800
5	Ash Creek Trunk Sanitary Sewer from Consumers Dr./Green Rd. to Ash Creek Trunk Sanitary Sewage at the former Pringle Creek Water Pollution Control Plant, Whitby	Pre-Construction	-	-	-	1,000	-	1,100	2,100
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	1,000	-	1,100	2,100
6	Baseline Rd. Trunk Sanitary Sewer from Simpson Ave. to Bennett Rd., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	8,000	-	1,500	-	9,500
		Total	-	-	8,000	-	1,500	-	9,500
7	Bayly St. from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	2,070	2,070
		Total	-	-	-	-	-	2,070	2,070
8	Bennett Rd. Trunk Sanitary Sewer from Baseline Rd. to Highway No. 2, Bowmanville (Region's share)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	1,540	1,540
		Total	-	-	-	-	-	1,540	1,540

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022


Continued

Durham Budget 2022		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
9	Bowmanville Ave. from Highway No. 2 to Stevens Rd., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,395	-	-	-	-	-	-
		Total	1,395	-	-	-	-	-	-
10	Bowmanville Ave. from Stevens Rd. to Nash Rd., Bowmanville	Pre-Construction	-	150	-	-	-	-	150
		Construction	-	-	-	-	1,000	-	1,000
		Total	-	150	-	-	1,000	-	1,150
11	Brooklin Trunk Sanitary Sewer on easement from Anderson St. to Thickson Rd. Sanitary Sewage Pumping Station, Whitby	Pre-Construction	-	-	900	-	-	-	900
		Construction	-	-	-	-	4,020	-	4,020
		Total	-	-	900	-	4,020	-	4,920
12	Central Brooklin Trunk Sanitary Sewer, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,800	-	-	-	-	4,800
		Total	-	4,800	-	-	-	-	4,800
13	Central East Brooklin Trunk Sanitary Sewer east of Baldwin St., Whitby (Region's share)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,100	-	-	-	1,100
		Total	-	-	1,100	-	-	-	1,100
14	Centre St. from King St. to Brock St. West	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	280	-	-	-	-	280
		Total	-	280	-	-	-	-	280
15	City of Oshawa Road Program	Pre-Construction	-	200	200	200	200	1,000	1,800
		Construction	150	900	900	900	900	4,500	8,100
		Total	150	1,100	1,100	1,100	1,100	5,500	9,900
16	City of Pickering Road Program	Pre-Construction	-	35	35	35	35	175	315
		Construction	-	200	200	200	200	1,000	1,800
		Total	-	235	235	235	235	1,175	2,115
17	Conlin Rd. W. Trunk Sanitary Sewer on Conlin Rd. from Whitby/ Oshawa Boundary to Conlin Rd. Sanitary Sewage Pumping Station, Whitby/Oshawa	Pre-Construction	-	-	800	-	-	-	800
		Construction	-	-	-	-	6,500	-	6,500
		Total	-	-	800	-	6,500	-	7,300

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2022*


**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
18	Corbett Trunk Sanitary Sewer on easement from Wentworth St. to Corbett Creek Water Pollution Control Plant, Whitby	Pre-Construction	-	-	1,000	-	-	-	1,000
	Construction	-	-	-	-	6,200	-	6,200	
	Total	-	-	1,000	-	6,200	-	7,200	
19	Courtice Sanitary Trunk Sewer - P3	Pre-Construction	-	-	-	-	-	-	-
	Construction	6,000	-	-	-	-	-	-	
	Total	6,000	-	-	-	-	-	-	
20	Courtice Sanitary Trunk Sewer - P4	Pre-Construction	-	-	-	-	-	-	
	Construction	-	47,700	-	-	-	-	47,700	
	Total	-	47,700	-	-	-	-	47,700	
21	Courtice Sanitary Trunk Sewer - P5	Pre-Construction	-	-	-	-	-	-	
	Construction	-	-	16,100	-	-	-	16,100	
	Total	-	-	16,100	-	-	-	16,100	
23	Courtice Sanitary Trunk Sewer -P6	Pre-Construction	-	-	-	-	-	-	
	Construction	-	-	-	16,420	-	-	16,420	
	Total	-	-	-	16,420	-	-	16,420	
24	Durham York Primary Trunk Sanitary Sewer System - Condition Assessment and Rehabilitation requirements (CCTV inspection, minor repair and rehabilitation works to be completed on Chamber 4 to 7)	Pre-Construction	-	-	-	-	-	17,375	17,375
	Construction	-	-	-	-	-	52,125	52,125	
	Total	-	-	-	-	-	69,500	69,500	
25	East Brooklin Trunk Sanitary Sewer east of Thickson Rd., Whitby (Region's share)	Pre-Construction	-	-	-	-	-	-	
	Construction	-	3,200	-	-	-	-	3,200	
	Total	-	3,200	-	-	-	-	3,200	
26	Farewell Creek Trunk Sanitary Sewer twinning on easement west of Grandview St., Oshawa	Pre-Construction	-	-	-	-	500	-	500
	Construction	-	-	-	-	-	2,700	2,700	
	Total	-	-	-	-	500	2,700	3,200	
27	Finch Ave. from Altona Rd. to Brock Rd., Pickering	Pre-Construction	-	70	-	-	-	-	70
	Construction	-	-	-	-	100	-	100	
	Total	-	70	-	-	100	-	170	

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued


		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
28	Forcemain on Conlin Rd. from Ritson Rd. to Harmony Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	8,420	-	-	-	-	8,420
		Total	-	8,420	-	-	-	-	8,420
29	Foster Creek trunk sanitary sewer on easement from Toronto St. to North of Hwy 401, Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	10,000	-	-	-	-	10,000
		Total	-	10,000	-	-	-	-	10,000
30	Foster Creek Trunk Sanitary Sewer on North St. from north side of Canadian Pacific Railway to Concession Rd. 3, Newcastle (Region's share)	Pre-Construction	-	2,700	-	-	-	-	2,700
		Construction	-	-	-	-	-	-	-
		Total	-	2,700	-	-	-	-	2,700
31	Gibb St. from Stevenson Rd. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	400	-	-	-	400
		Total	-	-	400	-	-	-	400
32	Gibb St./Olive Ave. Extension from Drew St. to Ritson Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	500	-	500
		Total	-	-	-	-	500	-	500
33	Harmony Rd. Sub Trunk Sanitary Sewer on Harmony Rd. from Conlin Rd. to approximately 1500m northerly, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	10,260	-	-	-	-	10,260
		Total	-	10,260	-	-	-	-	10,260
34	Hopkins St. from Consumers Dr. to Dundas St., Whitby	Pre-Construction	-	-	220	-	-	-	220
		Construction	-	-	-	-	-	1,300	1,300
		Total	-	-	220	-	-	1,300	1,520
35	Liberty St. from Baseline Rd. to King St., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,570	-	-	-	1,570
		Total	-	-	1,570	-	-	-	1,570



**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*

**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
36	Merritt Street sanitary sewer tunnel decommissioning, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	750	-	-	-	-	-	-
		Total	750	-	-	-	-	-	-
37	Municipality of Clarington Road Program	Pre-Construction	25	75	75	75	75	375	675
		Construction	-	225	225	225	225	1,125	2,025
		Total	25	300	300	300	300	1,500	2,700
38	North Oshawa Creek (East branch) Trunk Sanitary Sewer on easement from Arctic Red Dr. to Winchester Rd., Oshawa (Region's only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	4,620	-	-	4,620
		Total	-	-	-	4,620	-	-	4,620
39	North Oshawa Creek (East branch) Trunk Sanitary Sewer on easement from southeast of Thornton Rd. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	4,100	4,100
		Total	-	-	-	-	-	4,100	4,100
40	North Oshawa Creek (West Branch) Trunk Sanitary Sewer from Conlin Rd. Sanitary Sewage Pumping Station to Britannia Ave., Oshawa	Pre-Construction	-	750	-	-	-	-	750
		Construction	-	-	-	4,350	-	-	4,350
		Total	-	750	-	4,350	-	-	5,100
41	North Oshawa Creek (West Branch) Trunk Sanitary Sewer from south side of hydro corridor to Columbus Rd., Oshawa	Pre-Construction	-	3,000	-	-	-	-	3,000
		Construction	-	-	-	17,300	-	-	17,300
		Total	-	3,000	-	17,300	-	-	20,300
42	Port Darlington Rd. Trunk Sanitary Sewer from Baseline Rd. to existing easement, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	15,000	-	-	-	-	15,000
		Total	-	15,000	-	-	-	-	15,000
43	Rehabilitation of existing sanitary sewers in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	474	350	400	500	500	2,500	4,250
		Total	474	350	400	500	500	2,500	4,250
44	Replacement of forcemain on Wilmot Creek easement from Cobble Dick Rd. to Toronto St., Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	300	-	-	-	-	-	-
		Total	300	-	-	-	-	-	-

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
45	Replacement of sanitary sewer in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	6,313	8,163	47,615	62,091
		Total	-	-	-	6,313	8,163	47,615	62,091
46	Replacement of sanitary sewer on Athol St. from St. Lawrence St. to Clemence St., Whitby	Pre-Construction	-	-	100	-	-	-	100
		Construction	-	-	290	-	-	-	290
		Total	-	-	390	-	-	-	390
47	Replacement of sanitary sewer on Cochrane St. from Ferguson St. to 125 m north of Beech St. W., Whitby	Pre-Construction	-	-	220	-	-	-	220
		Construction	-	-	-	1,000	-	-	1,000
		Total	-	-	220	1,000	-	-	1,220
48	Replacement of sanitary sewer on Conant St. from Myers Rd. to Nelson St., Oshawa	Pre-Construction	-	100	-	-	-	-	100
		Construction	-	-	-	350	-	-	350
		Total	-	100	-	350	-	-	450
49	Replacement of sanitary sewer on Euclid St. from Dundas St. to 75 m north of John St. and Walnut St. from Euclid St. to Kent St., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	710	-	-	-	-	-	-
		Total	710	-	-	-	-	-	-
50	Replacement of sanitary sewer on Hillcrest Dr. from Beech St. W/L to Beech St. E/L	Pre-Construction	-	-	-	-	-	300	300
		Construction	-	-	-	-	-	600	600
		Total	-	-	-	-	-	900	900
51	Replacement of sanitary sewer on Krosno Blvd. from Modlin Rd. to Alyssum St.	Pre-Construction	-	-	-	-	-	-	-
		Construction	400	-	-	-	-	-	-
		Total	400	-	-	-	-	-	-
52	Replacement of sanitary sewer on Old Simcoe Rd. from Reach St. to Cartan Dr., Port Perry	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	400	-	-	-	-	400
		Total	100	400	-	-	-	-	400
53	Replacement of sanitary sewer on Olive Ave from Simcoe St. to Drew St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	115	-	-	-	-	-	-
		Total	115	-	-	-	-	-	-

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*

**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
54	Replacement of sanitary sewer on R.R. 22 (Bloor St.) from Wilson Rd. to Holland St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	300	-	-	-	300
		Total	-	-	300	-	-	-	300
55	Replacement of sanitary sewer on Ritson Rd. S. from Kawartha Ave. to Simcoe Street South, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	625	-	-	-	625
		Total	-	-	625	-	-	-	625
56	Replacement of sanitary sewer on Ritson Rd. South from Annis St. to Conant St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	310	-	-	-	-	310
		Total	-	310	-	-	-	-	310
57	Replacement of sanitary sewer on RR 22 (Bloor St.) from Cubert St. to Oxford St., Oshawa	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	295	295
		Total	-	-	-	-	-	395	395
58	Replacement of sanitary sewer on Simcoe St. from Metcalf St to Quebec St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	55	-	-	-	-	55
		Total	-	55	-	-	-	-	55
59	Replacement of sanitary sewer on St. Lawrence St. from Brock St. to Athol St., Whitby	Pre-Construction	-	-	40	-	-	-	40
		Construction	-	-	160	-	-	-	160
		Total	-	-	200	-	-	-	200
60	Replacement of sanitary sewer on Thornton Rd. from Adelaide Ave to Tatra Dr., Oshawa	Pre-Construction	-	-	-	75	-	-	75
		Construction	-	-	-	-	325	-	325
		Total	-	-	-	75	325	-	400
61	Replacement of sanitary sewer on Veterans Rd. from R.R. 35 (Wilson Rd.) to R.R. 56 (Farewell St.), Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,050	-	-	-	-	-	-
		Total	1,050	-	-	-	-	-	-
62	Replacement of sanitary sewer on Water St. from the Whitby Water Supply Plant to Breakwater Sanitary Sewage Pumping Station, Whitby	Pre-Construction	75	-	-	-	-	-	-
		Construction	-	835	-	-	-	-	835
		Total	75	835	-	-	-	-	835

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*


**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
63	Ritson Rd. from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	200	-	-	-	-	-	-
		Construction	-	-	1,300	-	-	1,300	
		Total	200	-	-	1,300	-	-	1,300
64	Sanitary sewer diversion on Hunt St. from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	
		Construction	-	-	5,700	-	-	5,700	
		Total	-	-	5,700	-	-	5,700	
65	Sanitary sewer on Church St. from Hydro Right of Way to Taunton Rd., Ajax	Pre-Construction	-	500	-	-	-	500	
		Construction	-	3,000	-	-	-	3,000	
		Total	-	3,500	-	-	-	3,500	
66	Sanitary Sewer on Concession Rd. 5 to service the westerly portion of the Beaverton Avenue Employment Area A, Brock	Pre-Construction	-	-	-	-	-	-	
		Construction	500	3,300	-	-	-	3,300	
		Total	500	3,300	-	-	-	3,300	
67	Sanitary Sewer on local road from Windfields Farm Dr. to Winchester Rd., Oshawa	Pre-Construction	-	-	-	120	-	120	
		Construction	-	-	-	-	1,000	1,000	
		Total	-	-	-	120	1,000	1,120	
68	Sanitary Sewer on Meadow St. from Avalon St. Manor Dr., Oshawa	Pre-Construction	-	50	-	-	-	50	
		Construction	-	-	-	280	-	280	
		Total	-	50	-	280	-	330	
69	Sanitary Sewer on Stevenson Rd. from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	-	-	300	-	-	300	
		Construction	-	-	-	2,800	-	2,800	
		Total	-	-	300	2,800	-	3,100	
70	Sanitary Sewer on Thornton Rd. from Conlin Rd. within the Northwood Employment Area, Oshawa	Pre-Construction	-	-	-	-	-	-	
		Construction	-	2,200	-	-	-	2,200	
		Total	-	2,200	-	-	-	2,200	
71	Sanitary Sewer replacement at Highway 401 and Wilson Rd., in conjunction with the MTO, Oshawa	Pre-Construction	-	-	-	-	-	-	
		Construction	50	-	-	-	-	-	
		Total	50	-	-	-	-	-	

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022


Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
72	Sanitary Sewer replacement in conjunction with the Metrolinx Toronto East Rail Corridor expansion to Bowmanville	Pre-Construction	500	-	-	-	-	-	-
		Construction	-	-	2,800	-	-	-	2,800
		Total	500	-	2,800	-	-	-	2,800
73	Sanitary sewerage works to rectify identified system deficiencies independent of road programs in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	600	650	650	650	650	3,250	5,850
		Total	600	650	650	650	650	3,250	5,850
74	Soper Creek Trunk Sanitary Sewer on Mearns Ave. from Freeland Ave. to Concession Rd. 3 and on Concession Rd. 3 from Mearns Ave. to 450 m west of Mearns Ave., Bowmanville	Pre-Construction	240	-	-	-	-	-	-
		Construction	-	-	1,260	-	-	-	1,260
		Total	240	-	1,260	-	-	-	1,260
75	South-east Courtice Sub-Trunk Sanitary Sewer on easement along north side of Canadian Pacific Railway from Trulls Rd. to Courtice Rd. & on Courtice Rd. from north side of Canadian Pacific Railway to Bloor St., Courtice (Region's share)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,820	-	-	-	-	4,820
		Total	-	4,820	-	-	-	-	4,820
76	Southwest Brooklin Trunk Sanitary Sewer from west of Cochrane St. on New collector road to east of Highway 12, Whitby (Region's share)	Pre-Construction	-	-	-	-	-	-	-
		Construction	4,000	-	4,000	-	-	-	4,000
		Total	4,000	-	4,000	-	-	-	4,000
77	Southwest Courtice Sub -Trunk Sanitary Sewer on Baseline Rd. from Trulls Rd. to 650 m west of Trulls Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,120	-	-	-	-	4,120
		Total	-	4,120	-	-	-	-	4,120
78	Stevenson Rd. from Highway 401 to Bond St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	775	-	-	775
		Total	-	-	-	775	-	-	775
79	Thickson Rd. Sub-Trunk sanitary sewer from Glengowan St. to Conlin Rd., Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	3,325	-	-	-	-	-	-
		Total	3,325	-	-	-	-	-	-

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022


Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
80	Thornton Rd. from King St. to Stellar Dr., Oshawa	Pre-Construction	65	-	-	-	-	-	-
		Construction	-	-	-	150	-	-	150
		Total	65	-	-	150	-	-	150
81	Town of Ajax Road Program	Pre-Construction	25	85	500	65	65	325	1,040
		Construction	75	300	2,200	300	300	1,500	4,600
		Total	100	385	2,700	365	365	1,825	5,640
82	Town of Whitby Road Program	Pre-Construction	-	100	100	100	100	500	900
		Construction	-	500	500	500	500	2,500	4,500
		Total	-	600	600	600	600	3,000	5,400
83	Township of Brock Road Program	Pre-Construction	-	30	30	30	30	150	270
		Construction	-	90	90	90	90	450	810
		Total	-	120	120	120	120	600	1,080
84	Township of Scugog Road Program	Pre-Construction	125	100	10	10	10	50	180
		Construction	500	765	65	65	65	325	1,285
		Total	625	865	75	75	75	375	1,465
85	Township of Uxbridge Road Program	Pre-Construction	50	50	50	50	50	250	450
		Construction	300	290	290	290	290	1,450	2,610
		Total	350	340	340	340	340	1,700	3,060
86	Trunk Sanitary Sewer on Kingston Rd. (Highway No. 2) from Harwood Ave. to Galea Rd., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	2,700	-	-	-	2,700
		Total	-	-	2,700	-	-	-	2,700
87	Twinning of Duffin Creek Trunk Sanitary Sewer on easement from Bayly St. Sanitary Sewage Pumping Station to Highway 401, Ajax	Pre-Construction	-	-	-	-	-	1,500	1,500
		Construction	-	-	-	-	-	5,700	5,700
		Total	-	-	-	-	-	7,200	7,200
88	Twinning of northwest branch of Harmony Creek Sub-Trunk Sanitary Sewer from Central Park Blvd N. & Hillcroft St. to Beatrice St., Oshawa	Pre-Construction	-	-	320	-	-	-	320
		Construction	-	-	2,000	-	-	-	2,000
		Total	-	-	2,320	-	-	-	2,320

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2022*

**Continued**


		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
89	Twinning of Oshawa Creek Trunk Sanitary Sewer from Gibb St. to Greenwood Ave., Oshawa	Pre-Construction	-	-	-	-	249	-	249
		Construction	-	-	-	-	-	1,100	1,100
		Total	-	-	-	-	249	1,100	1,349
90	Twinning of Spry Ave. Trunk Sanitary Sewer from Baseline Rd. to N/L of Spry Ave., Bowmanville	Pre-Construction	-	-	-	-	-	800	800
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	800	800
91	West Brooklin Trunk Sanitary Sewer from west of Cochrane St. to east of Highway No. 12, Whitby (Region's share)	Pre-Construction	-	-	-	-	-	-	-
		Construction	3,000	10,600	-	-	-	-	10,600
		Total	3,000	10,600	-	-	-	-	10,600
92	West Central Brooklin Trunk Sanitary Sewer west of Way St., Whitby (Region's share)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,899	-	-	-	1,899
		Total	-	-	1,899	-	-	-	1,899
93	West Whitby sub trunk on Dundas St. from Des Newman Blvd. to Halls Rd., Whitby	Pre-Construction	400	-	-	-	-	-	-
		Construction	600	8,000	-	-	-	-	8,000
		Total	1,000	8,000	-	-	-	-	8,000
94	York/Durham Sewage System - Primary Trunk Sanitary Sewer Twinning, Pickering	Pre-Construction	-	16,000	-	20,000	-	-	36,000
		Construction	-	-	-	-	-	217,050	217,050
		Total	-	16,000	-	20,000	-	217,050	253,050
<b>Linear Infrastructure Subtotal</b>			<b>26,299</b>	<b>167,565</b>	<b>54,124</b>	<b>87,338</b>	<b>35,252</b>	<b>390,095</b>	<b>734,374</b>
<b>Buildings and Structures</b>									
95	20000 lb above ground Hoist, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	14	-	-	-	-	-	-
		Total	14	-	-	-	-	-	-
96	Beaverton Employment lands Area B Sanitary Sewage Pumping Station and sanitary sewer	Pre-Construction	-	500	-	-	-	-	500
		Construction	-	500	-	5,200	-	-	5,700
		Total	-	1,000	-	5,200	-	-	6,200



**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2022*

**Continued**


		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
97	Brooklin Sanitary Diversion Strategy - Proposed	Pre-Construction	-	-	3,500	-	-	-	3,500
	Thickson Rd. Sanitary Sewage Pumping Station and forcemain, Whitby	Construction	-	-	-	-	26,800	-	26,800
		Total	-	-	3,500	-	26,800	-	30,300
98	Building I & J Roof Replacement, Corbett Creek WPCP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	221	-	-	-	-	221
		Total	-	221	-	-	-	-	221
99	Cannington Water Pollution Control Plant - Lagoon System	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	10,000	-	-	-	10,000
		Total	-	-	10,000	-	-	-	10,000
100	Chemical Room Ventilation - Additional Funding, Port Darlington WPCP	Pre-Construction	-	-	-	-	-	-	-
		Construction	150	-	-	-	-	-	-
		Total	150	-	-	-	-	-	-
101	Construction of Mezzanine in Fleet Bay 1, Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	67	-	-	-	-	67
		Total	-	67	-	-	-	-	67
102	Control Joint Leaking in Bio Solids Area, Courtice WPCP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	150	-	-	-	-	150
		Total	-	150	-	-	-	-	150
103	Corbett Creek Water Pollution Control Plant - New headworks building - Facility Plan/Conceptual Design	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	5,525	-	-	5,525
		Total	-	-	-	5,525	-	-	5,525
104	Corbett Creek Water Pollution Control Plant - works to rectify existing deficiencies	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	6,500	-	-	-	-	6,500
		Total	-	6,500	-	-	-	-	6,500
105	Create Office Space (2 Offices)	Pre-Construction	-	-	-	-	-	-	-
		Construction	30	-	-	-	-	-	-
		Total	30	-	-	-	-	-	-



**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*


**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
106	Decommissioning, Rills of Liberty and Rudell Road Pumping Stations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	286	-	-	-	-	286
		Total	-	286	-	-	-	-	286
107	Design & Construct - 16 Bay Cold Vehicle Storage, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	1,067	-	1,067
		Total	-	-	-	-	1,067	-	1,067
108	Design & Construct - 20 Bay Cold Vehicle Storage, Ajax, Orono, Oshawa Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,300	2,567	-	-	3,867
		Total	-	-	1,300	2,567	-	-	3,867
109	Design and Construct- 10 Bay Cold Vehicle Storage, Sunderland Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	1,867	-	1,867
		Total	-	-	-	-	1,867	-	1,867
110	Design & Construct - Additional Office Space, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	500	-	500
		Total	-	-	-	-	500	-	500
111	Design & Construct - Salt and Brine Storage Building, Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	1,167	-	-	1,167
		Total	-	-	-	1,167	-	-	1,167
112	Design & Construct - Salt and brine storage facility, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	1,267	-	1,267
		Total	-	-	-	-	1,267	-	1,267
113	Design & construct salt and brine facility, Sunderland Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	2,467	-	2,467
		Total	-	-	-	-	2,467	-	2,467
114	Design & Construct mechanic garage bay with new wash bay	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	1,933	-	-	1,933
		Total	-	-	-	1,933	-	-	1,933

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*

**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
115	Design and Construct - Additional Office Space and Heated Vehicle Storage Space	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	4,333	-	-	4,333
		Total	-	-	-	4,333	-	-	4,333
116	Digester Cleanout, Courtice and Port Darlington	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	650	250	-	-	900
		Total	-	-	650	250	-	-	900
117	Driveway Replacement, Plants Central	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	50	-	-	-	-	50
		Total	-	50	-	-	-	-	50
118	EV Charger, various locations	Pre-Construction	159	-	-	-	-	-	-
		Construction	-	-	-	-	-	-	-
		Total	159	-	-	-	-	-	-
119	Expansion of Corbett Creek Water Pollution Control Plant from 84 MLD to 109 MLD	Pre-Construction	-	-	10,000	-	-	-	10,000
		Construction	-	-	-	-	157,847	-	157,847
		Total	-	-	10,000	-	157,847	-	167,847
120	Expansion of Courtice Water Pollution Control Plant from 68 MLD to 136 MLD	Pre-Construction	-	1,000	-	3,000	-	-	4,000
		Construction	-	-	-	-	-	148,900	148,900
		Total	-	1,000	-	3,000	-	148,900	152,900
121	Expansion of Newcastle Water Pollution Control Plant from 7 MLD to 16 MLD and outfall	Pre-Construction	-	-	-	1,100	-	1,100	2,200
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	1,100	-	1,100	2,200
122	Expansion of the Conlin Rd. Sanitary Sewage Pumping Station and twinning of the forcemain, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	3,000	-	70,700	-	-	-	70,700
		Total	3,000	-	70,700	-	-	-	70,700
123	Fire Alarm System Replacement - Headworks Building	Pre-Construction	300	-	-	-	-	-	-
		Construction	-	-	-	-	-	-	-
		Total	300	-	-	-	-	-	-

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
124	Fleet furnace replacement, Orono Depot	Pre-Construction	33	-	-	-	-	-	-
		Construction	-	-	-	-	-	-	
		<b>Total</b>	<b>33</b>	-	-	-	-	-	
125	Harbour St. Sanitary Sewage Pumping Station expansion	Pre-Construction	-	-	-	-	-	1,025	1,025
		Construction	-	-	-	-	-	-	
		<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,025</b>	<b>1,025</b>
126	Harmony Creek Sanitary Sewage Pumping Station - expansion and forcemain twinning	Pre-Construction	-	600	-	3,000	-	-	3,600
		Construction	-	-	-	-	40,800	40,800	
		<b>Total</b>	<b>-</b>	<b>600</b>	<b>-</b>	<b>3,000</b>	<b>-</b>	<b>40,800</b>	<b>44,400</b>
127	Harmony Creek Water Pollution Control Plant No. 1 demolition, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,600	-	-	-	-	2,600
		<b>Total</b>	<b>-</b>	<b>2,600</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,600</b>
128	Install electric gates, various WPCPs	Pre-Construction	-	-	-	-	-	-	-
		Construction	162	164	166	-	-	-	330
		<b>Total</b>	<b>162</b>	<b>164</b>	<b>166</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>330</b>
129	Install perimeter fence, various pumping stations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	50	-	-	-	-	50
		<b>Total</b>	<b>-</b>	<b>50</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>50</b>
130	Laidlaw St. Sanitary Sewage Pumping Station expansion	Pre-Construction	-	1,000	-	-	-	-	1,000
		Construction	-	-	4,650	-	-	-	4,650
		<b>Total</b>	<b>-</b>	<b>1,000</b>	<b>4,650</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,650</b>
131	Lake Simcoe Water Pollution Control Plant - expansion	Pre-Construction	-	-	-	-	-	1,025	1,025
		Construction	-	-	-	-	-	-	-
		<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,025</b>	<b>1,025</b>
132	Madawaska Sanitary Sewage Pumping Station - pumping station replacement, Oshawa	Pre-Construction	-	-	-	-	-	1,750	1,750
		Construction	-	-	-	-	-	3,600	3,600
		<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,350</b>	<b>5,350</b>

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*

**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
133	Material Storage Facility Expansion, Ajax Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	500	-	-	500
		Total	-	-	-	500	-	-	500
134	Mechanic's Bay Expansion (6 bay) including new roof specifications for existing fleet bay and vehicle storage area	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,100	-	-	-	-	3,100
		Total	-	3,100	-	-	-	-	3,100
135	New Locker/Change Room Facility, Scugog/Ajax/Sunderland	Pre-Construction	-	-	-	-	-	-	-
		Construction	130	-	-	-	-	-	-
		Total	130	-	-	-	-	-	-
136	Newcastle Water Pollution Control Plant - Capacity Re-rating 4 MLD to 7 MLD	Pre-Construction	-	-	-	-	-	-	-
		Construction	14,240	-	-	-	-	-	-
		Total	14,240	-	-	-	-	-	-
137	Overhead doors painting and repair to metal supports, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	22	-	-	22
		Total	-	-	-	22	-	-	22
138	Paving rear yard and patching, Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	88	-	-	-	-	88
		Total	-	88	-	-	-	-	88
139	Perimeter fencing and gate, various pumping stations	Pre-Construction	-	-	-	-	-	-	-
		Construction	50	-	-	-	-	-	-
		Total	50	-	-	-	-	-	-
140	Port Perry Industrial Area Sanitary Sewage Pumping Station, forcemain and sanitary sewer, Port Perry	Pre-Construction	-	-	1,200	-	-	-	1,200
		Construction	-	-	-	-	-	12,800	12,800
		Total	-	-	1,200	-	-	12,800	14,000
141	Proposed Baseline Rd. Sanitary Sewage Pumping Station and forcemain, Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	3,600	-	-	-	3,600
		Total	-	-	3,600	-	-	-	3,600

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*

**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
142	Proposed Harbour Rd. South Sanitary Sewage Pumping Station and forcemain, Oshawa	Pre-Construction	-	-	500	-	1,600	-	2,100
		Construction	-	-	-	-	6,300	6,300	
		Total	-	-	500	-	1,600	6,300	8,400
143	Proposed Northeast Sanitary Sewage Pumping Station and forcemain, Bowmanville	Pre-Construction	-	-	-	-	500	1,700	2,200
		Construction	-	-	-	-	5,000	5,000	
		Total	-	-	-	-	500	6,700	7,200
144	Proposed Pickering Parkway Sanitary Sewage Pumping Station and forcemain, Pickering	Pre-Construction	200	-	1,400	3,000	-	-	4,400
		Construction	-	-	-	-	11,900	11,900	
		Total	200	-	1,400	3,000	-	11,900	16,300
145	Proposed Squires Beach Sanitary Sewage Pumping Station, Pickering	Pre-Construction	200	-	-	-	-	1,550	1,550
		Construction	-	-	-	-	-	-	
		Total	200	-	-	-	-	1,550	1,550
146	Refurbishment of HVAC System - Dewatering Building, Duffin	Pre-Construction	-	-	-	-	-	-	-
		Construction	250	-	-	-	-	-	
		Total	250	-	-	-	-	-	-
147	Relocation of Materials Testing Lab*	Pre-Construction	-	-	-	-	-	-	-
		Construction	932	-	-	-	-	-	
		Total	932	-	-	-	-	-	-
148	Re-pave Existing South Driveway, Harmony Creek WPCP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	121	-	-	-	121
		Total	-	-	121	-	-	-	121
149	Replace 15,000 lb, 2 post above ground hoist, Oshawa Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	15	-	15
		Total	-	-	-	-	15	-	15
150	Replace Existing 15,000 lb above ground Hoist, Sunderland Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	15	-	-	-	-	-	-
		Total	15	-	-	-	-	-	-

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022


Continued

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
151	Replace existing pavement on property, Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	133	-	-	133
		Total	-	-	-	133	-	-	133
152	Replace vehicle storage bay roof, Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	67	-	-	-	-	67
		Total	-	67	-	-	-	-	67
153	River St. Sanitary Sewage Pumping Station expansion	Pre-Construction	-	1,000	-	-	-	-	1,000
		Construction	-	-	4,650	-	-	-	4,650
		Total	-	1,000	4,650	-	-	-	5,650
154	Roof Replacement, Ajax Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	233	-	-	-	-	233
		Total	-	233	-	-	-	-	233
155	Rudell Rd. Sanitary Sewage Pumping Station - decommissioning	Pre-Construction	-	-	-	-	-	-	-
		Construction	600	-	-	-	-	-	-
		Total	600	-	-	-	-	-	-
156	Septage receiving stations, various stations	Pre-Construction	250	-	-	-	-	-	-
		Construction	-	-	1,650	-	-	-	1,650
		Total	250	-	1,650	-	-	-	1,650
157	Simcoe St. South Sanitary Sewage Pumping Station and forcemain replacement, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	4,250	-	-	-	4,250
		Total	-	-	4,250	-	-	-	4,250
158	Sunderland Water Pollution Control Plant - Lagoon System	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	10,000	-	-	-	-	10,000
		Total	-	10,000	-	-	-	-	10,000
159	Sunset Sanitary Sewage Pumping Station - decommissioning	Pre-Construction	-	60	-	-	-	-	60
		Construction	-	600	-	-	-	-	600
		Total	-	660	-	-	-	-	660

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*


**Continued**

		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
160	Uxbridge Water Pollution Control Plant - Optimization Study, upgrades and rehabilitation works based on the condition assessment.	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,700	-	-	-	-	3,700
		Total	-	3,700	-	-	-	-	3,700
161	Water Pollution Control Plant - Asset Management Remediation and Rehabilitation works	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	5,000	8,000	5,000	43,000	61,000
		Total	-	-	5,000	8,000	5,000	43,000	61,000
162	Water St. Sanitary Sewage Pumping Station - Expansion/Replacement	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	17,268	-	-	2,470	-	19,738
		Total	-	17,268	-	-	2,470	-	19,738
163	Window Replacements	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	67	-	-	-	67
		Total	-	-	67	-	-	-	67
<b>Buildings and Structures Subtotal</b>			<b>20,715</b>	<b>49,804</b>	<b>123,404</b>	<b>39,730</b>	<b>201,400</b>	<b>280,450</b>	<b>694,788</b>
<b>Machinery &amp; Equipment</b>									
164	48" Round Shoring		-	3	-	-	-	3	6
165	Admin Building HVAC Replace - Additional Funding		250	-	-	-	-	-	-
166	Aeration Cell Cleanout - Sand		-	100	100	-	-	-	200
167	Analytical Balance (Inorganics)		30	-	25	-	-	-	25
168	Arc Flash Study Review		-	-	-	-	200	-	200
169	Ash Thickener Gearbox		65	-	-	-	-	-	-
170	Autoclaves		-	-	-	-	-	150	150
171	Autosamplers		20	-	-	-	-	-	-
172	Auxiliary Boiler Replacement		250	-	-	-	-	-	-
173	Balances (Microbiology)		-	-	-	-	-	12	12
174	Biological Oxygen Demand Analyzer		-	-	-	-	-	60	60
175	Biosafety Cabinet		-	-	-	-	-	25	25
176	Biosolids Transfer Pumps		15	-	15	-	-	-	15

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued


		Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
				2023	2024	2025	2026	2027-2031	
177	BOD Incubators (Inorganic)	-	80	-	-	-	40	-	120
178	Breakwater Sanitary Sewage Pumping Station - station modifications	290	855	-	-	-	-	-	855
179	Central Duffin Creek Metering Building at Valleyfarm Road and Finch Avenue meter replacement, Pickering	-	100	500	-	-	-	-	600
180	Centrifuge	-	12	-	-	-	-	-	12
181	Centrifuge 10 Year Overhaul	75	-	-	-	-	-	-	-
182	Chemical Pump Replacement	-	30	-	-	-	30	12	72
183	Clarifier Mechanisms	32	32	-	-	32	-	-	64
184	Courtice Water Pollution Control Plant - asset improvements	-	-	-	-	1,000	-	8,900	9,900
185	Courtice Water Pollution Control Plant - remediation work and performance improvements, Courtice	-	2,150	-	-	-	-	-	2,150
186	Dewatering, Duffin	-	250	150	150	150	150	1,050	1,750
187	Digester Mixing Pump Rebuild/Replacement	-	-	15	15	15	15	100	145
188	Digestion Blocks with Controllers	-	80	-	-	-	-	-	80
189	Dishwasher (Inorganic)	-	-	-	-	50	-	95	145
190	Dishwasher (Microbiology)	-	-	-	-	30	-	30	60
191	Duffin Creek Water Pollution Control Plant - Digester mixing improvements and Motor Control Centre Replacement, Pickering	-	48,600	-	-	-	-	-	48,600
192	Duffin Creek Water Pollution Control Plant - Asset Management Remediation and rehabilitation works	-	-	1,000	1,000	1,000	1,000	26,000	29,000
193	Duffin Creek Water Pollution Control Plant - Remedial works and improvements in various locations throughout the plant	11,000	-	-	-	-	-	-	-



## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					
				2023	2024	2025	2026	2027-2031	Forecast Total
194	Duffin Creek Water Pollution Control Plant - Replacement of Reactor No. 1 & 2, Pickering		55,500	55,500	-	108,245	-	-	163,745
195	Duffin Creek Water Pollution Control Plant -Condition Assessment and Asset Plan updating		-	200	300	-	-	500	1,000
196	Duffin Creek Water Pollution Control Plant - Phosphorous Optimization Implementation Plan		12,580	-	-	-	-	-	-
197	Duffin Creek WPCP - Stage III Solids expansion - EMR removal and replacement		1,500	-	-	-	-	-	-
198	Electrical Equipment Replacements		50	110	50	110	50	210	530
199	Electrical/Instrumentation		-	45	45	45	45	225	405
200	Electronic Scale		-	-	-	-	-	3	3
201	Force Draft Fan Clutch		150	-	-	-	-	-	-
202	Gas Chromatograph / Dual Electron Capture Detector		-	-	-	75	-	-	75
203	Gas Chromatograph / Mass Spectrometer (Extractable)		-	140	-	-	-	-	140
204	Grit Blower Rebuild/Replacement		-	10	-	10	-	30	50
205	Grit Pump Rebuild/Replacement		-	-	-	10	-	10	20
206	Hach Spectrophotometer		30	-	-	-	-	-	-
207	Hanover Sanitary Sewage Pumping Station - the replacement of pumps and forcemain		700	-	-	-	-	-	-
208	Harbour Sanitary Sewage Pumping Station - Pump and Motor Control Center		400	-	-	-	-	-	-
209	IC Water Purification System		15	-	-	-	-	-	-
210	Incineration		-	275	2	2	300	1,400	1,979
211	Incubators		-	-	-	-	-	25	25

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022.


Continued

Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
		2023	2024	2025	2026	2027-2031	
212 Incubators (Microbiology)	-	-	-	-	-	40	40
213 Inductively Coupled Plasma - Mass Spectrometer	500	-	-	-	-	-	-
214 Inductively Coupled Plasma - Optical Emission Spectrometer	-	-	150	-	-	-	150
215 Ion Chromatograph	-	-	-	-	-	130	130
Laidlaw, Cedar and Harbour St. Sanitary Sewage Pumping Station - Major Maintenance and replacement work	500	3,100	-	-	-	-	3,100
217 Lake Simcoe Water Pollution Control Plant - Diffused Air System replacement and associated system upgrades	3,900	-	-	-	-	-	-
218 Lake Simcoe Water Pollution Control Plant - tertiary filter replacement	-	750	-	1,750	-	-	2,500
219 Lake Simcoe Water Pollution Control Plant and associated sanitary sewerage pumping stations - PLC and SCADA system upgrades	-	890	-	-	-	-	890
220 Liquid Chromatograph Mass Spectrometer	-	-	-	-	-	400	400
221 Liverpool Road Sanitary Sewage Pumping Station - Replacement of Standby Power, Pickering	450	-	-	-	-	-	-
222 Liverpool Road Sanitary Sewage Pumping Station - communication, mechanical and process upgrades, Pickering	200	-	3,300	-	-	-	3,300
223 Macerator Scum/Raw sludges	60	-	-	-	-	-	-

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued

		Expenditure Category	2022 Proposed Budget	Forecast					
				2023	2024	2025	2026	2027-2031	Forecast Total
224	Madawaska Sanitary Sewerage Pumping Station - piping upgrades and flow meter installation, Oshawa	-	375	-	-	-	-	-	375
225	Manual pH Meter	-	3	3	-	-	-	-	6
226	Mechanical	-	250	250	250	250	1,250	2,250	
227	Mechanical Bar screen Refurbishment	-	100	-	-	-	-	100	
228	Mechanical Bar screen Replacement	-	-	-	100	-	-	100	
229	Mechanical Maintenance - Digester Recirculation Pump	100	-	-	-	-	-	-	
230	Media Preparing Equipment (Microbiology)	-	-	-	-	-	65	65	
231	Mercury Analyzer (Cold Vapour Fluorescence / Atomic Absorption)	-	-	-	-	-	70	70	
233	Michael Blvd. Sanitary Sewerage Pumping Station - replacement of the Motor Control Centre (MCC) and pump	-	625	-	-	-	-	625	
234	Microscope BX50	-	75	-	-	-	-	75	
235	Microscope Inverted	-	-	-	-	-	30	30	
236	Muffle Furnace	-	-	-	-	-	20	20	
237	Nuclear Densometer	-	3	-	5	-	-	8	
238	O2 Analyzers	50	-	-	-	-	-	-	
239	Operations	-	100	100	175	175	1,250	1,800	
240	Pharmacy Lab Refrigerator	-	-	-	-	-	15	15	
241	Pipe Locator	-	3	-	-	-	3	6	
242	Port Darlington Water Pollution Control Plant - Major Maintenance replacement work, Bowmanville	1,026	-	6,227	-	-	-	6,227	
243	Port Darlington Water Pollution Control Plant - work to recitify deficiencies, Bowmanville	400	600	-	-	-	-	600	

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued

	Expenditure Category	2022 Proposed Budget	Forecast						Forecast Total
			2023	2024	2025	2026	2027-2031		
244 Pressure Washer		-	3	3	-	-	-	6	
245 Pump Replacements		100	100	100	100	100	300	700	
246 Purge and Trap / Mass Spectrometer (VOCs)		250	-	-	-	-	-	-	
247 RAS Pump Rebuild/Replacement		30	-	-	-	15	30	45	
248 Raw Lift Pumps		85	-	-	-	-	-	-	
249 Raw Sludge Pump Rebuild/Replacement		28	-	-	15	-	130	145	
250 Replacement Sludge Pump Major Replacement		200	-	-	-	-	-	-	
251 Return Pump Rebuild		-	-	-	-	-	30	30	
252 Safety upgrades to access ladders at various plants and pumping station		350	-	-	-	-	-	-	
253 Sanitary Sewerage Pumping Station - piping upgrades and flow meter installation, at various locations		-	-	400	500	500	-	1,400	
254 Secondary Clarifier Gearbox		80	-	-	-	-	-	-	
255 Secondary Clarifier Recirculation Pump		100	-	-	-	-	-	-	
256 Secondary Gearbox X2		200	-	-	-	-	-	-	
257 Sewer Camera		-	-	-	3	-	-	3	
258 Skalar Auto Samplers		50	-	-	-	-	25	25	
259 Skalar Low P Analyzer (System 3)		-	-	-	-	-	65	65	
260 Skalar Segmented Flow Analyzer (System 1 and 2)		-	-	130	-	-	-	130	
261 Solid Phase Oil & Grease Extraction System		66	-	-	-	-	-	-	
262 Solids Manifold		-	20	-	-	-	-	20	
263 SPME Gas Chromatograph / Mass Spectrometer / Mass Spectrometer		-	-	-	-	309	-	309	
264 Survey GPS Instrument		17	10	10	10	10	53	93	
265 Survey Total Station Replacement		-	-	-	-	-	40	40	
266 Tablets		7	-	-	7	-	14	21	

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2022*

**Continued**

Durham Budget 2022	Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
	267 Teleloggers	5	5	5	5	5	23	43
	268 Temporary Traffic Control Sign replacement	-	-	2	-	2	3	7
	269 Trench box replacement	-	-	-	-	-	5	5
	270 Truck Loading Pump Rebuild	-	-	-	15	-	15	30
	271 Turbovaps	35	-	-	-	-	-	-
	272 Valve Actuators	25	-	25	-	25	-	50
	273 Variable Frequency Drive Replacement	100	-	-	-	-	-	-
	274 WAS Pump Replacement	50	50	-	-	-	-	50
	275 Wasting Pump Rebuild/Replacement	-	-	10	-	10	40	60
	276 Water Purification System (Inorganics)	20	-	-	-	-	-	-
	277 Water Purification System (Organics)	20	-	-	-	-	-	-
	<b>Machinery and Equipment Subtotal</b>	<b>91,956</b>	<b>115,634</b>	<b>12,917</b>	<b>113,709</b>	<b>3,231</b>	<b>42,886</b>	<b>288,377</b>
	<b>Information Technology</b>							
	278 Colour Plotter	-	-	-	-	-	7	7
	279 Colour Printer	-	-	-	-	-	3	3
	280 Computer Peripherals	40	-	-	-	-	-	-
	281 Computers & Monitors Refresh	-	277	188	81	269	809	1,624
	282 Control System - 7 node Upgrade	50	-	-	-	-	-	-
	283 Cyber Security Solution	75	-	-	-	-	-	-
	284 EMMS Maximo - Hardware Requirement	26	-	-	-	-	-	-
	285 Fuel Management System & Infrastructure Replacement	-	-	-	217	-	-	217
	286 GIS Hardware (Monitors, backup devices and other)	-	5	-	-	-	-	5
	287 iFix\historian upgrade	65	-	-	-	-	-	-
	288 Laptop Computer	11	2	1	1	1	5	10
	289 Minor Office Improvements	-	-	-	-	-	1	1
	290 Mobile ERIS Equipment	9	-	-	12	-	-	12

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022*

**Continued**

	Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
291 Network Upgrade		145	-	-	-	-	-	-
292 Network Upgrade/DMZ/Servers		220	-	-	-	-	-	-
293 Networking equipment		120	-	-	-	-	-	-
294 Operation User Interface (OIT) replacement		56	-	-	-	-	-	-
295 Panasonic Toughbook		63	-	-	-	-	-	-
296 PIS Group - Duffin		-	150	150	150	150	750	1,350
297 PLC Upgrades		142	-	-	-	-	-	-
299 Power Laptop		22	-	-	-	-	-	-
300 Power Laptops and 32" Monitors		4	2	2	2	-	-	6
301 Power Laptop and Monitor		3	-	-	-	-	-	-
302 Power Laptop Computer		2	2	-	-	-	-	2
303 Programming/Hardware - SPS SCADA		60	-	-	-	-	-	-
304 Radio upgrade with services		95	-	-	-	-	-	-
305 Remote Monitoring		14	-	-	-	-	-	-
306 Replace end of life SCADA control system		60	-	-	-	-	-	-
307 SCADA System Master Plan for the sanitary sewage pumping stations and implementation requirements		-	510	1,289	1,500	-	-	3,299
308 Scanner and Wide Format Black & White Printer		-	-	-	-	21	20	41
309 Server upgrades		75	-	-	-	-	-	-
310 Server/Communications Equipment		150	-	150	-	-	-	150
311 Standard Laptop		59	-	-	-	-	-	-
312 Touch Panel upgrades		416	-	-	-	-	-	-
313 UPS replacements		233	-	-	-	-	-	-
314 UPS/Power PDU		193	-	-	191	-	385	576
315 Vmware Upgrades		600	-	-	-	-	-	-
<b>Information Technology Subtotal</b>		<b>3,008</b>	<b>948</b>	<b>1,780</b>	<b>2,154</b>	<b>441</b>	<b>1,980</b>	<b>7,303</b>

**Vehicles**

**Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)**

*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2022.*

**Continued**

Expenditure Category	2022 Proposed Budget	Forecast						Forecast Total
		2023	2024	2025	2026	2027-2031		
316 1/2 Ton Pick-up Truck	50	68	25	25	25	75	218	
317 1/2 Ton Van	17	-	-	-	-	-	-	
318 1/4 Ton Van	18	-	-	-	-	-	-	
319 3/4 Ton Pick Up	28	28	-	-	-	-	28	
320 3/4 Ton Van	78	-	-	-	-	-	-	
321 Asphalt Hotbox	22	-	-	-	-	-	-	
322 Backhoe with breaker attachment	-	118	-	-	-	-	118	
323 Forklift	-	25	-	-	-	-	25	
324 Industrial Snowblower	47	-	-	-	-	-	-	
325 Infrared Asphalt Heater	-	33	-	-	-	-	33	
326 Maintenance Gator	25	-	-	-	-	-	-	
327 Operations Gator	50	-	-	-	-	-	-	
328 Rubber tire roller compaction unit	27	13	-	-	-	-	13	
329 Small SUV - PHEV	17	-	-	-	-	-	-	
330 Vactor 2100	-	340	-	-	-	-	340	
<b>Vehicles Subtotal</b>	<b>379</b>	<b>625</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>75</b>	<b>775</b>	
<b>Furniture and Fixtures</b>								
331 Ergonomic upgrades and new chairs	-	1	1	1	1	3	7	
332 Minor Office Improvements	-	1	1	1	1	5	9	
333 New Chair Allowance	-	1	1	1	1	2	6	
334 Office Chairs	-	1	1	1	1	3	7	
335 Office Furniture	-	1	1	1	1	3	7	
336 Office Furniture/Equipment/Technology	5	10	8	8	8	30	64	
337 Parts Cabinets	83	14	-	-	-	-	14	
338 Workstation Furniture	-	3	3	3	3	13	25	
<b>Furniture and Fixtures Subtotal</b>	<b>88</b>	<b>32</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>59</b>	<b>139</b>	

## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued

	Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
<b>Allowances &amp; Other Provisions</b>								
339	Allowance for acquisition of easements	150	150	150	150	150	750	1,350
340	Allowance for engineering studies	200	150	150	150	150	750	1,350
341	Allowance for intensification	350	350	350	350	350	1,750	3,150
342	Allowance for land severance review and drawing requirements	100	100	100	100	100	500	900
343	Allowance for Regional share for works in conjunction with non-residential development	400	400	400	400	400	2,000	3,600
344	Allowance for Regional share for works in conjunction with residential subdivision development	1,460	1,460	1,460	1,460	1,460	7,300	13,140
345	Allowance for sundry extensions as per Council policy	15	15	15	15	15	75	135
346	Allowance for unknown requirements	100	100	100	100	100	500	900
347	Allowance for Vulnerability Assessments for Water Pollution Control Plants	-	350	-	350	-	-	700
348	Asset Condition Assessment/ investigation on trunk sanitary sewer system	-	120	200	450	450	2,250	3,470
349	Asset Condition Assessments - Reports for the Vertical Assets	-	100	100	300	300	1,500	2,300
350	Climate Change Strategy Allowance	-	300	-	-	-	200	500
351	Emergency Planning Updating Requirements	-	100	-	-	-	-	100
352	Inflow/infiltration monitoring, studies and required remedial works in various locations	-	1,000	500	500	500	2,500	5,000



## Appendix D: 2022-2031 Sanitary Sewerage Capital Forecast (\$,000's)

Provides a listing for all projects within the 2022 budget and nine-year capital forecast.  
See Appendix C for financing details for capital projects proposed in 2022

Continued

Expenditure Category	2022 Proposed Budget	Forecast						Forecast Total
		2023	2024	2025	2026	2027-2031		
353 Phosphorus Reduction Study for Lake Simcoe Water Pollution Control Plants	-	-	-	-	250	-	250	
354 Preliminary engineering	100	100	100	100	100	500	900	
355 Regional Sewage Master planning study for the Regional Official Plan Review	-	800	-	-	-	800	1,600	
<b>Allowances &amp; Other Provisions Subtotal</b>	<b>2,875</b>	<b>5,595</b>	<b>3,625</b>	<b>4,425</b>	<b>4,325</b>	<b>21,375</b>	<b>39,345</b>	
<b>Sanitary Sewerage Subtotal</b>	<b>145,320</b>	<b>340,203</b>	<b>195,891</b>	<b>247,397</b>	<b>244,690</b>	<b>736,920</b>	<b>1,765,101</b>	
<b>Total Sanitary Sewerage</b>	<b>145,320</b>	<b>340,203</b>	<b>195,891</b>	<b>247,397</b>	<b>244,690</b>	<b>736,920</b>	<b>1,765,101</b>	

\* This project has pre-budget approval

\*\* Pre-construction capital financing includes expenditures for land purchases, utility relocates, preliminary studies, design, etc.

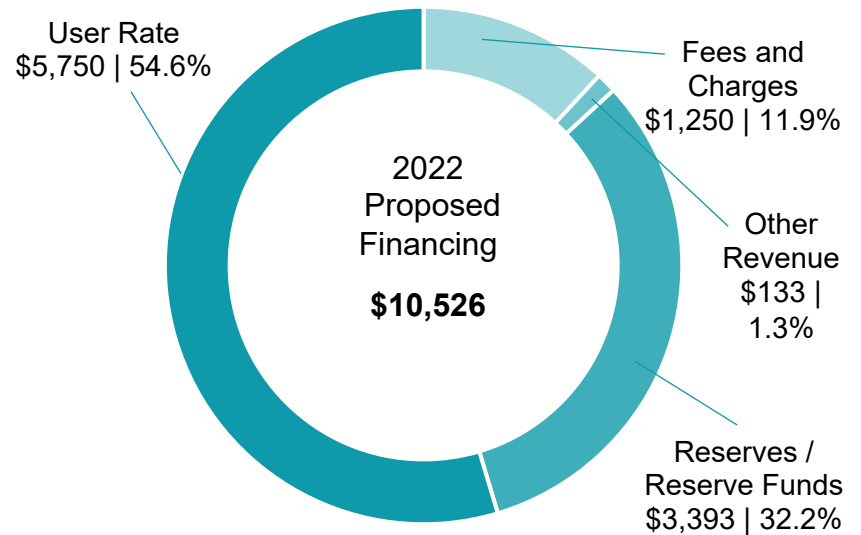
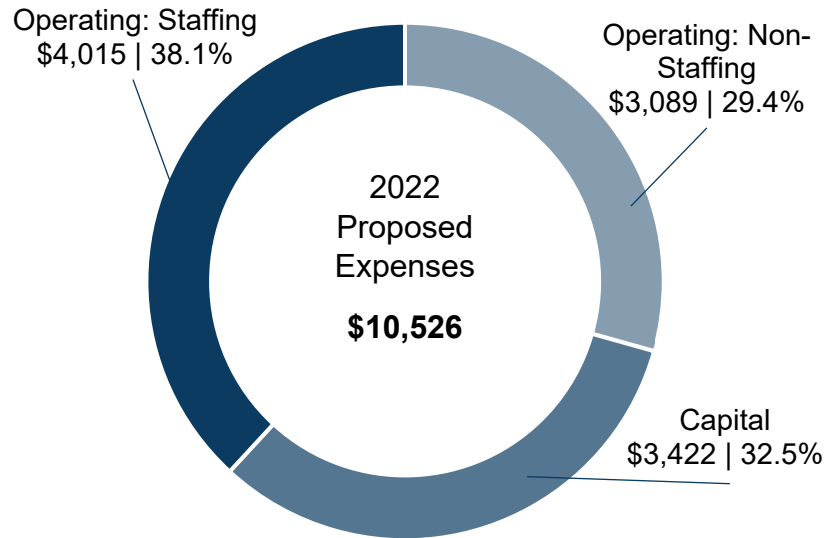
\*\*\* Projects with regularly recurring expenditures include allowances, machinery and equipment, information technology, vehicles and furniture and fixtures, etc. do not include separate pre-construction and construction capital financing

\*\*\*\* Appendix D includes financing of the following development charge shortfalls from a combination of user-rate, Sewer Rate Stabilization Reserve Fund and debentures (to be repaid from further development charges):

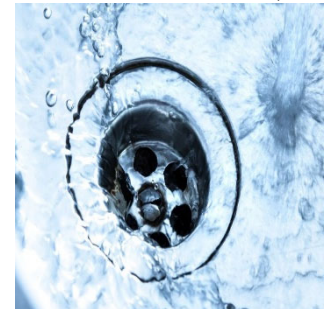
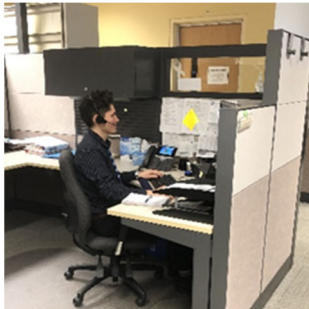
	2022	2023	2024	2025	2026	2027-2031
Residential DC Shortfall	-	63,414	72,624	25,136	98,527	149,715
Commercial DC Shortfall	-	-	2,130	1,054	13,050	12,351
Institutional DC Shortfall	159	524	455	224	948	1,215
Industrial DC Shortfall	10,556	26,794	29,409	12,295	68,805	79,941
<b>Total DC Shortfall</b>	<b>10,715</b>	<b>90,732</b>	<b>104,618</b>	<b>38,709</b>	<b>181,330</b>	<b>243,222</b>



Responsible for the billing, collecting and supporting customers for the Region's water supply and sanitary sewerage programs



Amounts are in \$,000's



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## Major Programs and Services

### Utility Finance

#### Customer Services

Collect water and sanitary sewer user rate revenues and provide an efficient and effective customer service operation that meets the needs of our customers and maintains the Region's positive image.

#### Billing and Analysis

Invoice customers for water and sanitary sewer services provided by the Region of Durham as well as completing all meter reading, accounting transactions, revenue analysis and reporting requirements.

#### Headquarters Shared Cost – Utility Finance

The allocated share of costs attributable to Utility Finance for the operation of Regional Headquarters facility.

## Strategic Priorities

For 2022 some of the key priorities and planned actions focus on:

### Service Excellence



Enhance meter reading activities through the transition to full reading for all billings. Meter reader-based readings will replace customer readings used for billings. This will reduce the cost of meter reading and improve the accuracy of billings by eliminating estimated readings. Upgrading outdated water meter reading devices to Radio Frequency (RF) throughout the Region over a three-year period will allow for improvements to meter reading efficiency and help to support the full reading transition.



Expand monthly billing for the largest industrial, commercial, and institutional water and sanitary sewerage customers to better understand customer requirements and support long-term planning.

## Strategic Priorities *Continued*



Champion paper-less billing by migrating customers to MyDurhamWater – the state-of-the-art online customer portal

## Key Targets for 2022

- Process and issue over 750,000 water supply and sanitary sewer customer billings
- 28,000 customers currently enrolled in MyDurhamWater – approximately 15% of total customers. MyDurhamWater enrollments are expected to grow to over 35,000 or 20% of total customers
- Issue over 50,000 paperless e-bills through MyDurhamWater
- Provide customer services to water and sanitary sewer customers, including responding to over 90,000 telephone inquiries and 46,000 emails
- 13,000 – ratio of accounts per customer service staff
- Expand meter reader annual residential readings from 176,000 in 2021 to over 350,000 with the transition to full reading

## Financial Details: Summary by Account (\$,000's)


*Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user-rate requirement*

	2021 Estimated Actuals	2021 Approved Budget	2022 Proposed Budget	Variance	
				\$	%
<b>Expenses</b>					
<b>Operating Expenses</b>					
Personnel Expenses	3,928	3,914	4,015		
Personnel Related	5	44	24		
Communications	1,206	1,120	1,264		
Supplies	3	169	54		
Computer Maintenance & Operations	608	600	672		
Materials & Services	4	27	20		
Equipment Maintenance & Repairs	3	17	17		
Vehicle Operations	29	28	34		
Professional Services	55	110	110		
Contracted Services	439	450	450		
Financial Expenses	18	34	34		
Minor Assets & Equipment	4	4	4		
Contribution to Reserves / Reserve Funds	45	45	60		
Headquarters Shared Costs	337	337	346		
<b>Operating Expenses Subtotal</b>	<b>6,684</b>	<b>6,899</b>	<b>7,104</b>	<b>205</b>	<b>3.0%</b>
<b>Gross Operating Expenses</b>	<b>6,684</b>	<b>6,899</b>	<b>7,104</b>	<b>205</b>	<b>3.0%</b>
<b>Capital Expenses</b>					
Replacement	30	30	3,422		
<b>Capital Expenses Subtotal</b>	<b>30</b>	<b>30</b>	<b>3,422</b>	<b>3,392</b>	<b>11,306.7%</b>
<b>Total Expenses</b>	<b>6,714</b>	<b>6,929</b>	<b>10,526</b>	<b>3,597</b>	<b>51.9%</b>

## Financial Details: Summary by Account (\$,000's)

*Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user-rate requirement*

*Continued*

	2021 Estimated Actuals	2021 Approved Budget	2022 Proposed Budget	Variance	
				\$	%
<b>Revenues and Financing</b>					
<b>Operating Revenue</b>					
Late Payment Charge	(575)	(575)	(575)		
Fees & Service Charges	(724)	(625)	(675)		
Sundry Revenue	(105)	(183)	(133)		
<b>Operating Revenue Subtotal</b>	<b>(1,404)</b>	<b>(1,383)</b>	<b>(1,383)</b>	<b>-</b>	<b>0.0%</b>
<b>Capital Financing</b>	-	-			
Recovery Reserves / Reserves Funds - Capital	-	-	(3,393)		
<b>Capital Financing Subtotal</b>	<b>-</b>	<b>-</b>	<b>(3,393)</b>	<b>(3,393)</b>	<b>(100%)</b>
<b>Total Revenues and Financing</b>	<b>(1,404)</b>	<b>(1,383)</b>	<b>(4,776)</b>	<b>(3,393)</b>	<b>(245.3%)</b>
<b>Utility Finance User Rate Requirement</b>	<b>5,310</b>	<b>5,546</b>	<b>5,750</b>	<b>204</b>	<b>3.7%</b>

## Financial Details: Summary by Program (\$,000's)

*Provides the total operating expense, capital expense, subsidy, other revenue and the resulting user-rate requirement for each major program and service*


	2021 Estimated Actuals	2021 Approved Budgets					2022 Proposed Budgets					Variance	
		Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Approved Budget	Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Proposed Budget	\$	%
<b>Utility Finance</b>													
1 Customer Service	1,255	2,647	15	-	(1,383)	1,279	2,652	14	-	(1,383)	1,283		
2 Billing and Analysis	3,718	3,915	15	-	-	3,930	4,106	3,408	-	(3,393)	4,121		
3 Headquarters Shared Cost - Utility Finance Portion	337	337	-	-	-	337	346	-	-		346		
<b>Utility Finance Subtotal</b>	<b>5,310</b>	<b>6,899</b>	<b>30</b>	<b>-</b>	<b>(1,383)</b>	<b>5,546</b>	<b>7,104</b>	<b>3,422</b>	<b>-</b>	<b>(4,776)</b>	<b>5,750</b>	<b>204</b>	<b>3.7%</b>
<b>Utility Finance Total</b>	<b>5,310</b>	<b>6,899</b>	<b>30</b>	<b>-</b>	<b>(1,383)</b>	<b>5,546</b>	<b>7,104</b>	<b>3,422</b>	<b>-</b>	<b>(4,776)</b>	<b>5,750</b>	<b>204</b>	<b>3.7%</b>

*\*Note that Utility Finance is funded 50 per cent by Water Supply and 50 per cent by Sanitary Sewerage*



## Financial Details: Summary of Capital (\$,000's)

Provides a summary of the current year capital budget, nine-year capital forecast and proposed financing summarized by asset type. See Appendices for specific capital projects

	2021 Approved Budget	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
<b>Utility Finance</b>								
<b>Capital Expenditures</b>								
Information Technology	30	29	46	46	46	46	230	414
Machinery & Equipment		3,333	3,333	3,334				6,667
Vehicles		60	60	60	60	-	240	420
<b>Capital Expenditure Subtotal</b>	<b>30</b>	<b>3,422</b>	<b>3,439</b>	<b>3,440</b>	<b>106</b>	<b>46</b>	<b>470</b>	<b>7,501</b>
<b>Capital Financing</b>								
Reserves / Reserve Funds		3,393	3,393	3,394	60	-	240	7,087
User Rate	30	29	46	46	46	46	230	414
<b>Capital Financing Subtotal</b>	<b>30</b>	<b>3,422</b>	<b>3,439</b>	<b>3,440</b>	<b>106</b>	<b>46</b>	<b>470</b>	<b>7,501</b>
<b>Total Capital Utility Finance</b>	<b>30</b>	<b>3,422</b>	<b>3,439</b>	<b>3,440</b>	<b>106</b>	<b>46</b>	<b>470</b>	<b>7,501</b>

## Details of Budget Changes

<b>Strategic Investments – Utility Finance</b>	<b>2022 Impact</b> (\$ 000's)
Provision for an increase in water billing software costs to support meter reading activities	72
Increase in reserve contributions to accelerate the adoption of electric vehicles	15
Capital provision to upgrade water meters with remote radio frequency devices to enable meters to be read without physical contact with the customer's premise. Upgrade will improve customer service with more frequent meter reading and up-to-date data for billing purposes. This is year one of a three-year program being delivered in collaboration with the Works Department. Cost of \$3.3 million is funded from the Water Rate Stabilization Reserve Fund.	-
<b>Strategic Investments Subtotal</b>	<b>87</b>

<b>Base Adjustments</b>	<b>2022 Impact</b> (\$ 000's)
Economic increases	100
Removal of one-time items	(20)
Inflationary increases	143
Increase in Utility Finance's share of costs for the operation and maintenance of Regional Headquarters	9
Line-by-line review savings	(115)
<b>Base Adjustments Subtotal</b>	<b>117</b>

<b>Net Changes</b>	<b>204</b>
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## Staffing Details

Utility Finance	Full Time Equivalents (FTE's)
2021 Approved Complement	<u>36.5</u>
Proposed New Positions	-
<b>Total Proposed New Positions</b>	<u>-</u>
<b>Total Complement Utility Finance</b>	<b>36.5</b>

## Looking Forward

As part of the Region's commitment to provide exceptional value to Durham taxpayers through responsive and effective customer service delivery the Region has launched and continues to promote its online customer portal - MyDurhamWater - to provide enhanced water and sewer billing customer services.

MyDurhamWater was introduced to provide customers with access to their account and the ability to:

- View billing information online;
- Receive bills online through paperless e-billing;
- Choose from multiple payment options, including e-payments;
- Enter meter readings online;
- Communicate with the Region through multiple channels, such as secure email; and
- Seamlessly access the Region's website for rate and other water billing information.

The Region in 2022 is initiating, in conjunction with Works staff, a three-year project to retrofit existing water meters with radio frequency remote reading devices (RF) to eliminate manual meter readings. The total estimated cost of this initiative over the three period is \$10.0 million to be funded from the Water Rate Stabilization Reserve Fund. This is a significant enhancement from a customer service perspective and has been much anticipated as the follow up step to the MyDurhamWater project.


**Appendix A: 2022 Utility Finance Capital Projects (\$,000's)**

*Provides financing details for capital projects proposed in 2022. See Appendix B for the comprehensive 2022 capital budget and 2023-2031 forecast*

Durham Budget 2022	Quantity	New / Replacement	2022 Proposed Financing									2022 Proposed Budget	Approved Funding Prior to 2022	Proposed 2023-2031	Total Project to 2031	
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
<b>Utility Finance</b>																
<b>Information Technology</b>																
Laptop Computer	13	Replacement	-	-	-	-	-	-	-	-	-	29	29	-	-	29
<b>Information Technology Subtotal</b>			-	-	-	-	-	-	-	-	-	<b>29</b>	<b>29</b>	-	-	<b>29</b>
<b>Machinery &amp; Equipment</b>																
Water Meter Replacements/Upgrades		Replacement	-	3,333	-	-	-	-	-	-	-	-	3,333	-	6,667	10,000
<b>Machinery &amp; Equipment Subtotal</b>			-	<b>3,333</b>	-	-	-	-	-	-	-	-	<b>3,333</b>	-	<b>6,667</b>	<b>10,000</b>
<b>Vehicles</b>																
Meter Reading Electric Vehicle	1	Replacement	-	60	-	-	-	-	-	-	-	-	60	-	-	60
<b>Vehicles Subtotal</b>			-	<b>60</b>	-	-	-	-	-	-	-	-	<b>60</b>	-	-	<b>60</b>
<b>Utility Finance Subtotal</b>			-	<b>3,393</b>	-	-	-	-	-	-	-	<b>29</b>	<b>3,422</b>	-	<b>6,667</b>	<b>10,088</b>
<b>Total Capital Utility Finance</b>			-	<b>3,393</b>	-	-	-	-	-	-	-	<b>29</b>	<b>3,422</b>	-	<b>6,667</b>	<b>10,088</b>

**Appendix B: 2022-2031 Utility Finance Capital Forecast (\$,000's)**

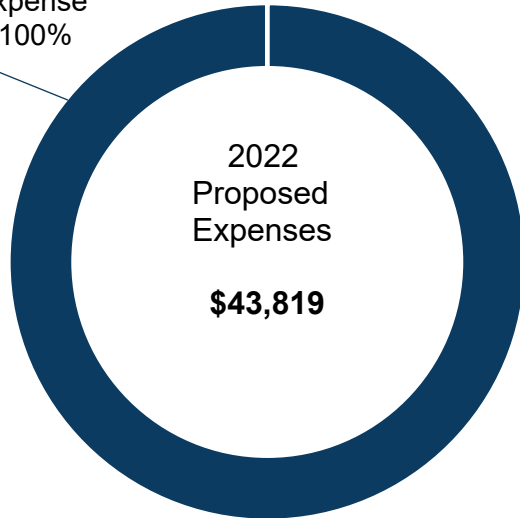
*Provides a listing for all projects within the 2022 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2022.*

	Expenditure Category	2022 Proposed Budget	Forecast					Forecast Total
			2023	2024	2025	2026	2027-2031	
<b>Utility Finance</b>								
<b>Information Technology</b>								
Laptop Computer		29	46	46	46	46	230	414
<b>Information Technology Subtotal</b>		<b>29</b>	<b>46</b>	<b>46</b>	<b>46</b>	<b>46</b>	<b>230</b>	<b>414</b>
<b>Machinery &amp; Equipment</b>								
Water Meter Upgrades		3,333	3,333	3,334	-	-	-	6,667
<b>Machinery and Equipment Subtotal</b>		<b>3,333</b>	<b>3,333</b>	<b>3,334</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,667</b>
<b>Vehicles</b>								
Meter Reading Electric Vehicle		60	60	60	60	-	240	420
<b>Vehicles Subtotal</b>		<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>-</b>	<b>240</b>	<b>420</b>
<b>Utility Finance Subtotal</b>		<b>3,422</b>	<b>3,439</b>	<b>3,440</b>	<b>106</b>	<b>46</b>	<b>470</b>	<b>7,501</b>
<b>Total Utility Finance</b>		<b>3,422</b>	<b>3,439</b>	<b>3,440</b>	<b>106</b>	<b>46</b>	<b>470</b>	<b>7,501</b>



Corporate costs required to support the on-going operation of the Water Supply and Sanitary Sewerage systems

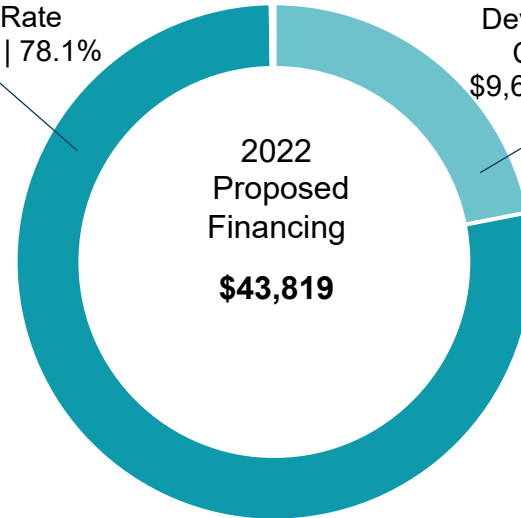
Program Expense  
\$43,819 | 100%



2022  
Proposed  
Expenses

**\$43,819**

User Rate  
\$34,186 | 78.1%



2022  
Proposed  
Financing

**\$43,819**

Development  
Charges  
\$9,633 | 21.9%

Amounts are in \$,000's

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## Major Programs and Services

### Corporate Non-Departmental – Water Supply

Providing financial assets and corporate resources to support the ongoing operation of the water supply system.

### Corporate Non-Departmental – Sanitary Sewerage

Providing financial assets and corporate resources to support the ongoing operation of the sanitary sewerage system.

## Strategic Priorities

For 2022 the key priority and planned action focus on:

### Service Excellence



Responsible management of Regional assets to ensure uninterrupted support to the water supply and sanitary sewerage system.


## Key Targets for 2022

- Continue to increase financing available for the rehabilitation and renewal of the Region's infrastructure in alignment with the Asset Management Plan and prudent asset management practices to maximize the value of assets over their life cycle
- Provide corporate resources to support the operation of the water supply system, effectively serving approximately 183,200 water customers, a 1% increase in water customers over 2021 actuals
- Provide corporate resources to support the operation of the sanitary sewerage system, effectively serving approximately 178,400 sewer customers, a 1% increase in sewer customers over 2021 actuals




## Financial Details: Summary by Account (\$,000's)

*Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user-rate requirement*

	2021 Estimated Actuals	2021 Approved Budget	2022 Proposed Budget	Variance	
				\$	%
<b>Expenses</b>					
<b>Operating Expenses</b>					
Communications	76	102	88		
Debt Charges	15,792	15,792	14,339		
Professional Services	220	200	225		
Financial Expenses	1,398	1,425	1,486		
Contribution to Reserves / Reserve Funds	18,521	18,521	19,064		
<b>Operating Expenses Subtotal</b>	<b>36,007</b>	<b>36,040</b>	<b>35,202</b>	<b>(838)</b>	<b>(2.3%)</b>
<b>Internal Transfers &amp; Recoveries</b>					
Net Corporate Charge	8,070	8,070	8,617		
<b>Internal Transfers &amp; Recoveries Subtotal</b>	<b>8,070</b>	<b>8,070</b>	<b>8,617</b>	<b>547</b>	<b>6.8%</b>
<b>Gross Operating Expenses</b>	<b>44,077</b>	<b>44,110</b>	<b>43,819</b>	<b>(291)</b>	<b>(0.7%)</b>
<b>Total Expenses</b>	<b>44,077</b>	<b>44,110</b>	<b>43,819</b>	<b>(291)</b>	<b>(0.7%)</b>
<b>Revenues and Financing</b>					
<b>Operating Revenue</b>					
DC Revenues - for Debt Charges	(9,952)	(9,952)	(9,633)		
<b>Operating Revenue Subtotal</b>	<b>(9,952)</b>	<b>(9,952)</b>	<b>(9,633)</b>	<b>319</b>	<b>3.2%</b>
<b>Total Revenues and Financing</b>	<b>(9,952)</b>	<b>(9,952)</b>	<b>(9,633)</b>	<b>319</b>	<b>3.2%</b>
<b>Corporate Non-Departmental - Water Supply and Sanitary Sewerage User Rate Requirement</b>	<b>34,125</b>	<b>34,158</b>	<b>34,186</b>	<b>28</b>	<b>0.1%</b>

## Financial Details: Summary by Program (\$,000's)

*Provides the total operating expense, capital expense, subsidy, other revenue and the resulting user-rate requirement for each major program and service*

	2021 Estimated Actuals	2021 Approved Budgets					2022 Proposed Budgets					Variance	
		Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Approved Budget	Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Proposed Budget	\$	%
<b>Corporate Non-Departmental – Water Supply Subtotal</b>	13,388	13,845	-	-	(437)	<b>13,408</b>	14,355	-	-	(437)	<b>13,918</b>	510	3.8%
<b>Corporate Non-Departmental – Sanitary Sewerage Subtotal</b>	20,737	30,265	-	-	(9,515)	<b>20,750</b>	29,464	-	-	(9,196)	<b>20,268</b>	(482)	(2.3%)
<b>Corporate Non-Departmental - Water Supply and Sanitary Sewerage Total</b>	<b>34,125</b>	<b>44,110</b>	-	-	<b>(9,952)</b>	<b>34,158</b>	<b>43,819</b>	-	-	<b>(9,633)</b>	<b>34,186</b>	<b>28</b>	<b>0.1%</b>

## Details of Budget Changes

<b>Strategic Investments</b>	<b>2022 Impact</b> (\$ 000's)
Water and Sewer portion of the annual licensing and cloud hosting fees for Maximo, the Region's new maintenance management system	446
<b>Strategic Investments Subtotal</b>	<b>446</b>

<b>Base Adjustments</b>	<b>2022 Impact</b> (\$ 000's)
Economic increases	102
Inflationary increases	646
Line-by-line review savings	(31)
Decrease in debt servicing costs funded by user rates resulting from the retiring of debt for the Courtice Water Control Plant	(1,135)
<b>Base Adjustments Subtotal</b>	<b>(418)</b>

<b>Net Changes</b>	<b>28</b>
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## Looking Forward

The Corporate Non-Departmental program (water supply and sanitary sewerage) is instrumental in delivering on the Region's commitment to provide exceptional value to Durham taxpayers in a responsive, effective and fiscally sustainable manner by supporting the on-going operation of critical infrastructure and the provision of front-line services to residents.